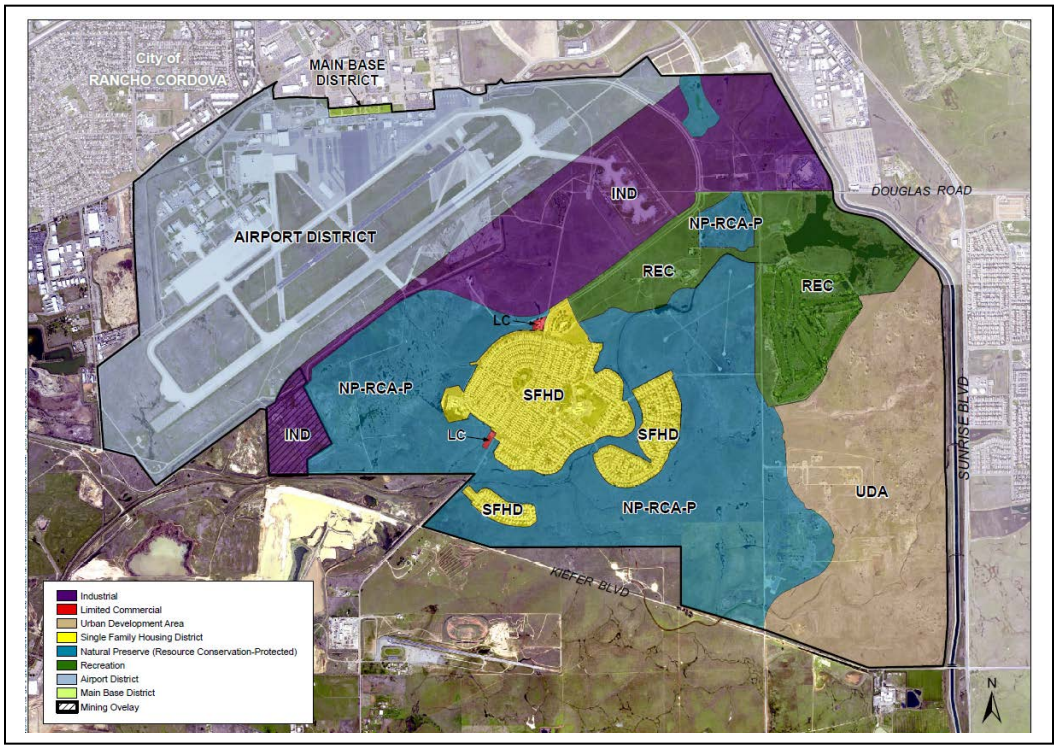
REVISED FINAL ENVIRONMENTAL IMPACT REPORT
VOLUME 1

MATHER FIELD



Control Number: PLNP2013-00044
State Clearinghouse Number: 2013072073
Date: June 2016

COUNTY OF SACRAMENTO
PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814

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REVISED FINAL ENVIRONMENTAL IMPACT REPORT

MATHER FIELD

Control Number PLNP2013-00044
State Clearinghouse Number: 2013072073

This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Department requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
COUNTY OF SACRAMENTO
PLANNING AND ENVIRONMENTAL REVIEW
827 7TH STREET, ROOM 225
SACRAMENTO, CALIFORNIA 95814

Department of
Community Development
Michael J. Penrose,
Acting Director

Divisions
Administrative Services
Building Permits & Inspection
Code Enforcement
County Engineering
Economic Development & Marketing
Planning & Environmental Review

June 9, 2016

TO: All Interested Parties

SUBJECT: REVISED FINAL ENVIRONMENTAL IMPACT REPORT FOR MATHER FIELD (CONTROL NUMBER: PLNP2013-00044)

The subject Revised Final Environmental Impact Report (FEIR) is attached for your review. The Revised FEIR can also be reviewed at:

http://www.per.saccounty.net/Pages/default.aspx
or https://planningdocuments.saccounty.net/ViewProjectDetails.aspx?ControlNum=PLNP2013-00044

The Sacramento County Board of Supervisors will consider the Revised FEIR and the proposed project in a public hearing to be help at 700 H Street, Room 1450 (Board Chambers). The hearing is scheduled for July 26, 2016. A notice of the date and time of the public hearing will be provided to all property owners within 500 feet of the Project site by the hearing body authorized to conduct the public hearing for the proposed project. Interested individuals not within this radius should contact the Clerk of the Board at 874-5451 to be placed on the hearing notice mailing list. Interested individuals may also check the materials for upcoming hearings on the Sacramento County Board of Supervisors website http://www.bos.saccounty.net/Pages/default.aspx

For questions and comments on this environmental document, please contact Todd Smith of this office at 874-6918 or smithtodd@sacccounty.net.

Sincerely,
[Original Signature on File]
Catherine Hack,
Environmental Coordinator

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COUNTY OF SACRAMENTO DEPARTMENT OF COMMUNITY DEVELOPMENT PLANNING AND ENVIRONMENTAL REVIEW DIVISION 1

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PREFACE

The September 2015 Mather Field Final Environmental Impact Report (FEIR) included proposed land use amendments to the Sacramento County General Plan and Mather Field Specific Plan including a new Recreation designation and a Public-Quasi Public designation for two areas within the southern portion of the area commonly known as Mather South. The two areas would provide for the opportunity for the future development of a regional sports park and a university. The Traffic and Circulation chapter of the FEIR assumed regional sports park and university land uses for the two areas. The September 2015 FEIR included proposed zoning designation amendments to the Mather Field Special Planning Area (SPA) including a new Commercial Recreation designation for the southern portion of the area known as Mather South in order to provide the opportunity for the future development of a university and a regional sports park within the area. The above referenced amendments to the General Plan and Mather Field Specific Plan would specifically include a regional sports park within the northern portion of the SPA Commercial Recreation designation, and a university within the southern portion.

The Notice of Preparation (NOP) for the Project was published on July 31, 2013. Agency and public scoping meetings were held on August 20, 2013. The agency scoping meeting was located at the Governor's Office of Planning and Research and the public scoping meeting was held at the Sacramento County UC Cooperative Extension Auditorium.

Along with a Notice of Completion (NOC), the Draft EIR was released to the Governor's Office of Planning and Research and State Clearinghouse to begin the public review period (Public Resources Code, Section 21161) on April 29, 2015. Concurrent with the NOC, the County also provided public notice of the availability of the Draft EIR for public review through publication in a local newspaper and with notices which were sent to individuals who had requested such notification. The written comment period began on April 29, 2015 closed on June 12, 2015 at 5 p.m. Public comments on the project and Draft EIR were received at the June 8, 2015 Planning Commission workshop. Opportunity for oral comment on the DEIR was offered at the Sacramento County Planning Commission on June 22, 2015, at which time the comment period was closed and staff was directed to prepare a Final EIR. **The Final EIR including responses to comments was published on September 4, 2015.**

The Board of Supervisors conducted a public hearing on the Mather Field project on September 16, 2015. Public testimony against the proposed project was given, including the following points:

a) **Opposition to the elimination of environmentally sensitive wetland resources within the Mather South area including two vernal pools commonly known as the "Critter and Spadefoot" pools;**

b) Concerns regarding potential impacts to environmentally sensitive wetland resources associated with the construction of Zinfandel Drive and a deep sewer line extension to Kiefer Boulevard; and

c) Concerns regarding land use incompatibility for a 126-acre regional sports park and a 152-acre university near the large open space preserve west of the Mather South area. Potentially significant impacts included additional traffic, noise, water usage, and lighting glare affecting nocturnal animals.

The Board chose not to certify the Final EIR or take action on the project. The Board directed staff to engage in a more collaborative process with key stakeholders, to work through technical issues and define a concept plan that focused on the concerns that were raised during the hearing. The item was continued to February 24, 2016, for further discussion and potential consideration of a revised concept plan.

As directed by the Board of Supervisors, County staff facilitated several meetings with the Mather Stakeholder Group between October 2015 and February 2016. The Board of Supervisors conducted a second public hearing on the Mather Field project on February 24, 2016 and staff presented the progress with stakeholders, including the stakeholder group's consensus points to date. As a result of the Mather Stakeholder Group meetings, feasible mitigation measures to reduce or eliminate impacts were identified as follows:

a) The preservation of additional wetland resource areas including the Critter and Spadefoot pools and their watersheds, and wetland drainage swale corridors within the northern and central portion of the Mather South area all totaling approximately 125 acres;

b) The re-alignment of the proposed Zinfandel Drive extension to avoid watersheds of the Spadefoot pool and other wetland resources.

c) The completion of additional analyses to determine the more precise locations of the surface and subsurface watersheds, the appropriate best management construction practices during construction, and applications and techniques to restore the hardpan to its original condition after the construction of the Zinfandel sewer line extension;

d) The replacement of the original university concept with an approximately 25-acre environmental education campus in the central portion of the Mather South area proximate to the Critter pool, and;

e) The elimination of a regional sports park as a proposed use within the Mather South Area;

As a result of the above, the Mather South Environmental Education Campus Concept Plan was prepared to identify the additional environmental resource avoidance (Open Space Preserve) areas including the Spadefoot and Critter

pools, and the environmental education campus with a reduced footprint compared to the previously proposed university area.

Changes to text within the **Revised Final** EIR follow two conventions to highlight them for the reader: text which is **bold and underlined** is new **since the publication of the September 2015 Final EIR**, and text which is shown in ~~strikethrough~~ is deleted. **Previous changes to the text in the Final EIR published on September 4, 2015 have been retained in this Revised Final EIR with underlined formatting. New changes to the text are contained in the following chapters: Project Description, Alternatives, Land Use, Air Quality, Biological Resources, Hydrology and Water Quality, Traffic and Circulation, and MMRP.** Corrections to errors in pagination or format, spelling corrections, grammatical corrections, and other such editorial changes that are unrelated to the substantive content of the EIR are not highlighted.

The EIR and all appended materials are available electronically at http://www.per.saccounty.net/Pages/default.aspx or

https://planningdocuments.saccounty.net/ViewProjectDetails.aspx?ControlNum=PLNP2013-00044.

The Board of Supervisors will use the **Revised** Final EIR as one of the informational sources used to determine whether to approve or deny the Project.

CEQA – New Information Determination

CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR when significant new information is added to the EIR after public notice for public review of the Draft EIR, but prior to certification. "Information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of meaningful opportunity to comment upon a substantial adverse environmental effect of the project, or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

a) **A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;**

b) **A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;**

c) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project proponents decline to adopt it; and/or;

d) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Based on County staff's review, recirculation of the draft EIR is not required. Items a through d above can be addressed as follows:

a) The plan revisions include the preservation of more open space and wetland resources than previously proposed. As such, environmentally sensitive resource avoidance is dramatically increased. The avoidance is not in response to a new significant impact or a new mitigation measure, but rather is a response to comments and requests for additional wetland avoidance from those who are a part of the Stakeholder Group.

b) The additional analyses to determine the watersheds and construction techniques and practices are new mitigation measures that can be determined to reduce impacts. Additionally, the reduction in the loss of wetland features now being proposed is significantly less than previously proposed and as such reduces the severity of the impact.

c) The project applicant/proponent (Sacramento County Office of Economic Development) and its development partner for the separate Mather South Community Master Plan project application are both supportive of the proposed revisions and the new mitigation measures referenced above.

d) The County's preparation and publication of the draft EIR included a public review period and opportunity for the public to submit written comments and provide oral testimony at the the County Planning Commission and Board of Supervisors hearings on the project. Based on the comments received, the Mather Stakeholder Group was formed and several meetings were conducted to address the comments and concerns. Revisions to the original project include changes in land use designations, realignment of Zinfandel Drive to preserve additional wetland/vernal pool features and associated upland habitat, and additional mitigation measures to further reduce potential impacts to the proposed wetland preserve.

1 EXECUTIVE SUMMARY AND MITIGATION MEASURES

The subject of this Environmental Impact Report (EIR) is a project known as Mather Field. The Mather Field project area (project site) is located in the Cordova community of unincorporated Sacramento County. The project site is located approximately 10 miles from downtown Sacramento via Highway 50 and is generally situated within the central portion of Sacramento County. The project area is within both the Urban Policy Area and Urban Services Boundary with the City of Rancho Cordova located immediately north and east of the project site and unincorporated portion of Sacramento County to the south and west. The boundaries of the project site are Mather Boulevard and International Drive to the north, the Folsom South Canal to the east, Kiefer Boulevard to the south and Old Placerville Road and Happy Lane to the west.

The following environmental impact and mitigation summary table (*Table ES-1: Executive Summary of Impacts and Mitigation on page 1-2*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

This report has identified project-related impacts associated with airport compatibility, programmatic level ozone and diesel emissions, project related ozone and diesel emissions, project level riparian habitat, disturbance of buried archeological resources and human remains, contaminated soils and groundwater, Site RW-016, Site OT-69/XE-404, Landfill LF-03 and LF-04 and the Northeast Plume, monitoring, injection, and extraction wells, programmatic level impacts to sewer service, and residential, commercial and industrial energy use as potentially significant, which could be reduced to a less than significant level through inclusion of recommended mitigation measures.

This report identifies significant and unavoidable impacts related to programmatic level fugitive dust and programmatic level operational emissions.

Impacts associated with land use, project level fugitive dust, project level operational emissions, toxic air contaminants, odors, programmatic level riparian habitat, Swainson's hawk foraging habitat, critical habitat for slender and Sacramento orcutt grass, built environment historic resources, Landfill WP-07, asbestos, lead based paint, programmatic and project level impacts to drainage, flooding and water quality, potential disruption of public services, construction of new service provider facilities, potable water service, project level impacts to sewer service, fire protection service, law enforcement service, solid waste service, school service, park and recreation service, energy service, and traffic and circulation are considered less than significant.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
General Plan Land Use Designations Although several land use designation changes are proposed to occur through the approval of this project, the designations proposed would allow for uses generally consistent with those currently allowed and are not in conflict with the General Plan Land Use Element Strategies, goals and policies and are not expected to result in substantial changes in land use development**. Additionally, Mather Field is located within the USB and UPA which is an area planned to accommodate growth projected over the 25 year planning period**. ~~Additionally~~**Lastly**, due to the designations that will remain on the site in the post project condition, no uses currently allowed would be precluded from being on site.	LS	None Recommended	LS

[1] PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
General Plan Transportation Diagram In addition to the General Plan Land Use Designation amendments, the proposed project includes a request to amend the General Plan Transportation Diagram to realign Zinfandel Drive. The realigned roadway would not be inconsistent with the goals of the Circulation Element and would still be able to provide accommodations for a roadway that provides mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise.	LS	None Recommended	LS
Cordova Community Plan The Mather Field project does not require any amendments to the Cordova Community Plan. The proposed project is intended to provide for the redevelopment of the Mather Field consistent with the intent of the Community Plan as it relates to Mather Field. The proposed land use plan for Mather Field is anticipated to aid in the transformation of the area consistent with one of the primary goals of the Community Plan. Additionally, the proposed project includes land use designations that will provide the opportunity for the revitalization of Mather Field, the introduction of industrial, business park, mixed use, residential, and infrastructure and transportation concepts that are in line with the stated objectives and implementation measures of the Community Plan.	LS	None Recommended	LS
Mather Field Specific Plan The proposed Mather Specific Plan amendments are	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
consistent with the intent of the Plan and build on the existing objectives within. The proposed project furthers the vision for the reuse of the Mather Field area and its transition from military to civilian uses.			
Mather Field Special Planning Area Ordinance The proposed districts and infrastructure improvements are consistent with and support the intent of the Mather Field Special Planning Area.	LS	None Recommended	LS
Mather Airport Master Plan An update to the Mather Airport Master Plan (Master Plan) was recently proposed by the Department of Airports specific to Mather Airport and airport operations. The Master Plan received approval by the Board of Supervisors on August 26, 2014. The updated Master Plan establishes a program for modifications of existing facilities and development of new facilities at Mather Airport through the year 2035. The Master Plan provides flexible recommendations for facilities and phasing of projects that will accommodate users and tenants. The Master Plan includes facility upgrades, airfield improvements, runway upgrades, building construction and roadway and runway extensions. In addition to the physical changes, the Master Plan proposal to extend the northern runway will result in the extension of the north eastern Approach/ Departure Safety Zone related to the northern runway. All of the physical improvements proposed in the Master Plan, as well as the extended Approach/ Departure Safety Zone, are located on the northern portion of Mather Field SPA and outside of the areas subject to land use changes related to this project.	LS	None Recommended	LS
Surrounding Land Uses	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
The lands surrounding the project site largely have land use zones that allow for industrial, agricultural and commercial types of uses. The proposed land uses are similar in nature to those uses currently at Mather Field. These uses are generally compatible with the surrounding uses. In regard to the rendering plant, although the proposed General Plan and Specific Plan Land Use Designation will allow for a wide array of uses, the SPA changes will not allow for uses not currently permitted in the Commercial Recreation District and no new uses incompatible with the rendering plant will result.			
Compatibility with SACOG Blueprint **The proposed project will allow for uses that are similar to those listed for in the preferred scenario for Mather Field. The proposed project complies with the guiding land use assumptions of the Blueprint preferred scenario and no conflicts with the preferred scenario have been identified.**	LS	None Recommended	LS
AIRPORT COMPATIBILITY			
Noise The Light Industrial and Office Park Land Use Zones permit several uses that are incompatible with the noise levels that encompass the proposed Industrial District or require measures to achieve appropriate interior noise levels. Examples of incompatible uses include computer programming and software design, child care centers, churches and various office type uses. The northern boundary of the proposed Industrial District is nearer to the	S	**AC-1: Airport Noise** Proposed uses within the Mather Field Special Planning Area shall be in compliance with the uses and standards included in Table 4: *Land Use Compatibility for Airport Noise* found within the Noise Element of the Sacramento County General Plan.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
runway than the existing South Airport Industrial Subarea and the allowed uses have the potential to be located nearer to the airport runways and within an area subject to greater noise levels resulting from airport operations.			
Navigable Airspace The Mather Field SPA Development Standards discuss requirements for building heights within the proposed Industrial District and refers to the Sacramento County Zoning Code height allowances for buildings within industrial zones. According to Zoning Code Sections 301-20 through 301-25 and Section 325-04 the maximum building height within the Industrial zone is 150 feet. Building heights allowed by the Mather Field SPA Development Standards have the potential to be greater than those that would be compatible with the height restriction zones related to Mather Airport and could affect navigable airspace.	S	**AC-2: Navigable Airspace** The following language shall be added to the Mather Field SPA Development Standards: All development and redevelopment projects within the Mather Field SPA shall be in compliance with the Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*.	LS
Approach/Departure Safety Zone Based on the uses allowed within the proposed Industrial area there is a potential for office uses and other uses that may result in concentrations of people over those concentrations seen as compatible with the Approach/ Departure Zone.	S	**AC-3: Mather Airport Safety Zones** The following language shall be added to the Mather Field SPA Development Standards: All development or redevelopment within the Mather Airport Approach/Departure and Overflight Safety Zones shall be consistent with the allowed land uses detailed in the "Land Use Compatibility for Airport Safety" table. **AC-4: Future Development Applications** Future development applications within the Mather Airport safety zones shall be reviewed by the Airport Land Use Commission in order to ensure that proposed projects are compatible with the safety zones.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Overflight Safety Zone According to the proposed Mather Field SPA, uses allowed in the Industrial District include rubber and plastics manufacturing, chemical manufacturing and petroleum processing. These uses are incompatible with the Overflight Zone.	S	**Refer to Mitigation Measure AC-3.** **Refer to Mitigation Measure AC-4.**	LS
AIR QUALITY			
Programmatic Level Impacts to Air Quality Resulting from Fugitive Dust During Construction Activities Dust abatement practices are required pursuant to SMAQMD Rule 403 and California Code of Regulations, Title 13, sections 2449(d)(3) and 2485; the SMAQMD Guide simply lays out the basic practices needed to comply. Since these are already required by existing rules and regulations, it is not necessary to include them as mitigation. These practices also constitute all feasible measures available to reduce the impact. Limiting future projects to no more than 15 acres of active grading has been considered, but is infeasible for a variety of reasons. Firstly, subsequent development under the SPA will likely be constructed by separate developers, each with their own schedules, so such a measure would require coordinating among all developers to set schedules which would not result in cumulative exceedance of the 15-acre limitation. The likely result of this would be to prevent certain development projects from progressing until a later construction season. In addition, it would require constant on-site monitoring by County staff to ensure that the measure was being carried out. The measure is impracticable, and is furthermore not recommended by SMAQMD.	S	None Available.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Programmatic Level Impacts to Air Quality Resulting from Ozone Precursor Emissions and Diesel Particulate Caused by Construction Activities Implementation of the proposed project could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of the proposed project would have a potentially significant impact on air quality.	PS	**AQ-1: Programmatic Level Construction Emissions** All future construction projects in the Mather Field SPA shall include an ozone precursor analysis. If the analysis results indicate that the project will generate ozone precursors that exceed the current Sacramento Metropolitan Air Quality Management District thresholds, this mitigation shall apply. This mitigation may be modified if guidance from the Sacramento Metropolitan Air Quality Management District changes in the future. 1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction. 2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment,	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information. 3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations. 4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination. To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply: Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		Management District Guide to Air Quality Assessment in effect at the time of plan submittal.	
Programmatic Level Impacts to Air Quality Resulting from Operational Activities Development consistent with the proposed project will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. The proposed land use designation amendments do not directly result in air quality emissions. However, development consistent with the proposed project has the potential to result in various long term operation emissions from commercial, industrial, mining and recreational uses. Although the exact amounts of operational emissions are unknown, it is reasonable to conclude that, at build out, the operational emissions related to the project will be considerably greater than the existing operational emissions at Mather Field. Although the property owners and tenants within Mather Field are required to participate in the TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day. Although operational impacts are significant and unavoidable, mitigation measures are recommended in order to reduce impacts. Mitigation is recommended to require that Mather Field continue to be a part of the 50 Corridor Transportation Management Association or other similar TMA and that all development within Mather Field comply with the Mather Field Transportation System Management Program as well as the Mather Field Air Quality Plan or other similar TSM Program or Air Quality	S	**AQ-2: Programmatic Level Operational Emissions** In order to reduce operational emissions related to development associated with the proposed project the following language shall be added into the Mather Field SPA: 1. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall be active participants in and financially support the 50 Corridor TMA or other similar transportation management association endorsed by SMAQMD. 2. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are consistent with the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD. 3. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are in compliance with the Mather Field Air Quality Plan to the satisfaction of SMAQMD or other Air Quality Management Plan deemed adequate by SMAQMD. 4. All new tenant lease agreements or agreements for sale of on-site buildings or land within the Mather Field Special	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Plan endorsed by SMAQMD.		Planning Area shall state that tenants/operators are required to adhere to the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD and the Mather Field Air Quality Plan or other Air Quality Management Pan deemed adequate by SMAQMD. 5. An annual report shall be submitted to the Environmental Coordinator and to SMAQMD detailing the actions taken that year to comply with the Mather Field transportation Systems Management Plan and appropriate Air Quality Management Plan. The report shall be due by October 1 each year, and shall cover the prior fiscal year. The requirement to submit a report to the Environmental Coordinator may be terminated by the Environmental Coordinator once the mitigation is completed, or after three concurrent reporting years demonstrate full compliance, to the satisfaction of the Environmental Coordinator. The requirement to submit an annual report to SMAQMD shall continue in perpetuity.	
Project Level Impacts to Air Quality Resulting from Fugitive Dust During Roadway and Sewer Construction activities Construction related to the Roadway Project will disturb a maximum of 0.25 acres per day and is well below the 15 acre area which is known to have significant impacts when graded at any one time. Additionally, dust abatement practices are required pursuant to SMAQMD Rule 403.	LS	None Recommended.	LS
Project Level Impacts to Air Quality Resulting from Ozone Precursor Emissions and Diesel Particulate Caused by Roadway and Sewer Construction Activities Emissions of ROG and NOx associated with the construction of the proposed Zinfandel Drive/trunk sewer improvements were estimated by running the *Road Construction Emissions Model* with general information	S	**AQ-3: Project Level Construction Emissions** 1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45%	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
related to the construction start year, project construction time, project length and area, and the maximum area to be disturbed per day. The maximum emissions of ROG and NOx during construction are 12.6 and 119.7 lbs/day, respectively. The SMAQMD has a significant threshold for the construction phase of 85 lbs/day for NOx and no threshold level for ROG. The proposed Zinfandel Drive/ trunk sewer improvements will exceed the short term emissions thresholds by 34.7 lbs/day. For projects that exceed the threshold, SMAQMD recommends implementation of a standard construction mitigation measure that will reduce heavy-duty off-road diesel powered equipment emissions by 20 percent for NO_x and 45 percent for particulates, as compared with the most recent CARB fleet average. A 20 percent reduction in daily NO_x emissions would result in daily NO_x emissions of 95.76 lbs/day; this is 10.76 lbs/day above the 85 lbs/day NO_x threshold. For projects with NO_x emissions that remain significant even after the 20 percent reduction afforded by the standard construction mitigation measure, SMAQMD recommends payment of an off-site air quality mitigation fee to further reduce NO_x emissions to a less than significant level.		particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction. 2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information. 3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations. 4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination. To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply: Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in effect at the time of plan submittal.	
Project Level Operational Emissions from Roadway Project Operational thresholds (long term effects) for both ROG and NOx are 65 pounds per day. The Zinfandel Drive project is not capacity enhancing, and as such, the operational emissions are the same as they would be without the project.	LS	None Recommended.	LS
Toxic Air Contaminants Though specific development details are unavailable at the programmatic level, based on the land uses of the Project,	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
it is reasonable to assume that some TAC-generating uses could be constructed within the Industrial District. However, because the uses permitted by the proposed project in the Industrial District are the same as those that can be developed in the existing condition, and because the distance of the proposed Industrial District and the nearest sensitive receptors will not be substantially closer in the post project condition, the Project will not expose existing sensitive receptors to increased risk related to TAC. Within the project site, the proposed project will result in a new UDA District. The UDA District, according to the proposed Mather Field SPA, is contemplated to contain a residential component, schools, and other uses in the future that may introduce new sensitive receptors into the project area. However, as detailed in the Land Use Chapter of this document, the UDA designation for the site alone does not allow development and no new sensitive receptors will be exposed to TAC by through the implementation of this project. Future analysis related air quality will be required prior to the development of the UDA District. As analyzed, the Project will not expose existing sensitive receptors to substantial risk related to TAC exposure.			
Odors The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the project site and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors. Although the proposed project area is adjacent to the rendering plant and downwind of the prevailing wind pattern	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
in the Mather Field area, given that the proposed project will not introduce additional sensitive receptors over those currently permitted in the Mather Field SPA.			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
BIOLOGICAL RESOURCES			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Programmatic Level Impacts to Jurisdictional Waters Although the future amount of construction activity that could occur consistent with the project proposal is unknown, it is reasonable to assume that construction activities will occur that will result in the fill of jurisdictional waters within Mather Field. As a conservative estimate it is assumed that all jurisdictional features may be filled as a result of future development proposals in the project area. Approximately ~~**42.58**~~ **29.99** acres of juristictional waters may be filled as a result of the proposed project.	S	**BR-1: Programmatic/ Project Level Impacts to Wetlands and Other Waters** To compensate for the permanent loss of wetlands and waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife: A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation. B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/ uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator. C. Prior to the issuance of building permits, grading permits or approval of improvement plans, all areas within the Mather Field SPA designated as Natural Preserve or Riparian buffer shall be placed within a permanent conservation easement, which shall be	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and 401 wetland permits. **BR-2: Programmatic/ Project Level Natural Preserve and Riparian Buffer Conservation Easements** Prior to issuance of building permits, the Natural Preserve and Riparian Buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must include at least 1,284.79 acres (including 12.79 acres for the proposed Riparian Buffer) and cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.	
Project Level Impacts to Jurisdictional Waters The proposed Zinfandel Drive and trunk sewer extension area lies directly over several jurisdictional waters including seasonal wetlands, drainage ditches, channels/ streams and vernal pools. Approximately 0.97 acres of jurisdictional waters will be filled as a result of the construction of the proposed Zinfandel Drive/trunk sewer improvements.	S	**Refer to Mitigation Measure BR-1 and BR-2.**	LS
Programmatic Level Impacts to Native Trees Although a detailed and comprehensive survey of the trees within Mather Field has not been completed and Mather Field is not a heavily wooded area, native trees are known to be located within the project area. Although the specific development and building footprints are unknown at this time, future development consistent with the Project has the potential to result in the removal or encroachment of native trees that are afforded protection through the Sacramento County Tree Ordinance and Sacramento County General	S	**BR-3: Programmatic/Project Level Native Tree Protection and Compensation** Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements); the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall include the species, diameter, dripline, and health of all trees 6 inches in diameter at breast height or larger, and shall be prepared by an ISA certified arborist. The report shall include an exhibit that shows the trees and their driplines in proximity to the	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Plan. The removal of, or substantial encroachment within, native trees requires in-kind replacement. The degree of impacts to native trees that will result from development and redevelopment associated with the Project is uncertain at this time. The proposed change to land use designations within the plan area does not in itself require the removal of any on-site native or non-native trees. As specific parcel redevelopment and development plans are not part of the proposed project, impacts associated with development on native trees cannot be determined at this time. Impacts are considered potentially significant. Mitigation Measure BR-3 is included to provide for the protection and preservation of native tree resources within Mather Field as well as a requirement for in-kind planting of native trees in the event that native trees are required to be removed for future development projects.		project improvements. The report shall identify any tree proposed for removal and shall quantify any encroachment from project equipment or facilities within driplines of native trees. **A)** With the exception of the native trees removed and compensated for through Part B below, all healthy native trees that are 6 inches dbh or larger on the project site, all portions of adjacent off-site healthy native trees that are 6 inches dbh or larger which have driplines that extend onto the project site, and all off-site healthy native trees that are 6 inches dbh or larger which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows: 1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area. 2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root systems. 3. Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected native tree shall be done under the direct supervision of a certified arborist. To the maximum extent feasible, demolition work within the dripline protection area of the native tree shall be performed by hand. If the certified arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		smallest/lightest weight equipment that will adequately perform the demolition work shall be used. 4. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees. 5. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the dripline of the native trees. 6. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the dripline of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines. 7. Before grading, excavation or trenching within five feet outside the driplines of protected native trees, root pruning shall be required at the limits of grading or excavation to cut roots cleanly to a depth of the excavation or 36 inches (whichever is less). Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades or other approved root-pruning equipment under the supervision of an ISA Certified Arborist. 8. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. If lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of a certified arborist.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		9. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water. 10. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of the native tree. 11. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the dripline of the native tree. 12. Tree pruning required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker. 13. Landscaping beneath the native tree may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the dripline of the native tree are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants. **B)** To the maximum extent feasible, all on-site healthy native trees shall be protected and preserved. Any substantial (>20%) encroachment and/or removal of native trees shall be compensated by planting native trees equivalent to the dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Encroachment of over 20 percent within the dripline radius of native trees will	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		require compensatory mitigation based on the percentage of encroachment multiplied by the dbh. Encroachment over 50 percent will require compensation for the entire tree. Equivalent compensation based on the following ratio is required: • one preserved native tree < 6 inches dbh on-site = 1 inch dbh (subject to the approval of the Environmental Coordinator) • one D-pot seedling (40 cubic inches or larger) = 1 inch dbh • one 15-gallon tree = 1 inch dbh • one 24-inch box tree = 2 inches dbh • one 36-inch box tree = 3 inches dbh Replacement tree planting shall be completed prior to the issuance of building permits or a bond shall be posted by the applicant in order to provide funding for purchase, planting, irrigation, and 3-year maintenance period, should the applicant default on replacement tree mitigation. The bond shall be in an amount equal to the prevailing rate of the County Tree Preservation Fund. Prior to the approval of Improvement Plans or building permits, a Replacement Native Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Native Tree Planting Plan(s) shall include the following minimum elements: 1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved;	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		2. Method of irrigation; 3. The Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage; 4. Planting, irrigation, and maintenance schedules; 5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement oak trees which do not survive during that period. 6. Designation of 20 foot root zone radius and landscaping to occur within the radius of oak trees < 6-inches dbh to be preserved on-site. No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single family lots (including front yards), and roadway medians. Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding, utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		sound for future growth, by an ISA Certified Arborist subject to the approval of the Environmental Coordinator. If native tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.	
Project Level Impacts to Native Trees An arborist report was prepared by Sierra Nevada Arborists for the Zinfandel Drive/ trunk sewer improvement area. The arborist report indicates that several native and non-native trees are located adjacent to Zinfandel Drive within the proposed work area. The tree inventory took place on May 21 and June 6th, 2014. In addition to the trees identified within the work area, several trees that have not been identified are within and adjacent to the work area that may be subject to impacts from project related construction activities. The species, size and health of these trees is currently unknown; therefore, a conservative approach to assess impacts has been taken and it is assumed that the trees are native.	S	**Refer to Mitigation Measure BR-3.**	LS
Programmatic Level Impacts to Non-native Trees Although a detailed and comprehensive survey of the trees within Mather Field has not been completed and Mather Field is not a heavily wooded area, non-native trees are known to be located within the project area. Although the specific development and building footprints are unknown at this time, future development consistent with the Project has the potential to result in the removal or encroachment	S	**BR-4: Programmatic/ Project Level Non-Native Tree Canopy** Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements), the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall identify all non-native tree canopy in and adjacent to work areas that may be affected by project related construction activities and identify non-native tree canopy that will be removed	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
of non-native trees.		as a result of the project. The removal of non-native tree canopy shall be mitigated for with the creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the Sacramento County Department of Transportation 15-year shade cover values for tree species. Preference is given to on-site mitigation, but if this is infeasible, then funding shall be contributed to the Sacramento Tree Foundation's Greenprint program in an amount proportional to the tree canopy lost (as determined by the 15-year shade cover calculations for the tree species to be planted through the funding, with the cost to be determined by the Sacramento County Tree Foundation).	
Project Level Impacts to Non-native Trees Several non-native trees have been identified within the proposed work area associated with the Zinfandel Drive/ trunk sewer improvements. However, not all trees within the work area that will be removed have been identified.	S	**Refer to Mitigation Measure BR-4.**	LS
Programmatic Level Impacts to Riparian Habitat Riparian habitat has been identified at Mather Field. The riparian habitat predominantly occurs in patches along the shores of Mather Lake and a small portion of Morrison Creek just between Mather Lake and Zinfandel Drive and along drainage features west of the Mather Golf Course and east of Zinfandel Drive near Woodring Drive. The riparian habitat is largely within the exclusion area of Mather Field and located outside of the area where land use designation changes are proposed. Therefore, development proposals consistent with the proposed project will not affect riparian habitat within Mather Field.	LS	None Recommended.	LS
Project Level Impacts to Riparian Habitat	S	**BR-5: Project Level Riparian Habitat**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
The Zinfandel Drive/ trunk sewer work area crosses a number of drainages and creek channels including the branch of Morrison Creek that extends west from Mather Lake just north of the Mather Golf Course and drainages that extend along Zinfandel Drive and from the Mather Golf Course near Woodring Drive The majority of the channels and streams in the project area do not contain associated riparian habitat; however, the portion of Morrison Creek that will be affected by project related construction activities contains Valley Foothill Riparian Habitat (ESA 2010). The drainage features near Woodring Drive just west of the Mather Golf Course also contains riparian habitat. Approximately 0.608 acres of riparian habitat will be removed in order to allow for the proposed improvements associated with the Zinfandel Drive/ trunk sewer improvements.		To mitigate for 0.608 acres of riparian habitat removal, an equivalent amount of existing habitat removed shall be placed into a permanent conservation easement, or an equivalent amount of habitat within an existing protected area shall be revegetated/restored. Revegetation/restoration shall consist of locally native riparian plant and tree species. To ensure species diversity, a single species shall not comprise more than 50% of the total number of trees planted. Restoration activities shall commence prior to or concurrent with removal of riparian habitat in the construction area and shall be monitored for three years from the date of planting. The success criteria for plant survival shall be 80 percent throughout the monitoring period. If the survival rate falls below the success criteria during the monitoring period, in-kind replacement plantings are required. Any new plantings shall be monitored for a further three years. Prior to commencement of restoration activities, a planting plan shall be submitted to and approved by the Environmental Coordinator. The planting plan shall include plant species, planting locations, spacing, maintenance provisions, monitoring requirements, success criteria and plant replacement provisions should a plant die within the monitoring period. Where appropriate riparian habitat exists, the project proponent shall submit a biological resources report to the Environmental Coordinator prepared by a qualified biologist or botanist delineating the extent of on-site riparian habitat. 1. Prior to initiating project construction, install chain link fencing or a similar protective barrier that maximizes preservation of any on site riparian zone as dictated by the biological report in order to protect and preserve the riparian habitat to the maximum extent feasible. No earthwork shall be conducted within the protection area and fencing shall remain in place for the duration of all construction work. Or,	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		2. Where earthwork is necessary to construct the Zinfandel Drive/ trunk sewer improvements and riparian habitat preservation is not possible, prior to the issuance of grading or other improvement permits, also prepare a re-vegetation plan for any altered riparian habitat, consistent with General Plan Policies that compensates for riparian habitat removals. The re-vegetation plan shall include an implementation program and quantifiable success criteria. Disturbed riparian herbaceous areas of the project site shall be re-planted with a combination of creeping wild rye seed, willow plants, or other suitable native species. Replanting shall compensate the removal of riparian vegetation. All tree stock shall be standard six inch tree pots (6" x 16" containers), and shall be chosen from the following native species: *Acer negundo californicum* (California box elder) *Alnus rhombifolia* (White alder) *Fraxinus latifolia* (Oregon ash) *Juglans californica var. hindsii* (California black walnut) *Populus fremontii* (Fremont cottonwood) *Quercus lobata* (Valley oak) *Salix. lasiolepis* (arroyo willow) *S. exigua* (narrow leaf sandbar willow) The tree plantings shall be monitored for three years from the date of planting. The success criteria for tree survival shall be 80 percent throughout the monitoring period.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		If at any time during the monitoring period the survival rate falls below the success criteria, in-kind replacement trees shall be planted to achieve the success criteria. Any new trees required shall be monitored for three years after planting. Or, 3. Any mitigation required by the state or federal permitting agencies that compensates for the loss of riparian vegetation, functions and values and that provides for a native re-vegetation plan consistent with or exceeding the requirements of measure 1 above shall be deemed mitigation sufficient to reduce impacts to a less than significant level and may be utilized in place of items 1 and 2 above.	
Programmatic Level Impacts to Vernal Pool Habitat and Species Vernal pools, vernal swales and seasonal wetlands throughout the project site are known to support special status species including populations of the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Future development consistent with the proposed project would result in the direct loss of approximately **~~36.48~~29.99** acres of suitable habitat for vernal pool species. Furthermore, project development would indirectly affect up to **~~3.50~~8.37** acres of habitat for vernal pool species located in the proposed Natural Preserve and Mather Airport north of the Industrial District. Currently, based on the studies conducted and discussions with regulatory agencies, the mitigation strategy at Mather Field includes a proposal intended to fund, manage, restore and protect in perpetuity (through an endowment, wetlands management plan,	S	**BR-6: Programmatic Level Impacts to Vernal Pool Habitat** To compensate for the direct impacts to 36.48 acres of suitable vernal pool habitat and indirect impacts to 3.5 acres of suitable vernal pool habitat the following measures shall apply: *COMPREHENSIVE DRAINAGE PLAN.* In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
and conservation easements) suitable habitat for vernal pool species, including approximately ~~65.30~~ **66.1** acres of habitat within an on-site Natural Preserve, ~~and~~ ~~3.58~~ **5.98** acres within a riparian buffer area, **and 0.87 acres for vernal pools that will be avoided**. Programmatic consultation indicates that mitigation for direct and indirect impacts be determined using preservation and creation ratios. Based on standard mitigation ratios the proposed project would require the preservation of ~~72.96~~ **59.98** acres of vernal pool habitat (at a 2:1 ratio) and the creation of ~~36.48~~ **29.99** acres of new vernal pool habitat (at a 1:1 ratio) for direct impacts. Additionally, to account for indirect impacts, additional preservation mitigation would be required totaling ~~7~~ **16.74** acres (at a 2:1 ratio). In total the project would be required to preserve ~~79.96~~ **76.72** acres of suitable vernal pool habitat and create ~~36.48~~ **29.99** acres. Because only ~~68.88~~ **72.95** acres of suitable vernal pool habitat is proposed to be preserved on site additional acres would be required to meet the remaining mitigation requirements based on standard mitigation ratios. Mitigation Measure BR-6 is recommended requiring standard mitigation ratios for impacts to vernal pool habitat, or, if the current on site restoration proposal is found adequate by the appropriate regulatory agencies, requiring that the mitigation strategy presented in the BA is implemented.		*COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.* The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species. **Ratios**. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows: • A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed vernal pool species; • A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and • A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species. **COMPENSATION FOR DIRECT IMPACTS** To meet the partial preservation requirements of direct fill resulting from the proposed project, an easement (acceptable to USACE and USFWS) shall be recorded over the Mather Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Preserve and Riparian Corridor shall total no less than 68.88 acres. An additional 4.08 acres of preservation shall occur at an offsite	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		location (acceptable to the USACE and USFWS) in order to satisfy the remaining preservation requirements of the project through one or a combination of the following: • Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank; • Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or • Apply acres of restored/created/rehabilitated habitat for federally listed vernal pool species resulting from the functional increase of habitat of vernal pool species within the Mather preserve. The acreage of functional lift will be applied to either preservation for indirect impacts component of the mitigation or to the creation/restoration/rehabilitation component of the mitigation, but not to both. In addition to the preservation requirements noted above, the creation requirements of the project, totaling no less than 36.48 acres, shall be accomplished by one or a combination of the following methods: • Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank; • Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager; • Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		COMPENSATION FOR INDIRECT IMPACTS To meet the preservation requirements of indirect impacts resulting from the proposed project totaling no less than 7 acres shall occur through one or a combination of the following methods: • Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank; • Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or **ADDITIONAL LIMITS UPON COMPENSATION** • Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank. • Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats. *USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.* Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following: • All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions. • BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate. • Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent. • All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications. • If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water. *CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING (WEAP).* A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction. *LIMIT PROJECT ACCESS ROUTES/STAGING AREAS.* The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately. *PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.* Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following: • A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW. • Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction. **Or,** In the event that the proposed protection and compensation methodology is approved, to mitigate for direct impacts to 36.48 aces of vernal pool habitat and indirect impacts to 3.50 acres of vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures. *COMPREHENSIVE DRAINAGE PLAN.* In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography. *COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.* **CONDITIONED CONVEYANCE** As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a ~~1,272~~ **1,383.2** acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		species and their designated critical habitat). This ~~1,272~~ **1,383.2** acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the ~~1,272~~ **1,383.2** acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act. **TWO STEP ADAPTIVE MANAGEMENT PLAN** In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the ~~1,272~~ **1,383.2** acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step. **FIRST STEP MANAGEMENT PLAN** The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP. **LONG TERM MANAGEMENT PLAN** Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and Wildlife Service and acceptable to the County of Sacramento. The County will place a USFWS approved conservation easement on the ~~1,272~~ **1,383.2** acre Mather Preserve and will select a non-profit land trust accredited by the	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field. **ABOVE AND BEYOND** It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance. The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of this BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite. *USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.* Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		• All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions. • BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate. • Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent. • All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications. • If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water. *CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING (WEAP).* A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction. *LIMIT PROJECT ACCESS ROUTES/STAGING AREAS.* The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately. *PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.* Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following: • A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW. • Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Project Level Impacts to Vernal Pool Habitat and Species The construction of the proposed Zinfandel Drive/ trunk sewer improvements will directly and indirectly impact suitable habitat for federally listed vernal pool fairy and tadpole shrimp. A total of 2.31 acres of vernal pool habitat will be directly impacted while 1.90 acres will be indirectly impacted. Given previous mitigation, using standard mitigation methods to account for direct impacts, the preservation requirement for the Zinfandel Drive/ trunk sewer extension will be based on an impact area of 2.01 acres while the creation requirement will be based on an impact area of 2.31 acres and indirect impact mitigation requirements will be based on an indirect impact area of 1.45 acres.	S	**BR-7 Project Level Impacts to Vernal Pool Habitat** To compensate for direct and indirect impacts to suitable vernal pool habitat the following measures shall apply: *COMPREHENSIVE DRAINAGE PLAN.* In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography. *COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.* The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species. **Ratios**. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows: • A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		vernal pool species; • A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and • A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species. **COMPENSATION FOR DIRECT IMPACTS** To meet the preservation requirements of direct fill resulting from the Zinfandel Drive and trunk sewer extension, an easement (acceptable to USACE and USFWS) shall be recorded over the proposed Natural Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Natural Preserve and Riparian Corridor shall total no less than 4.02 acres. In addition to the preservation requirements noted above, the creation requirements of the Zinfandel Drive/ trunk sewer extension, totaling no less than 2.31 acres, shall be accomplished by one or a combination of the following methods: • Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank; • Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager; • Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		COMPENSATION FOR INDIRECT IMPACTS To meet the preservation requirements of indirect impacts resulting from the Zinfandel Drive/ trunk sewer extension totaling no less than 2.90 acres shall occur through one or a combination of the following methods: • Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank; • Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or **ADDITIONAL LIMITS UPON COMPENSATION** • Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank. • Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats. *USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.* Use of BMPs for stormwater control is expected to reduce the	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following: • All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions. • BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate. • Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent. • All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications. • If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water. *PREPARE A HARDPAN RESTORATION PLAN* **Prior to the start of construction activity for the sewer trunk line, a hardpan restoration plan shall be developed by a qualified hydrogeologist and geotechnical expert and implemented for sewer trunk line construction adjacent to the proposed preserve. The detailed plan shall include identification and documentation of the hardpan depths during excavation of the sewer trench, and appropriate backfill material to restore the hardpan functionality. The detailed hardpan restoration plan shall be included in the construction specifications for the proposed sewer trunk line.** *CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING*	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		(WEAP). A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction. *LIMIT PROJECT ACCESS ROUTES/STAGING AREAS.* The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and	

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		appropriate measures to take in the event of a spill. All spills would be cleaned up immediately. *PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.* Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following: • A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW. • Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction. **Or,** In the event that the proposed protection and compensation methodology is approved, to mitigate for direct and indirect impacts to vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures. *COMPREHENSIVE DRAINAGE PLAN.* In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography. *COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.* **CONDITIONED CONVEYANCE** As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a ~~1,272~~ **1,383.2** acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered species and their designated critical habitat). This ~~1,272~~ **1,383.2** acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the ~~1,272~~ **1,383.2**acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act. **TWO STEP ADAPTIVE MANAGEMENT PLAN** In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the ~~1,272~~ **1,383.2** acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step.	

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		FIRST STEP MANAGEMENT PLAN The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP. **LONG TERM MANAGEMENT PLAN** Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and Wildlife Service and acceptable to the County of Sacramento. The County will place a USFWS approved conservation easement on the ~~1,272~~ **1,383.2** acre Mather Preserve and will select a non-profit land trust accredited by the Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field. **ABOVE AND BEYOND** It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance. The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of this BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL. Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following: • All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions. • BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate. • Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented	

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		by the contractor and oversight of these operations the responsibility of the construction site superintendent. • All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications. • If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water. *PREPARE A HARDPAN RESTORATION PLAN* **Prior to the start of construction activity for the sewer trunk line, a hardpan restoration plan shall be developed by a qualified hydrogeologist and geotechnical expert and implemented for sewer trunk line construction adjacent to the proposed preserve. The detailed plan shall include identification and documentation of the hardpan depths during excavation of the sewer trench, and appropriate backfill material to restore the hardpan**	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		functionality. The detailed hardpan restoration plan shall be included in the construction specifications for the proposed sewer trunk line. *CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING (WEAP).* A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction. *LIMIT PROJECT ACCESS ROUTES/STAGING AREAS.* The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately. *PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.* Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following: • A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW. Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.	
Programmatic Level Impacts to Valley Elderberry Longhorn Beetle Reconnaissance-level surveys of the project site identified the presence of elderberry shrubs that provide suitable habitat for valley elderberry longhorn beetle (VELB). Surveys were conducted by WRA in 2004 and by County Staff in 2010 for an unrelated project (NSA Pipeline). These shrubs are located in the proposed UDA, Commercial	S	**BR-8: Programmatic Level Impacts to Valley elderberry Longhorn Beetle** Prior to construction within Mather Field where elderberry shrubs may be located, the project site shall be surveyed for the presence of the beetle and its elderberry host plant by a qualified biologist in accordance with USFWS protocols. If elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground surface level occur on or adjacent to the construction site, or are	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Recreation and Natural Preserve districts as well as the excluded area adjacent to the dam of Mather Lake. Future development consistent with the proposed project has the potential to adversely affect this species by adversely impacting suitable elderberry shrubs.		otherwise located where they may be directly or indirectly affected by the Project, minimization and compensation measures, which include transplanting existing shrubs and planting replacement habitat (conservation plantings), would be undertaken (see below). Elderberry plants with no stems measuring 1.0 inch or greater in diameter at ground level are unlikely to provide habitat for the beetle because of their small size and/or immaturity. Therefore, no minimization measures are required for removal of elderberry plants with all stems measuring 1.0 inch or less in diameter at ground level. For shrubs with stems measuring 1.0 inch or greater, the project proponent shall ensure that elderberry shrubs within 100 feet of proposed construction be protected and/or compensated for in accordance with the *U.S. Fish and Wildlife Services' (USFWS) Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999) and the *Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office* (USFWS, 1996b). Avoid and Protect Habitat Whenever Possible: If suitable habitat for the beetle occurs on the project site or within close proximity where beetles will be affected by the project, these areas must be designated as avoidance areas and must be protected from disturbance during the construction and operation of the project. When possible, projects should be designed such that avoidance areas are connected with adjacent habitat to prevent fragmentation and isolation of beetle populations. Any beetle habitat that cannot be avoided as described below should be considered impacted and appropriate minimization measures should be proposed as described below. Avoidance: Establishment and Maintenance of a Buffer Zone: Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Firebreaks may not be included in the buffer zone. In buffer areas, construction-related disturbance	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		should be minimized, and any damaged area should be promptly restored following construction. The USFWS must be consulted before any disturbances within the buffer area are considered. In addition, the USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures. <u>Protective Measures</u> 1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the drip line of each elderberry plant. 2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. 3. Erect signs every 50 feet along the edge of the avoidance area with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction. 4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant. <u>Restoration and Maintenance:</u> Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants. Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate. No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas,	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level. The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment). <u>Transplant Elderberry Plants That Cannot Be Avoided:</u> Elderberry plants must be transplanted if they cannot be avoided by the proposed project. All elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level must be transplanted to a conservation area. At the discretion of the USFWS, a plant that is unlikely to survive transplantation because of poor condition or location, or a plant that would be extremely difficult to move because of access problems, may be exempted from transplantation. In cases where transplantation is not possible, the minimization ratios may be increased to offset the additional habitat loss. Trimming of elderberry plants (e.g., pruning along roadways, bike paths, or trails) with one or more stems 1.0 inch or greater in diameter at ground level, may result in take of beetles. Therefore, trimming is subject to appropriate minimization measures. 1. Monitor. A qualified biologist (monitor) must be on-site for the duration of the transplanting of the elderberry plants to insure that no unauthorized take of the valley elderberry longhorn beetle occurs. If unauthorized take occurs, the monitor must have the authority to stop work until corrective measures have been completed. The monitor must immediately report any unauthorized take of the beetle or its habitat to the USFWS. 2. Timing. Transplant elderberry plants when the plants are dormant, approximately November through the first two weeks in	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success. 3. Transplanting Procedure. a. Cut the plant back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. The trunk and all stems measuring 1.0 inch or greater in diameter at ground level should be replanted. Any leaves remaining on the plant should be removed. b. Excavate a hole of adequate size to receive the transplant. c. Excavate the plant using a Vermeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the conservation area. Move the plant only by the root ball. If the plant is to be moved and transplanted off site, secure the root ball with wire and wrap it with burlap. Dampen the burlap with water, as necessary, to keep the root ball wet. Do not let the roots dry out. Care should be taken to ensure that the soil is not dislodged from around the roots of the transplant. If the site receiving the transplant does not have adequate soil moisture, pre-wet the soil a day or two before transplantation. d. The planting area must be at least 1,800 square feet for each elderberry transplant. The root ball should be planted so that its top is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. As many as five (5) additional elderberry plantings (cuttings or seedlings) and up to five (5) associated native species plantings may also be planted within the 1,800 square foot area with the transplant. The transplant and each new planting should have its own watering basin measuring at least three (3) feet in diameter. Watering basins should have a continuous berm measuring approximately eight (8) inches wide at the base and six (6) inches high. e. Saturate the soil with water. Do not use fertilizers or other supplements or paint the tips of stems with pruning substances, as	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the effects of these compounds on the beetle are unknown. f. Monitor to ascertain if additional watering is necessary. If the soil is sandy and well-drained, plants may need to be watered weekly or twice monthly. If the soil is clayey and poorly-drained, it may not be necessary to water after the initial saturation. However, most transplants require watering through the first summer. A drip watering system and timer is ideal. However, in situations where this is not possible, a water truck or other apparatus may be used. <u>Plant Additional Seedlings or Cuttings:</u> Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) must be replaced, in the conservation area, with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). Stock of either seedlings or cuttings should be obtained from local sources. Cuttings may be obtained from the plants to be transplanted if the project site is in the vicinity of the conservation area. If the USFWS determines that the elderberry plants on the proposed project site are unsuitable candidates for transplanting, they may allow the applicant to plant seedlings or cuttings at higher than the stated ratios for each elderberry plant that cannot be transplanted. <u>Plant Associated Native Species:</u> Studies have found that the beetle is more abundant in dense native plant communities with a mature overstory and a mixed understory. Therefore, a mix of native plants associated with the elderberry plants at the project site or similar sites will be planted at ratios ranging from 1:1 to 2:1 (native tree/plant species to each elderberry seedling or cutting). These native plantings must be monitored with the same survival criteria used for the elderberry seedlings. Stock of saplings, cuttings, and seedlings should be obtained from local sources. If the parent stock is obtained from a distance greater than one mile from the conservation area, approval by the USFWS of the native plant donor sites must be obtained prior to initiation of the revegetation work. Planting or seeding the conservation area with native herbaceous species is encouraged. Establishing native grasses and forbs may discourage unwanted non-native species	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		from becoming established or persisting at the conservation area. Only stock from local sources should be used.	
Project Level Impacts to Valley Elderberry Longhorn Beetle Surveys for elderberry shrubs were conducted for the proposed Zinfandel Drive/ trunk sewer extension. Two elderberry shrubs were recorded within the proposed Zinfandel Drive/ trunk sewer work area near Woodring Drive.	S	**BR-9: Project Level Impacts to Valley Elderberry Longhorn Beetle** In order to reduce project impacts to the VELB habitat to a less than significant level the following mitigation measures, consistent with USFWS guidelines, will be required: 1. For construction prior to obtaining the applicable permits allowing removal of the elderberry plants, protective measures shall apply. Prior to initiating construction, the following measures shall be completed: a. Temporary construction fencing and flagging shall be installed at least 100 feet outside the edge of the driplines of the elderberry plants. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant and provide documentation of USFWS approval of the reduced setback. b. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements. c. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		construction. d. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant. 2. Prior to construction within the 100-foot buffer area (or lesser buffer, as approved by USFWS) established around the elderberry plants implement one of the following methods (or a combination of the following two methods) to reduce impacts to the Valley Elderberry Longhorn Beetle to a less than significant level: Either a. Elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level shall be transplanted to a conservation area approved by the U.S. Fish and Wildlife Service (USFWS). The project applicant shall consult with the USFWS on all transplantation activities and obtain all applicable permits. And/Or: b. The project applicant shall compensate for the loss of elderberry plants on the site to the satisfaction of the USFWS and shall obtain any/all applicable permit(s) from the U.S. Army Corps of Engineers (Army Corps) and the USFWS.	
Programmatic and Project Level Impacts to Amphibians Occurrences of western spadefoot toad have been observed on the project site during previous habitat and species surveys of Mather Field. Wetland and vernal pool complexes on the Project site vary in size and depth and some retain water for several months. The surrounding	S	**BR-10: Programmatic/ Project Level Impacts to Western Spadefoot Toad** Prior to construction within or adjacent to wetlands or vernal pools, including construction activities related to the Zinfandel Drive/ trunk sewer extension, a qualified biologist shall conduct a survey for western spadefoot. The survey shall include transecting all suitable habitat that may be affected by proposed activities and identifying	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
upland area is grassland with many burrows. The Project site provides suitable breeding and non-breeding habitat to support the toad. Project development will remove potential habitat and may involve possible take of the species.		suitable burrows that may be used for aestivation. Suitable burrows shall be excavated using hand tools. If a spadefoot is found in a construction area, the biologist shall move the spadefoot from the area to suitable habitat within the proposed Natural Preserve.	
Programmatic and Project Level Impacts to Reptiles Mather field contains ponded features, canals and streams that may provide suitable habitat for the western pond turtle. Additionally, occurrences of western pond turtle have been observed during past biological assessments at Mather Field.	S	**BR-11: Programmatic/Project Level Impacts to Western Pond Turtle** Prior to the commencement of ground-disturbing activity within 1,650 feet of aquatic habitat, including construction activities related to the Zinfandel Drive/ trunk sewer extension, the project proponent shall consult with CDFW to establish appropriate avoidance procedures, and to establish procedures which would apply in the event that a turtle is found within the construction area. The developer shall submit written evidence of the consultation and its conclusions to the Environmental Coordinator. If CDFW recommends obtaining a permit, the applicant shall obtain the permit prior to the commencement of ground-disturbing activities. Unless California Fish and Wildlife recommends other mitigation, the following shall also apply: 1. Twenty four hours prior to the commencement of ground-disturbing activity (i.e. clearing, grubbing, or grading) within 1,650 feet of aquatic habitat, a qualified biologist shall perform a survey for western pond turtle. The survey shall include all suitable upland and aquatic habitat which is within 1,650 feet of all proposed construction areas. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. 2. If western pond turtles are found during the survey, activities shall not commence until the animal has moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area. 3. If a western pond turtle is encountered during active construction, all construction shall cease until the animal has	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area. California Fish and Wildlife and the Environmental Coordinator shall be notified within 24-hours that a turtle was encountered.	
Programmatic and Project Level Impacts to Swainson's Hawk Nesting Habitat Although no occurrences of Swainson's hawk have been recorded at Mather Field, according to habitat assessments prepared for the project area, suitable nesting habitat occurs on site. Future construction activities including those related to the proposed Zinfandel Drive/ trunk sewer improvements have the potential to disturb nesting habitat.	S	**BR-12: Programmatic Level/Project Level Swainson's Hawk Nesting habitat** If construction, grading, or project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to commence between March 1 and September 15, a focused survey for Swainson's hawk nests on the site and within ½ of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Fish and Wildlife shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.	LS
Programmatic and Project Level Impacts to Swainson's Hawk Foraging Habitat The CNDDB, 2013, indicates that the nearest recorded species occurrence for the Swainson's hawk, is approximately 3.5 miles to the southeast of Mather Field and the Project site contains open grasslands that provide foraging habitat for Swainson's hawk. However, the proposed project will not result in a rezone of property or uses that are more intensive than those already allowed. Impacts to Swainson's hawk foraging habitat are ***less than significant***. Additionally the proposed project will result in a proposed Natural Preserve that will protect in perpetuity approximately 1,383.2 acres of land that	LS	**Refer to Mitigation Measure BR-2.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
provide foraging habitat for Swainson's hawk. Although impacts to foraging habitat are not expected, Mitigation Measure BR-2 is recommended to ensure that foraging habitat remains on site.			
Programmatic and Project Level Impacts to Nesting Raptors The Project site predominantly contains open annual grassland. Mature trees of sufficient size to support tree-nesting raptors are located along the banks of some of the creeks and channels within Mather Field, around Mather Lake, within Mather Golf Course and within in scattered clumps of trees throughout the site. Since Mather Field contains suitable tree nesting habitat, construction activities may impact nesting raptors if they occur within 500 feet of suitable nesting trees.	S	**BR-13: Programmatic/Project Level Impacts Nesting Habitat** If construction, grading, or other project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to occur between March 1 and September 15, a focused survey for tree or ground nesting raptors within 500 feet of the construction site shall be conducted by a qualified biologist within 14 days prior to the start of construction work. If active nests are found, California Fish and Wildlife shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.	LS
Golden Eagle Although annual grassland habitat has the potential to be removed from the project site, the proposed project includes a 1,272 acre Natural Preserve which will result in the preservation of foraging habitat for the golden eagle. The Natural Preserve area contains the highest quality grasslands within Mather Field which would be preserved in perpetuity and managed to protect and enhance habitat conditions. The development of the Project site would not result in substantial negative effects to the sustainability of the species; however Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to golden eagle habitat are reduced.	LS	**Refer to Mitigation Measure BR-2.**	LS
Tricolored Blackbird According to the CNDDB, the nearest CNDDB recorded species occurrence is approximately 3,000 feet north of	S	**Refer to Mitigation Measure BR-2.** **BR-14: Programmatic Level/Project Level Impacts to**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Mather Field. Additionally, occurrences of tricolored blackbird have been observed around Mather Lake as well as the southeastern border of the project site. Mather Lake is included in the exclusion area of Mather Field and the project will have no impacts around the Mather Lake area or associated tricolored blackbird nesting habitat. However, due to known occurrences of nesting colonies in the vicinity it is possible that tricolored blackbirds may have nesting colonies within other portions of Mather Field. In addition to potential impacts to nesting birds, the Mather Field provides suitable foraging habitat. The loss of grassland habitat would decrease the availability of foraging habitat. Even though foraging habitat mitigation for the tricolor blackbird is not required, the proposed Natural Preserve will continue to remain open habitat that will continue to provide suitable foraging habitat.		**Tricolored Blackbird** If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 300 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following: 1. Consult with the California Fish and Wildlife to determine if project activity will impact the tricolored blackbird colony(s). Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from California Fish and Wildlife. Implement all protective measures recommended by California Fish and Wildlife. 2. With California Fish and Wildlife permission, the applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback, with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). The breeding season typically ends in July. 3. If tricolored blackbird habitat is permanently destroyed follow California Fish and Wildlife procedure to mitigate for habitat loss, and submit documentation of the mitigation to	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the Environmental Coordinator.	
Short Eared Owl According to the surveys and habitat assessments that have been conducted within Mather Field, suitable nesting habitat for the short eared owl is present on site. Additionally, the open grasslands on Mather Field provide foraging habitat for the species. Although, foraging habitat is expected to be removed the proposed Natural Preserve will provide approximately ~~1,272~~ **1,383.2**acres of grasslands for foraging opportunities. Construction activities within Mather Field, including activities associated with the Zinfandel Drive/ trunk sewer extension, have the potential to impact nesting birds and habitat.	S	**Refer to Mitigation Measure BR-2.** **BR-15: Programmatic/Project level Impacts to Short Eared Owls** If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 500 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting short eared owls shall be conducted by a qualified biologist. 1. A survey for nests and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone. 2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons. 3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary. 4. If occupied nests or short eared owls are found the project proponent shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Mitigation	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success.	
Burrowing Owl Burrowing owls have been documented within Mather Field and are known to nest throughout the project site. Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers.	S	**Refer to Mitigation Measure BR-2.** **BR-16: Programmatic/Project Level Impacts to Burrowing Owls** Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following: 1. A survey for-burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone. 2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons. 3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		Coordinator and no further mitigation is necessary. 4. If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with the Survey Report section of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012). 5. If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012) should be used in the development of the mitigation plan.	
Ferruginous Hawk According to the CDFW Life History Account for the ferruginous hawk, the species is an uncommon winter resident and migrant at lower elevations and open grasslands in the Central Valley. Any species wintering in the general Project area would likely be in competition with the known Swainson's hawk that forage in the vicinity of the site. The fact that Swainson's hawk are successfully occupying the area makes it less likely that ferruginous	LS	**Refer to Mitigation Measure BR-2.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
hawk use the site. Nonetheless, the Project has the potential to remove winter foraging habitat for the species. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation is unnecessary. However, mitigation requiring easements over the Natural Preserve is recommended to ensure impacts to ferruginous hawk habitat are reduced.			
Northern Harrier Development consistent with the proposed project has the potential to remove foraging habitat for the species. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the northern harrier is unnecessary. However, however mitigation requiring easements over the Natural Preserve is recommended to ensure that impacts to northern harrier are reduced.	LS	**Refer to Mitigation Measure BR-2.**	LS
White Tailed Kite The loss of grassland habitat would decrease the availability of foraging habitat. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the white-tailed kite is unnecessary. However, mitigation requiring easements over the Natural Preserve is recommended to ensure that impacts to white-tailed kite are reduced.	LS	**Refer to Mitigation Measure BR-2.**	LS
Loggerhead Shrike According to species and habitat assessments prepared for Mather Field, the site contains nesting and foraging habitat and loggerhead shrike have been observed perching and foraging throughout the project site.	LS	**Refer to Mitigation Measure BR-2.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
The loss of grassland habitat would decrease the availability of foraging habitat. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the loggerhead shrike is unnecessary. However, mitigation requiring easements over the Natural Preserve is recommended to ensure that impacts to loggerhead shrike are reduced.			
American Badger According to species and habitat assessments prepared within Mather Field, suitable habitat for the American badger exists on site and badgers have been observed in the past. Several dens have been documented along the banks of drainage channels within Mather Field, one south of the Independence at Mather residential subdivision and two east of Zinfandel Drive. One of the observed dens is located within the Natural Preserve and one is located within the proposed UDA District and one is located within the proposed Commercial Recreation District. The noted den within the UDA District is also in close proximity to the proposed southern terminus of the Zinfandel Drive/ trunk sewer work area. Although annual grassland habitat has the potential to be removed from the project site through future development consistent with the proposed land use designation changes, the proposed project includes a 1,272 acre Natural Preserve which will result in the preservation of grassland habitat suitable for the American badger. Because of the large amount of grassland that will be located in the Natural Preserve suitable habitat to support the American badger will be available. However, mitigation requiring easements over the Natural Preserve is recommended to ensure that impacts to the American badger shrike are reduced.	S	**Refer to Mitigation Measure BR-2.** **BR-17: Programmatic/Project Level Impacts to American Badger** Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable habitat for American badger den sites, a survey for American badger shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. If badgers are detected, the biologist shall passively relocate badgers out of the work area prior to construction if feasible. Badgers shall be relocated to suitable areas within the proposed Natural Preserve. If an active den is located within an identified work area, the project proponent shall avoid the den, if feasible, until the qualified biologist determines the den is no longer active. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation of the den between the time of the survey and the completion of construction activities.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Although habitat suitable for the American badger will remain on site, construction activities associated with future development including the Zinfandel Drive/ trunk sewer extension have the potential to injure or kill badgers by crushing them in their dens or crushing den entrances with construction equipment, which would prevent badgers from escaping. In order to avoid impacts to individuals, mitigation is recommended requiring preconstruction surveys for the American badger and consultation with CDFW if badgers are observed.			
Special Status Plants Future development associated with the proposed land use changes has the potential to would result in the direct loss of suitable habitat for special-status plants associated with vernal pools. Three special-status plant species, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and legenere, have been identified in the action area during previous surveys (WRA, 2004). The vernal pools containing Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and two of the four legenere populations would be preserved within the proposed Natural Preserve. The remaining two known populations of legenere are found in pools that ~~would~~ **could** be directly affected by **future** development in the proposed ~~Commercial Recreation District~~ **Urban Development Area**.	S	**BR-18: Programmatic/ Project Level Impacts to Special Status Plants** Prior to construction, vegetated portions of the project site including wetland habitats shall be surveyed by a qualified botanist for special-status plants following established CDFW *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* which calls for protocol-level surveys during the appropriate flowering/identification period for each potentially affected species. Known populations of Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and legenere shall be protected within the Natural Preserve. The project would also directly affect two known populations of legenere, and may affect additional, undocumented populations of special-status plants. Measures to compensate for the loss of special status species include: • Prepare a Mitigation and Monitoring Plan to relocate plants and/or seed banks or reintroduce new populations in suitable habitat and soil types within the on-site Preserve or at a CDFW or USFWS-approved off-site location; • Restore or enhance suitable habitat within the Natural Preserve.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Sanford's Arrowhead Sanford's arrowhead occurs in emergent marsh habitats, including habitats which are modified or human-made. Sanford's arrowhead is designated as a federal species of special concern and is listed by the California Native Plant Society's Inventory of Rare and Endangered Plants as category 1B.2. Mather Field contains suitable habitat to support Sanford's arrowhead and has been observed within the channels adjacent to the Industrial District. Given that habitat exists on site for Sanford's arrowhead and the proximity of known occurrences to areas where land use designation changes are proposed and the Zinfandel Drive/ trunk sewer improvements are expected, there is a potential for impacts to Sanford's arrowhead to occur.	S	**BR-19: Programmatic/ Project Impacts to Sanford's Arrowhead** Surveys shall be performed by a qualified botanist during the species non-dormant, flowering period (June – October) prior to work within suitable habitat. If the species is not found during the survey, no further mitigation would be required. If plant(s) are found the botanist shall establish distribution of the colony(s) and estimate the number of individuals in the population. Unless deemed infeasible by the Environmental Coordinator, all plants or tuber/rhizomes shall be removed from the area of impact and transplanted to a new or existing preserve or, if the impact is temporary, replanted in the same location after the disturbance. Surveys shall be performed annually at the transplant location for a period of three years, to ensure success. If survival is not meeting a minimum 60% survivorship, transplantation will be deemed failed. In cases where transplanting is deemed infeasible, or where transplanting has failed, compensatory mitigation shall be provided. Compensatory mitigation shall consist of placement of a conservation easement over a known, unprotected population of the species.	LS
Programmatic Level Impacts to Vernal Pool Tadpole and Fairy Shrimp Critical Habitat Designated critical habitat for vernal pool tadpole shrimp and fairy shrimp would be affected by the project. Up to ~~4.98~~ **3.75** acres of critical habitat for vernal pool tadpole shrimp and fairy shrimp would be directly affected and up to 2.89 acres of critical habitat would be indirectly affected.	S	**Refer to Mitigation Measure BR-2.** **BR-20: Programmatic Level Impacts to Suitable Habitat Within Designated Critical Habitat and Mather Core Recovery Areas** To mitigate for direct impacts to ~~4.98~~ **3.75** aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 2.89 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-6 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.	LS
Programmatic Level Impacts to Sacramento and Slender Orcutt Grass Critical Habitat Designated critical habitat for slender Orcutt grass and Sacramento Orcutt grass at Mather Field is located solely	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
within the proposed Natural Preserve and no impacts related to future development consistent with the proposed project are expected to result. Critical habitat for Orcutt grass is also located off site to the southwest adjacent to the proposed Commercial Recreation District; however, because of the barrier created by Kiefer Boulevard that divides Mather Field from the critical habitat, no indirect impacts will result.			
Project Level Impacts to Vernal Pool Tadpole and Fairy Shrimp Critical Habitat The Zinfandel Drive and trunk sewer extension will affect designated vernal pool tadpole and fairy shrimp critical habitat. Up to 0.66 acres of critical habitat for vernal pool tadpole shrimp and fairy shrimp would be directly affected by the Zinfandel Drive and trunk sewer extension and up to 1.28 acres of critical habitat would be indirectly affected.	S	**Refer to Mitigation Measure BR-2.** **BR-21: Project Level Impacts to Suitable Habitat Within Critical Designated Critical Habitat and Mather Core Recovery Areas** To mitigate for direct impacts to 0.66 aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 1.28 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-7 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.	LS
Project Level Impacts to Sacramento and Slender Orcutt Grass Critical Habitat Designated critical habitat for slender Orcutt grass and Sacramento Orcutt grass at Mather Field is located solely within the proposed Natural Preserve and no impacts related to future development consistent with the proposed project are expected to result. Critical habitat for Orcutt grass is also located off site to the southwest adjacent to the proposed Commercial Recreation District; however, because of the barrier created by Kiefer Boulevard that divides Mather Field from the critical habitat, no indirect impacts will result.	LS	None Recommended.	LS
Programmatic Level Impacts to Habitat with the Mather Core Recovery Area	S	**Refer to Mitigation Measure BR-2.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Future development consistent with the proposed land use designations would directly affect 4.98 acres of habitat that has the potential to support vernal pool species and would indirectly affect 2.89 acres with the Mather Core Recovery Area. The project proposal, with the Natural Preserve and related preservation and restoration efforts, is consistent with the goals of the USFWS recovery plan for vernal pool species as it avoids at least 85% of the habitat for vernal pool species (including 95% of the tadpole shrimp and slender and Sacramento Orcutt grass habitat) within the Mather Core Area.		**Refer to Mitigation Measure BR-20.**	
Project Level Impacts to Habitat with the Mather Core Recovery Area The Zinfandel Drive and trunk sewer extension will affect suitable habitat within the Mather Core Recovery Area. Up to 0.66 acres of habitat for vernal pool tadpole shrimp and fairy shrimp within the Core Area would be directly affected by the Zinfandel Drive and trunk sewer extension and up to 1.28 acres of habitat would be indirectly affected within the Core Area. With the proposed Natural Preserve and related preservation and restoration efforts, the Project is consistent with the goals of the USFWS recovery plan for vernal pool species as it avoids at least 85% of the habitat for vernal pool species (including 95% of the tadpole shrimp and slender and Sacramento Orcutt grass habitat) within the Mather Core Area.	S	**Refer to Mitigation Measure BR-2.** **Refer to Mitigation Measure BR-21.**	LS
Programmatic and Project Level Impacts to Migratory Birds There is a potential for migratory nesting birds to exist on site that, although may not be considered Special Status	S	**BR-22: Programmatic/Project Impacts to Nesting Migratory Birds** To avoid impacts to nesting migratory birds the following shall apply:	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Species or requiring discussion under CEQA, are afforded protection through the Migratory Bird Treaty Act (MBTA). Future project development consistent with the proposed project as well as the Zinfandel Drive/ trunk sewer improvements will result in the removal of trees that may provide nesting habitat for migratory birds.		1. If construction activity (including clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, a survey for active migratory bird nests shall be conducted by a qualified biologist. 2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.	
CULTURAL RESOURCES			
Programmatic and Project Level Potential Destruction or Disturbance of Buried Archeological Resources and Human Remains No archaeological resources were identified as a result of studies conducted in the Mather Field and Zinfandel Drive APEs, but it is still possible that significant buried archaeological materials may be found within the APEs. Disturbance or destruction of these resources may result from ground-disturbing activities associated with construction activities within the APEs. Additionally, no human remains are known to be present within the Mather Field or Zinfandel Drive APEs. However, it is possible that buried human remains could be located within the areas that have not been identified due to a lack of surficial evidence and it is possible that human remains, particularly those outside a designated cemetery, may be encountered during ground-disturbing construction activities.	S	**CR-1: Unanticipated Discoveries of Cultural Resources** If subsurface deposits believed to be cultural or human in origin are discovered during construction activities, including those activities related to and consistent with a wetlands management plan within the proposed Preserve area, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense. Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		National Register of Historic Places or California Register of Historical Resources. If a potentially-eligible resource is encountered, then the archaeologist and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the North Central Information Center (NCIC) as verification that the provisions of CEQA for managing unanticipated discoveries have been met. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.	
Programmatic and Project Level Potential Disturbance or Destruction of Known Significant Built Environment Historic Resources No architectural resources that meet the criteria of significance under CEQA were located in the Mather Field or Zinfandel Drive APEs. Therefore, no known significant architectural resources would be affected by the proposed project.	LS	None Recommended.	LS
HAZARDOUS MATERIALS			
Contaminated Soils and Groundwater The project related land use amendments are located directly over several of the DOD identified IRP sites and capped landfills. Although a majority of IRP sites at Mather Field have been cleaned up and are no longer under remediation, excavation and construction activities at or	S	**HM-1: Hazardous Materials Contingency Plan** All public and private development proposals within Mather Field shall include a detailed Hazardous Materials Contingency plan to address contaminants or other hazardous materials that may be encountered during construction activities and in the event that construction activities (including redevelopment proposals) uncover	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
near these areas could potentially expose construction workers and the general public to previously unidentified soil and/or groundwater contamination. Additionally, according to the *Draft Initial Site Assessment, South Mather Roadways Improvement Project* (pg 33) prepared by Blackburn Consulting in 2007, the land use areas are located where unidentified surficial and sub-surface residual contaminants are likely to be encountered. Future construction activities could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, lead, contaminated debris, and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public.		unforeseen contamination or hazardous materials including radioactive waste at Site RW-016, munitions within the 3,000 foot safety zone of Site XU-403, unexploded ordinance at Site OT-69/XE-404 and contaminants related to landfills. The plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize and remediate any contamination. In addition, all performance standards included in the Mather Feld Special Planning Area Ordinance related to hazardous materials shall be incorporated into the Hazardous Materials Plan.	
Site RW-016 According to the CERCLA covenants to protect human health and the environment that were adopted to identify and implement restrictions and remedial actions associated with hazard materials at Mather Field, radioactive waste is potentially present within the proposed Industrial District southeast of the southern airport runway. The radioactive waste site is known as RW-016 and is thought to contain approximately 60 low-level radioactive electron tubes placed in one gallon containers, encased in concrete and buried in 15 foot deep auger holes. Although RW-016 is thought to contain these materials, investigations revealed no radiation at the surface above background levels, nor in water from a nearby groundwater monitoring well. Inspection of the ground surface after the demolition of an overtopping structure revealed no evidence of the reported burial site. The covenant concludes that any excavation at RW-016 should be conducted with caution in order to avoid potential exposure to broken concrete containers and/or	S	**Refer to Mitigation Measure HM-1.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
electron tubes.			
Site XU-403 Mather Field was used for aerial gunnery and practice bombing activities at various times from 1918 to 1940. The practice bombing site has been identified as Site XU-403. the Department of Defense Explosives Safety Board (DDESB) approved the NFA ESS and no land use restrictions apply to the site. However, the DDESB required the creation of a 3,000 foot safety zone for Site XU-403. The purpose of this safety zone is to define an adequate boundary within which current and future land owners must be notified of the sites historical use as a practice bombing range. The DDESB notification is as follows: Some of the practice bombs at Mather [Field] contained a small amount of black powder explosive spotting charge and while there is no evidence to indicate that live demolition bombs were ever used at Mather Field, there is still the possibility that munitions with this spotting charge could be discovered at the Property. In the event that any metal object resembling military munitions, or a fragment thereof, is found, the item should not be touched or disturbed further and the local police or fire department should be contacted to report the finding. The 3,000 foot safety zone radius overlaps a narrow portion of the proposed Industrial District as well as a stretch of a potential alignment of a future extension of Douglas Road (not a part of this project). There is a potential that a practice bomb or portion of a practice bomb may be encountered during construction activities.	S	**Refer to Mitigation Measure HM-1.**	LS
Site OT-69/XE-404	S	**Refer to Mitigation Measure HM-1.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
According to the *Report of Findings Soil Study and Background Research, Mather South Property* (pg.16) prepared by Wallace- Kuhl and Associates in 2014, there is a potential to encounter unexploded ordnance during construction activities at a former detonation area located at the southeast corner of the project site. Site OT-69/XE-404 is located within the proposed Commercial Recreation District. Future construction activities could result in the exposure of construction workers and the general public to unexploded ordnance that could be hazardous.			
Landfill WP-07 An area that was once used for the disposal of construction rubble as well as petroleum, oil and lubricant wastes from 1953 to 1966 is located at the southwest corner of Mather. Also, this area was later used to dispose of soil excavated from IRP sites within Mather Field and treated as necessary to meet municipal landfill criteria and later capped in accordance with landfill closure requirements. The contaminants of concern for this area include diesel and gasoline. This area will be designated for industrial uses with a surface mining overlay. The intent of adding the surface mining designation to the site is to identify this area for future planning efforts related to aggregate resource extraction, and to ensure that future development would not preclude the timely extraction of aggregate resources. It should be noted that the aggregate resource combining designation only preserves the area for mining activities and does not permit the actual use of the site for mining operations. Future mining proposals for the site swill need to undergo further permitting and environmental review processes. At that time issues associated with the use of the site will be evaluated and any appropriate mitigation measures will be identified to meet the specific needs of the proposal. The proposed project will not result in damage to the landfill or remediation systems or result in any uses	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
inconsistent with ICs applicable to Landfill WP-07.			
Landfill LF-03 and LF-04 and Northeast Plume Two landfills, noted to be Landfills LF-03 and LF-04, as well as their related contamination plume (Northeast Plume) are located at the northeast section of Mather Field in areas where land use designation changes are proposed. Landfills LF-03 and LF-04 are located within the proposed Industrial District and there is a potential for future construction activities to be located within the North East Plume area that may be in conflict with the ICs for the area. Additionally, there is the potential for ground disturbing activities to encounter unforeseen contaminants. Future construction activities could result in the exposure of construction workers and the general public to hazardous materials and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public.	S	**Refer to Mitigation Measure HM-1.**	LS
Asbestos The renovation or demolition of existing structures constructed prior to 1989 can pose an exposure risk to workers from asbestos-containing material if the material is chipped away and then accidentally ingested, or if it becomes airborne and is inhaled. When an individual applies for a demolition or renovation permit through the County Building Permits and Inspection Division, the applicant will be required to get a permit from the Sacramento Municipal Air Quality Management District. As part of the permit process, the applicant will need to show compliance with federal regulations and Air District Rule 902, which requires a survey for asbestos prior to demolition. Any asbestos found would require abatement.	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Lead Based Paint The renovation or demolition of existing structures constructed prior to 1978 can pose an exposure risk of workers to lead-based paint if the paint were chipped away and then accidentally ingested, or if the paint became an airborne dust and was inhaled. Also, lead can deposit on exposed soil, which can then be tracked into the home, ingested by children and adults. As with asbestos in older homes, there are existing rules and regulations to ensure that workers are apprised of the risk of lead exposure before renovation or demolition can begin, and are given protocols to avoid exposure.	LS	None Recommended.	LS
Monitoring, injection and Extraction Wells More than 600 wells are in use at Mather Field as part of the groundwater cleanup effort currently underway related to on site contamination. Thirty-four of these wells extract water from the ground and direct contaminated water to treatment plants for remediation, eight of the wells are injection wells that are used to return clean water back into the ground and the rest are monitoring wells, used to track and measure contamination. In addition to the groundwater wells, there are many extraction, monitoring and migration wells and vents associated with soil contamination remediation efforts throughout much of Mather Field including where project related land use designation changes are proposed. The wells are integral to the continuing remediation efforts underway at Mather Field and damaging, disturbing or otherwise affecting these wells would potentially disrupt cleanup activities.	S	**HM-2: Remediation Systems** Prior to any public or private development or ground disturbing activities within Mather Field, project proponents shall coordinate with the U.S. Air Force, the U.S. EPA, the California EPA, and other involved agencies, as appropriate, to assure that construction activities do not disturb the remedial system components in place including groundwater monitoring, extraction, and injection wells, and soil vapor extraction and bioventing facilities.	LS
HYDROLOGY AND WATER QUALITY			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Programmatic Level Impacts to Drainage and Flooding Build-out of the project area, consistent with the proposed land use amendments, will require site improvements such as grading that will alter the existing topographic and drainage features on site. Development of the project area would also require the construction of structures, sidewalks, roadways, parking areas and other impervious surfaces that will increase runoff from the project area. These improvements have the potential to produce considerable changes in downstream hydrology and increased flooding onsite and downstream. Additionally, FEMA designated 100-year floodplains are located where industrial, mining, commercial and recreation uses may be proposed in the future. However, with conformance with applicable standards, future development associated with the Project will not substantially increase the rate, amount or location of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity or result in the placement of fill or structures within a designated floodplain.	LS	None Recommended	LS
Programmatic Level Construction Impacts to Water Quality Construction activities would involve the use of heavy equipment, such as bulldozers, graders, earth movers and other machinery for grading, trenching, utility installation, and the construction of roads buildings and other facilities. The use of these types of machinery could result in the release of water quality pollutants. The use of heavy machinery would also disturb surface soils. During storm events, stormwater could mobilize disturbed soils and/or release residual chemicals that could become entrained in stormwater runoff, and be transported into waterways on site, including Morrison Creek and other waterways downstream or offsite. As a result, water quality could be adversely affected in Morrison Creek and other waterways.	LS	~~None Recommended~~ **Implement applicable portions of Mitigation Measure BR-6.**	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
However, the current Sacramento County Stormwater Ordinance (Sacramento County Code Section 15.12) prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks.			
Programmatic Level Operational Impacts to Water Quality Development and redevelopment related to the project may result in an increase of use of substances that could pollute waterways if not regulated. However, new development will be required to treat urban runoff using the BMPs required by the current standards defined in the ~~2007~~ **2014** Stormwater Manual and subsequent editions in the years to come that meet or exceed requirements established by the CVRWQCB.	LS	None Recommended.	LS
Project Level Impacts to Drainage and Flooding The Zinfandel Drive/ trunk sewer extension will extend from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive. The sewer extension is proposed to extend the entire length of the work area while improvements related to Zinfandel Drive will begin at the existing southern terminus of the recent extension of Zinfandel Drive; approximately 900 feet south of Douglas Road. The work area identified to allow for the installation of the proposed roadway and sewer extensions is crossed by several drainage features and their associated FEMA floodplain areas. County DWR concluded that the project will not alter the existing drainage pattern in such a way that causes flooding or contributes to runoff that would exceed the capacity of existing or planned stormwater infrastructure. Additionally, the project will not place housing within the 100-year floodplain; place structures in a 100-year	LS	None Recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
floodplain that would cause substantial impacts as a result of impeding or redirecting flood flows; or expose people or structures to substantial loss of life, health, or property as a result of flooding.			
Project Level Construction Impacts to Water Quality Construction activities across waterways within Mather Field will be required for the proposed extension of Zinfandel Drive and trunk sewer facilities. Construction activities within and adjacent to waterways have the potential to degrade water quality. Water quality impacts could occur during construction from increased soil erosion and sedimentation due to demolition or removal of existing facilities, clearing of vegetation, alteration of drainages, and grading. Construction activities also involve the use of fuels, oil, lubricants, antifreeze, hydraulic fluid, solvents, paints, concrete, and other materials that have the potential to contact and affect runoff from construction sites. Although construction activities have the potential to result is impacts to water quality, project related construction activities are required to be in conformance with the County's Municipal Stormwater NPDES and project compliance with existing requirements and regulations, as administered by County DWR and CVRWQCB.	LS	~~None Recommended~~ **Implement applicable portions of Mitigation Measure BR-7.**	LS
Project Level Operational Impacts to Water Quality The extension of Zinfandel Drive and trunk sewer facilities will include the widening of pavement, the installation of concrete culverts and will require that soils be compacted in order to support proposed facility improvements. These project components can increase the amount of runoff generated in the project area and the potential for polluted waters to enter the nearby surface waters. Project development, with the stormwater controls included	LS	None recommended	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
in the drainage study and in conformance with applicable guidelines and regulations, will not result in the creation of substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality.			
Mather Dam Failure Flooding In the event of a dam breach at Mather Lake portions of the project area would be subject to short lived, shallow inundation. Although flooding would occur in the project area in the event of a dam breach at Mather Lake, the proposed project does not include land use amendments that would result in additional homes or other structures within the area shown to be. Additionally, the improvements associated with the Zinfandel Drive and trunk sewer extension will not alter the path or volume of waters exiting Mather Lake during a dam breach given that Zinfandel Drive will be overtopped in both the pre- and post-project condition. The proposed project will not expose people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam.	LS	None Recommended	LS
PUBLIC FACILITIES AND SERVICES			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Relocated Utilities and Disruption of Service Construction related activities associated with the proposed Zinfandel Drive extension and trunk sewer improvements will require relocation of several joint utility poles near the Mather Golf Course east of Zinfandel Drive and at the west side of the intersection of Zinfandel Drive and Woodring Drive. An additional utility pole east of Zinfandel Drive approximately 900 feet north of Douglas Road has also been identified within the proposed work area associated with the Zinfandel Drive/ trunk sewer improvements and will need to be relocated. Additional modifications to existing utilities required of the proposed improvements relate to sewer connections. Although not being relocated, the existing sewer lateral from Mather Golf Course that connects with the sewer system in the area will need to be modified. Currently the sewer line extends from the golf course and connects with a booster station west of Zinfandel Drive across from the golf course driveway. The booster pump then connects with a force main to the Bradshaw Interceptor. This connection will be terminated and a new connection will be made to the proposed trunk sewer line within the right of way of Zinfandel Drive just west of the golf course property. Standard practices for locating, working around and relocating public utility lines, including coordination with affected agencies, will ensure that relocated and modified utilities do not result in interruptions in service.	LS	None Recommended.	LS
Construction of New Facilities Depending on the location and type of facility, the construction and operation of new facilities could result in the following impacts typical of new construction: air quality (related both to construction and operation), biological resources, traffic and circulation, erosion and grading,	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
water quality, drainage, noise (sirens and traffic) and public utility services demand (electric, water, and wastewater). Less typical, but still possible, are impacts related to cultural resources, and hazardous materials. These construction activities will take place within the identified Districts within Mather Field, and it has already been assumed that development could take place anywhere within these Districts.			
Potable Water Service The water demands associated with the future development of Mather Field have been included and addressed in the latest Zone 41 Urban Water Management Plan (UWMP) (SCWA, 2012) and in the development of the Zone 40 "conjunctive use" program as described in the Zone 40 Water Supply. Because project demands related to Mather Field are included in the UWMP and WSMP, adequate water supplies are available to support the future development of Mather Field.	LS	None Recommended.	LS
Programmatic Level Sewer Service The SRWTP has a permitted dry weather flow design capacity of 181 mgd and has sufficient capacity to serve the development of Mather Field based on the proposed land use designations. However, although sewer service is provided to Mather Field, much of the project area is vacant and does not currently contain sewer infrastructure to support future development consistent with the land use designations of the proposed project. Future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the	S	**PS-1: Programmatic Level Impacts To Sewer Service** Prior to development within Mather Field project proponents shall coordinate with SASD in order to determine appropriate sewer planning and infrastructure needs to ensure that existing and/or proposed conveyance facilities have adequate capacity.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
SASD sewer system would be required.			
Project Level Sewer Service A sewer study dated January, 2010 and entitled *Master Sewer Study for South Mather Development & Zinfandel Dr. Extension* (Sewer Study) was prepared for this project to demonstrate that the trunk sewer infrastructure proposed to be installed as part of this project is adequate to support future development in the shed area at full build out. In September of 2013 Amendment #1 was prepared for the Sewer Study to refine the details included in the Sewer Study and amend the projected developable area to more accurately reflect likely development areas within the shed area. The Sewer Study concluded that the proposed trunk sewer infrastructure and the Bradshaw Interceptor, that will collect flows from the proposed sewer line, are capable of serving the shed area under the ultimate build out condition.	LS	None Recommended.	LS
Programmatic Level Fire Protection Service The Sacramento Metropolitan Fire District (SMFD) provides fire protection, fire suppression, inspection, plan checking, emergency transportation and medical services, advanced life support, and rescue services to the project site. The General Plan contains policies that allow the Board of Supervisors to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district. The fire districts that receive such funds must maintain Insurance Service Office (ISO) ratings of 3 for hydrant areas and 8 for non-hydrant areas and a response time of five minutes for emergency calls, where staffing levels are adequate. Furthermore, building permits for new developments will not be issued until an applicant has contributed all required mitigation fees when there is a	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Board of Supervisors-certified fire district financing plan for any applicable fire district. Additionally, the policies contained in the General Plan require that new buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate.			
Project Level Fire Protection Services During construction related to the Zinfandel Drive/ trunk sewer extension, one of the five access points into Independence at Mather will be temporarily closed. Restricting access to Independence at Mather will require that emergency service providers and residents not use Woodring Road at the east side of the subdivision and use one of the other four access routes into the subdivision. However, project proponents responsible for roadway infrastructure improvements are required to coordinate with emergency service providers to ensure that there are no impediments to the provision of emergency services during and after project related construction activities. Although access is expected to be adequate during construction related activities associated with the Zinfandel Drive/trunk sewer extension, mitigation is recommended to require notification, coordination and adequate access during construction related activities associated with the Zinfandel Drive/ trunk sewer extension.	LS	PS-2: EMERGENCY SERVICE PROVIDER COORDINATION The project applicant shall notify local emergency response agencies of the proposed construction routes and timing of construction prior to the initiation of construction activities related to the proposed Zinfandel Drive/ trunk sewer improvements. Additionally, prior to project related construction activities, a plan detailing how adequate access will be provided during construction shall be provided by the project proponent to law enforcement, fire protection and other emergency service providers for review and approval before beginning construction.	LS
Law Enforcement Service The Sacramento County Sheriff's Department would provide primary law enforcement services to the project site. Although the proposed project will not directly relate to an increase in housing units, the proposed UDA District will allow for future planning efforts that may result in additional housing units at Mather Field. Using the County's goal of one officer to 1,000 residents (Sacramento County, 2010), to maintain adequate levels of	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
service, additional officers, facilities, and equipment would be required to serve potential future development consistent with the proposed project. The Sheriff's Department is funded through Sacramento County's General Fund and sometimes supplemented by grant money. Future development within Mather Field would contribute to the General Fund and funding of law enforcement services through increased property tax and sales tax collection.			
Solid Waste Service The Sacramento County Department of Waste Management and Recycling provides solid waste services to the unincorporated portions of Sacramento County including Mather Field. Sacramento County owns and operates the Kiefer Landfill, located at Kiefer Boulevard and Grant Line Road. The Kiefer Landfill receives over 700,000 tons of waste per year. The estimated life expectancy of the landfill is 2035; however, at current usage rates the landfill is anticipated to last until 2064.	LS	None Recommended.	LS
School Service The project site spans the Sacramento City Unified, Elk Grove Unified and Folsom/Cordova Unified school districts. The only portion of the project site within the Sacramento City Unified school district is the airport which does not include housing. Independence at Mather as well as most of the project site is located within the Folsom/Cordova Unified District. A strip of land on the eastern portion of the project site is located within the Elk Grove Unified School District. Although the proposed land use designations will not directly relate to increased residential development at	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Mather Field, the proposed UDA District will allow for future planning efforts that may increase residential densities at the site. The General Plan includes policies to accommodate for growth and increased service demands. For instance, there are policies that require land dedications or reservations for new schools, and Specific Plans (such as those plans required for the UDA District) must show locations of future school sites. These policies, in addition to developer fees under SB 50 and school facilities mitigation under the California Government Code, would serve as complete CEQA mitigation for the impacts of increased development on the ability of school districts to provide adequate services.			
Park and Recreation Services The project site is located within the Cordova Recreation and Park District (CRPD) which encompasses 75 square miles (Cordova Recreation and Park District, 2010). Regional park facilities within the project site include Mather Regional Park, which includes Mather Golf Course and Mather Lake. Allowed activities include golfing, picnicking and fishing. Although no development is currently proposed that would increase demand for park services or would be required to pay for or develop park sites, the proposed UDA District will allow the planning of future residential uses that would require park services. As required by the Quimby Act and General Plan policies, park land dedication and/or in-lieu fees are required in order to develop and maintain parks when the UDA District is developed. General Plan policy PF-124 requires new subdivisions to provide sufficient acreage of parks to meet the long-range needs of the community. As development plans are proposed for the UDA District, parks will be	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
developed as part of those plans. Additionally, the current project includes proposals to have a Recreation and Commercial Recreation Districts that will allow recreational opportunities to be provided within Mather Field.			
Energy Services Electrical service is currently provided to Mather by the Sacramento Municipal Utility District (SMUD). SMUD generates, transmits and distributes electric power to a 900-square mile service area including Sacramento County and a portion of Placer County. SMUD gets its electricity from diverse resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market (Sacramento County, 2009). Natural gas service is provided by West Coast Gas. Future development consistent with the proposed land use designations would require additional energy production and distribution facilities (such as transmission corridors) to provide delivery of electricity and natural gas to new development. The General Plan contains policies regarding the siting of energy facilities that attempt to minimize impacts associated with land use conflicts, visual and aesthetic resources, historic or cultural resources, and biological resources. Any new required facilities would be constructed within the proposed Zinfandel Drive/ trunk sewer work area or in the proposed Districts associated with the project, and would not result in any additional environmental impacts that will not already be caused by general development of the site consistent with the proposed land use designations as discussed and mitigated (as appropriate) in the relevant topical chapters of this EIR.	LS	None Recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
TRAFFIC AND CIRCULATION			
Traffic Generation The proposed project would result in land use designations that have a lower trip generating potential than those designations currently at Mather Field. The land use changes proposed with this project would not result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County. Additionally, future development within Mather Field is required to participate in a Transportation Management Association and Transportation Systems Management Program designed to reduce vehicle trips and support alternative transportation. The proposed project would continue to support and implement these existing programs. Finally, the proposed Zinfandel Drive improvements would still provide mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise. In summary, traffic and circulation impacts related to the proposed project are expected to be similar to those that would be generated if Mather Field were built out under the existing Specific Plan.	LS	None Recommended	LS
CLIMATE CHANGE			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Residential, Commercial and Energy Use The Project does not include any development and will not directly result in increases of long term GHG emissions over the existing condition. However, the project includes land use amendments related to industrial, public/ quasi-public, and UDA land use designations. Development consistent with the proposed project has the potential to result in various long term emissions from residential, commercial and industrial and transportation related uses and activities. Although the exact amounts of GHG emissions are unknown, it is reasonable to conclude that, at build out, the GHG emissions related to these land uses will be considerably greater than the existing GHG emissions at Mather Field. However, the proposed land use designation amendments do not directly result in GHG emissions. Future development projects within Mather Field consistent with the proposed land uses will be required to demonstrate adequate GHG emissions reductions quantitatively, and include appropriate and reasonable GHG emissions reductions mitigation where applicable.	S	**CC-1: Residential Energy Sector Emission Reductions** Add a policy to the Mather Field SPA requiring that future applicants for residential projects reduce residential GHG emissions to below the significance threshold of 1.33 MT per capita. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per capita, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose to submit revised, project-specific, residential energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor. **CC-2: Commercial Energy Sector Emission Reductions** Add a policy to the Mather Field SPA requiring that future applicants for commercial and industrial projects reduce commercial emissions to below the significance threshold of 7.87 MT CO_2 per Kft^2. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per Kft2, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose to submit revised, project-specific, commercial energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor.	LS

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

Significance Criteria. A set of criteria used by the lead agency to determine at what level, or "threshold," an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.

Less-than-Significant Impact. A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.

Potentially Significant Impact. A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

Significant Unavoidable Impact. A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.

Cumulative Significant Impact. A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.

Mitigation. Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:

a) Avoiding the impact altogether by not taking a certain action or parts of an action.

b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e) Compensating for the impact by replacing or providing substitute resources or environments.

2 PROJECT DESCRIPTION

INTRODUCTION

This section of the Environmental Impact Report (EIR) is the Project Description of the proposed Mather Field project. The purpose of the Project Description is to describe the project in a way that will be meaningful to the public, reviewing agencies and decision-makers. As described in Section 15124 of the State CEQA Guidelines, a complete project description must contain the following information but is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impact: (1) The location and boundaries of the proposed project on a regional and detail map; (2) A statement of objectives sought by the proposed project; (3) A general description of the project's technical, economic and environmental characteristics; and, (4) A statement briefly describing the intended uses of the EIR.

The proposed project is comprised of two components, both of which are analyzed in this Environmental Impact Report. The first component includes updates to existing documents and land use designations that guide development in the project area to better reflect the existing conditions of the site and to guide future planning efforts consistent with the County's reuse strategy of the Mather Field and consists of County initiated General Plan Amendments including an amendment to the General Plan Transportation Diagram, a Specific Plan Amendment and a Zoning Ordinance Amendment.

The land use designation component of this project will be analyzed at a programmatic level throughout this EIR. It is not uncommon for general land use designation proposals for large Specific **Plans** and Special Planning Areas to be addressed through a programmatic level EIR. Programmatic EIRs are not designed or intended to provide project level clearance for any specific development proposal. Programmatic EIRs are often used to set the stage for future projects that require their own environmental analysis that is tiered off or consistent with the programmatic level EIR. It is anticipated that many additional environmental analyses will be required for future projects at Mather Field that address project specific issues and to ensure that project specific issues and impacts are fully addressed. However, it should be noted that a conservative approach was used in assessing and analyzing impacts associated with the proposed project and the EIR details impacts ~~**based on a worst case scenario**~~. The programmatic level analyses in the EIR assume that all areas within the developable portion of the project area will be subject to project related development and mitigation, where applicable, is based on assuming all developable portions of the proposed project are fully built out.

The second component of this project is a construction project that includes ~~**the extension**~~**improvements to and partial extension** of Zinfandel Drive **from approximately 900 feet south of Douglas Road to approximately 2,100 feet south of the intersection of Zinfandel Drive and Woodring Boulevard. Most of the**

improvements would occur along the existing alignment of the roadway, but the roadway would curve to the southeast at the southern end of Mather Golf Course. The project also includes the ~~and~~ extension of sewer infrastructure from **~~their~~its** existing **terminus~~i~~ at North Mather Boulevard in the City of Rancho Cordova** to the south along Zinfandel Drive **to the end of its proposed improvements 2,100 feet south of Woodring Boulevard** in order to provide improved access and sewer service to the central portion of the project site. **The EIR analyzes these proposed improvements at a project-specific level.** The intent of the project is to provide for new development and economic opportunities within the County and to provide services for County residents and visitors. The roadway and sewer extension will be able to accommodate development consistent with the existing uses included in Mather Field Specific Plan and SPA for the area.

The EIR also analyzes the extension of Zinfandel Drive and sewer infrastructure within the roadway's right-of-way from the end of the proposed project-specific improvements 2,100 feet south of Woodring Boulevard further south to Kiefer Boulevard along nine possible alignment routes. Each of the potential alignments is analyzed as part of the programmatic analysis, and additional environmental clearance is expected to be required for this segment of the roadway and sewer extension. Additional information on the preferred alignment is provided below under "Project Proposal," and details on the other potential alignments are provided in Chapter 3, Alternatives.

PROJECT LOCATION

The Mather Field project area (project site) is located in the Cordova community of unincorporated Sacramento County. The project site is located approximately 10 miles from downtown Sacramento via Highway 50 and is generally situated within the central portion of Sacramento County. The project area is within both the Urban Policy Area and Urban Services Boundary with the City of Rancho Cordova located immediately north and east of the project site and unincorporated portion of Sacramento County to the south and west (Plate PD-1). The boundaries of the project site are Mather Boulevard and International Drive to the north, the Folsom South Canal to the east, Kiefer Boulevard to the south and Old Placerville Road and Happy Lane to the west (Plate PD -2).

Plate PD-1: Regional Location

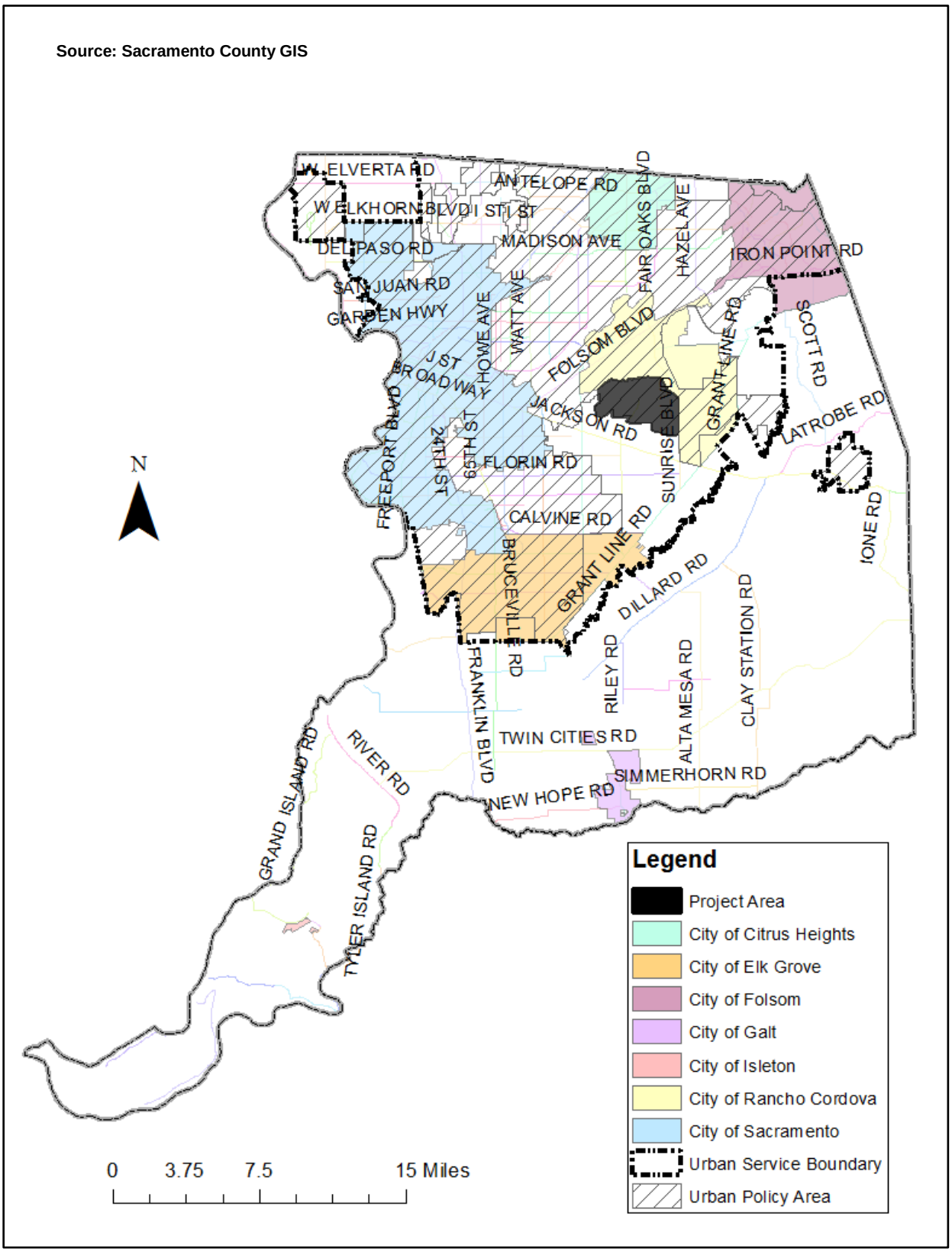
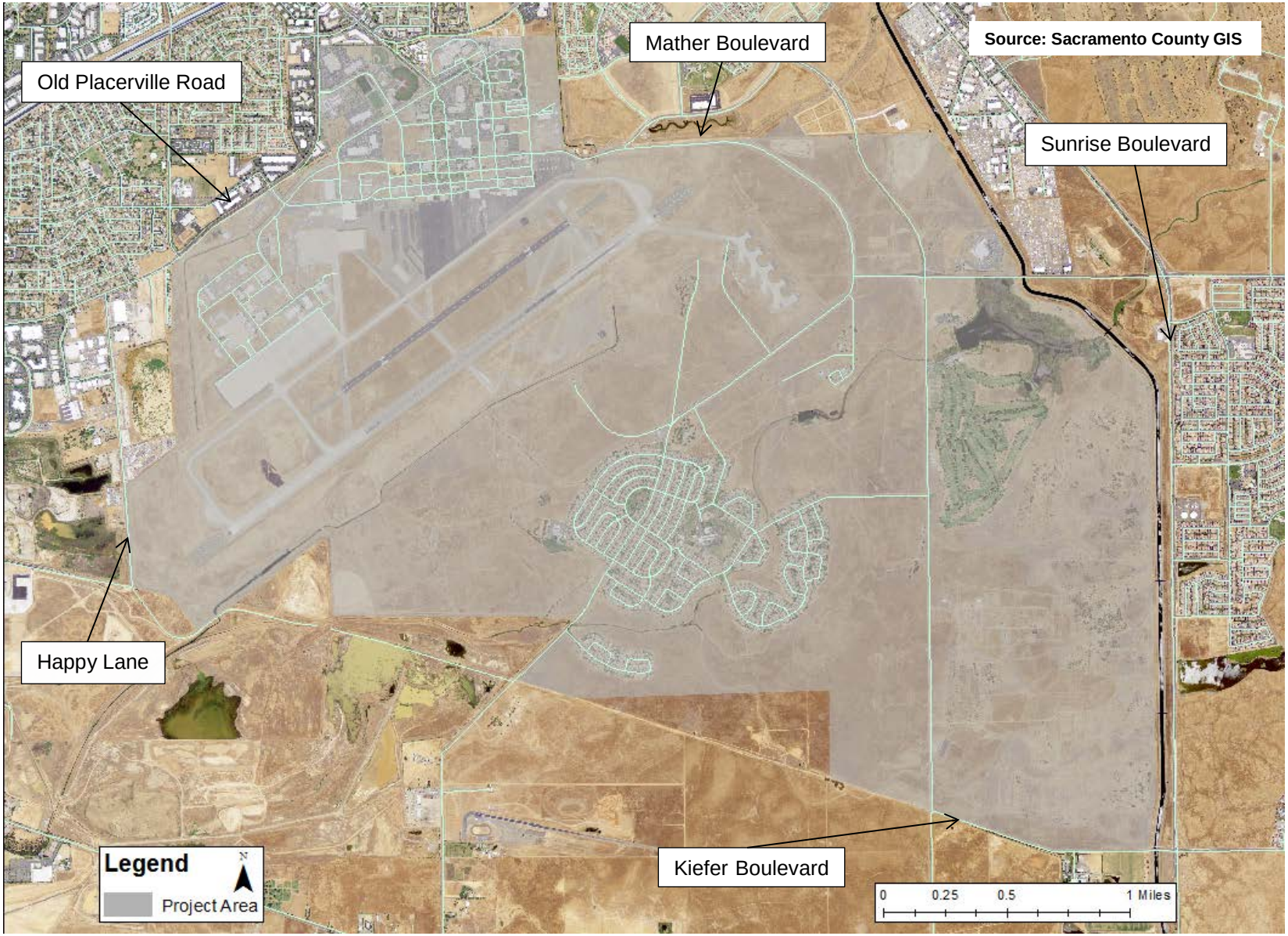


Plate PD -2: Project Area



BACKGROUND

Mather Air Force Base (AFB) was established in 1918 as an airfield and pilot training school through an agreement between the Sacramento Chamber of Commerce and the federal government. Following World War I, the base was used to support small military units and as a terminal for aerial forest patrol and air mail service planes. The base closed in 1923, but was reactivated in 1941 when it was used as a flight training base. By the end of World War II, Mather AFB was used for pilot, navigator, observer, and bombardier training and was a stopover for aircraft traveling to and from the Pacific. In 1958, the Strategic Air Command B-52 wing was assigned to Mather AFB until deactivated in 1989. After World War II, Mather AFB became the sole aerial navigation training school for the U.S. Air Force. Approximately 30 allied nations also received basic navigation instruction at Mather AFB. Most base development occurred between 1941 and 1970, with expansion and improvements occurring through the 80s. The base was approved for closure in January of 1989. On October 1, 1993, Mather AFB was decommissioned as an active base under the Base Realignment and Closure Act of 1990.

The Air Force completed an EIS for the Disposal and Reuse of Mather AFB. The Air Force issued a Record of Decision (ROD) in March of 1993. A Supplemental ROD was issued in November of 1994, a Revised Supplemental ROD was issued in October 1995, and a Third Supplemental ROD was issued in May of 1998. The ROD and supplements determined the disposition of property and facilities at Mather AFB. The documents specifically identify the organizations and agencies to receive property and facilities and the means of property conveyance. The protection of biological and aquatic resources is also addressed in the Supplemental ROD, which states:

> "unless Sacramento County and the appropriate federal regulatory agencies, including but not limited to EPA Region IX, U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers, enter into agreements to protect the wetlands and endangered species prior to the conveyance by deed … the [County] will manage the area consistent with a management plan approved by appropriate federal and state regulatory agencies, including but not limited to EPA Region IX, U.S. Fish and Wildlife Service, California Fish and Game, and the U.S. Army Corps of Engineers, to protect vernal pools, wetlands, and endangered species" (U.S. Air Force, 1994).

At the time of closure most of the base was determined surplus to the needs of the federal government and transferred or leased to various entities. All of the areas proposed for development under the Preferred Alternative and other alternatives are located within the boundaries of the former Mather AFB.

After the base was recommended for closure, Sacramento County began the planning process to adopt a Specific Plan for the area. Planning for the project site has gone through several phases. From 1989 to 1991 the Sacramento Commission on Mather Conversion (SACOMC) analyzed numerous use alternatives for consideration by the Board of Supervisors and recommended retention of the airport, reuse of other base facilities and redevelopment of other portions of the base. Upon receiving the recommendations, the Board of Supervisors established the Mather Internal Study Team (MIST). MIST's goals were to refine and further evaluate SACOMC's recommendations and further examine aviation and non-aviation reuse options. MIST recommended a reuse plan which also featured retention of the airport and mixed-use development surrounding the airport. In the fall of 1991, the Board of Supervisors endorsed the MIST plan and forwarded it to the Air Force Base Conversion Agency (AFBCA) for consideration in its preparation of the EIS and ROD for the disposal of the base. In May 1995, 4,012 acres of the former AFB were designated as a redevelopment area by the Sacramento County Board of Supervisors. Most of the project site is designated as a redevelopment area with the exception of the southeast corner. A Specific Plan (entitled the Mather Field Specific Plan) was adopted by the Sacramento County Board of Supervisors in May of 1997. The planning document lays out the envisioned transition of the former Mather AFB from military to civilian activities.

In March of 1999, the U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (BO) relating to water service contracts (Water Contract) that deliver water out of the Sacramento River for use within Sacramento County Water Agency's Zone 40 Service Area, which includes the project site. The Board of Supervisors approved the Water Contract, thereby agreeing to the BO conditions. The BO requires the development of a vernal pool management plan and dedication of conservation easements over vernal pools on the County airport and park properties within the project site, consistent with the Air Force Supplemental ROD (1994).

In April 2004, the Sacramento County Board of Supervisors conceptually endorsed creation of a "Wetlands Preserve" within the project site. The Board directed staff to work with stakeholders to develop a plan for creating the Wetlands Preserve and for addressing other uses, including roadways, economic development, parks, and easement restrictions for conservation and resource protection. In June 2005, stakeholders, representing thirteen outside entities, and seven county departments met to develop alternatives for boundaries of the Wetlands Preserve and to identify other vernal pools to be protected. The group also discussed the alignments of Eagles Nest and Douglas Roads. In 2006, the Sacramento County Department of Economic Development presented recommendations to the Board which would change Mather Field Specific Plan land use designations and initiate amendments to the adopted General Plan and Mather Field Specific Plan (Sacramento County, 2006). The Board approved the recommendations, which authorized initiation of CEQA review and preparation of applications to regulatory agencies for necessary permits to develop the approved land uses. Subsequent to Board approval, the County Department of Economic Development submitted seven permit applications to the USACE to develop the project site. These permit applications include changes from the 2006 land use

configurations approved by the Board, including the removal of some "protected areas" and the enlargement of the proposed Preserve.

In January 2012, , the U.S. Fish and Wildlife Service issued the *Biological Opinion for the Disposal of the Former Mather Air Force Base, Sacramento County, California, January 24, 2012* (2012 BO, included as Appendix PD-3 of this EIR). The 2012 BO contemplates future development of Mather Field consistent with the proposed project and assesses the impacts to special status species and habitat consistent with the provisions of the Endangered Species Act.

The 2012 BO indicates that the transfer of Mather Air Force Base will not result in any direct effects to vernal pool crustaceans or grasses but the transfer of the base will facilitate an adverse indirect effect to federally listed species because the County has proposed development at Mather Field that is reasonably certain to occur post transfer.

The 2012 BO states that the County has submitted permit application proposals to the US Army Corps of Engineers (Corps) for environmental review of development covering approximately 1,900 acres of Mather Field. According to the 2012 BO, this development is expected to result in direct effects to approximately 34 acres of vernal pool habitat and potential indirect effects to approximately 8 acres. The 2012 BO also indicates that as part of the redevelopment proposal for Mather Air Force Base a 1,272 acre preserve will be created. Figure 1 of the 2012 BO shows the proposed developable portion of Mather Field and the proposed preserve area.

The 2012 BO concludes that the effects and cumulative effects of the proposed Action (transfer of Mather Air Force Base) is not likely to jeopardize the continued existence of vernal pool fairy shrimp, vernal pool tadpole shrimp, Sacramento Orcutt grass, slender Orcutt grass, vernal pool fairy shrimp critical habitat or vernal pool tadpole shrimp critical habitat. Additionally, the BO states that, although the future development by the County will likely adversely affect the species and designated critical habitat, the proposed project establishes a Preserve that protects, in perpetuity, a large, contiguous portion of the highest quality habitat on Mather Field which will contribute to the long-term preservation and management of vernal pool habitat in an area that is critical for the species' survival and recovery, and includes a large portion of the Mather critical habitat units and the Mather Core area.

Finally, the 2012 BO indicates that future development proposals at Mather Field that may incidentally take federally listed species or adversely affect critical habitat are required to be in compliance with either Section 7 or Section 10 of the Endangered Species Act, as appropriate. In the case of Section 7 consultation, an Incidental Take Statement with Reasonable and Prudent Measures and Terms and Conditions to minimize take will be issued with the Biological Opinion. Section 10 will require development of an HCP and issuance of an Incidental Take Permit. The conclusion that the effects to vernal pool crustaceans in the form of direct effects to 34 acres and indirect effects to 8 acres of vernal pool wetland habitat are not likely to jeopardize the continued existence of these species, and that the effects to vernal pool critical habitat are not likely to cause adverse modification to the critical habitat, will apply to future

development at Mather Field by the County. However, these conclusions may need to be reassessed in future Section 7 consultation or Section 10 permit process if it is determined that significant changes have occurred in the baseline of the species or critical habitat that may influence the jeopardy or adverse modification analysis.

The U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. EPA and California Department of Fish and Wildlife approved the Interim Mather Wetlands Management Plan (IWMP) in the second quarter of 2014. This approval of the IWMP meets the endangered species and wetlands protection requirements laid out in the Supplemental Record of Decision referenced above. The IWMP was approved and adopted by the County Board of Supervisors in February of 2015. ~~**which will allow for the IWMP and Preserve Manager to be in place and active in the 3rd quarter of 2015.**~~

The Board of Supervisors conducted a public hearing on the project on September 16, 2015, at which public testimony against the proposed project was given. Based on the feedback from the public the Board chose not to take action on the project at that time and directed staff to engage in a collaborative process with key stakeholders, to work through technical issues and define a concept plan that focused on the concerns that were raised during the hearing. These concerns included: the incompatibility of the regional sports park and university due to additional traffic, noise, and lighting; and the potential for the Zinfandel Drive alignment and proposed sewer infrastructure to adversely affect important wetland resources. Through the collaboration process, the County has made changes to the proposed project to address the concerns of the community and allow for additional preservation of wetland resources.

The proposed project is intended to further the efforts taken to facilitate the reuse of the former Mather AFB. The elements of the project are to modify the text of the Mather Field Specific Plan and Special Planning Area documents to better reflect the current uses in the project area and to the align the site to be more accessible to improvements consistent with previous actions and recommendations noted above including the protection of biological resources and non-aviation reuse goals.

SETTING

The project site totals approximately 5,400 acres and approximately 2,500 acres has been developed for many years. The primary development in the area is Mather Airport which was once utilized as an Air Force base that was established in 1918. The area is also developed with buildings, roads and other infrastructure to support the airport. Additional development in the project area includes a regional park, 1,271 single family residential housing units, schools, a golf course and the Federal Aviation Administration's Northern California Terminal Radar Control facility. The Folsom South Canal runs along the eastern boundary of the site. Approximately 2,500 acres of the project site are currently developed or utilized while approximately 2,900 acres are undeveloped. The majority of the existing development is located on the northern

portion of the site and the bulk of the undeveloped portion of the site contains annual grasslands with some wetlands, vernal pools and wooded areas distributed throughout.

Although undeveloped, much of the landscape has been modified by past military activities. Some additional areas were modified by grading activities conducted for roadway improvements, recreation facilities and the construction of the Folsom South Canal. Additionally, the vegetation is dominated by non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, that have replaced native perennial grasslands and scrub as a result of human disturbance.

PROJECT PROPONENTS

APPLICANT/OWNER

Sacramento County
Office of Economic Development and Marketing
Attn: Clark Whitten

~~OWNER~~ APPLICANT

Mather South, LLC
Attn: Phil Rodriguez

~~OWNER~~ APPLICANT

Mather South, LLC
Attn: Brian Masterman

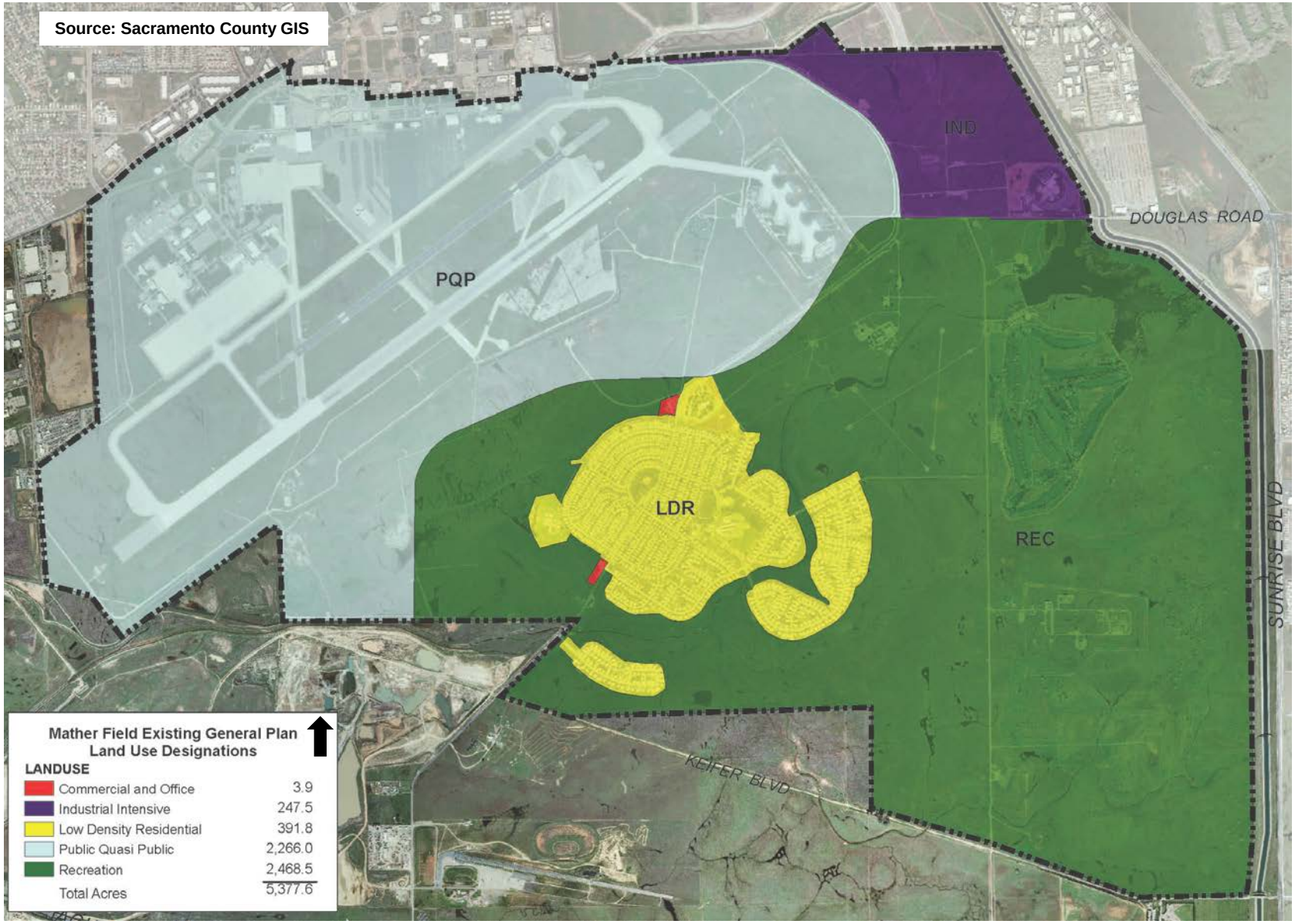
PROJECT PROPOSAL

The applicant is requesting to amend the Sacramento County General Plan, the Mather Field Specific Plan (refer to Appendix PD-1) and the Zoning Ordinance of the Mather Field Special Planning Area (refer to Appendix PD-2). The requested amendments to the General Plan will increase land designated for Intensive Industrial uses by approximately **~~446~~ 420** acres, and land designated for Low Density Residential by approximately 1 acre. The amendments will also decrease land designated as Public Quasi-Public by approximately **~~486~~ 660** acres and Recreation by approximately **~~1,812~~ 1,985** acres. Additionally, the requests will add approximately 68 acres of the Extensive Industrial-Aggregate Resources land use designation, ~~1,272~~ **1,383** acres of the Natural Preserve-Resource Conservation-Protected land use designation and **~~512~~ 774** acres of the Urban Development Area (UDA) land use designation within the project area (refer to Plate PD -3 and Plate PD -4). The requested General Plan Amendment will also amend the language contained in the General Plan Land Use Element defining the UDA Land Use Designation.

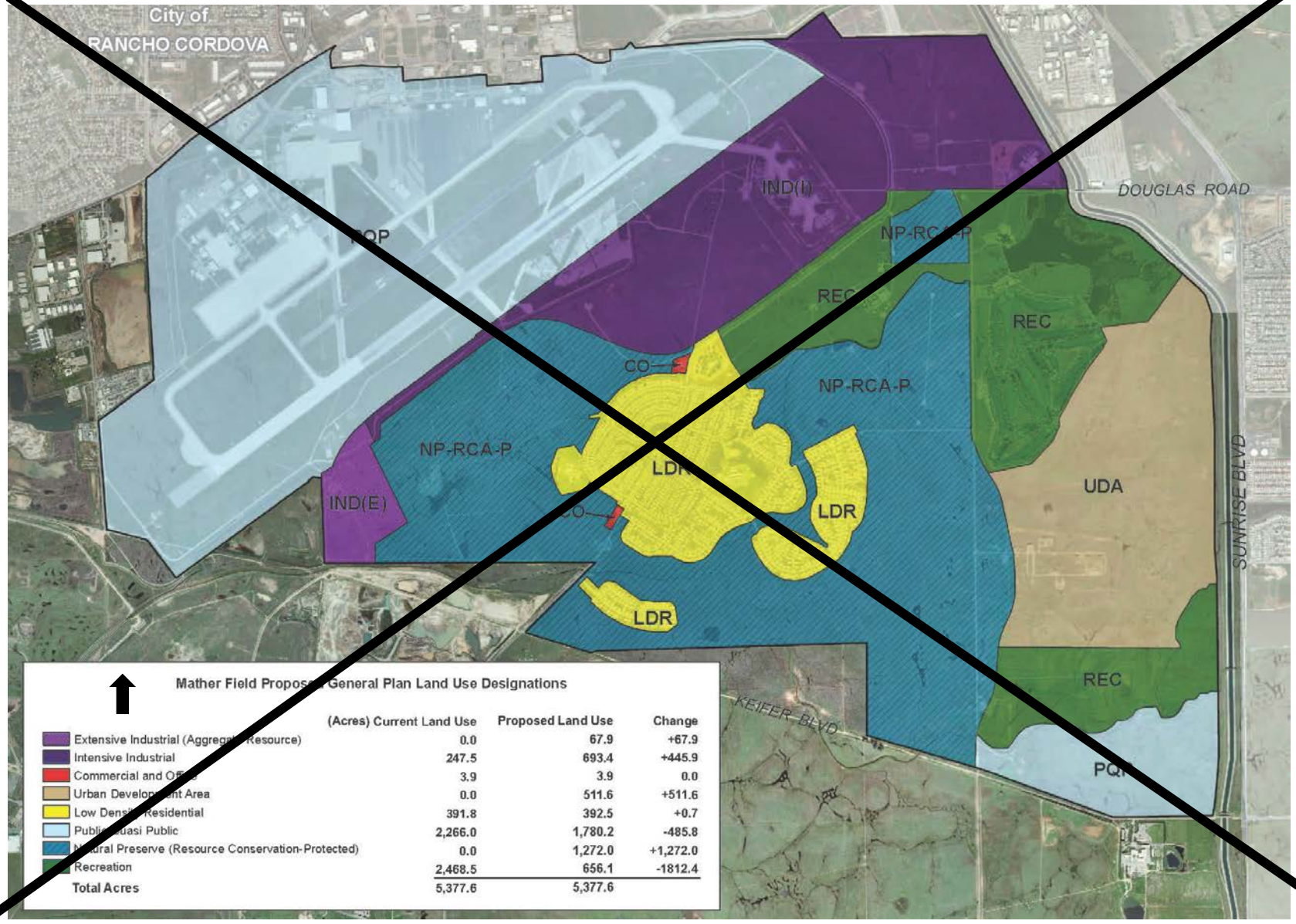
The requested amendment to the Mather Field Specific Plan will add the Extensive Industrial, Intensive Industrial, Natural Resource-Protected and Urban Development

Area Land Use Designations to the Specific Plan (refer to Plate PD -5 and Plate PD -6). Additionally, the proposal will alter the acreages of each of the existing land use designations of the Specific Plan and will result in the removal of references to lands currently within the City of Rancho Cordova. The following table details the land use acreage changes proposed for the Mather Field Specific Plan.

Plate PD -3: Existing Mather Field General Plan Land Use Designations

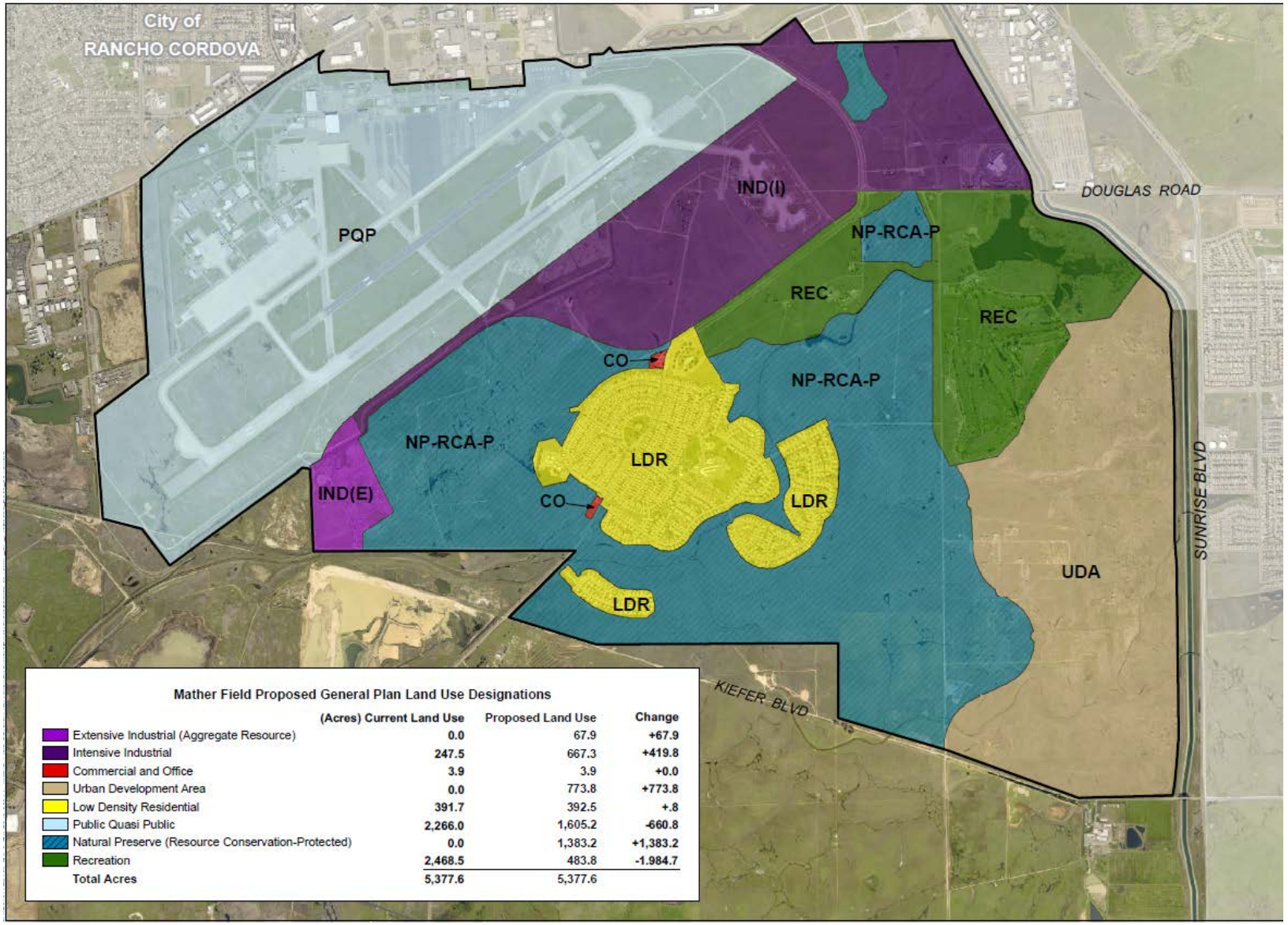


~~Plate PD -4: Proposed Mather Field General Plan Land Use Designations~~



	(Acres) Current Land Use	Proposed Land Use	Change
Extensive Industrial (Aggregate Resource)	0.0	67.9	+67.9
Intensive Industrial	247.5	693.4	+445.9
Commercial and Office	3.9	3.9	0.0
Urban Development Area	0.0	511.6	+511.6
Low Density Residential	391.8	392.5	+0.7
Public/Quasi Public	2,266.0	1,780.2	-485.8
Natural Preserve (Resource Conservation-Protected)	0.0	1,272.0	+1,272.0
Recreation	2,468.5	656.1	-1812.4
Total Acres	5,377.6	5,377.6	

Plate PD-4: Proposed Mather Field General Plan Land Use Designations (Revised)

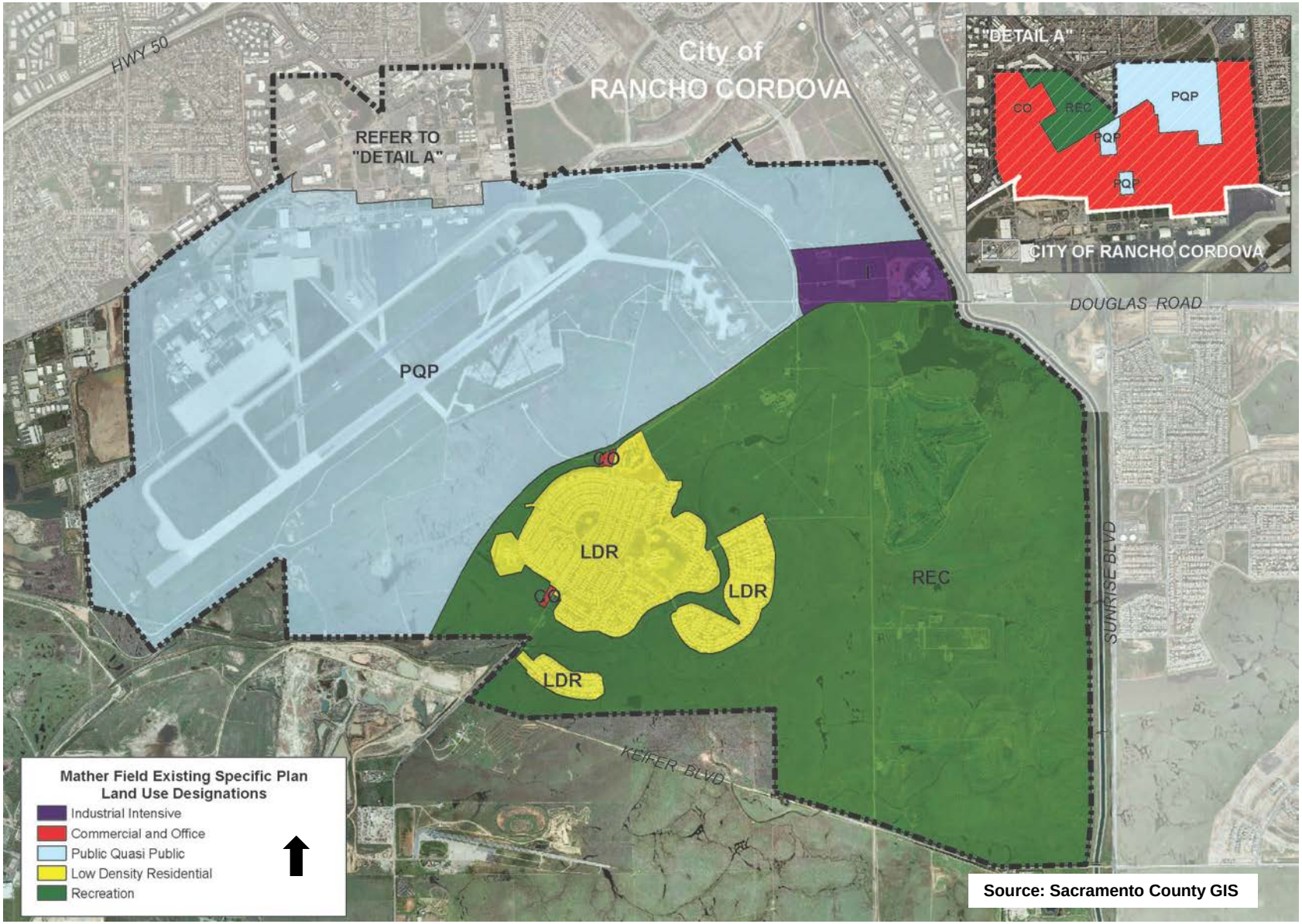


Mather Field Proposed General Plan Land Use Designations

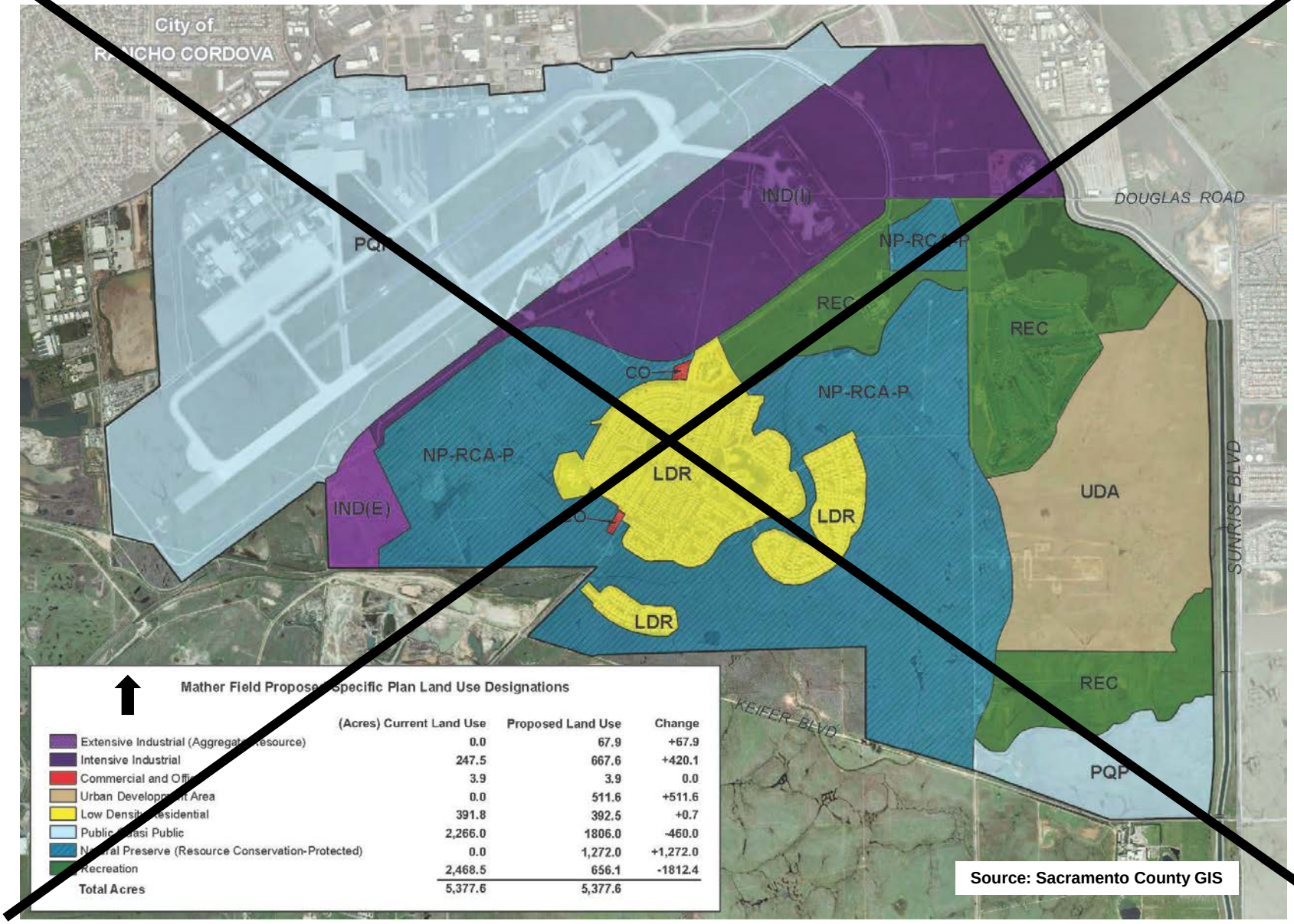
	(Acres) Current Land Use	Proposed Land Use	Change
Extensive Industrial (Aggregate Resource)	0.0	67.9	+67.9
Intensive Industrial	247.5	667.3	+419.8
Commercial and Office	3.9	3.9	+0.0
Urban Development Area	0.0	773.8	+773.8
Low Density Residential	391.7	392.5	+.8
Public Quasi Public	2,266.0	1,605.2	-660.8
Natural Preserve (Resource Conservation-Protected)	0.0	1,383.2	+1,383.2
Recreation	2,468.5	483.8	-1.984.7
Total Acres	5,377.6	5,377.6	

Source: Sacramento County GIS

Plate PD -5: Existing Mather Field Specific Plan Land Use Designations



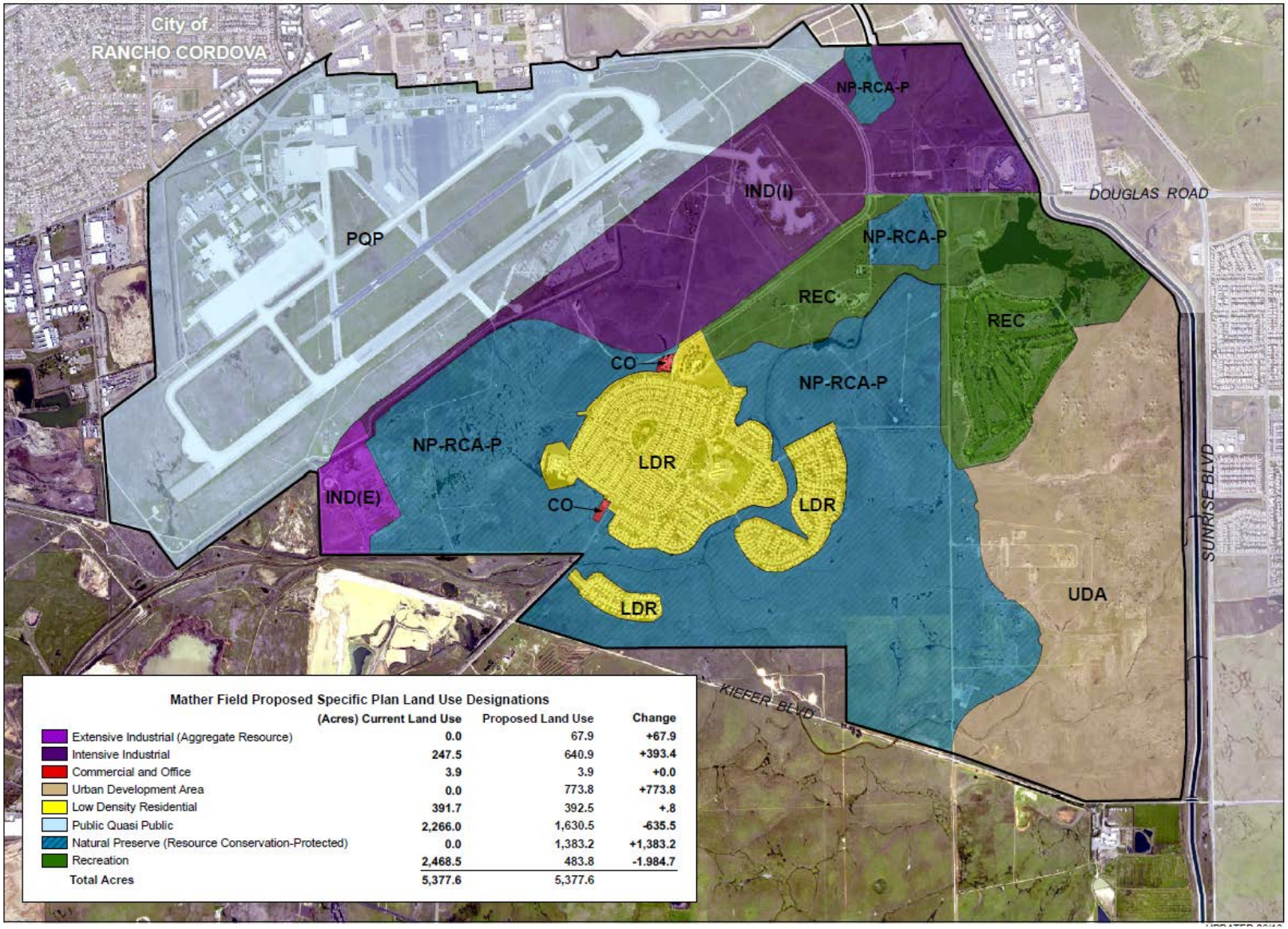
~~Plate PD -6: Proposed Mather Field Specific Plan Land Use Designations~~



Mather Field Proposed Specific Plan Land Use Designations

	(Acres) Current Land Use	Proposed Land Use	Change
Extensive Industrial (Aggregate Resource)	0.0	67.9	+67.9
Intensive Industrial	247.5	667.6	+420.1
Commercial and Offi	3.9	3.9	0.0
Urban Development Area	0.0	511.6	+511.6
Low Density Residential	391.8	392.5	+0.7
Public/Quasi Public	2,266.0	1806.0	-460.0
Natural Preserve (Resource Conservation-Protected)	0.0	1,272.0	+1,272.0
Recreation	2,468.5	656.1	-1812.4
Total Acres	5,377.6	5,377.6	

Plate PD-6: Proposed Mather Field Specific Plan Land Use Designations (Revised)



Mather Field Proposed Specific Plan Land Use Designations

	(Acres) Current Land Use	Proposed Land Use	Change
Extensive Industrial (Aggregate Resource)	0.0	67.9	+67.9
Intensive Industrial	247.5	640.9	+393.4
Commercial and Office	3.9	3.9	+0.0
Urban Development Area	0.0	773.8	+773.8
Low Density Residential	391.7	392.5	+.8
Public Quasi Public	2,266.0	1,630.5	-635.5
Natural Preserve (Resource Conservation-Protected)	0.0	1,383.2	+1,383.2
Recreation	2,468.5	483.8	-1.984.7
Total Acres	5,377.6	5,377.6	

Table PD-1: Mather Field Specific Plan Land Use Acreage Changes

Land Use	Existing Acreage	Proposed Acreage
Public/ Quasi-Public	2,266	**~~1,806~~1,630.5**
Extensive Industrial	0	67.9
Intensive Industrial	247.5	**~~667.6~~642.0**
Low Density Residential	391.8	392.5
Recreation	2,468.5	**~~656.1~~483.8**
Commercial and Office	3.9	3.9
Urban Development Area	0	**~~511.6~~773.8**
Natural Resources-Protected (open space preserve area)	0	**~~1,272~~1,383.2**
*Public/ Quasi-Public**	*67*	*0*
*Recreation**	*34*	*0*
*Commercial and Office**	*209*	*0*
Totals	5,708	**~~5,387~~5,377.6**

* Land use acreages are in the City of Rancho Cordova and will be removed from Sacramento County's Mather Field Specific Plan.

The Zoning Ordinance Amendment will result in a number of changes to the text of the Mather Field Special Planning Area Zoning Ordinance. The proposed changes include:

- Requirements to prepare a specific plan pursuant to the Sacramento County General Plan 2030 with respect to diversity of housing choice, infrastructure, finance and services planning, jobs/housing goals and similar analyses,
- The addition of a Natural Preserve Land Use District,
- The addition of an Urban Development Area Land Use District, and
- The clarification of the allowed uses within the Commercial Recreation District by inclusion of language expressly stating that a university is a conditionally permitted use.

Additionally, the proposal will alter the acreages for a number of the allowed uses and will alter the allowed activities in the Industrial District. The Industrial District area at the southwest corner of the Special Planning Area will include a Surface Mining overlay in the area once utilized by the Air Force as a wastewater treatment plant site (refer to Plate PD -7 and Plate PD -8). The Surface Mining overlay **identifies lands that have been designated by the State Mining and Geology Board (SMGB) as containing important and significant mineral resources.** **~~will allow for future mining operations subject to approval of a conditional use permit by the Board of Supervisors after receipt of a recommendation by the Planning Commission and upon approval of a reclamation plan and financial assurances pursuant to Chapter 20.04 of the County Code.~~**

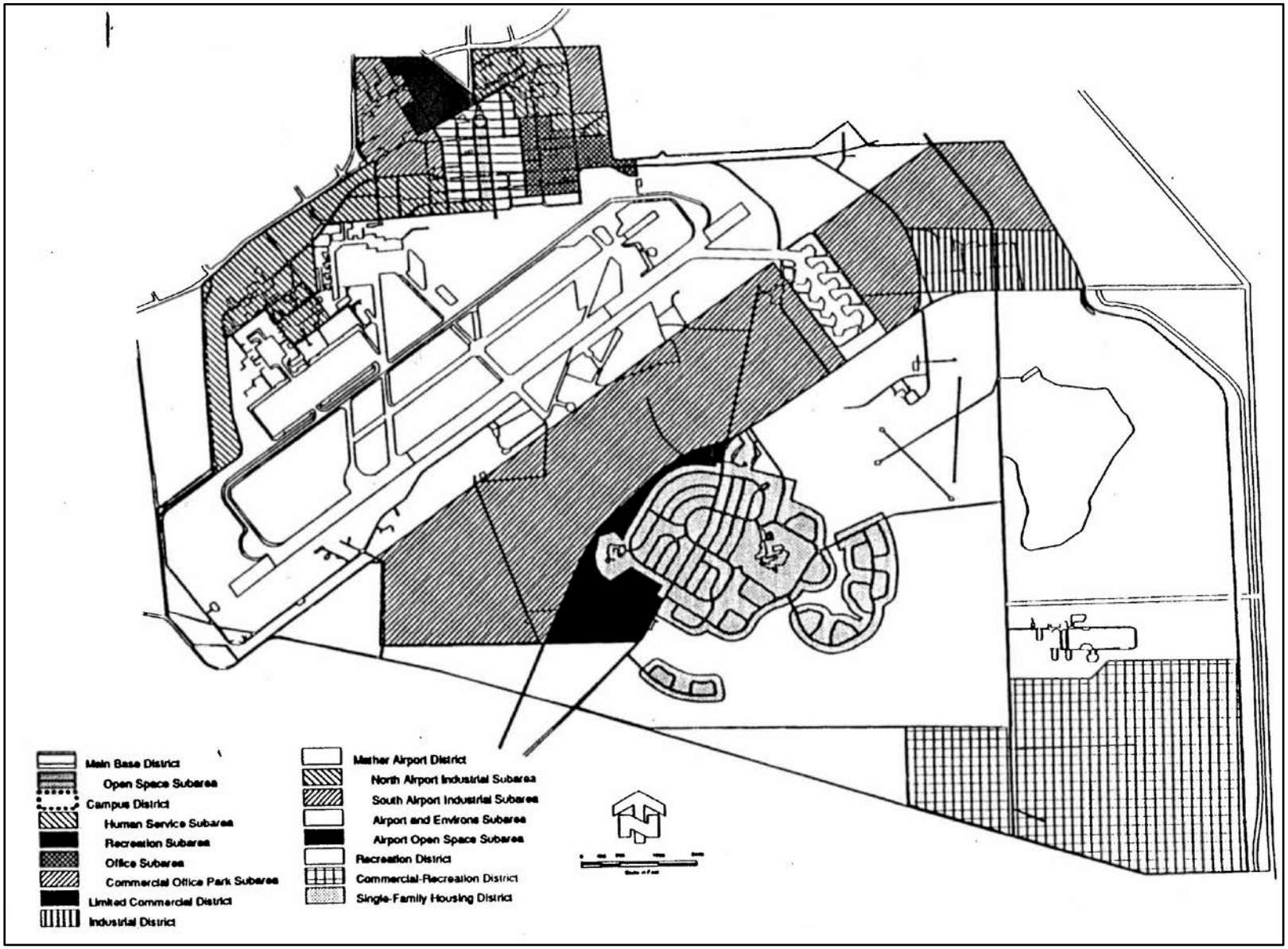
Through the stakeholder process, County staff was made aware of some confusion regarding the definition and intent of the Surface Mining overlay. The

proposed combining designation and the definition contained in the General Plan Land Use Element were interpreted by some to mean that mining was a foregone conclusion. However, as stated above, these areas are designated by the SMGB as containing important and significant mineral resources, and local jurisdictions are required to identify the same mineral resource areas within their General Plans pursuant to the Governor's Office of Planning and Research guidance. This General Plan designation is intended to inform the public and decision makers when making land use decisions that may affect the ability to extract important mineral resources.

In Sacramento County, the Aggregate Resource Area combining designation is the land use planning tool used to comply with State regulations. The Aggregate Resource Area combining designation does not permit mining activities outright. A separate Use Permit process, including environmental review and coordination with the State Office of Mining and Reclamation, is required before mining activity can occur. Furthermore, such requests for a conditional use permit for future mining operations are subject to approval by the Board of Supervisors after receipt of a recommendation by the Planning Commission and upon approval of a reclamation plan and financial assurances pursuant to Chapter 20.04 of the County Code.

The project proposal also includes a request to amend the General Plan Transportation Diagram to reflect a proposed realignment of Zinfandel Drive (refer to Plate PD -9). **Through the stakeholder process in 2015 and 2016, a total of nine possible alignments were developed, analyzed, and considered for the segment of the roadway south of Mather Golf Course. The preferred alignment is used in this Revised Final EIR as the Proposed Project. The remaining alignment alternatives are analyzed in Chapter 3, Alternatives.**

Plate PD -7: Existing Mather Field Special Planning Area



~~Plate PD -8: Proposed Mather Field Special Planning Area~~

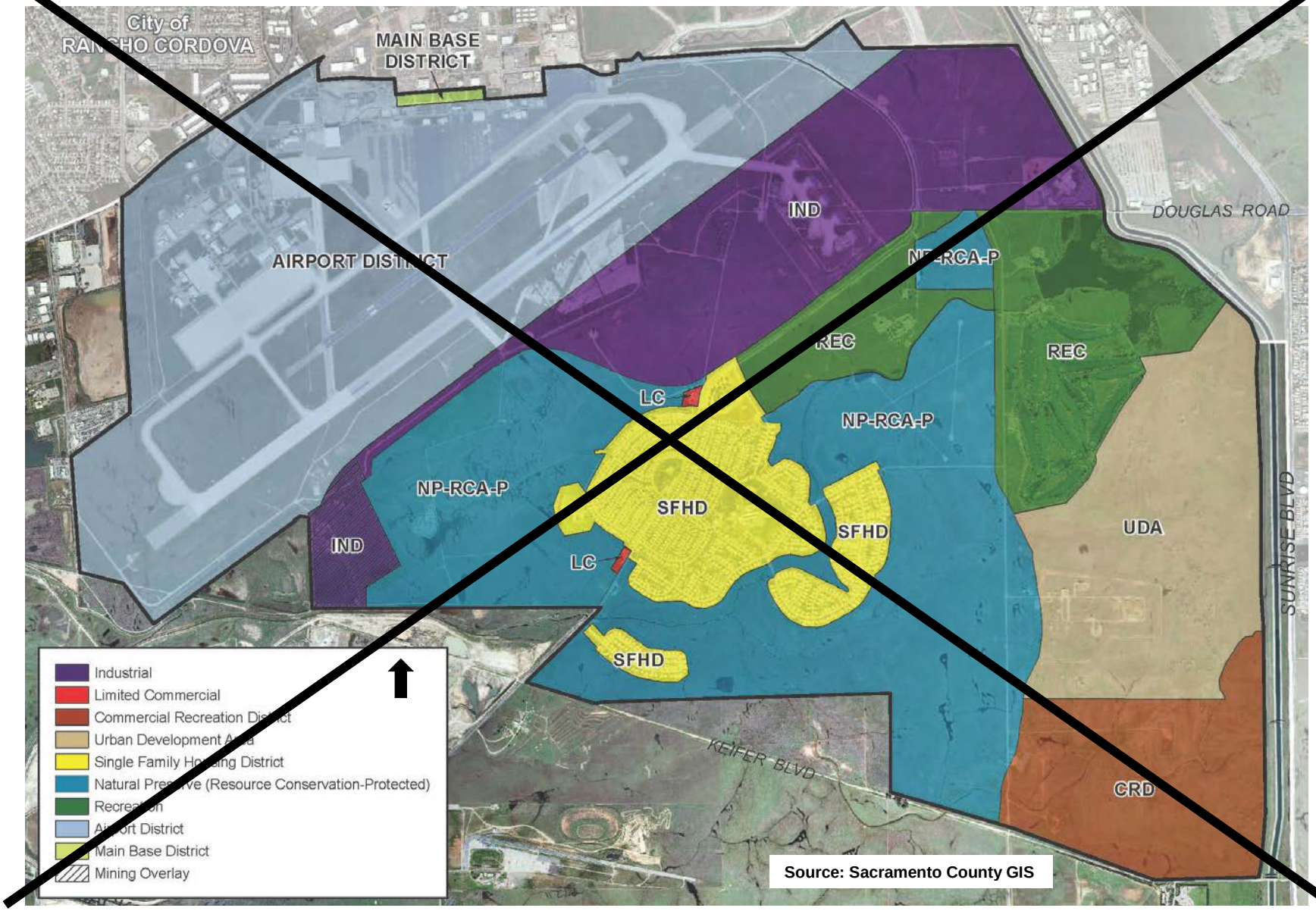
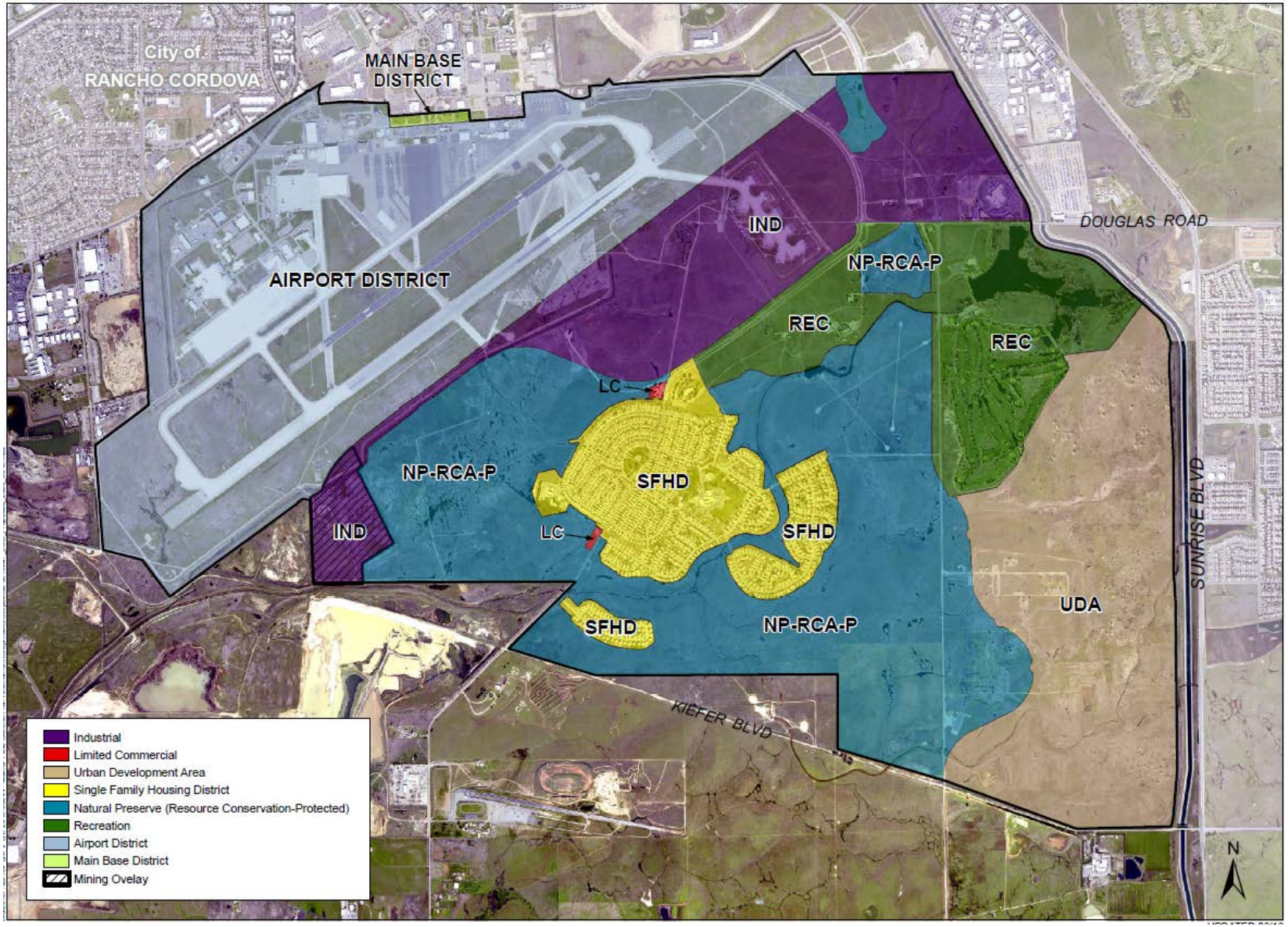


Plate PD-8: Proposed Mather Field Special Planning Area (Revised)



~~Plate PD -9: Proposed General Plan Transportation Diagram Amendment~~

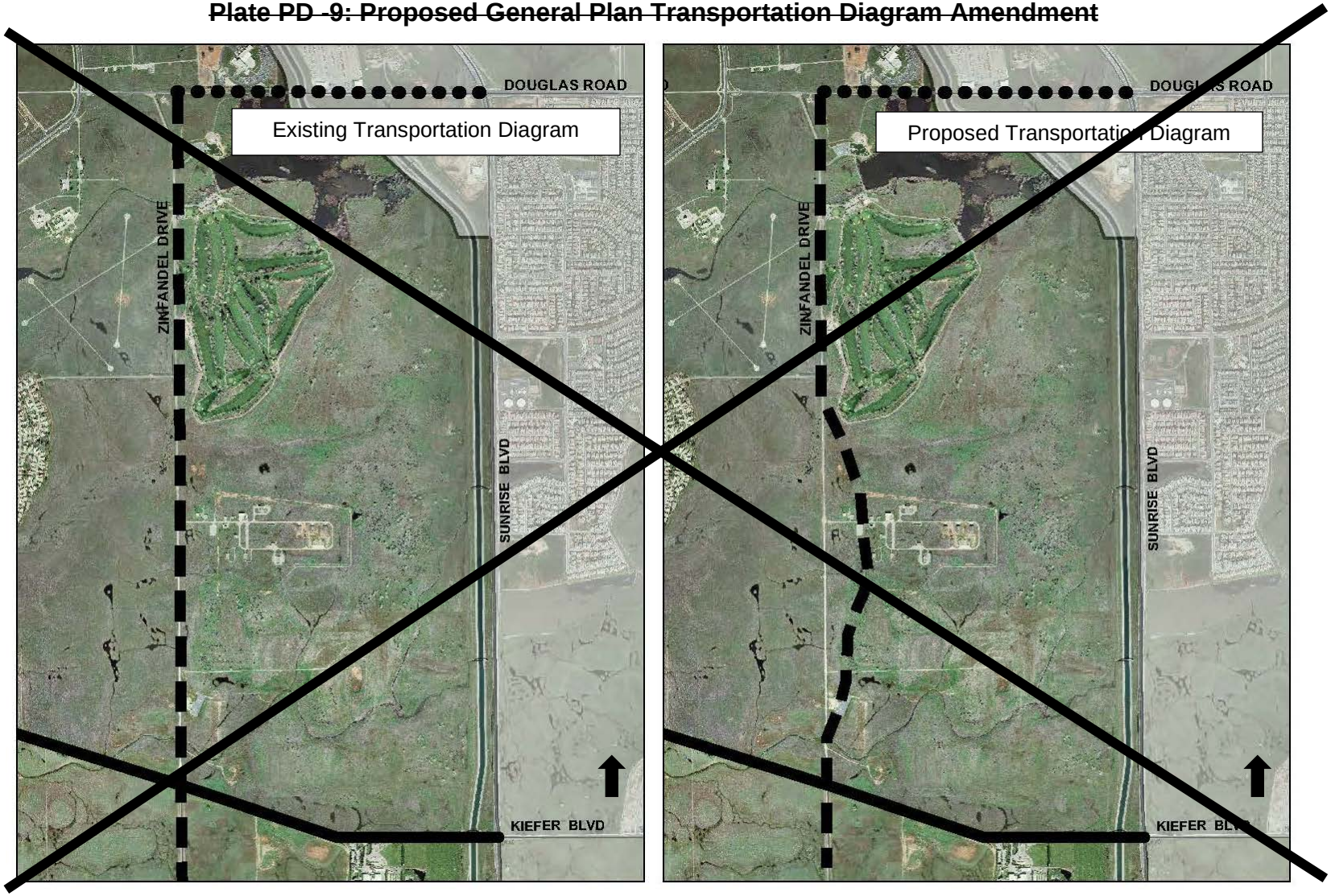
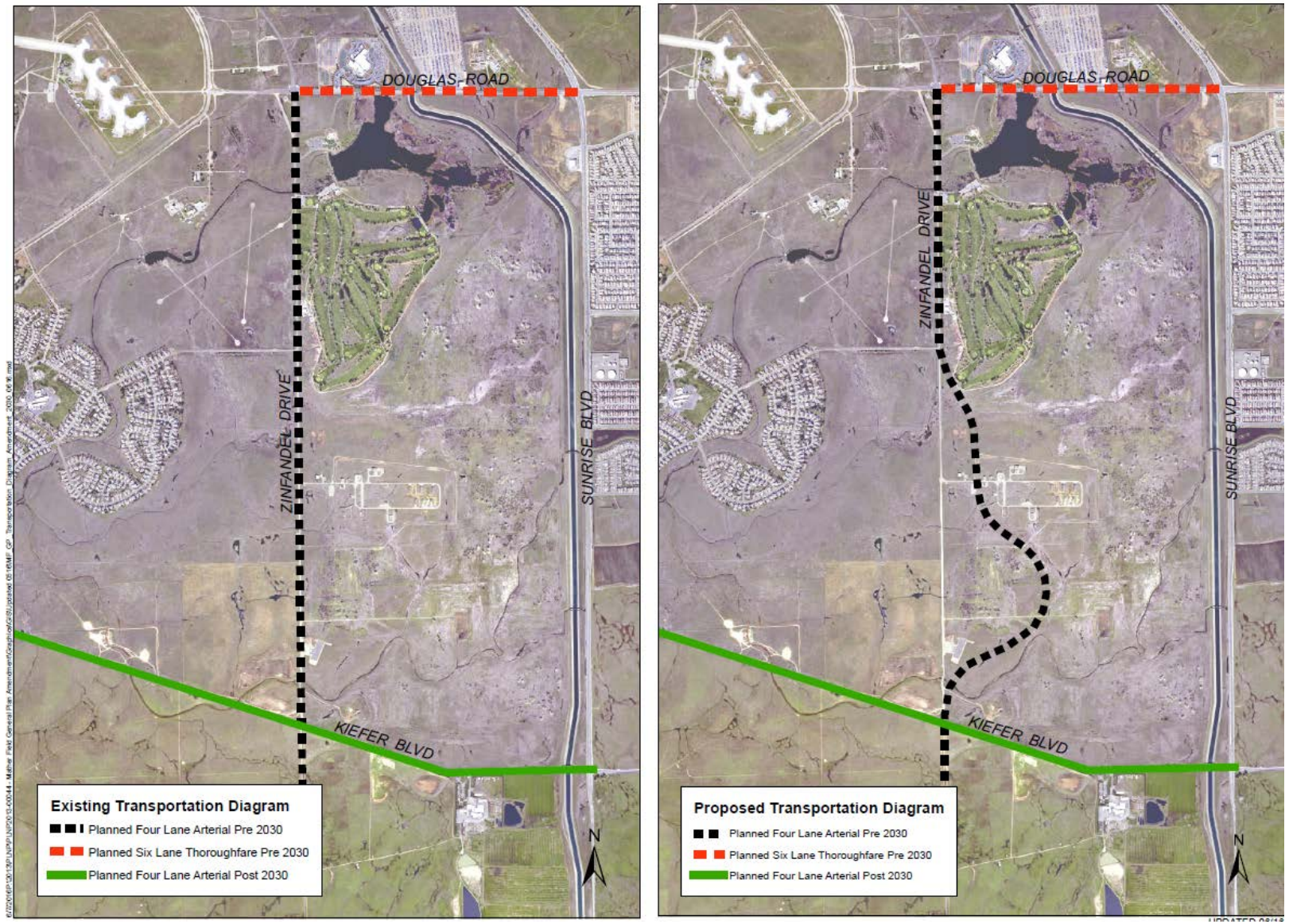


Plate PD-9: Proposed General Plan Transportation Diagram Amendment



Although land use designation changes are requested, this project does not include any specific development proposals. Accordingly, the environmental analysis for the land use designation amendments will be programmatic. **It should be noted that although a Natural Preserve Land Use Designation is proposed for a large portion of the project site, this document does not cover any physical improvements related to the preserve area, the adoption of a management plan or assess any impacts that may result from restoration activities within the proposed preserve.**

Although the project proposal does not include any development proposals it does include ~~the~~ **a partial** extension **and improvements** of Zinfandel Drive and a sewer line extension that will result in physical alterations in the project area. **The analysis in this EIR is project specific for these improvements, so additional environmental documentation will not be necessary. The remainder of the proposed Zinfandel Drive alignment south of the proposed project-specific improvements has been analyzed at a programmatic level in this EIR, so additional environmental documentation may be necessary in the future prior to the construction of the remainder of Zinfandel Drive.** ~~**It should be noted that although a Natural Preserve Land Use Designation is proposed for a large portion of the project site, this document does not cover any physical improvements related to the preserve area, the adoption of a management plan or assess any impacts that may result from restoration activities within the proposed preserve.**~~ The proposed **project-specific portion of the** Zinfandel Drive extension improvements include a two-lane roadway from approximately 900 feet south of Douglas Road (the existing southern terminus of the recently extended Zinfandel Drive) to approximately 2,100 feet south of Woodring Drive, including T-intersection improvements at Woodring Drive (refer to Plate PD -10). Zinfandel Drive will be paved to a 36 foot width and will have two travel lanes measuring 12 feet in width and six foot wide paved multipurpose lanes on both sides of the roadway. The southernmost 2,100 feet of the proposed **project-specific** Zinfandel Drive alignment is planned to be shifted east from its current alignment in order to accommodate the creation of a large preservation area west of Zinfandel Drive. Temporary improvements related to the construction of Zinfandel Drive are a temporary gravel access road and a temporary gravel parking area located north of the existing parking lot for the Mather Regional Park. The temporary access and parking area is to maintain access and provide suitable parking space for visitors to Mather Golf Course during construction.

As a part of the roadway construction, four cross-drainage structures (box culverts or large diameter pipe with headwall structures) will be improved or constructed to convey flows beneath the roadway. Small retaining walls on the west side of the roadway where topography fluctuates adjacent to the proposed Zinfandel Drive will be constructed in order to minimize the roadway footprint alignment at several locations.

The proposed sewer line extension would be built within ~~**The proposed sewer line improvements will be located in**~~ **the existing or proposed right of way of Zinfandel Drive from North Mather Boulevard in the City of Rancho Cordova, north of the proposed roadway improvements, to approximately 2,100 feet south of Woodring**

Drive (refer to Plate PD -10), consistent with the terminus on the proposed roadways improvements. The sewer line will connect with the 66 inch Bradshaw Interceptor at the intersection of Zinfandel Drive and North Mather Boulevard. The depth of the sewer line will vary to allow for gravity flow to the north and will have a maximum cover of 35 feet. Like the remainder of the proposed Zinfandel Drive alignment, the sewer line would eventually be extended beyond the currently proposed terminus of the improvements 2,100 feet south of Woodring Road, and the construction of those future improvements are analyzed in this EIR at a programmatic level.

The roadway and sewer extension will be able to accommodate development consistent with the existing uses planned for the area that are included in Mather Field Specific Plan and SPA as well as uses consistent with the proposed project. The existing Specific Plan and SPA recreation land use designation for the area among the southern extent of the proposed roadway improvements, provides areas for active public recreation including community parks and County parks. The Mather Regional Park Land Use Plan shown on page 37 of the existing Mather Field Specific Plan document shows the area approximately 1,200 feet south of Woodring Road as an area with a commercial park complex and just east of that, a velodrome. One of the many objectives of the existing Mather Field Specific Plan that speaks to the redevelopment of Mather Field is to create a new commercial recreational attraction, such as a theme park or a major institutional use at the southeast corner of the site.

According to the Mather Field SPA, the Commercial Recreation District located at the southeastern portion of Mather Field allows for uses in the Recreation (O) Zone as listed in the Zoning Code as well as indoor and outdoor recreational facilities, active sports complex buildings, campgrounds, County office buildings, and County Regional Parks corporation yard. Any of these uses would be required to utilize public sewer facilities and connect to the public sewer system. Sewer infrastructure will be required with or without the proposed project to serve anticipated development consistent with the Mather **Field** Specific Plan and Mather **Field** SPA. Additionally, these uses would require adequate access and the extension of roadway facilities to serve them. Also, the General Plan Transportation Diagram identifies Zinfandel **Drive** as an arterial to be developed by the year 2030.

The Sacramento Area Sewer District (SASD) 2010 System Capacity Plan (Capacity Plan) includes an expansion plan for sewer facilities along Zinfandel Drive and identifies the proposed sewer extension as a needed facility to be developed by 2020. Figure A.8-3 of the 2010 Capacity Plan shows that needed facilities along Zinfandel Drive include a gravity main from North Mather Boulevard in the City of Rancho Cordova to just north of Kiefer Boulevard. The project includes sewer infrastructure improvements consistent within the identified improvements of the SASD Capacity Plan.

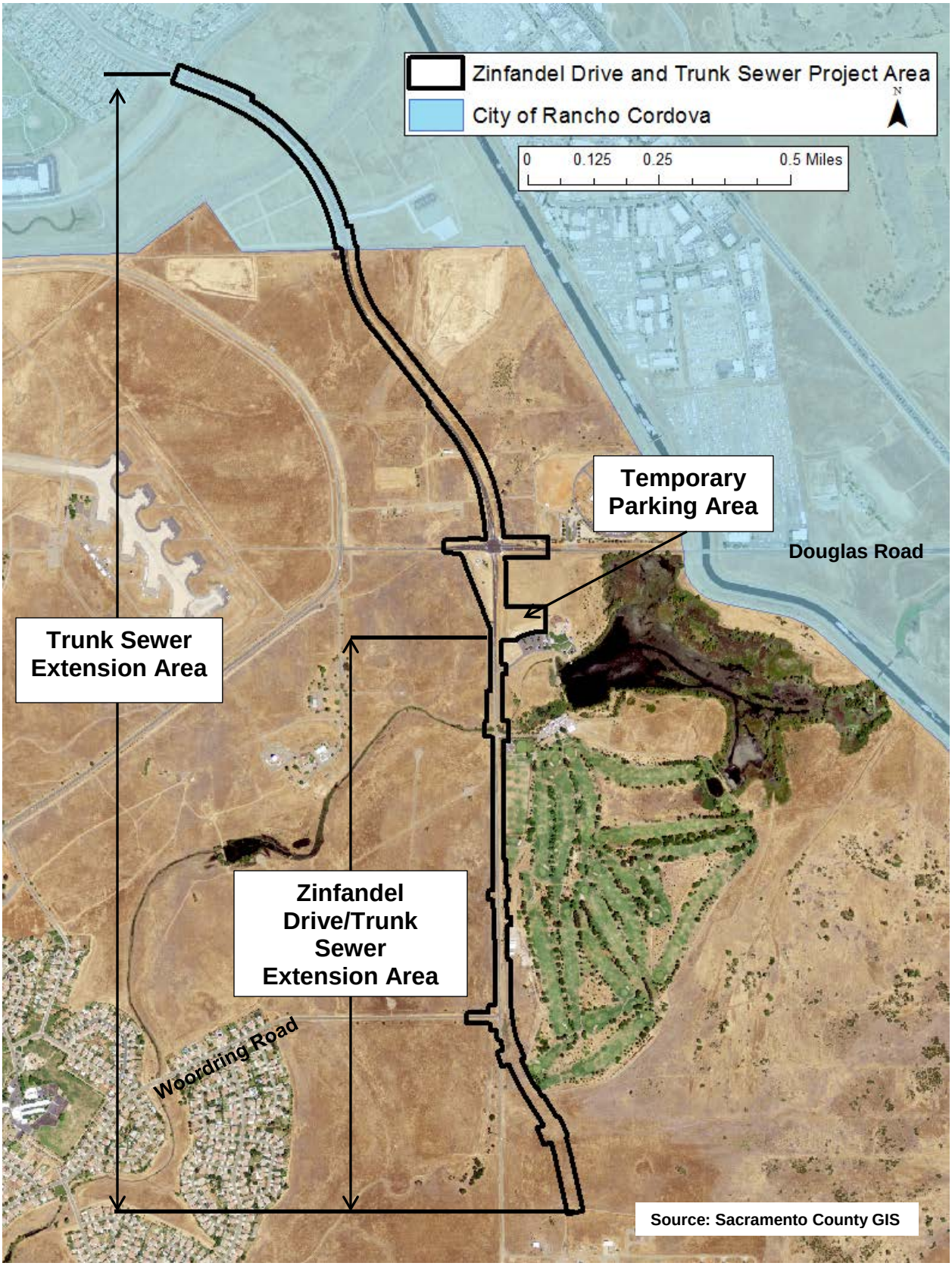
~~**As a part of the roadway construction, four cross-drainage structures (box culverts or large diameter pipe with headwall structures) will be improved or constructed to convey flows beneath the roadway. Small retaining walls on the west side of the roadway where topography fluctuates adjacent to the proposed**~~

~~**Zinfandel Drive will be constructed in order to minimize the roadway footprint alignment at several locations.**~~

~~**The proposed sewer line improvements will be located in the existing or proposed right of way of Zinfandel Drive from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive (refer to Plate PD -10). The sewer line will connect with the 66 inch Bradshaw Interceptor at the intersection of Zinfandel Drive and North Mather Boulevard. The depth of the sewer line will vary to allow for gravity flow to the north and will have a maximum cover of 35 feet.**~~

~~**Currently, only interim roadway improvements are proposed for Zinfandel Drive south of Douglas. However, this EIR analyzes roadway impacts based on the ultimate build out widths in order to provide a conservative impact assessment and to capture impacts associated with roadway construction consistent with the ultimate roadway designations for Zinfandel Drive.**~~

Plate PD -10: Zinfandel Drive and Trunk Sewer Extension



REQUESTED ENTITLEMENTS

1. A **General Plan Amendment** to amend the Land Use Diagram from Intensive Industrial (247.5± acres), Low Density Residential (391.8± acres), Public Quasi-Public (2,266± acres), Commercial and Office (3.9± acres) and Recreation (2,468.5± acres) to Extensive Industrial-Aggregate Resources (67.9± acres), Intensive Industrial (~~693.4~~ **667.3**± acres), Low Density Residential (392.5± acres), Natural Preserve- Resource Conservation-Protected (~~1,272~~ **1,383**± acres), Public Quasi-Public (~~1,780.2~~ **1,605.2**± acres), Recreation (~~656.1~~ **483.8**± acres), Commercial and Office (3.9± acres) and Urban Development Area (~~511.6~~ **773.8**± acres) for approximately 5,377.6 acres. Note: the Land Use Diagram changes in the Mather Airport and Commercial and Office areas of the project site and the Independence at Mather housing development area result in only minor modifications to the existing designations, and no change to the allowed uses, in those areas.
2. An **Amendment to the General Plan Transportation Diagram** to reflect a proposed realignment of Zinfandel Drive.
3. A **General Plan Amendment** to amend language contained in the Land Use Element defining the Urban Development Area (UDA) Land Use Designation.
4. A **Specific Plan Amendment** to amend the Mather Field Specific Plan, including addition of Natural Resources-Protected, and Urban Development Area Land Use Designations and to remove areas within the City of Rancho Cordova from the Specific Plan.
5. A **Zoning Ordinance Amendment** of the Mather Field Special Planning Area (SPA) (SZC 97-0021, Section 603) encompassing a number of changes to the SPA text and exhibits to accommodate new Natural Preserve and Urban Development Area Land Use Districts, to clarify allowed uses in the Commercial Recreation District and to remove areas within the City of Rancho Cordova from the Special Planning Area ordinance. Note: the SPA changes in the existing Mather Airport District, and Single Family Residential District (Independence at Mather) result in only minor modifications to, and no change to the allowed uses in, those areas.

PROJECT OBJECTIVE

As stated above, the project is intended to provide for new development and economic opportunities within the County and to provide services for County residents and visitors. The overall objective is to provide viable commercial services and a diversity of employment opportunities located in proximity to residents. This objective parallels an objective of the General Plan Land Use Element related to commercial and industrial land uses.

3 ALTERNATIVES TO THE PROPOSED PROJECT

INTRODUCTION

CEQA requires that if a project will have a significant impact on the environment, alternatives must be considered that will avoid or lessen the impacts including alternative site locations. Section 15126.6 of the CEQA Guidelines states that an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.

This chapter does not repeat background discussions or other subject matter which has already been described in the topical chapters of this EIR, but focuses on those Alternative impacts which are substantively different than the impacts described for the Project. Reviewers are encouraged to read the topical chapters describing Project impacts prior to reading the Alternatives chapter.

PROJECT OBJECTIVES

The project is intended to provide for new development and economic opportunities within the County and to provide services for County residents and visitors. The overall objective is to provide viable commercial services and a diversity of employment opportunities located in proximity to residents. This objective parallels an objective of the General Plan Land Use Element related to commercial and industrial land uses.

RANGE OF ALTERNATIVES

According to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The purpose of this section is to identify alternative project designs that would mitigate, lessen, or avoid the significant effects of the Project. To foster meaningful public discussion and informed decision-making, a range of reasonable alternatives to the Project is provided. This range includes the “No Project” alternative, the purpose of which is to allow the hearing body to compare the impacts of approving the Project to the impacts of not approving the Project. The “No Project” alternative describes what would happen if the existing land use designations remained in effect.

The Project would result in significant impacts related to airport compatibility, air quality, biological resources, cultural resources, hazardous materials, public utilities and services, and climate change. Due to the scale of the project site and potential size of future development consistent with the proposed project, impacts related to air quality are significant and unavoidable. Changing the location or the layout of the Project could reduce impacts to some degree, but it is unlikely that they could be reduced to levels which are not significant without radically changing the objectives and scope of the Project. Additionally, changing the location of the Project would likely result in additional significant impacts that do not result from the current proposal.

Changing the location of the project could reduce impacts to biological resources and hazardous materials; however, the project site is located within the Urban Services Boundary and Urban Policy Area and adjacent to existing development and infrastructure. Siting this project in another location that can accommodate the project elements may have the potential to reduce impacts to biological resources but would likely increase impacts associated with land use consistency, air quality, climate change, public services and growth inducement.

It could be argued that the most notable impacts of the Project relate to biological resources. Changing the layout of the Project could reduce impacts to biological resources to some degree, but it is unlikely that they could be reduced to levels which are not significant without radically changing the objectives and scope of the Project. The project has been designed, in part, to minimize impacts to biological resources on the site and the Project land uses and alignment of Zinfandel Drive have been proposed in a manner that preserves the highest functioning vernal pool habitat at Mather Field.

Given that impacts to biological resources are dependent on the layout of the proposed project and biological resources impacts are notable impacts of the project, this alternatives analysis, though Alternatives are designed to reduce impacts to many topical areas, focus on Project layout and how the layout can be altered to avoid/ minimize impacts to biological resources.

In addition to the No Project Alternative, this EIR includes detailed analysis of ~~**two**~~ **other** ~~**A**~~**a**lternatives: the Existing Zinfandel Drive Alignment Alternative and the Multiple Preserves Alternative. **Through the stakeholder process described in the Preface, a total of seven new possible roadway alignments for Zinfandel Drive were designed to address some of the comments and concerns, particularly regarding impacts on wetlands. One of the new alignments was selected as the Preferred Alignment, which is used in this Revised Final EIR as the Proposed Project. The original proposed alignment is now considered Alternative 2A in this EIR.**

Each of the new proposed alignments would include the same proposed project-specific roadway and sewer improvements described in the Project Description, with the portion to be constructed immediately terminating approximately 2,100 feet south of the intersection with Woodring Drive. From that point, each of potential alignments move the alignment of Zinfandel Drive further to the east of the existing alignment of and the originally proposed alignment so that one of the

large vernal pools, known as the spadefoot pool, is not disconnected from the proposed preserve to be located west of Zinfandel Drive. Each of the potential alignments varies slightly to prioritize various factors, such as direct effects on other wetlands, indirect effects on wetlands due to microwatersheds, different areas for crossing Morrison Creek, the location of the future intersection with Kiefer Boulevard, and the potential for impacts on the land use plan of the adjacent proposed NewBridge Specific Plan to the south.

OTHER ALTERNATIVES WERE CONSIDERED BUT ULTIMATELY ELIMINATED FROM DETAILED ANALYSIS; THESE ARE ALSO DESCRIBED BELOW.DESCRIPTION OF ALTERNATIVES

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Under the No Project Alternative, lands within the project site would have the potential to be developed based on existing entitlements and currently allowed uses. Currently land use designations within the project site include Intensive Industrial, Low Density Residential, Public/ Quasi Public, Commercial and Office, Industrial intensive, and Recreation. Within these designations Shopping Center (SC), Business and Professional Office (BP), Industrial-Office Park (MP), Recreation (O), Light Industrial (M-1), Limited Commercial (LC) and Agricultural 20 (AG-20) zoning is allowed. Although Zinfandel Drive will remain designated as a six lane thoroughfare north of Douglas Road and a four lane arterial south of Douglas Road under the No Project Alternative and will remain as identified to be developed before the year 2030, without the current project the roadway and accompanying sewer infrastructure would not be developed at this time.

ALTERNATIVE 2: EXISTING ZINFANDEL DRIVE ALIGNMENT ALTERNATIVE

Under the Existing Zinfandel Drive Alignment Alternative, **shown as Alignment "A1" in Plate ALT-1,** the proposed land uses would be identical to those of the project; however, the alignment of Zinfandel Drive would remain in its current location. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive but the improvements would be located where Zinfandel Drive currently exists. The proposed project would not include an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of 850 feet, from Woodring Drive to just north of Kiefer Boulevard.

ALTERNATIVE 2A: PRIOR PROJECT ALTERNATIVE

This alternative, shown in Plate ALT-1, is the alignment that was analyzed as the preferred alignment as part of the original version of the project. The proposed land uses would be identical to the new preferred alternative. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General

Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of 850 feet, from Woodring Drive to just north of Kiefer Boulevard. This alternative would be approximately 286 feet longer in length than the existing alignment of Zinfandel Drive. The intersection with Kiefer Boulevard would remain at its currently planned location.

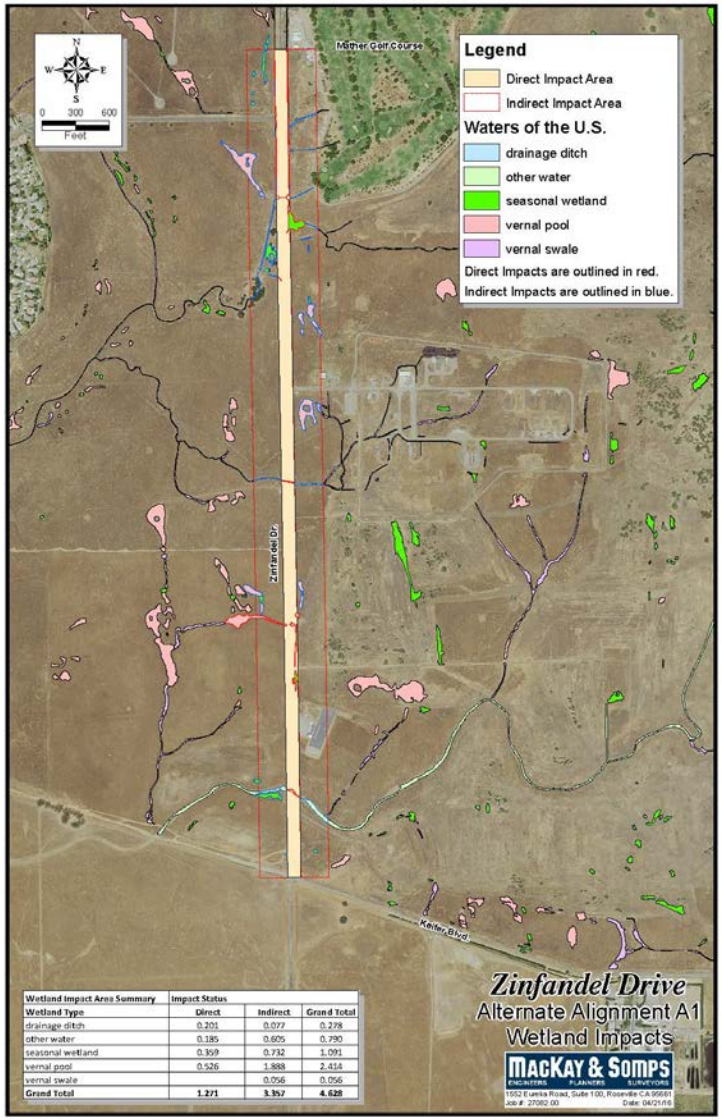
ALTERNATIVE 2B: ALIGNMENT B1 ALTERNATIVE

Under this alternative, shown in Plate ALT-2, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,700 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve to the east from the extent of the immediate improvements to avoid the spadefoot pool. This alignment would be approximately 1,145 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek approximately 600 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would remain at its currently planned location.

ALTERNATIVE 2C: ALIGNMENT B2 ALTERNATIVE

Under this alternative, shown in Plate ALT-2, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,700 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve to the east from the extent of the immediate improvements to avoid the spadefoot pool. This alignment would be approximately 1,133 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek approximately 700 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would remain at its currently planned location.

Plate ALT-1: Alignment A1 (Existing Alignment) and Alignment A2 (Prior Project)



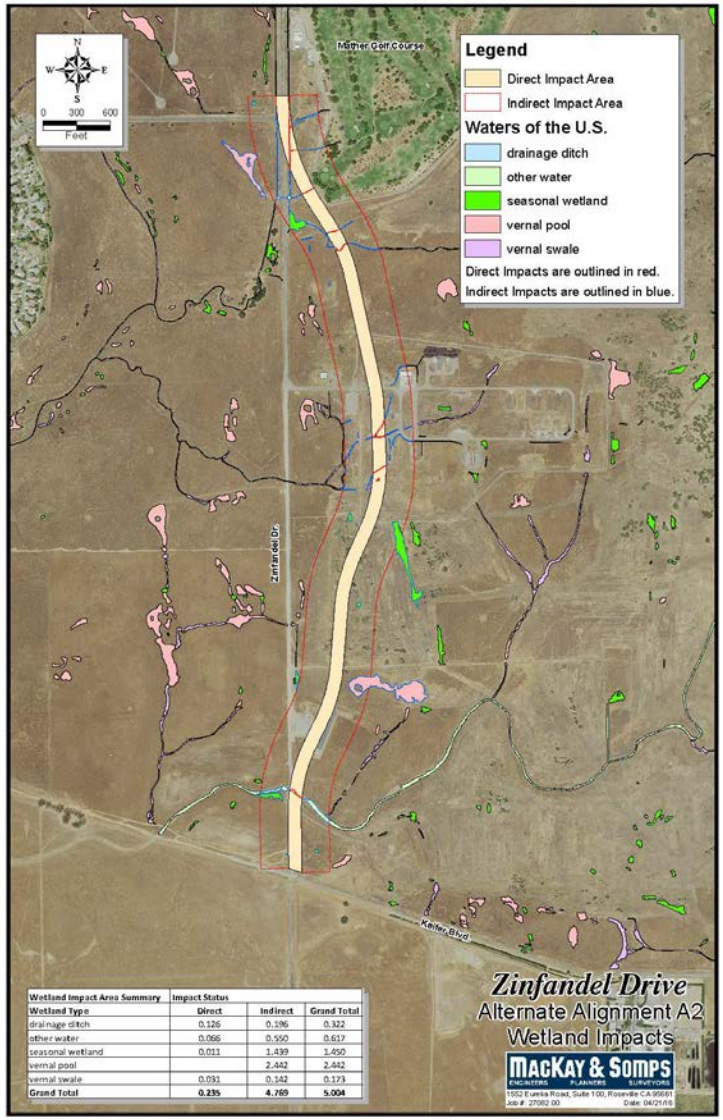
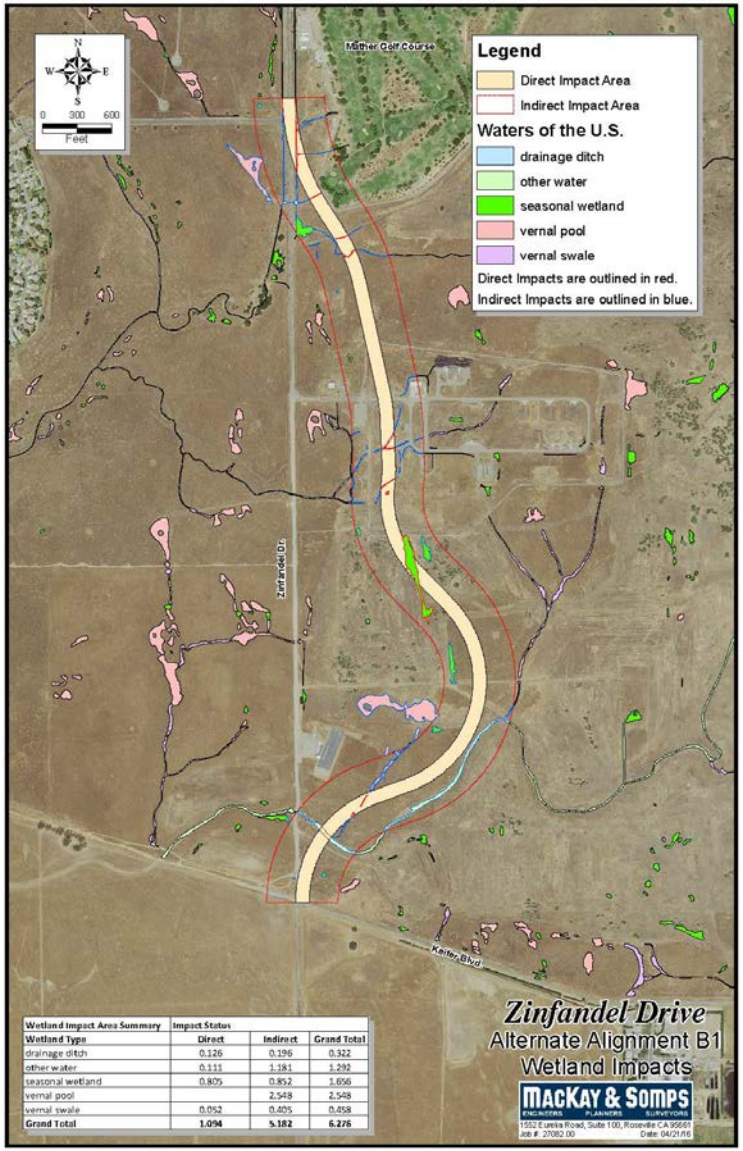
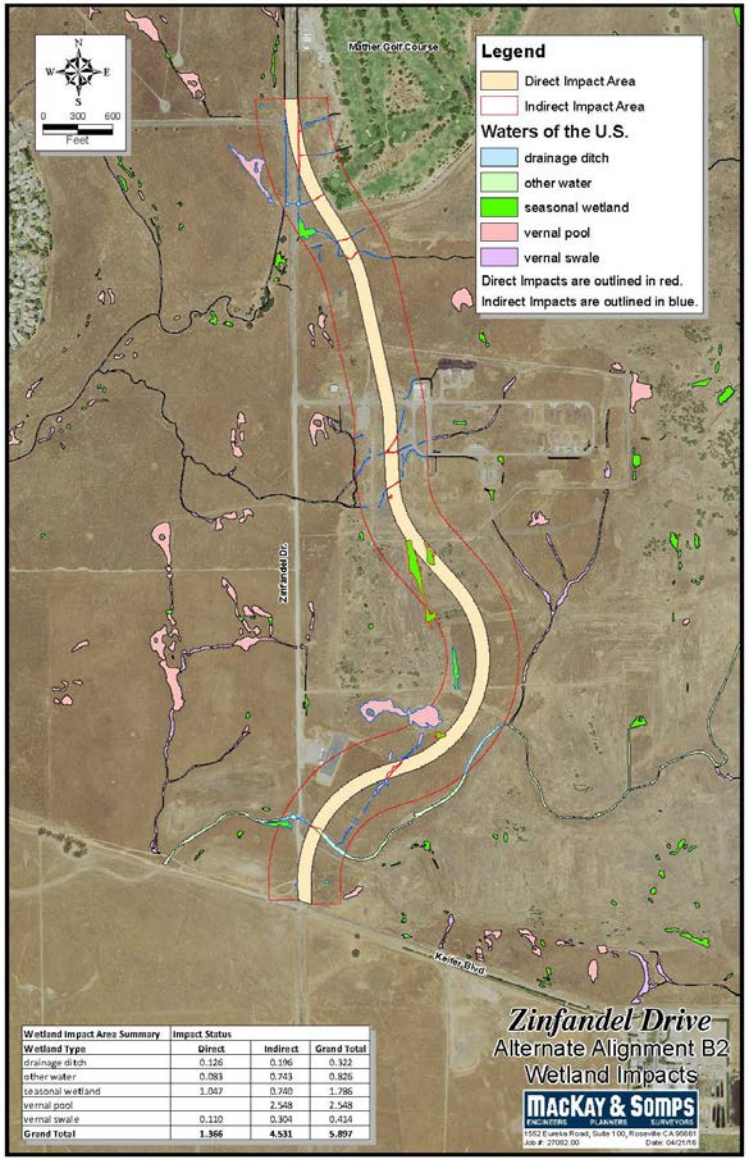


Plate ALT-2: Alignment B1 and Alignment B2



Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.126	0.196	0.322
other water	0.111	1.181	1.292
seasonal wetland	0.805	0.852	1.656
vernal pool		2.548	2.548
vernal swale	0.052	0.405	0.458
Grand Total	1.094	5.182	6.276



Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.126	0.196	0.322
other water	0.083	0.743	0.826
seasonal wetland	1.047	0.740	1.786
vernal pool		2.548	2.548
vernal swale	0.110	0.304	0.414
Grand Total	1.366	4.531	5.897

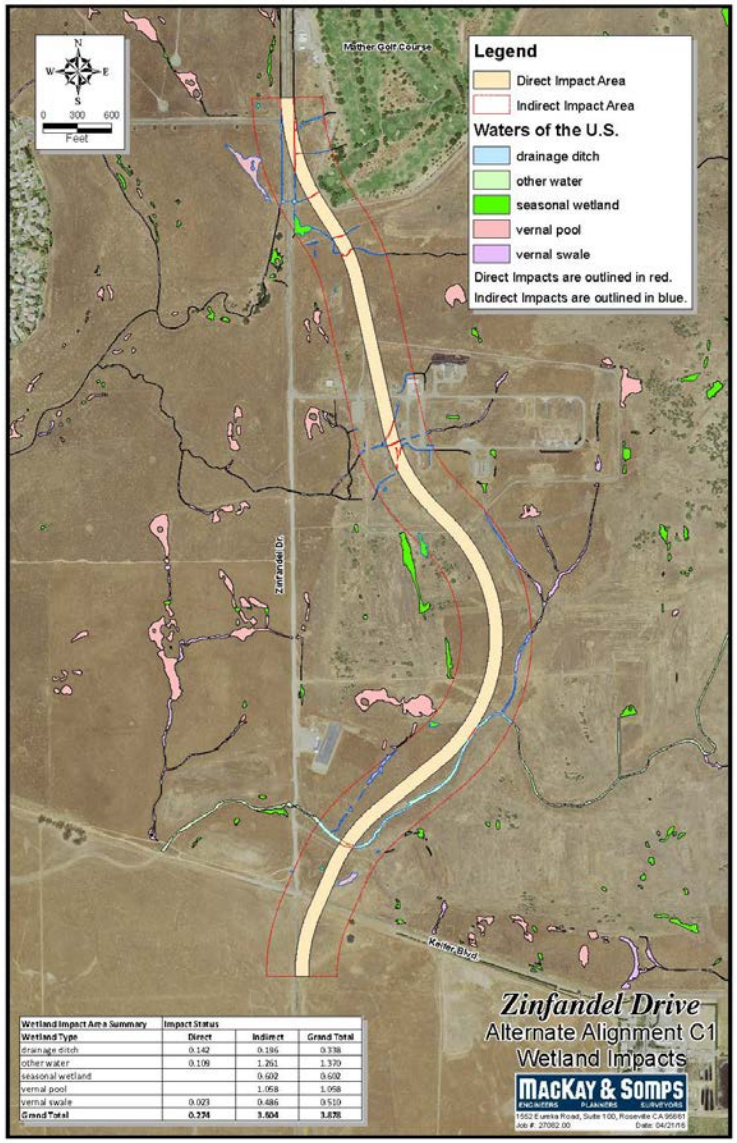
ALTERNATIVE 2D: ALIGNMENT C1 ALTERNATIVE

Under this alternative, shown in Plate ALT-3, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,800 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve further to the east from the extent of the immediate improvements to avoid the spadefoot pool and some other substantial vernal pools. This alignment would be approximately 1,035 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek approximately 400 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would shift approximately 500 feet east from the currently planned intersection. This could result in the need for some land use changes to the NewBridge Specific Plan's proposed land use plan to the south.

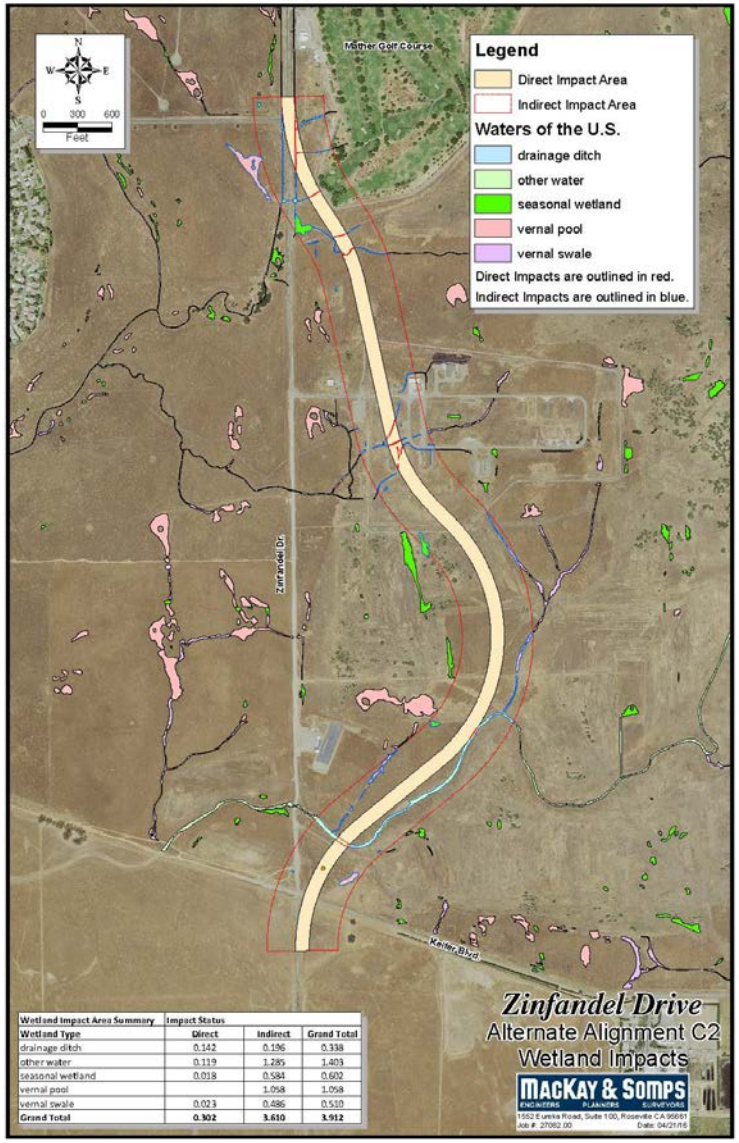
ALTERNATIVE 2E: ALIGNMENT C2 ALTERNATIVE

Under this alternative, shown in Plate ALT-3, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,850 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve further to the east from the extent of the immediate improvements to avoid the spadefoot pool and some other substantial vernal pools. This alignment would be approximately 1,078 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek approximately 500 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would shift approximately 50 feet east from the currently planned intersection. This could result in the need for some land use changes to the NewBridge Specific Plan's proposed land use plan to the south.

Plate ALT-3: Alignment C1 and Alignment C2



Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.142	0.196	0.338
other water	0.109	1.261	1.370
seasonal wetland		0.602	0.602
vernal pool		1.058	1.058
vernal swale	0.023	0.486	0.510
Grand Total	0.274	3.604	3.878



Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.142	0.196	0.338
other water	0.119	1.285	1.403
seasonal wetland	0.018	0.584	0.602
vernal pool		1.058	1.058
vernal swale	0.023	0.486	0.510
Grand Total	0.302	3.610	3.912

ALTERNATIVE 2F: ALIGNMENT D1 ALTERNATIVE

Under this alternative, shown in Plate ALT-4, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,850 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve further to the east from the extent of the immediate improvements to avoid the spadefoot pool and some other substantial vernal pools. This alignment would be approximately 1,075 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek east of the spadefoot pool approximately 2,500 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would shift approximately 300 feet east from the currently planned intersection. This could result in the need for some land use changes to the NewBridge Specific Plan's proposed land use plan to the south.

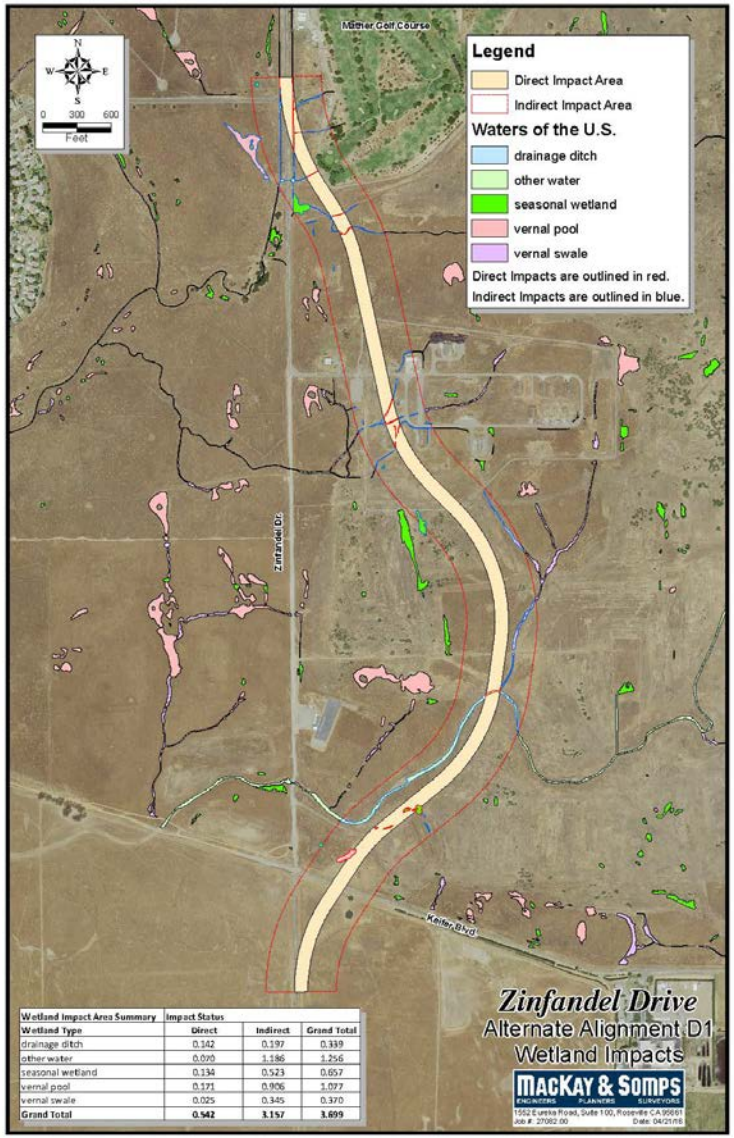
ALTERNATIVE 2G: ALIGNMENT D2 ALIGNMENT

Under this alternative, shown in Plate ALT-4, the proposed land uses would be identical to that of the project. Roadway and sewer improvements would still be constructed to approximately 2,100 feet south of Woodring Drive. This alternative would require an Amendment to the General Plan Transportation Diagram to shift the alignment of Zinfandel Drive to the east, to a maximum of approximately 1,900 feet, from Woodring Drive to just north of Kiefer Boulevard. This alignment would curve further to the east from the extent of the immediate improvements to avoid the spadefoot pool and some other substantial vernal pools. This alignment would be approximately 1,118 feet longer than the existing alignment of Zinfandel Drive. The alignment would cross Morrison Creek east of the spadefoot pool approximately 2,500 feet north of Kiefer Boulevard. The intersection with Kiefer Boulevard would shift approximately 200 feet east from the currently planned intersection. This could result in the need for some land use changes to the NewBridge Specific Plan's proposed land use plan to the south.

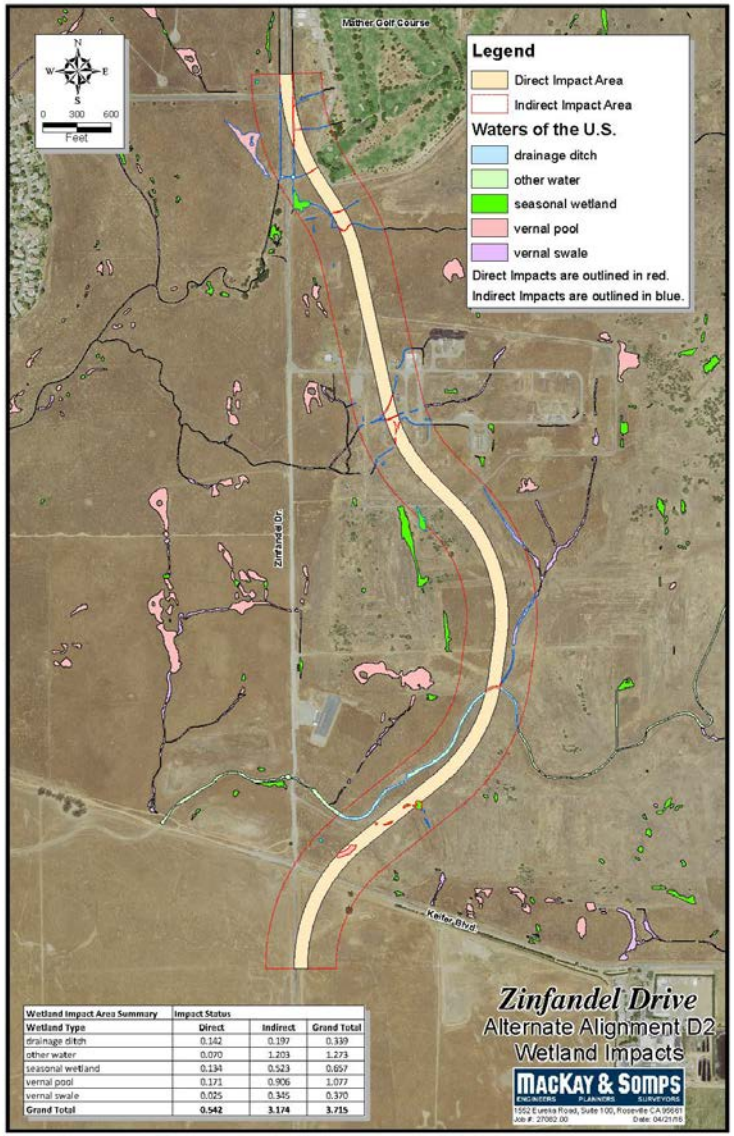
ALTERNATIVE 3: MULTIPLE PRESERVES ALTERNATIVE

Under the Multiple Preserves Alternative **(Plate ALT-~~1~~5)**, the proposed land uses and roadway alignment would be identical to those of the **original** proposed project **now known as Alternative A2,** but additional lands within the project site would be set aside as Natural Preserve- Resource Conservation Protected areas. This alternative would add three additional preservation areas within the project area that would increase the total amount of land set aside by approximately 70 acres in order to protect suitable habitat for special status vernal pool species. An additional 7 acres of suitable habitat for special status vernal pool species would be protected from direct and indirect impacts under this alternative.

Plate ALT-4: Alignment D1 and Alignment D2

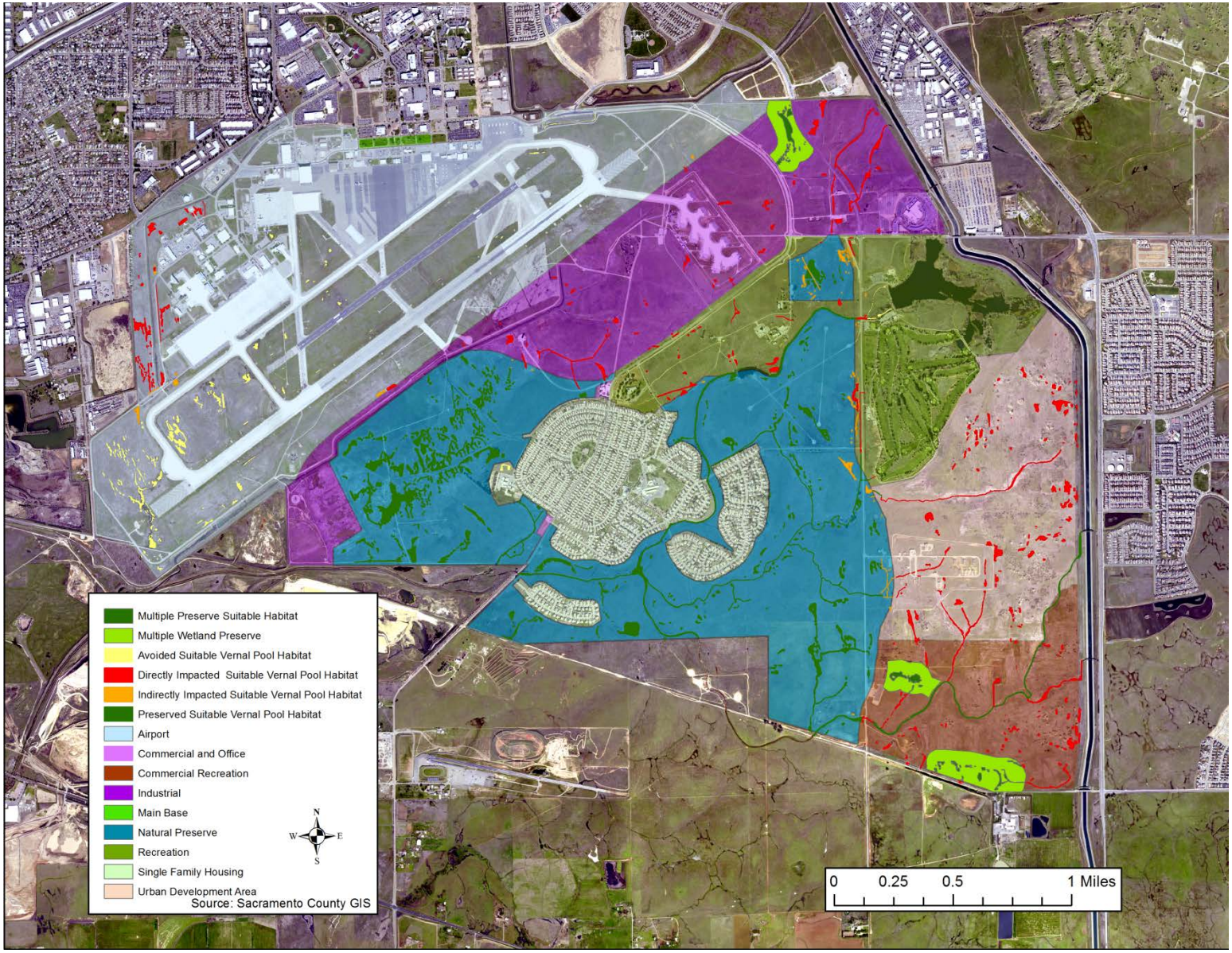


Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.142	0.197	0.339
other water	0.070	1.186	1.256
seasonal wetland	0.134	0.523	0.657
vernal pool	0.171	0.906	1.077
vernal swale	0.025	0.345	0.370
Grand Total	0.542	3.157	3.699



Wetland Impact Area Summary	Impact Status		
Wetland Type	Direct	Indirect	Grand Total
drainage ditch	0.142	0.197	0.339
other water	0.070	1.203	1.273
seasonal wetland	0.134	0.523	0.657
vernal pool	0.171	0.906	1.077
vernal swale	0.025	0.345	0.370
Grand Total	0.542	3.174	3.715

Plate ALT-~~1~~5: Multiple Preserves Alternative



ELIMINATED ALTERNATIVES

EAST/WEST PRESERVE ALTERNATIVE

Under the East/West Preserve Alternative, the proposed Natural Preserve –Resource Conservation Protected area would be divided into two distinct areas. One preservation area would be located south of the airport on the western side of the project site while the other would be located along Kiefer Boulevard toward the east. The preservation areas would be divided from one another by Zinfandel Drive as well as development that would have the potential to be constructed on site.

Although this alternative would result in the preservation of habitat suitable to support special status vernal pool species, this alternative would have greater impacts to wetlands and suitable habitat for special status vernal pool species than the proposed project. Additionally, the preservation area configuration may not be as ecologically sustainable as a larger more cohesive preserve like the preservation area proposed. Based on these factors, this alternative was dismissed from further evaluation.

SOUTHERN PRESERVE ALTERNATIVE

Under this alternative, the Preserve would not extend as far north as in the proposed project but would extend further east along Kiefer Boulevard beyond Zinfandel Drive to the Folsom South Canal. The preserve would be similar in size to the proposed preserve and would be more contiguous in nature than the East/West Preserve Alternative.

Although this alternative includes a large continuous preserve that would provide for the conservation of habitat for special status vernal pool species, extending the preserve along Kiefer Boulevard would preclude the establishment of developable land uses along Kiefer Boulevard. The land along Kiefer Boulevard has been identified as a suitable area for commercial development due to its proximity to major roadways and other proposed projects in the vicinity and limiting available land for development along Kiefer Boulevard would hinder the development of economic opportunities in the County and would not meet the objectives of the proposed project. Based on this factor, this alternative was dismissed from further evaluation.

IMPACT ANALYSIS

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

LAND USE

The project area is made up of many parcels located within the County of Sacramento. The total project area is approximately 5,400 acres with approximately 2,900 acres being undeveloped or underdeveloped land. The parcels within the Plan area have existing land use entitlements under existing zoning. Existing zoning within the Plan area is SPA. The Mather Field SPA designation allows Shopping Center (SC), Business

and Professional Office (BP), Industrial-Office Park (MP), Recreation (O), Light Industrial (M-1), Limited Commercial (LC) and Agricultural 20 (AG-20) uses.

The No Project Alternative would generally allow for development consistent with the Sacramento County General Plan and Zoning Code. However, Mather Field Specific Plan and SPA documents emphasize a desire to guide the evolution of the Mather Field area in a way that will encourage coordinated development and reuse of the site that revitalizes the area while preserving the onsite environmental resources; which the propose project is designed to do. The effort to facilitate this type of redevelopment within Mather Field could be hindered under the No Project Alternative. Even so, redevelopment could technically occur under existing entitlements, although it is acknowledged that such an effort would not be as coordinated, structured, or as easily facilitated as it would be under the proposed project. Land use impacts under the No Project Alternative would be ***less than significant***.

AIRPORT COMPATIBILITY

AIRPORT NOISE

The project area contains Mather Airport and the entire project site is subject to noise generated from airport operations. The noise levels associated with the airport, which are of most concern, range from 60 to 75 CNEL. These noise contours are located within the existing PQP area at Mather Field. Under the No Project Alternative development could occur consistent with the PQP designation which has the potential to site incompatible uses within the 60 to 75 CNEL contours; however, the General Plan Noise Element contains policies developed to evaluate proposed uses that may be incompatible with noise levels in excess of standards and prohibits the development of uses that may subject sensitive receptors to noise levels above acceptable levels. Development in the No Project Alternative would be governed by these policies and impacts related to airport noise would be ***less than significant***.

NAVIGABLE AIRSPACE

The project area is subject to height restrictions based on height standards for defining obstructions to air navigation which are established by the Federal Aviation Administration (FAA) and are defined in Federal Aviation Regulation (FAR) Part 77. Development in the No Project Alternative would be governed by these existing height restrictions and impacts to navigable airspace would be ***less than significant.***

APPROACH-DEPARTURE SAFETY ZONE

Currently no development at Mather Field is located within the Approach-Departure Safety Zone. Based on existing SPA Ordinance, this area is within the Airport and Environs Subdistrict and development in this area would be subject to the review and approval of the Department of Airports and permitted uses would be restricted to those related to airport activities only. Safety impacts related to the Approach-Departure Zone are reduced under the No Project scenario because the safety zone within Mather Field would remain entirely within the Airport Environs Subdistrict which has highly restrictive

uses. Impacts related to airport Approach-Departure Safety Zone under the No Project Alternative are considered ***less than significant.***

OVERFLIGHT SAFETY ZONE

The Overflight Safety Zone boundary is generally located south of Folsom Boulevard, east of Mayhew Road, north of Elder Creek Road and west of Cades Cove Drive. Approximately 80 percent of Mather Field is within the Overflight Safety Zone.

In the existing condition, development within the Overflight Safety Zone is required to be consistent with the General Plan's "Land Use Compatibility for Airport Safety" table. Impacts related to the overflight zone under the No Project Alternative are ***less than significant.***

AIR QUALITY

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

Under the No Project Alternative, underutilized parcels and vacant parcels could be developed under existing entitlements consistent with land use allowances under the Mather Field SPA Ordinance. As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the No Project Alternative will result in a ***significant and unavoidable*** impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Under the No Project Alternative, underutilized parcels and vacant parcels could be developed under existing entitlements consistent with land use allowances under the Mather Field SPA Ordinance. Given that the No Project Alternative does not necessarily require discretionary actions for future development under existing zoning, potential impacts related to air quality could go unmitigated. Under the No Project Alternative, impacts related to ozone precursor and diesel particulate emissions are ***potentially significant***.

OPERATIONAL EMISSIONS

Under the No Project Alternative, development will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association and Mather Field Air Quality Plan which were developed in order to reduce operation emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to

exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are ***significant and unavoidable.***

TOXIC AIR CONTAMINANTS (TAC)

Under the No Project Alternative, development could occur at Mather Field consistent with the existing land use entitlements for the site. Airport and industrial uses associated with the existing land use entitlements at Mather Field have the potential to use and store toxic substances that have the potential to produce toxic air contamination. Toxic air contamination would not occur unless an incident occurred that resulted in the accidental release of toxic substances into the air.

The handling and disposal of these substances are highly regulated by local, state and federal agencies, which are responsible for minimizing any risk of human exposure to toxics, and the release of toxic substances that might result in hazardous conditions is unlikely. Impacts related to toxic air contaminants are ***less than significant***.

ODORS

The Commercial Recreation District as detailed by the Mather Special Planning Area Ordinance and Mather Field Specific Plan is located at the southeast corner of the Mather Field. This district is located immediately north of the Sacramento Rendering Company's rendering plant.

According to the Mather Field Specific Plan, the Commercial Recreation District is intended to be developed with a new commercial recreation attraction such as a theme park or a major institutional use. Additional uses that have been considered for the site in the past include a resort/conference complex, and a reception center/correctional facility. It should be noted that although the County is seeking to develop this area in the future, the uses noted above are not currently considered by the County as development options for this site.

Developing these types of uses at the southeast corner of Mather Field has the potential to site users in an area subject to odors generated from the rendering plant during certain times of the year depending on wind direction, wind speed, and the operating conditions of the rendering plant. However, there are no known adverse health impacts associated with exposure to odors and the odor impact is considered a nuisance level impact. Impacts related to odors are considered ***less than significant***.

BIOLOGICAL RESOURCES

Impacts to biological resources, including native oak trees, streams, vernal pools, wetlands and other surface waters, riparian habitat, special status species and nesting migratory birds could occur as future development or redevelopment of parcels occurs consistent with existing land use entitlements.

Under current County policy, impacts would be mitigated for any non-discretionary projects' native tree removal by obtaining a tree removal permit and providing compensation as outlined in the County's Tree Preservation Ordinance. Impacts to

wetlands, riparian habitat, special status species and nesting migratory birds are regulated through the appropriate state and federal agencies. However, in the No Project Alternative the Natural Preserve and Riparian Buffer areas, which are intended to allow for the majority of the compensation for impacts to species and habitat resulting from development at Mather Field to occur, would not be created.

Without the Natural Preserve, development could occur within the preserve area. Additionally, without the Natural Preserve and Riparian Buffer it would be less likely to find sufficient suitable land to compensate for impacts associated with the build out of Mather Field. Additionally, the No Project Alternative would reduce the probability that vernal pool impacts would be mitigated for in one large contiguous area that would better serve the viability of the species reliant on vernal pool habitat. Impacts to biological resources are ***potentially significant*** in under the No Project Alternative.

Cultural Resources

Under the No Project Alternative, cultural resources could be impacted. Although no architectural resources that meet the criteria of significance under CEQA were located in the survey areas, all future growth, to the maximum zoning densities, could impact known and/or unknown prehistoric or historic archaeological resources. Currently, the County of Sacramento does not have a Historic Preservation Ordinance that would require review of potential impacts to cultural resources on all requested permits, including demolition permits. Thus, unless the project has discretionary review, impacts could occur unknowingly to important cultural resources. Since non-discretionary projects can occur in the No Project Alternative, which can result in the removal of cultural resources, impacts to archeological resources are ***potentially significant.***

Hazardous Materials

Impacts related to hazardous materials under the No Project Alternative would be similar to those of the proposed project. Development projects could occur at Mather Field consistent with the existing entitlement allowances that have the potential to encounter contaminated soils, hazardous materials and could potentially expose construction workers and the general public to previously unidentified soil and/or groundwater contamination. However, any sites found to be contaminated during construction activities would be subject to review by County Environmental Management Department. Remediation, if required, would occur consistent with state law. Additionally, The Mather Field SPA Ordinance includes Performance Standards that must be met by all public and private development projects within Mather Field regarding hazardous materials. The No Project Alternative would result in a ***less than significant*** impact to Hazardous Materials.

Hydrology and Water Quality

Under the No Project Alternative, Mather Field could be developed consistent with the existing land use designations for the site and impacts related to drainage patterns, flooding and water quality would be similar to those of the proposed project. Development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards,

Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the No Project Alternative would be ***less than significant.***

Public Utilities and services

The project area is currently served with a wide variety of public services. Under the No Project Alternative, there could be minor impacts to public services as vacant lands are developed and underutilized parcels are redeveloped consistent with existing land use entitlements. This type of development would likely be incremental in nature and generally inconsequential given the overall developed nature of the project vicinity. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation and energy services under the No Project Alternative would be ***less than significant***.

Sewer Service

Under the No Project Alternative, there could be minor impacts to the sewer system as vacant lands are developed and underutilized parcels are redeveloped consistent with existing land use entitlements. Although future development would require infrastructure extensions and connections to serve individual projects, this type of development would likely be incremental in nature and generally inconsequential to the existing sewer system and available capacities. Impacts related to sewer service under the No Project Alternative would be ***less than significant***.

Construction of New Facilities

Under the No Project Alternative, new public utility and service facilities would be required to support demands generated by project. Facilities including fire stations, parks, water storage tanks and lines, sewer lines and schools all might be required to serve Mather Field. The construction of these facilities would likely result in impacts related to air quality, biological resources including Waters of the U.S. and special status species and cultural resources. These impacts could potentially occur unmitigated and are considered ***potentially significant.***

Traffic and Circulation

Under the No Project Alternative, Mather Field could be developed based on existing land use entitlements. Currently Mather Field contains several urban land use designations including Intensive Industrial, Public Quasi-Public, Commercial and Office, Low Density Residential. Additionally Mather Field includes approximately 2,500 acres of land designated for recreation uses. Future development could occur consistent with the existing land use designations.

The existing land use designations for Mather Field were previously analyzed for environmental impacts including those related to traffic as a part of the land use designation process. The analyses contained in the prior FEIRs for the Mather Field General Plan Amendment and Mather Field Specific Plan concluded that recommended mitigation would reduce the magnitude of the traffic impacts, but not to a less-than-

significant level. Many of the roadways in the vicinity of Mather Field were already assumed to be built to the maximum County standard of six lanes. Substantial improvements to the roadway system, beyond the improvements already assumed to be in place under cumulative conditions, are not feasible. As stated in the previous FEIRs, impacts would be ***significant and unavoidable***.

Climate Change

Under the No Project Alternative, development would still occur with existing entitlements. Mitigation measures have been recommended for the proposed project requiring future applicants to reduce residential and commercial energy sector emissions. Under the No Project Alternative such mitigation may not occur because proposed developments may be under SMAQMD screening thresholds or significance levels. Thus, the No Project Alternative could result in unmitigated impacts related to climate change. These impacts are considered ***potentially significant***.

Alternative 2: Existing Zinfandel Drive Alignment Alternative

Land Use

The Existing Zinfandel Drive Alignment Alternative (Existing Alignment Alternative) would not require a General Plan amendment to realign Zinfandel Drive and the roadway would be developed along its current alignment to approximately 2,100 feet south of Woodring Drive. The remaining land use proposals would be the same as for the proposed project and land use impacts associated with the Existing Alignment Alternative would be similar to those of the proposed project. Land use impacts associated with the Existing Alignment Alternative are ***less than significant***.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Existing Alignment Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a “holding” designation that only identifies where future development may occur and does not allow for any development. The Existing Alignment Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are ***less than significant***.

Air Quality

The Existing Alignment Alternative would include the extension of Zinfandel Drive and the installation of sewer similar to the proposed project. These improvements would require construction activities that will result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project and operational and construction related emissions would be comparable to those of the proposed project.

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Existing Alignment Alternative will result in a ***significant and unavoidable*** impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Existing Alignment Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be recommended in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a ***less than significant*** level.

OPERATIONAL EMISSIONS

Under the Existing Alignment Alternative, future development will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are ***significant and unavoidable.***

TOXIC AIR CONTAMINANTS (TAC)

Under the Existing Alignment Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Existing Alignment Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are ***less than significant***.

ODORS

~~**Under the Existing Alignment Alternative, future development consistent with the Commercial Recreation District guidelines at the southeast corner of Mather Field would occur similar to the proposed project. The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the**~~

~~**Commercial recreation District and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.**~~

~~**Although the Commercial Recreation District area is adjacent to the rendering plant and downwind of the prevailing wind pattern in the Mather Field area, given that this alternative will not introduce additional sensitive receptors over those currently permitted in the Mather Field SPA, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.**~~

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

Biological Resources

The Existing Alignment Alternative would have impacts to biological resources similar in nature to those of the proposed project. The Existing Alignment Alternative would require construction activities south Woodring Road to follow the existing alignment of Zinfandel Drive. This area contains several vernal pool features and other Waters of the U.S. that will be affected by the proposed project as well as this alternative **(See Plate ALT-1**). Mitigation for these impacts would be required to reduce impacts to ***less than significant*** levels. **Overall, this roadway alignment would result in approximately 1.271 acres of direct and 3.357 acres of indirect impacts on wetlands, for a total of 4.628 acres of affected wetlands. This would be an increase in direct impacts but a decrease in indirect impacts from the Proposed Project. Overall, this alternative would result in less of a total impact on wetlands than the Proposed Project alignment.** ~~**However, cursory analysis indicates that this alternative will result in new indirect impacts to critical habitat for slender and Sacramento orcutt grass, and increase direct and indirect impacts to vernal pool features suitable to support special status species, critical habitat for vernal pool tadpole and fairy shrimp, habitat within the Mather Core Recovery Area and direct impacts to Waters of the U.S. Mitigation requirements for these impacts would increase under the Existing Alignment Alternative.**~~

Cultural Resources

Impacts related to cultural resources from the Existing Alignment Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are ***less than significant*** with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Existing Alignment Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts to hazardous materials are ***less than significant*** with mitigation.

Hydrology and Water Quality

Under the Existing Alignment Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would maintain a straight north/ south alignment in this alternative. Impacts related to drainage patterns, flooding and water quality would be similar to those of the proposed project. Development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Existing Alignment Alternative would be ***less than significant.***

Public Utilities and Services

Impacts related to public utilities and services from the Existing Alignment Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Existing Alignment Alternative would be ***less than significant***.

PROGRAMMATIC LEVEL IMPACTS TO SEWER SERVICE

Under the Existing Alignment Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior

to project development, potential impacts related to sewer service are ***less than significant.***

Traffic and Circulation

Under the Existing Alignment Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would maintain a straight north/ south alignment in this alternative. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Existing Alignment Alternative would be similar to the proposed project and would be ***less than significant***.

Climate Change

Impacts related to climate change from the Existing Alignment Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are ***less than significant*** with mitigation.

Alternative 2A: Prior Project Alignment

Land Use

The Prior Project Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Prior Project Alternative would be similar to those of the proposed project. The Specific Plan land use map would be modified to allow for additional preserve area west of the Zinfandel Drive, which would reduce the amount of land designated as UDA east of the roadway. The acreage of Natural Preserve would increase, and the UDA would decrease. While this change would occur, it would not affect the overall intent of the land plan. Land use impacts associated with the Prior Project Alignment Alternative are *less than significant*.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Prior Project Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Prior Project Alternative will not result in any uses that are incompatible with airports beyond those of the

proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

Air Quality

The Prior Project Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that will result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

Fugitive Dust Caused by Construction Activities

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Prior Project Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

Ozone Precursor and Diesel Particulate Caused by Construction Activities

Implementation of the Prior Project Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

Operational Emissions

Under the Prior Project Alternative, future development will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Prior Project Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Prior Project Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

BIOLOGICAL RESOURCES

The Prior Project Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located further west than the proposed project, and some significant wetland features, including the spadefoot pool, would be located east of Zinfandel Drive, which would cut these features off from the rest of the wetland preserve located west of the roadway. (See Plate ALT-1) However, although the spadefoot pool would not be directly impacted by the roadway alignment, it would be located within 250 feet of the road, which would make an indirect impact to the spadefoot pool. In total, the roadway for this alternative would result in 0.235 acres of direct impacts and 4.769 acres of

indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 2.442 acres of indirect impact on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery Area. This is less than the proposed project for both direct and indirect impacts. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Prior Project Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Prior Project Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Prior Project Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located further west of the proposed project's alignment, and less acreage would be designated as Natural Preserve and more would UDA. Notably, the spadefoot pool and some of the larger seasonal wetlands would be located east of Zinfandel Drive under this alternative, so they would be separated from the rest of the preserve area, which could have some effect on drainage. However, development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with

the proposed project, impacts related to hydrology, flooding, and water quality under the Prior Project Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Prior Project Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Prior Project Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Prior Project Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Prior Project Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located further west than the alignment proposed for the proposed project, which would result in changes to the acreages of the areas designated as Natural Preserve and UDA. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 50 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Prior Project Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Prior Project Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

ALTERNATIVE 2B: ALIGNMENT B1

LAND USE

The Alignment B1 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Alignment B1 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment. While this minor change would occur, it would not affect the overall intent of the land plan. Land use impacts associated with the Alignment B1 Alternative are *less than significant*.

AIRPORT COMPATIBILITY

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Alignment B1 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment B1 Alignment Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

AIR QUALITY

The Alignment B1 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment B1 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level

impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Alignment B1 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

OPERATIONAL EMISSIONS

Under the Alignment B1 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment B1 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment B1 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700

feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

Biological Resources

The Alignment B1 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located slightly further west than the proposed project. (See Plate ALT-2). However, unlike the Prior Project Alternative and similar to the Proposed Project, the spaefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive. The spadefoot pool would be located west of Zinfandel Drive and would not be directly impacted by the roadway. A small area at the easternmost end of the spadefoot pool is within 250 feet of the road, so there could be a small indirect impact on that feature. One of the larger seasonal wetlands would be nearly completely lost. In total, the roadway for this alternative would result in 1.094 acres of direct impacts and 5.182 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 2.548 acres of indirect impact on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery Area. This would be an increase in direct impacts but a decrease in indirect impacts on wetlands compared to the proposed project. Mitigation for these impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment B1 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment B1 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are less than significant with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are less than significant.

Hydrology and Water Quality

Under the Alignment B1 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west of the proposed project's alignment. However, development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment B1 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment B1 Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment B1 Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Alignment B1 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Alignment B1 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west than the alignment proposed for the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 43 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Alignment B1 Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Alignment B1 Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

Alternative 2C: Alignment B2

Land Use

The Alignment B2 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Alignment B2 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment. While this change would occur, it would not affect the overall intent of the land plan. Land use impacts associated with the Alignment B2 Alternative are *less than significant*.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Alignment B2 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment B2 Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

AIR QUALITY

The Alignment B2 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment B2 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Alignment B2 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

OPERATIONAL EMISSIONS

Under the Alignment B2 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational

emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment B2 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment B2 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

BIOLOGICAL RESOURCES

The Alignment B2 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located slightly further west than the proposed project. See Plate ALT-2. However, unlike the Prior Project Alternative and similar to the Proposed Project, the spadefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive. The spadefoot pool would not be directly impacted by the roadway, but a portion of the eastern end of the spadefoot pool is within 250 feet of the road, so there could be an indirect impact on that feature. A few of the more significant wetlands in this area would experience direct and indirect impacts. In total, the roadway for this alternative would result in 1.366 acres of direct impacts and 4.531 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 2.548 acres of indirect impact on vernal pools, which support critical habitat for vernal pool tadpole and

fairy shrimp within the Mather Core Recovery Area. This would be an increase in direct impacts but a decrease in indirect impacts compared to the proposed project. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment B2 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment B2 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Alignment B2 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west of the proposed project's alignment. However, development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment B2 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment B2 Alternative would be similar to those of the proposed project. As with the proposed project,

impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment B2 Alternative would be *less than significant*.

PROGRAMMATIC LEVEL IMPACTS TO SEWER SERVICE

Under the Alignment B2 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

TRAFFIC AND CIRCULATION

Under the Alignment B2 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west than the alignment proposed for the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 43 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Alignment B2 Alternative would be similar to the proposed project and would be *less than significant*.

CLIMATE CHANGE

Impacts related to climate change from the Alignment B2 Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

ALTERNATIVE 2D: ALIGNMENT C1

LAND USE

The Alignment C1 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Alignment C1 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment.

While this change would occur, it would not affect the overall intent of the land plan. Under this alternative, Zinfandel Drive's intersection with Kiefer Boulevard would be moved slightly east and south of the currently planned intersection location, which could result in the need for some slight changes to the proposed, but not approved, NewBridge Specific Plan, located south of the project site. Some area currently planned as wetland preserve in the NewBridge Specific Plan would need be developed with the roadway; changes to other proposed land uses would not be required. Land use impacts associated with the Alignment C1 Alternative are *less than significant*.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Alignment C1 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment C1 Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

Air Quality

The Alignment C1 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

Fugitive Dust Caused by Construction Activities

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment C1 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

Ozone Precursor and Diesel Particulate Caused by Construction Activities

Implementation of the Alignment C1 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area,

exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

OPERATIONAL EMISSIONS

Under the Alignment C1 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment C1 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment C1 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land

uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

Biological Resources

The Alignment C1 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located slightly further west than the proposed project. See Plate ALT-3. However, unlike the Prior Project Alternative and similar to the Proposed Project, the spadefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive. The spadefoot pool and the larger seasonal wetlands would not be directly impacted by the roadway. One of the seasonal wetlands would be within 250 feet of the road, so there could be an indirect impact on that feature. In total, the roadway for this alternative would result in 0.274 acres of direct impacts and 3.604 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 1.058 acres of indirect impact on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery Area. This is less than the proposed project for both direct and indirect impacts on wetlands. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment C1 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment C1 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated

with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Alignment C1 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would generally be located slightly further west of the proposed project's alignment, although a portion of the alignment would be east of the proposed project's alignment. However, development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment C1 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment C1 Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment C1 Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Alignment C1 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Alignment C1 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west than the alignment proposed for the proposed project, although a portion of the southern end of the alignment would be further east than the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 50 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic

and circulation from the Alignment C1 Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Alignment C1 Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

Alternative 2E: Alignment C2

Land Use

The Alignment C2 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Alignment C2 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment. While this change would occur, it would not affect the overall intent of the land plan. Under this alternative, Zinfandel Drive's intersection with Kiefer Boulevard would be moved slightly east and south of the currently planned intersection location, which could result in the need for some slight changes to the proposed, but not approved, NewBridge Specific Plan, located south of the project site. Some area currently planned as wetland preserve in the NewBridge Specific Plan would need be developed with the roadway; changes to other proposed land uses would not be required. Land use impacts associated with the Alignment C2 Alternative are *less than significant*.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Alignment C2 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment C2 Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

AIR QUALITY

The Alignment C2 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment C2 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Alignment C2 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level.

OPERATIONAL EMISSIONS

Under the Alignment C2 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions at both the programmatic and project levels.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational

emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment C2 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment C2 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

BIOLOGICAL RESOURCES

The Alignment C2 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would generally be located slightly further west than the proposed project, with the southern end of the alignment located further east. See Plate ALT-3. However, unlike the Prior Project Alternative and similar to the Proposed Project, the spadefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive. The spadefoot pool and the larger seasonal wetlands would not be directly impacted by the roadway. One of the seasonal wetlands would be within 250 feet of the road, so there could be an indirect impact on that feature. In total, this alternative would result in 0.302 acres of direct impacts and 3.610 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 1.058 acres of indirect impact on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery

Area. This is less than the proposed project for both direct and indirect impacts on wetlands. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment C2 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment C2 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Alignment C2 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would generally be located slightly further west of the proposed project's alignment in the north and east of the proposed project's alignment in the south, although a portion of the alignment would be east of the proposed project's alignment. However, development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment C2 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment C2 Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment C1 Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Alignment C2 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Alignment C2 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further west than the alignment proposed for the proposed project, although a portion of the southern end of the alignment would be further east than the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 50 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Alignment C2 Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Alignment C2Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

Alternative 2F: Alignment D1

Land Use

The Alignment D1 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and

land use impacts associated with the Alignment D1 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment. While this change would occur, it would not affect the overall intent of the land plan. Under this alternative, Zinfandel Drive's intersection with Kiefer Boulevard would be moved east and south of the currently planned intersection location, which would result in the need for some changes to the proposed, but not approved, NewBridge Specific Plan, located south of the project site. Some areas currently planned as wetland preserve in the NewBridge Specific Plan would need be developed with the roadway. The proposed roadway alignment under this alternative would graze land that is proposed for single family residential development. This would require changes to the proposed NewBridge Specific Plan land use plan, especially to accommodate a setback from Zinfandel Drive. The alternative's land use impacts associated with the Alignment D1 Alternative are *less than significant*. There could be a land use impact on the NewBridge Specific Plan property.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. Although the Alignment D1 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment D1 Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

Air Quality

The Alignment D1 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

Fugitive Dust Caused by Construction Activities

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment D1 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$

emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Alignment D1 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

OPERATIONAL EMISSIONS

Under the Alignment D1 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment D1 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment D1 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by

Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

Biological Resources

The Alignment D1 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located slightly further east than the proposed project. See Plate ALT-4. However, unlike the Prior Project Alternative and similar to the Proposed Project, the spadefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive. The spadefoot pool and the larger seasonal wetlands would not be directly or indirectly impacted by the roadway. Some of the smaller seasonal wetlands would be within 250 feet of the road and therefore subject to indirect impacts. In total, the roadway for this alternative would result in 0.542 acres of direct impacts and 3.157 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 0.171 acres of direct impacts and 0.906 acres of indirect impacts on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery Area. This would be an increase in direct impacts but a decrease in indirect impacts on wetlands. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment D1 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment D1 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Alignment D1 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would generally be located slightly further east of the proposed project's alignment. Development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment D1 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment D1 Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment D1 Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Alignment D1 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Alignment D1 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer

improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further east than the alignment proposed for the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 50 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Alignment D1 Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Alignment D1 Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

Alignment 2G: Alignment D2

Land Use

The Alignment D2 Alternative would require a General Plan amendment to realign Zinfandel Drive because the roadway would move from its existing straight alignment and move to the east starting south of Woodring Drive. The remaining land use proposals would generally be the same as for the proposed project and land use impacts associated with the Alignment D2 Alternative would be similar to those of the proposed project. The land use map would be modified to allow for the small changes in the acreage of Natural Preserve and UDA, which would be the only land use designations affected by the change in roadway alignment. While this change would occur, it would not affect the overall intent of the land plan. Under this alternative, Zinfandel Drive's intersection with Kiefer Boulevard would be moved east and south of the currently planned intersection location, which could potentially result in the need for some changes to the proposed, but not approved, NewBridge Specific Plan, located south of the project site. Some areas currently planned as wetland preserve in the NewBridge Specific Plan would need be developed with the roadway. The proposed roadway alignment under this alternative would not directly affect land that is proposed for single family residential development, but setbacks from the roadway could be necessary. The alternative's land use impacts associated with the Alignment D2 Alternative are *less than significant*. There could be a land use impact on the NewBridge Specific Plan property.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations.

Although the Alignment D2 Alternative will result in lands designated as UDA within the Overflight Safety Zone, the proposed UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development. The Alignment D2 Alternative will not result in any uses that are incompatible with airports beyond those of the proposed project. With mitigation impacts associated with airport compatibility are *less than significant*.

Air Quality

The Alignment D2 Alternative would include the same extension of Zinfandel Drive and the installation of sewer to 2,100 feet south of Woodring Drive as the proposed project. The change of alignment in the road would occur south of these immediate improvements. These improvements would require construction activities that would result in construction related emissions. The emissions would be comparable to the emissions related to the proposed project. Additionally, the land use designations for this alternative would be the same as the proposed project, just with slightly different acreages of Natural Preserve and UDA, which would not affect the project's emissions. Operational and construction related emissions specific to the immediate roadway and sewer improvements would be the same as the proposed project.

Fugitive Dust Caused by Construction Activities

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Alignment D2 Alternative will result in a *significant and unavoidable* impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction at the programmatic level. Project-level impacts associated with the construction of just the immediately proposed roadway and sewer improvements would be *less than significant*.

Ozone Precursor and Diesel Particulate Caused by Construction Activities

Implementation of the Alignment D2 Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures would be required in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a *less than significant* level at both the programmatic and project levels.

Operational Emissions

Under the Alignment D2 Alternative, future development would generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to

participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association (TMA) and Mather Field Air Quality Plan which were developed in order to reduce operational emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are *significant and unavoidable* at the programmatic level. Project-level impacts associated with only the immediate roadway and sewer improvements would be *less than significant*.

TOXIC AIR CONTAMINANTS (TAC)

Under the Alignment D2 Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of the Alignment D2 Alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are *less than significant*.

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the area proposed as UDA and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

The UDA designation acts as a "holding" designation that only identifies where future development may occur and does not allow for any development, so the specific lands uses that would eventually be constructed there are unknown. Additional analysis will be required before the area is designated for specific land uses. At this time, the Mather Field SPA would prevent sensitive receptors from being developed in this areas, so, impacts related to odor generated at the Sacramento Rendering Plant are *less than significant*.

BIOLOGICAL RESOURCES

The Alignment D2 Alternative would have impacts to biological resources similar in nature to those of the proposed project. The area south of Woodring Road contains several vernal pool features and other Waters of the U.S. that would be affected by the proposed project as well as this alternative. Under this alternative, the alignment of Zinfandel Drive would be located slightly further east than the proposed project. See Plate ALT-4. However, unlike the Prior Project Alternative and similar to the Proposed Project, the spadefoot pool and some of the additional significant wetland features would be located west of Zinfandel Drive.

The spadefoot pool and the larger seasonal wetlands would not be directly or indirectly impacted by the roadway. Some of the smaller seasonal wetlands would be within 205 feet of the road and therefore subject to indirect impacts. In total, the roadway for this alternative would result in 0.542 acres of direct impacts and 3.174 acres of indirect impacts on wetlands, which provide critical habitat for slender and Sacramento orcutt grass. This also includes 0.025 acres of direct impacts and 0.345 acres of indirect impacts on vernal pools, which support critical habitat for vernal pool tadpole and fairy shrimp within the Mather Core Recovery Area. This would be an increase in direct impacts but a decrease in indirect impacts compared to the Proposed Project. Mitigation for impacts associated with most biological resources impacts would be required to reduce impacts to *less than significant* levels. Impacts associated with riparian habitat on a programmatic level, Swainson's hawk foraging habitat, and critical habitat for slender and Sacramento orcutt grasses would be less than significant.

Cultural Resources

Impacts related to cultural resources from the Alignment D2 Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are *less than significant* with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Alignment D2 Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts associated with soil and groundwater contamination, including known contaminated sites within the project area, and monitoring wells are *less than significant* with mitigation. Impacts associated with asbestos, lead based paint, and one of the former landfill sites are *less than significant*.

Hydrology and Water Quality

Under the Alignment D2 Alternative, Mather Field could be developed with land uses similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would generally be located slightly further east of the proposed project's alignment. Development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with

the proposed project, impacts related to hydrology, flooding, and water quality under the Alignment D2 Alternative would be *less than significant.*

Public Utilities and Services

Impacts related to public utilities and services from the Alignment D2 Alternative would be similar to those of the proposed project. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer and energy services under the Alignment D1 Alternative would be *less than significant*.

Programmatic Level Impacts to Sewer Service

Under the Alignment D2 Alternative, the proposed land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are *less than significant.*

Traffic and Circulation

Under the Alignment D2 Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. The only difference would be that Zinfandel Drive would be located slightly further east than the alignment proposed for the proposed project. Based on the proposed curves of the roadway, it would be capable of supporting vehicular speeds of up to 50 MPH. The traffic generating potential of the site would be the same as in the proposed project as would the general circulation pattern on and off site. Impacts to traffic and circulation from the Alignment D4 Alternative would be similar to the proposed project and would be *less than significant*.

Climate Change

Impacts related to climate change from the Alignment D2 Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are *less than significant* with mitigation.

Alternative 3: Multiple Preserves Alternative

Land Use

Under the Multiple Preserves Alternative, the land use designation proposals and requested entitlements would be the same as those under the proposed project and the

Zinfandel Drive/ trunk sewer improvements would still be constructed along its proposed alignment. Land use impacts under the Multiple Preserves Alternative would be similar to those of the proposed project and will be ***less than significant.*** Although land use impacts are less than significant under the proposed project and multiple preserve alternative, this alternative would effectively create a buffer between a portion of the Commercial Recreation District and the rendering plant south of Kiefer Boulevard (extending to approximately 700 feet north of Kiefer Boulevard) which may help buffer future uses from the rendering plant.

Airport Compatibility

Airport compatibility issues generally relate to the siting of tall structures, dense populations or sensitive receptors in close proximity to airport operations. One of the identified additional preserve areas is located in close proximity to the southern runway and partially within the approach departure zone associated with Mather Airport. With the preserve in this location, the area for development within the proposed Industrial District and also within the approach departure zone would be reduced. Although developable land within the approach departure zone would be less in the Multiple Preserves Alternative, developable area would still be within the approach departure zone and the disposition of impacts associated with this alternative would be similar to those of the proposed project. With mitigation impacts associated with airport compatibility are ***less than significant***.

Air Quality

The Multiple Preserves Alternative would include the extension of Zinfandel Drive and the installation of sewer pipe as well as proposed land use designations that would result in future development similar to the proposed project. However, this alternative would decrease the amount of developable land by approximately 70 acres. Even though the amount of land that could be developed would be reduced, the amount land to be removed is minor and would not substantially reduce the potential for construction and operational emission to exceed thresholds. The emissions would be comparable to the emissions related to the proposed project.

FUGITIVE DUST CAUSED BY CONSTRUCTION ACTIVITIES

As is the case with the proposed project, despite the application of feasible measures through existing rules and regulations, the Multiple Preserves Alternative will result in a ***significant and unavoidable*** impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction.

OZONE PRECURSOR AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Implementation of the Multiple Preserves Alternative could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of this alternative would have a potentially significant impact on air quality. Mitigation measures are

recommended in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a ***less than significant*** level.

OPERATIONAL EMISSIONS

Under the Multiple Preserves Alternative, future development will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. Currently, property owners and tenants within Mather Field are required to participate in a Transportation Management Association such as the 50 Corridor Transportation Management Association and Mather Field Air Quality Plan which were developed in order to reduce operation emissions.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are ***significant and unavoidable.***

TOXIC AIR CONTAMINANTS (TAC)

Under the Multiple Preserves Alternative, future development would still occur based on the proposed land use designations and TAC generating uses could be constructed in the proposed Industrial District. The TAC generating potential of this alternative is the same as that of proposed project and will not expose existing or future receptors to substantial risk related to TAC exposure. Impacts related to TAC exposure are ***less than significant***.

ODORS

Under the Multiple Preserves Alternative, future development at the southeast corner of Mather Field, consistent with the Commercial Recreation District guidelines, would occur similar to the proposed project. The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the Commercial Recreation District and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

Although the Commercial Recreation District area is adjacent to the rendering plant and downwind of the prevailing wind pattern in the Mather Field area, given that the this alternative will not introduce additional sensitive receptors over those currently permitted in the Mather Field SPA, impacts related to odor generated at the Sacramento Rendering Plant are ***less than significant***. Although odor impacts are less than significant under the proposed project and Multiple Preserves Alternative, this alternative would effectively create a buffer between a portion of the Commercial Recreation District and the rendering plant south of Kiefer Boulevard (extending to

approximately 700 feet north of the Kiefer Boulevard) which may help buffer future uses from the rendering plant.

Biological Resources

The Multiple Preserves Alternative will increase the amount of preserved land by approximately 70 acres and will increase the amount of protected habitat suitable to support special status vernal pool species by approximately seven acres. However, this alternative would still result in a substantial amount of direct and indirect impacts to vernal pool habitat, Waters of the US and habitat for other special status species. The impacts would be similar to those of the proposed project and mitigation for these impacts would be required to reduce impacts to ***less than significant*** levels.

Cultural Resources

Impacts related to cultural resources from the Multiple Preserves Alternative would be similar to those of the proposed project. As with the proposed project, it is possible that buried archaeological resources or human remains are encountered during construction activities. No architectural resources that meet the criteria of significance under CEQA were located in the survey areas. Similar to the proposed project, impacts to archaeological resources are ***less than significant*** with mitigation.

Hazardous Materials

Impacts related to hazardous materials from the Multiple Preserves Alternative would be similar to those of the proposed project. It is possible that hazardous materials including contaminated soils, radioactive waste, munitions, unexploded ordinance, and contaminants related to existing landfills will be encountered during construction activities. Additionally, it is possible that construction activities may impact existing remediation systems or monitoring wells. Similar to the proposed project, impacts to hazardous materials are ***less than significant*** with mitigation.

Hydrology and Water Quality

Under the Multiple Preserves Alternative, the proposed land uses and roadway alignment would be identical to those of the proposed project but additional lands within the project site would be set aside as preserved lands. This would increase the total amount of land set aside by approximately 70 acres in order to protect suitable habitat for special status vernal pool species. This may result is a reduced amount of impervious surface as compared to the proposed project, but not to a degree that would substantially alter the impacts from those of the Project. Development would be required to adhere to existing standards and regulations of the SPA Ordinance Performance Standards, Sacramento County Improvement Standards, Sacramento County Floodplain Management Ordinance, and Sacramento County Stormwater Ordinance. As with the proposed project, impacts related to hydrology, flooding, and water quality under the Multiple Preserves Alternative would be ***less than significant.***

Public Utilities and Services

Impacts related to public utilities and services from the Multiple Preserves Alternative would be similar to those of the proposed project. Although this alternative would decrease the amount of developable land by approximately 70 acres and have the potential to reduce demands on public services to some degree, the vast majority of the property would be developed consistent with the proposed land use designations. As with the proposed project, impacts to potable water, fire protection, law enforcement, solid waste, school, park and recreation, project level sewer service, and energy services under the Multiple Preserves Alternative would be ***less than significant***.

PROGRAMMATIC LEVEL IMPACTS TO SEWER SERVICE

Under the Multiple Preserves Alternative, the land uses would be similar to those of the proposed project and future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are ***less than significant***

Traffic and Circulation

Under the Multiple Preserves Alternative, the proposed land uses would be similar to those of the proposed project and the proposed Zinfandel Drive/ trunk sewer improvements would still be installed. Although this alternative would reduce the amount of developable land by approximately 70 acres, the traffic generating potential of the site would be similar that of the proposed project as would the circulation pattern on and off site. Impacts to traffic and circulation from the Multiple Preserve Alternative would be similar to the proposed project and would be ***less than significant***.

Climate Change

Impacts related to climate change from the Multiple Preserves Alternative would be similar to those of the proposed project. Development, consistent with the proposed land use designations, would still occur which have the potential to result in energy sector emissions at levels above thresholds. As with the proposed project, impacts to climate change are ***less than significant*** with mitigation.

Summary Comparison of Alternatives

The goal of the project alternatives is to reduce significant impacts. The Project would result in significant impacts related to airport compatibility, air quality, biological resources, cultural resources, hazardous materials, public utilities and services, and climate change. Significant and unavoidable impacts related to fugitive dust and operational emissions would result from future development consistent with the proposed land use designations while the remaining significant impacts could be

reduced to less than significant levels with mitigation. Table ALT-1 provides a summary of impacts between the alternatives **that are not specific to the Zinfandel Drive roadway alignment. A separate table comparing the impacts of the alignment alternatives (Alternatives 2B through 2G) has been provided in Table ALT-2. And lastly, because Tables ALT-1 and ALT-2 reflect the same level of impact for direct and indirect impacts on wetland resources (less than significant with mitigation), Table ALT-3 has been provided to show the specific acreages of impacts on wetland resources for the Proposed Project, Alternative 2, and Alternatives 2A through 2G for a more meaningful comparison of impacts.**

Table ALT-1: Summary Comparison

Impact Category	Project	Alternative 1: No Project	Alternative 2: Existing Zinfandel Drive Alternative	Alternative 2A: Prior Project Alternative	Alternative 3: Multiple Preserves Alternative
Land Use	**LS**	LS	LS	**LS**	LS
Airport Compatibility					
• **Noise**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Navigable Airspace**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Approach/ Departure Safety Zone**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Overflight Safety Zone**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
Air Quality					
• **Programmatic Level Fugitive Dust During Construction**	**SU**	SU	SU	**SU**	SU
• **Programmatic Level Ozone Precursor Emissions & Diesel Particulate Caused by Construction**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Programmatic Level Operational Emissions**	**SU**	SU	SU	**SU**	SU
• **Project Level Fugitive Dust During Construction**	**LS**	LS	LS	**LS**	LS
• **Project Level Ozone Precursor Emissions & Diesel Particulate Caused by Construction**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Project level Operational Emissions**	**LS**	LS	LS	**LS**	LS

Impact Category	**Project**	Alternative 1: No Project	Alternative 2: Existing Zinfandel Drive Alternative	**Alternative 2A: Prior Project Alternative**	Alternative 3: Multiple Preserves Alternative
• **Toxic Air Contaminants**	**LS**	LS	LS	**LS**	LS
• **Odors**	**LS**	LS	LS	**LS**	LS
Biological Resources					
• **Waters of the U.S.**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Special Status Species**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Trees**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**
• **Nesting and Foraging Habitat**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Critical Habitat for Vernal Pool Tadpole and Fairy Shrimp**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Mather Core Recovery Area**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Programmatic Level Riparian habitat**	**LS**	PS	LS	**LS**	LS
• **Project Level Riparian Habitat**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Swainson's Hawk Foraging Habitat**	**LS**	LS	LS	**LS**	LS
• **Critical Habitat for Slender and Sacramento Orcutt Grasses**	**LS**	PS	LS(M)	**LS**	LS
Cultural Resources					
• **Archaeological Resources and Human Remains**	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
• **Built Environment Resources**	**LS**	LS	LS	**LS**	LS

Impact Category	**Project**	Alternative 1: No Project	Alternative 2: Existing Zinfandel Drive Alternative	**Alternative 2A: Prior Project Alternative**	Alternative 3: Multiple Preserves Alternative
Hazardous Materials					
• **Contaminated Soils and Groundwater**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Site RW-016**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Site XU-403**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Site OT-69/XE-404**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Landfills LF-03, LF-04 and Northeast Plume**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Landfill WP-07**	**LS**	LS	LS	**LS**	LS
• **Asbestos**	**LS**	LS	LS	**LS**	LS
• **Lead Based Paint**	**LS**	LS	LS	**LS**	LS
• **Monitoring, Injection and Extraction Wells**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
Hydrology and Water Quality	**LS**	LS	LS	**LS**	LS
Public Utilities & Services					
• **Relocated Utilities and Disruption of Service**	**LS**	LS	LS	**LS**	LS
• **Construction of New Facilities**	**LS**	PS	LS	**LS**	LS
• **Potable Water, Fire, Law Enforcement, Solid Waste, School, Park and recreation, and Energy Services**	**LS**	LS	LS	**LS**	LS

Impact Category	**Project**	Alternative 1: No Project	Alternative 2: Existing Zinfandel Drive Alternative	**Alternative 2A: Prior Project Alternative**	Alternative 3: Multiple Preserves Alternative
• **Programmatic Level Sewer Service**	**LS(M)**	LS	LS(M)	**LS(M)**	LS(M)
• **Project level Sewer Service**	**LS**	LS	LS	**LS**	LS
Traffic & Circulation	**LS**	SU	LS	**LS**	LS
Climate Change	**LS(M)**	PS	LS(M)	**LS(M)**	LS(M)
Meets Objectives	**Yes**	No	Yes	**Yes**	Yes

SU-significant and unavoidable **S** – significant, **PS** – potentially significant, **LS(M)** – less than significant with mitigation, **LS** – less than significant

Table ALT-2 Summary Comparison for Zinfandel Alignment Options

Impact Category	Alternative 2B: Alignment B1	Alternative 2C: Alignment B2	Alternative 2D: Alignment C1	Alternative 2E: Alignment C2	Alternative 2F: Alignment D1	Alternative 2G: Alignment D2
Land Use	LS	LS	LS	LS	LS	LS
Airport Compatibility						
• Noise	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Navigable Airspace	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Approach/ Departure Safety Zone	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Overflight Safety Zone	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
Air Quality						
• Programmatic Level Fugitive Dust During Construction	SU	SU	SU	SU	SU	SU
• Programmatic Level Ozone Precursor Emissions & Diesel Particulate Caused by Construction	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Programmatic Level Operational Emissions	SU	SU	SU	SU	SU	SU
• Project Level Fugitive Dust During Construction	LS	LS	LS	LS	LS	LS
• Project Level Ozone Precursor Emissions & Diesel Particulate Caused by Construction	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Project level Operational Emissions	LS	LS	LS	LS	LS	LS
• Toxic Air Contaminants	LS	LS	LS	LS	LS	LS

Impact Category	Alternative 2B: Alignment B1	Alternative 2C: Alignment B2	Alternative 2D: Alignment C1	Alternative 2E: Alignment C2	Alternative 2F: Alignment D1	Alternative 2G: Alignment D2
• Odors	LS	LS	LS	LS	LS	LS
Biological Resources						
• Waters of the U.S.	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Trees	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Special Status Species	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Nesting and Foraging Habitat	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Critical Habitat for Vernal Pool Tadpole and Fairy Shrimp	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Mather Core Recovery Area	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Programmatic Level Riparian habitat	LS					
• Project Level Riparian Habitat	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Swainson's Hawk Foraging Habitat	LS	LS	LS	LS	LS	LS
• Critical Habitat for Slender and Sacramento Orcutt Grasses	LS	LS	LS	LS	LS	LS
Cultural Resources						
• Archaeological Resources and Human Remains	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)

Impact Category	Alternative 2B: Alignment B1	Alternative 2C: Alignment B2	Alternative 2D: Alignment C1	Alternative 2E: Alignment C2	Alternative 2F: Alignment D1	Alternative 2G: Alignment D2
• Built Environment Resources	LS	LS	LS	LS	LS	LS
Hazardous Materials						
• Contaminated Soils and Groundwater	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Site RW-016	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)	LS(M)
• Site XU-403	LS(M)					
• Site OT-69/XE-404	LS(M)					
• Landfills LF-03, LF-04 and Northeast Plume	LS(M)					
• Landfill WP-07	LS	LS	LS	LS	LS	LS
• Asbestos	LS	LS	LS	LS	LS	LS
• Lead Based Paint	LS	LS	LS	LS	LS	LS
• Monitoring, Injection and Extraction Wells	LS(M)					
Hydrology and Water Quality	LS	LS	LS	LS	LS	LS
Public Utilities & Services						
• Relocated Utilities and Disruption of Service	LS	LS	LS	LS	LS	LS
• Construction of New Facilities	LS	LS	LS	LS	LS	LS
• Potable Water, Fire, Law Enforcement, Solid Waste, School, Park and recreation, and Energy	LS	LS	LS	LS	LS	LS

Impact Category	Alternative 2B: Alignment B1	Alternative 2C: Alignment B2	Alternative 2D: Alignment C1	Alternative 2E: Alignment C2	Alternative 2F: Alignment D1	Alternative 2G: Alignment D2
Services						
• **Programmatic Level Sewer Service**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**
• **Project level Sewer Service**	**LS**	**LS**	**LS**	**LS**	**LS**	**LS**
Traffic & Circulation	**LS**	**LS**	**LS**	**LS**	**LS**	**LS**
Climate Change	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**	**LS(M)**
Meets Objectives	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Table ALT-3: Summary Comparison of Wetland Impacts (Acres)

	Project	Alternative 2: Existing Zinfandel Drive Alternative	Alternative 2A: Prior Project Alternative	Alternative 2B: Alignment B1	Alternative 2C: Alignment B2	Alternative 2D: Alignment C1	Alternative 2E: Alignment C2	Alternative 2F: Alignment D1	Alternative 2G: Alignment D2
Direct Impacts	**0.326**	**1.271**	**0.235**	**1.094**	**1.366**	**0.274**	**0.302**	**0.542**	**0.542**
Indirect Impacts	**6.259**	**3.357**	**4.769**	**5.182**	**4.531**	**3.604**	**3.610**	**3.157**	**3.174**
Total Impact	**6.585**	**4.628**	**5.004**	**6.276**	**5.897**	**3.878**	**3.912**	**3.699**	**3.715**

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The proposed project will result in two (2) significant and unavoidable impacts, **22~~1~~** impacts that can be reduced to less than significant levels with mitigation and 18 impacts that are considered less than significant.

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

The No Project Alternative will result in three (3) significant and unavoidable impacts, 11 impacts that are considered potentially significant, **one (1) impact that could be reduced to less than significant with mitigation,** and 27 impacts that are considered less than significant. It should be noted that, although this alternative has a greater number of less than significant impacts than the proposed project, it also has more significant and unavoidable impacts and the potential to have several additional significant and unavoidable impacts if developed based on the existing land use designations. In addition, this alternative does not meet the objectives of the project which are to, in part, provide for new development and economic opportunities including viable commercial services and a diversity of employment opportunities located in proximity to residents. This alternative has more significant impacts than the proposed project and does not meet the project objectives; this alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2: EXISTING ZINFANDEL DRIVE ALTERNATIVE

The Existing Zinfandel Drive Alignment Alternative will result in two (2) significant and unavoidable impacts, **23~~2~~** impacts that can be reduced to less than significant levels with mitigation and 17 impacts considered less than significant. This alternative would meet the basic objectives of the project but would result in more impacts that would require mitigation measures over the proposed project and will increase the severity of several impacts that can be mitigated to less than significant levels. Cursory analysis indicates that this alternative will result in new indirect impacts to critical habitat for slender and Sacramento orcutt grass. Additionally, this alternative would be expected to increase direct and indirect impacts to vernal pool features suitable to support special status species, critical habitat for vernal pool tadpole and fairy shrimp, habitat within the Mather Core Recovery Area and direct impacts to Waters of the U.S. The mitigation requirements for these impacts would increase under this alternative. The Existing Alignment Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2A: PRIOR PROJECT ALTERNATIVE

The Prior Project Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the

Proposed Project. This alternative would result in fewer direct and indirect impacts on wetland resources. The Natural Preserve area would be smaller under this alternative, and the UDA area would be larger, so although there would be no development at this time, this alternative could likely accommodate more urban development than the Proposed Project. The Prior Project Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2B: ALIGNMENT B1 ALTERNATIVE

The Alignment B1 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in more direct but fewer indirect impacts on wetland resources; the overall impacts on wetlands would be less than the Proposed Project. The Natural Preserve area would be smaller under this alternative, and the UDA area would be larger, so although there would be no development at this time, this alternative could likely accommodate more urban development than the Proposed Project. The Alignment B1 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2C: ALIGNMENT B2 ALTERNATIVE

The Alignment B2 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in more direct but fewer indirect impacts on wetland resources; the overall impacts on wetlands would be less than the Proposed Project. The Natural Preserve area would be smaller under this alternative, and the UDA area would be larger, so although there would be no development at this time, this alternative could likely accommodate more urban development than the Proposed Project. The Alignment B2 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2D: ALIGNMENT C1 ALTERNATIVE

The Alignment C1 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in fewer direct and indirect

impacts on wetland resources than the Proposed Project. The Natural Preserve and UDA areas would be approximately the same size. The Alignment C1 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2E: ALIGNMENT C2 ALTERNATIVE

The Alignment C2 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in fewer direct and indirect impacts on wetland resources than the Proposed Project. The Natural Preserve and UDA areas would be approximately the same size. The Alignment C2 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2F: ALIGNMENT D1 ALTERNATIVE

The Alignment D1 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in more direct but fewer indirect impacts on wetland resources than the Proposed Project; the overall impact on wetlands would be less than the Proposed Project. The Natural Preserve would be slightly larger and the UDA slightly smaller than the Proposed Project. This roadway alignment could result in the need for changes to the proposed but not approved NewBridge Specific Plan. The Alignment D1 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 2G: ALIGNMENT D2 ALTERNATIVE

The Alignment D2 Alternative will result in two (2) significant and unavoidable impacts, 22 impacts that can be reduced to less than significant levels with mitigation and 18 impacts considered less than significant, which is the same as the Proposed Project. This alternative would meet the basic objectives of the project and would result in same number of significant and unavoidable, less than significant with mitigation, and less than significant impacts as the Proposed Project. This alternative would result in more direct but fewer indirect impacts on wetland resources than the Proposed Project; the overall impact on wetlands would be less than the Proposed Project. The Natural Preserve would be slightly larger and the UDA slightly smaller than the Proposed Project. This roadway alignment could result in the need for changes to the proposed but not approved NewBridge Specific Plan. The Alignment D2 Alternative is not considered the environmentally superior alternative.

ALTERNATIVE 3: MULTIPLE PRESERVES ALTERNATIVE

The Multiple Preserves Alternative will have two (2) significant and unavoidable impacts, **22~~1~~** impacts that can be reduced to less than significant levels and 18 impacts that are considered less than significant. The impacts of this alternative mirror those of the proposed project except that the amount of preserved land will increase by approximately 70 acres and the amount of affected habitat suitable to support special status vernal pool species will be reduced by approximately seven acres and mitigation requirements would be reduced. Even with the additional preserved areas, this alternative will require a substantial amount of mitigation to reduce impacts to vernal pool habitat and species to a less than significant level.

This alternative can meet the basic objectives of the proposed project but it should be noted that the additional preserves would likely make developing the Commercial Recreation District along Kiefer Boulevard more challenging. This area has been identified as an area where future development should occur, in part, given its proximity to Kiefer and Sunrise Boulevards. The Mather Field Specific Plan identifies the southeast portion of Mather Field as an attractive setting for a major commercial recreational visitor destination or a major institutional facility. Policy M-LU-19 of the Mather Field Specific Plan states the following:

> Allow a major destination or institutional use in the southeastern portion of Mather Field.

Additionally, preserving habitat in the Commercial Recreation District along Kiefer Boulevard may make the development of Kiefer Boulevard, consistent with current General Plan designations, more challenging.

Although the Multiple Preserves Alternative would create more challenges to the development of this identified opportunity site and to meet Policy M-LU-19 of the Mather Field Specific Plan, development could still occur at this site under this alternative and the objectives of the proposed project are met. The Multiple Preserves Alternative is considered the environmentally superior alternative.

4 LAND USE

INTRODUCTION

This chapter examines existing land uses in and adjacent to the Mather Field project area and identifies applicable regulations and policies affecting the project site. This section evaluates potential land use impacts of the proposed project associated with the Sacramento County General Plan, the Sacramento County Zoning Code, ~~and~~ the Cordova Community Plan, and the Sacramento Area Council of Governments' (SACOG) "Blueprint" plan.

LAND USE SETTING

Mather Field totals approximately 5,400 acres and approximately 2,500 acres has been developed for many years. The primary development in the area is Mather Airport which was once utilized as an Air Force base that was established in 1918. The area is also developed with buildings, roads and other infrastructure to support the airport. Additional development in the project area includes a regional park, 1,271 single family residential housing units, schools, a golf course and the Federal Aviation Administration's Northern California Terminal Radar Control facility.

Given the past and current development of the site the land use designations in the project area allow for a variety of uses. The General Plan and Specific Plan Land Use Designations that apply to the site include Public/ Quasi-Public, Low Density Residential, Industrial, Recreation, and Commercial and Office. The existing zoning of the project area is Special Planning Area (SPA). The SPA land use zone is applied to certain areas that have unique environmental, historic, architectural, or other features which require special conditions not provided through the application of standard zone regulations. The SPA zone allows the County to guide development of such areas so as to preserve such unique characteristics or provide for a broader mixture of land uses when appropriate.

REGULATORY SETTING

To analyze the potential land use effects of the Mather Field project, this EIR considers the differences between the proposed project land use designations and the Sacramento County General Plan, the Mather Field Specific Plan as well as Zoning designation currently guiding development in the project area. In addition, this EIR will analyze impacts associated with the project and the Mather Airport Comprehensive Land Use Plan (CLUP) and SACOG's "Blueprint" plan.

SACRAMENTO COUNTY GENERAL PLAN

GENERAL PLAN LAND USE DESIGNATIONS

The General Plan contains land use designations establishing development intensities for various types of land uses. According to the General Plan, the Mather Field area is located predominately within the Public/ Quasi-Public and Recreation designations with the remainder of the site designated for Low Density Residential, Industrial Intensive, and Commercial and Office uses. The Public Quasi/Public designation allows for a wide range of uses that are not specifically proposed as part of this project. According to the Sacramento County General Plan these designations are defined as follows:

> The Public/ Quasi-Public designation establishes areas for uses such as education, solid and liquid waste disposal, and cemeteries. This designation identifies public and quasi-public areas that are of significant size, under County jurisdiction, regional in scope, specified by State law, or have significant land use impacts.
>
> The Recreation designation provides for active public recreational uses, including community parks, County parks, and activity areas within the American River Parkway.
>
> The Low Density Residential designation provides for areas of predominately single family housing with some attached housing units. It allows urban densities between one and 12 dwelling units per acre, resulting in population densities ranging from approximately 2.5 to 30 persons per acre. Typical low density development includes detached single family homes, duplexes, triplexes, fourplexes, townhouses, lower density condominiums, cluster housing, and mobile home parks.
>
> The Industrial Intensive designation allows for manufacturing and related activities including research, processing, warehousing, and supporting commercial uses, the intensive nature of which require urban services. Industrial Intensive areas are located within the urban portion of the County and receive an urban level of public infrastructure and services. Floor area ratios range from 0.15 to 0.80.
>
> The Commercial and Office designation provides for a full range of neighborhood, community and regional shopping centers and a variety of business and professional offices. Uses include locally-oriented retail, professional offices, and regional commercial operations. The location and size of commercial areas is based upon accessibility, historic development patterns, community and neighborhood needs, and minimization of land use conflicts. Ideally, commercial areas are designed to integrate with the community, including the provision for pedestrian amenities. The standard for commercial Floor Area Ratios is between 0.25 and 2.5.

General Plan Land Use Strategies, Goals and Policies

The primary role of the General Plan Land Use Element is to ensure that the County's land resources are utilized in the most efficient, equitable and productive manner possible to provide a high quality of life for both current and future residents. The Land Use Element contains strategies, goals and policies that that are intended to support this primary role. The land use strategies, goals and polices that are applicable to the project are listed below.

The first strategy is to maintain a logical progression of urban development. The primary goal of this strategy is to:

> Direct new growth to previously urbanized areas, planned growth areas and strategically located new growth areas to promote efficient use of land, to reduce urban sprawl and its impacts, to preserve valuable environmental resources, and to protect agricultural and rangeland operations.

The second strategy is to provide growth accommodation within the unincorporated portion of the County. The primary goal of this strategy is to:

> Accommodate projected population and employment growth in areas where the appropriate level of public infrastructure and services are or will be available during the planning period.

The policy applicable to the project related to this goal is:

> LU-10: Consider private amendment applications that seek to increase densities within planned communities, including in pending and approved Specific Plan areas, when the project area is appropriately designed and sited.

The third strategy is to focus on growth management and design by way of taking into account how growth will best serve the present and future County residents, the economy and the environment. The primary goal of this strategy is to emphasize:

> Land use patterns that maximize the benefits of new and existing development while maintaining the quality, character, and identity of neighborhood and community areas.

An additional goal in support of this strategy is to:

> Ensure the continual vitality and long-term viability of airports in Sacramento County to serve current and future air transportation demand through careful and appropriate land use planning around airports, consistent with federal Aviation Administration regulations and grant-in-aid

obligations, adopted airport master plans, and Airport Land Use Compatibility Plans.

The policies applicable to the project related to this goal are:

LU-21: Promote a better balance of employment, neighborhood services, and different housing types by reviewing development projects and the surrounding community and designing new projects wherever feasible so that they maintain or improve the mix of uses in the community.

LU-22: Specific Plans and Community Plans should provide a balance of employment, neighborhood services, and different housing types wherever feasible.

LU-51: New industrial uses using large amounts of material and with low employment densities, such as warehousing, shall be located outside new growth areas and targeted commercial corridors along primary transportation routes such as Interstate facilities, airports, railroads, or navigable waterways, except in areas around airports where adopted policy and/or regulations limit uses and development densities and intensities.

LU-54: The County shall provide an adequate industrial land supply to encourage industry to locate and provide diversification to the Sacramento County economy.

The fourth strategy is to focus on built environment preservation and enhancement. The primary goal of this strategy is defined below:

Reinvestment in and revitalization of existing communities through comprehensive and coordinated planning strategies and public participation that addresses housing, economic development, commercial development, employment opportunities, public facilities and infrastructure improvements.

The policies applicable to the project related to this goal are:

LU-91: Support district planning efforts that focus on specific areas in need of reinvestment and revitalization.

LU-95: Support the ongoing conservation, maintenance and upgrading of the County's housing inventory.

An additional goal and several policies that relate to the proposed land use changes can be found in the General Plan Conservation Element. The Conservation Element includes a mineral resources section that details the County's goal related to mining and the policies that support that goal. The

County's goal is to protect mineral resources for economic extraction with minimal adverse impacts. The policies that support this goal are listed below.

CO-37: Apply the aggregate resources combining land use category to additional areas as subsequent studies determine them to contain mineral resources which are feasible and appropriate for mining. The aggregate resources combining land use category shall not be a prerequisite to (SM) surface mining combining zoning or regulation through the procedures of an existing special planning area zoning designation in conjunction with proposed surface mining.

CO-44: Due to the predicted shortages of aggregates in Sacramento County, mining of mineral resources within the Urban Services Boundary (USB) is encouraged, where consistent with Habitat Conservation Plans or other County initiated conservation programs and where such mining does not preclude successful completion of these plans, to avoid the potential loss of these mineral resources as a result of potential urban development. This policy is not intended to preclude mining outside the USB.

Sacramento County Urban Services Boundary and Urban Policy Area

According to the Sacramento County General Plan, the Urban Services Boundary (USB) indicates the boundary of the urban area in the unincorporated county. The Urban Policy Area (UPA) defines the area within the USB expected to receive urban levels of public infrastructure and services within the planning period. The General Plan states that the area within the UPA must be able to accommodate growth projected for the 25 year planning period. The USB allows for the permanent preservation of agriculture and rangelands, critical habitat and natural resources, while the UPA concentrates and directs growth within previously urbanized areas, limiting arbitrary and sprawling development patterns. The proposed infrastructure improvements are consistent with the General Plan's requirement of providing infrastructure to accommodate growth within the planning period.

General Plan Circulation Element

The Circulation Element provides the framework for Sacramento County decisions concerning the countywide transportation system, which includes various transportation modes and related facilities. It also provides for coordination with the cities and unincorporated communities within the county, with the Metropolitan Transportation Plan adopted by the Sacramento Area Council of Governments, and with State and Federal agencies that fund and manage transportation facilities within the county.

California law requires that the transportation network shown on the Circulation Element Plan is consistent with the Land Use Element and can be funded within the planning period. The Transportation Plan that accompanies the Circulation Element has been prepared to meet these requirements.

The Transportation Plan depicts the proposed circulation system for unincorporated Sacramento County to support existing and planned development under the Land Use Element. This circulation system is shown on the Transportation Plan by means of a set of roadway and transit classifications, developed to guide Sacramento County's long-range planning and programming. Roadways are classified in this system based on the linkages they provide, their function in the hierarchy of roadways, and the importance of the route's service to the residents and businesses of Sacramento County. According to the Transportation Plan, the roadways in the project area are Thoroughfares and Arterials.

Thoroughfares provide for mobility within the County, carrying through traffic on continuous routes and providing transportation links between major residential, employment, commercial, and retail areas. Access to abutting private property and intersecting local streets shall generally be restricted. Thoroughfares generally have the following functional characteristics:

- Thoroughfares shall typically be developed as six-lane roadways with a raised center median.
- Bikeways along designated thoroughfares may be Class I, Class II, or Class III facilities.
- Access to a thoroughfare may occur at intersections with other thoroughfares, arterials, and collectors. Access to and from local streets and private properties may be restricted to right turn movements only through the use of islands and turn lanes.
- Direct access points shall be located at sufficient intervals from each other and from public roads to maintain the safety and the traffic carrying capacity of the roadway.

Arterials provide for a link between thoroughfares with their limited access and through movement capacity and collectors which have greater access and serve local streets. Arterials can also provide for mobility and direct access within commercial and retail corridors through two-way left-turn lanes. Arterials have the following functional characteristics:

- Arterials shall typically be developed as four-lane roadways with either a center two-way left-turn lane or a raised center median.
- Bikeways along designated arterials may be Class I, Class II, or Class III facilities.
- Based on the function of a particular arterial, access may be provided to adjacent properties through a two-way left-turn lane or more restricted through a raised center median.

The Circulation Element also includes goals that are designed to meet the main theme of the element which is to provide for mobility through multiple viable and efficient transportation alternatives. The goals of the Circulation Element that are pertinent to the proposed project are the following:

> Provide mobility for current and future residents of Sacramento County through complete streets and through a balanced and interconnected transportation system which includes all modes of travel - automobile, transit, pedestrian and bicycling.
>
> Provide a balanced and integrated roadway system that maximizes the mobility of people and goods in a safe and efficient manner.
>
> Promote a balanced and integrated transit system to maximize mobility in a safe and efficient manner.
>
> Provide safe, continuous, efficient, integrated, and accessible bicycle and pedestrian systems that encourages the use of the bicycle and walking as a viable transportation mode and as a form of recreation and exercise.

CORDOVA COMMUNITY PLAN

Mather Field is located within the Cordova Community Plan area. The Cordova Community Plan (Community Plan) was originally adopted in 1978, and in 2003 the Board of Supervisors adopted Resolution 2003-0551 to update the previously adopted plan. The update did not change land use designations; it is a policy-based document. The Community Plan governs properties within the Cordova planning area, but outside of the boundaries of the City of Rancho Cordova. The Plan provides a foundation for the County of Sacramento, developers, service providers and decision makers for planning for both new development and the redevelopment of existing land uses within the community planning area. The Community Plan is an extension of the Sacramento County General Plan, but is much more specific in terms of the policies, objectives and implementation strategies; and is intended to address issues that are most important to the Cordova community.

The Community Plan includes the following land use goal that is pertinent to the project proposal:

> Create an orderly, balanced, and integrated land use pattern that emphasizes revitalization of existing land uses; supports the diversity of business, particularly the transformation of Mather [Field] as a premier business center and air-cargo facility; a pedestrian-friendly, multi-modal environment that capitalizes on the linkage opportunities of LRT stations; and enhances the regional and local character, identity, and quality of development.

The Community Plan includes the following land use objectives intended to support this goal:

> LU-1: Improve the character and quality of existing development thought the redevelopment of blighted and underutilized development.
>
> LU-2: Emphasize high technology industry, business park uses, and industries such as manufacturing and distribution that provide support for Mather [Filed] air-cargo operations.

LU-3: Promote a balance between the growth of the air-cargo industry at Mather [Field] with the need for housing and residential lifestyles in adjacent neighborhoods.

LU-5: Explore mixed-use concepts that capitalize on synergies between and among different types of land uses (e.g., residential and office).

The following land use implementation action noted in the Community Plan is also pertinent to the project:

> Identify areas where high technology industry, business park uses, and industries such as manufacturing and distribution that provide support for Mather [Field] air-cargo operations can locate, and support the development of such uses.

The Community Plan includes the following transportation and circulation goal that is pertinent to the project proposal:

> A safe, convenient, and efficient movement of people to and through the community using various forms of transportation (of equal importance); including, but not limited to, personal vehicles, buses, LRT, bicycles, and walking, while minimizing adverse impacts to neighborhoods.

The Community Plan includes the following land use objectives intended to support this goal:

TC-1: Promote a high quality multi-modal transportation system that reduces reliance on the personal automobile, and a reduction in mobile-source emissions.

TC-2: Encourage roadway circulation improvements that minimize congestion, provide for alternative forms of transportation (e.g., bicycles, golf carts and guided-buses), maximize efficiency and convenience, promote safety, and are sensitive to surrounding neighborhoods.

TC-8: Ensure adequate pedestrian circulation within and between land uses.

MATHER FIELD SPECIFIC PLAN

The Mather Field Specific Plan provides a vision for a large area of Sacramento that is making a significant transition from military to civilian activities. The purpose of this plan is to guide the evolution of this area in a way that will encourage coordinated development and reuse of the site in a manner that responds to local and regional objectives. The intent of the Specific Plan is to encourage new investment and revitalization of Mather Field through a clearly expressed vision that is supported by a clear land use plan, design strategy and implementation program. Towards this end,

the plan recognizes that new development and investment will occur on an incremental basis, but this development must be coordinated so that the area does not end up as a patchwork of disparate uses that have no relationship to one another or to the place as a whole. More specifically, the objectives of the Mather Field Specific Plan include:

> The creation of an airport business complex oriented to aviation-related activities, such as parcel shipment and other "just-in-time" businesses that rely on convenient airport access. The existing airfield will be maintained as the centerpiece of this complex. The plan provides for approximately 11 million square feet of aviation support and industrial and distribution uses within existing and new buildings.
>
> The revitalization of the Main Base as the mixed-use activity center for Mather [Field] and its environs. The Main Base will be the front door of the airport and will include a variety of uses, including airport-related businesses, offices, retail uses, large institutional uses, as well as transitional housing. The plan provides policies and guidelines that will maintain the pedestrian scale and village quality of this area.
>
> The rehabilitation of existing residential units to create a new neighborhood of affordable owner-occupied housing that is oriented to the amenity of the regional park. The plan proposes the rehabilitation of the existing 1,271 units in their existing location, the reuse of the existing schools, and the provision of new retail uses to serve the needs of the future residents.
>
> The preservation of environmental resources, including vernal pools and wetlands associated with Morrison Creek. Many of the sensitive environmental features of the site have been integrated into the regional park to be maintained as natural open space. Mineral resources, which also exist on the site, are also protected, and managed extraction is allowed by the plan.
>
> The plan looks to the beauty of Mather [Field's] natural setting to provide a landscape image for the area. The plan proposes the creation of a strong landscape framework established along streets, natural and active parks and open spaces, to unify the variety of uses and activities and enhance orientation and organization of the site.
>
> The creation of a new commercial recreational attraction, such as a theme park or a major institutional use, at the southeast corner of the site. This location is well served by regional arterials, including Sunrise Boulevard, Zinfandel Drive, and Kiefer Boulevard. A number of major users could be accommodated in this area, subject to future review and approval of the Board of Supervisors.

An implementation program that utilizes existing infrastructure to the extent feasible. While there are deficiencies in the existing system of roads and utilities, upgrades to these facilities are costly and should be provided incrementally as new development occurs and financial resources become available.

An additional objective included in the Mather Field Specific Plan is to create a major regional park that incorporates a variety of active and passive open space amenities, which consider the existing environmental resources in the project area and will improve the quality and livability of the Sacramento Region.

MATHER FIELD SPECIAL PLANNING AREA ORDINANCE

Chapter 3, Title VI, Article 1, Section 603-10 of the Zoning Code of Sacramento County (adopted in 1997) specifically adopts the Mather Field Special Planning Area and identifies it for conversion to a mixture of public and private uses described in a Specific Plan. The intent of the Sacramento County Board of Supervisors in adopting the Mather Field Special Planning Area is to:

Facilitate the conversion of Mather Field from a military air base to a mixture of public and private uses.

Promote the cohesive and comprehensive development of various portions of Mather Field.

Provide flexibility in the types of uses that may be permitted at Mather Field through the identification of several mixed-use zones.

Provide adequate regulation to ensure quality development through the establishment of development standards and design guidelines and by conducting design review of signs, new construction and certain exterior improvements.

Provide a design review process to ensure that the development standards and design guidelines are adhered to in order to ensure the cohesive and quality development and improvement of Mather Field.

Address the needs of the Department of Airports in the operation of the Mather Airport, including: the attraction of air cargo businesses, manufacturing and industrial businesses, and as a center for general and corporate aviation through the identification of an airport zoning district and its subareas.

Promote a pedestrian-oriented environment within the Main Base area, including a mixture of commercial, office and public uses.

Provide linkages between Mather Field and the Cordova community, including: visual, pedestrian, roadway, bikeway and transit linkages incorporating Mather Field into the larger Cordova community.

Provide opportunities for the private use of property for industrial uses in the Industrial District.

Provide for the establishment of Mather Regional Park including the preservation and restoration of environmental features and the development of a mixture of active and passive recreation uses.

MATHER AIRPORT COMPREHENSIVE LAND USE PLAN AND MATHER AIRFIELD AIRPORT PLANNING POLICY AREA

The project area is located within the Mather Airport Comprehensive Land Use Plan (CLUP) area and the Mather Airfield Airport Planning Policy Area (APPA).

The CLUP designates planning boundaries (zones) around the airport and provides guidelines that define compatible types and patterns of future land use. These guidelines fall into three categories: (1) provide height restrictions that aim to protect the navigable airspace around airports for aircraft safety, (2) provide noise compatibility by minimizing the number of people exposed to noise from aircraft operations, and (3) provide for the safety of people on the ground by minimizing the number of people exposed to hazards related to aircraft operations and accidents. The APPA is a space surrounding the Mather Airport that includes the area that contains the 55 CNEL aircraft noise contour and most of the lower altitude portions of flight tracks for large aircraft flying below 3,000 feet above ground level.

The CLUP and APPA are intended to address uses that are potentially incompatible with airport operations. Project related issues associated with the CLUP and APPA of Mather Airport are addressed in the Airport Compatibility section of this EIR.

THE CITY OF RANCHO CORDOVA

MATHER FIELD SPECIFIC PLAN AND SPECIAL PLANNING AREA ORDINANCE

The Mather Field Specific Plan and Special Planning Area Ordinance (SPA) was adopted in 1997 prior to the incorporation of the City of Rancho Cordova. Therefore, the Specific Plan and SPA Ordinance currently covers land within the unincorporated County as well as the City of Rancho Cordova and are regulatory documents applicable to both jurisdictions. The intent, goals and objectives of these documents are identical to those noted above.

SACRAMENTO AREA COUNCIL OF GOVERNMENTS' "BLUEPRINT"

The SACOG Board of Directors adopted the Preferred Blueprint Scenario in December of 2004, hereinafter referred to as the Blueprint. The Blueprint is a growth concept for the greater Sacramento region based on the seven principles listed below, with an

ultimate horizon of 2050. Consistent with General Plan Policy LU-113, the Blueprint is treated as an applicable land use policy document intended to avoid environmental impacts. General Plan policies LU-23 and LU-26 are also applicable in this context, as they require inclusion of many of the growth principles (mixed use, compact community design, walkable environments, and open space) unless determined to be infeasible.

1. Provide a variety of transportation choices, including walkable paths
2. Mix land uses
3. Take advantage of compact building and community design
4. Create a range of housing opportunities and choices
5. Strengthen and direct development toward existing communities
6. Foster distinctive, attractive communities with a strong sense of place
7. Preserve open space, farmland, natural beauty, and critical environmental areas

The SACOG website for the Blueprint (http://www.sacregionblueprint.org/adopted/) states that the Blueprint "should be interpreted as a concept-level illustration of the growth principles" and that it is "not intended to be applied or implemented in a literal, parcel level manner." The Blueprint can be considered an example of how the seven principles could be applied in the Sacramento Region.

SIGNIFICANCE CRITERIA

A land use impact is significant if Project implementation results in any of the following (based on the CEQA Guidelines):

1. If any portion of the project will significantly conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, or
2. Result in significant physical disruption or division of an established community.
3. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.
4. Conflict with existing zoning for agricultural use, or a Williamson Act contract.
5. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

CEQA Guidelines defines "significant" as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical

change may be considered in determining whether the physical change is significant." (Section 15382)

IMPACTS AND ANALYSIS

SACRAMENTO COUNTY GENERAL PLAN LAND USE DESIGNATIONS

The proposed project includes requests to amend the Sacramento County General Plan Land Use Designations that apply to the site. The table below summarizes the proposed land use changes.

Table LU-1: Mather Field General Plan Land Use Designation Changes

Designation	Existing (ac)	Proposed (ac)	Change (ac)
Extensive Industrial (aggregate resources)	0	67.9	+67.9
Intensive Industrial	247.5	~~693.4~~ **667.3**	~~+445.9~~ **419.8**
Commercial and Office	3.9	3.9	0
Urban Development Area	0.0	~~511.6~~ **773.8**	~~+511.6~~ **773.8**
Low Density Residential	391.8	392.5	+.7
Public/Quasi-Public	2,266	~~1,780.2~~ **1,605.2**	~~-485.8~~ **660.8**
Natural Preserve	0.0	~~1,272~~ **1,383.2**	~~+1,272~~ **1,383.2**
Recreation	2,468.5	~~656.1~~ **483.8**	~~-1.812.4~~ **1,984.7**
Totals	5,377.6	5,377.6	

In the post project condition, the majority of the land will contain the same General Plan Land Use Designations as in the existing condition. Approximately 3,500 acres will maintain the Industrial Intensive, Commercial and Office, Low Density Residential, Public-Quasi Public and Recreation land use designations. Approximately 1,800 acres of the project site will contain new land use designations. The new land use designations are Industrial Extensive (with the Aggregate Resource Combining Land Use Designation), Urban Development Area, and Natural Preserve (with a Resource Conservation Combining Land Use Designation). Although several land use designation modifications are proposed, the designation changes will not result in land uses not already allowed within the site. According to the Zoning Consistency Matrix of the Land Use Element, the Public Quasi- Public designation allows for the widest array of uses of all the land use designations and no uses not already allowed in the project area would be allowed (refer to Plate LU -1). Additionally, due to the designations that will remain on the site in the post project condition, no uses currently allowed would be precluded from being on site.

INDUSTRIAL EXTENSIVE

The Industrial Extensive Land Use designation allows activities that require large areas of land and do not require urban levels of service and have floor area ratios of 0.15 to 0.40. The purpose of the Aggregate Resource Area combining designation is to identify

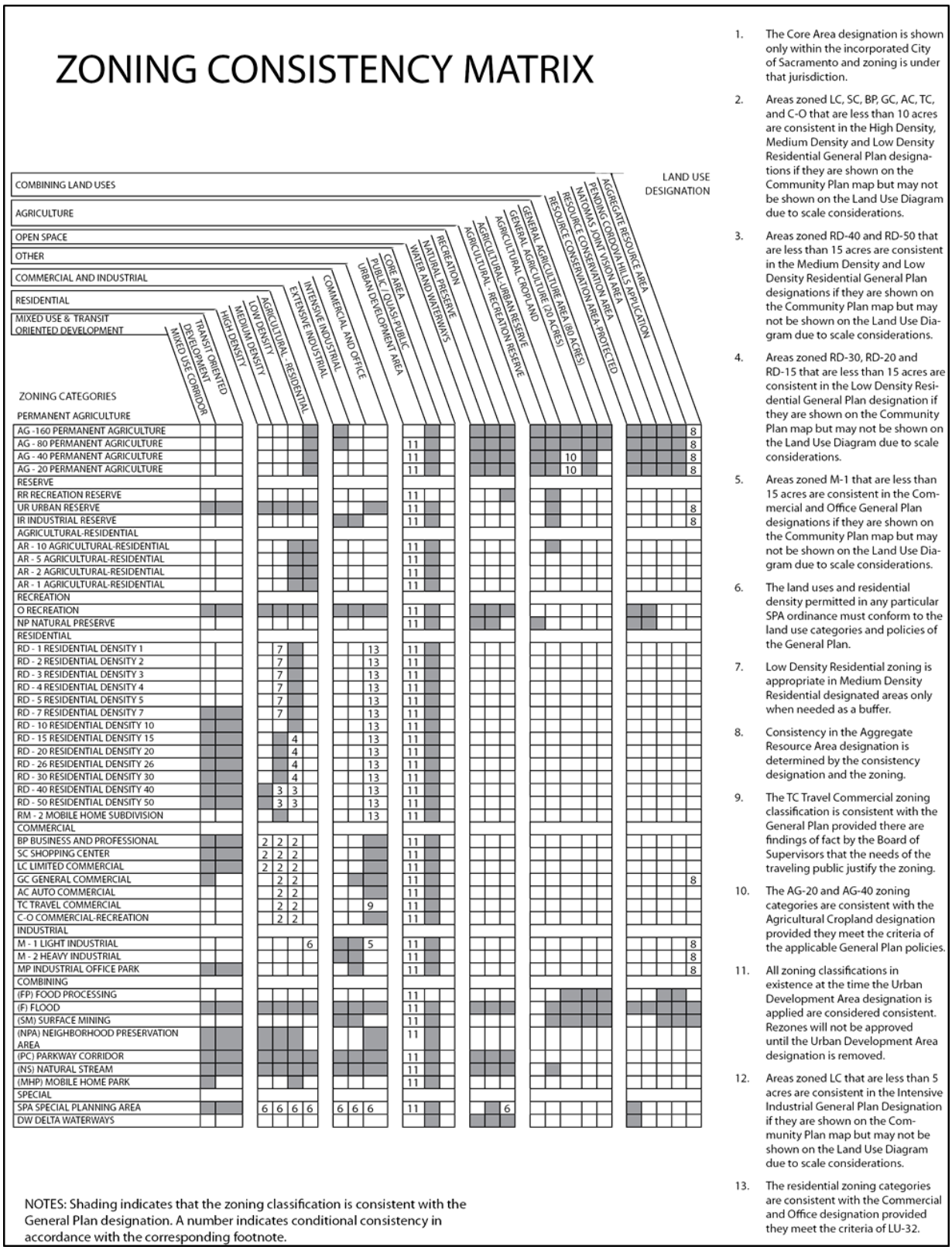
areas with valuable mineral resources**, as identified by the State Mining and Geology Board (SMGB),** and protect those resources as open space until that area is mined. While surface mining is an industrial activity, its locational requirements are dependent upon the physical location of aggregate resources. Specific policies apply to these areas that encourage the conservation and efficient use of mineral resources, while ensuring the maximum feasible protection of the environment. This land use designation is combined with designations such as Industrial Extensive, Agricultural-Urban Reserve, Agricultural Cropland, and General Agriculture (20 and 80 acres). These areas may be ultimately reclaimed as residential, industrial or other uses.

The proposed Industrial Extensive-Aggregate Resource Area designation is located at the southwest corner of the project area over an area known to contain aggregate resources. The intent of adding this designation to the site is to identify this area for future planning efforts related to aggregate resource extraction, and to ensure that future development would not preclude the timely extraction of aggregate resources.

The proposed designation is consistent with the General Plan goal and policies related to aggregate resource protection as well as well as the goals and policies related to promoting an efficient use of land, accommodating project employment growth, and providing an adequate industrial land supply.

~~**It should be noted that the aggregate resource combining designation only preserves the area for mining activities and any future mining activities will need to undergo further permitting and environmental review processes.**~~ **In Sacramento County, the Aggregate Resource Area combining designation is the land use planning tool used to comply with State regulations. The Aggregate Resource Area combining designation does not permit mining activities outright. A separate Use Permit process, including environmental review and coordination with the State Office of Mining and Reclamation, is required before mining activity can occur.**

Plate LU -1: Sacramento County General Plan Zoning Consistency Matrix



NOTES: Shading indicates that the zoning classification is consistent with the General Plan designation. A number indicates conditional consistency in accordance with the corresponding footnote.

1. The Core Area designation is shown only within the incorporated City of Sacramento and zoning is under that jurisdiction.
2. Areas zoned LC, SC, BP, GC, AC, TC, and C-O that are less than 10 acres are consistent in the High Density, Medium Density and Low Density Residential General Plan designations if they are shown on the Community Plan map but may not be shown on the Land Use Diagram due to scale considerations.
3. Areas zoned RD-40 and RD-50 that are less than 15 acres are consistent in the Medium Density and Low Density Residential General Plan designations if they are shown on the Community Plan map but may not be shown on the Land Use Diagram due to scale considerations.
4. Areas zoned RD-30, RD-20 and RD-15 that are less than 15 acres are consistent in the Low Density Residential General Plan designation if they are shown on the Community Plan map but may not be shown on the Land Use Diagram due to scale considerations.
5. Areas zoned M-1 that are less than 15 acres are consistent in the Commercial and Office General Plan designations if they are shown on the Community Plan map but may not be shown on the Land Use Diagram due to scale considerations.
6. The land uses and residential density permitted in any particular SPA ordinance must conform to the land use categories and policies of the General Plan.
7. Low Density Residential zoning is appropriate in Medium Density Residential designated areas only when needed as a buffer.
8. Consistency in the Aggregate Resource Area designation is determined by the consistency designation and the zoning.
9. The TC Travel Commercial zoning classification is consistent with the General Plan provided there are findings of fact by the Board of Supervisors that the needs of the traveling public justify the zoning.
10. The AG-20 and AG-40 zoning categories are consistent with the Agricultural Cropland designation provided they meet the criteria of the applicable General Plan policies.
11. All zoning classifications in existence at the time the Urban Development Area designation is applied are considered consistent. Rezones will not be approved until the Urban Development Area designation is removed.
12. Areas zoned LC that are less than 5 acres are consistent in the Intensive Industrial General Plan Designation if they are shown on the Community Plan map but may not be shown on the Land Use Diagram due to scale considerations.
13. The residential zoning categories are consistent with the Commercial and Office designation provided they meet the criteria of LU-32.

URBAN DEVELOPMENT AREA

URBAN DEVELOPMENT AREA DESIGNATION AMENDMENT

The Sacramento County General Plan includes the following language regarding the Urban Development Area designation:

> The Urban Development Area (UDA) designation indicates where the County will conduct studies leading to the appropriate configuration of urban land uses for the area. These are areas that will be converted to urban uses to accommodate the growth that is projected to occur during the 25 year planning period. One area shown as UDA on the Diagram is the West of Watt area (between McClellan Park and Watt Avenue North). Urban development and/or rezones cannot occur in this area until a master plan has been approved and the UDA designation has been removed.

The proposed project includes an amendment to the General Plan to change the language of the UDA designation to the following (underlined text shows additional language while ~~strikeout~~ text shows removed language):

> The Urban Development Area (UDA) designation indicates where the County will conduct studies leading to the appropriate configuration of urban land uses for the area, or will accept applications to prepare a Master Plan (such as a Specific Plan) for the area. These are areas that will be converted to urban uses to accommodate the growth that is projected to occur during the 25 year planning period. ~~One area shown as UDA on the Diagram is the West of Watt area (between McClellan Park and Watt Avenue North)~~. Urban development and/or rezones cannot occur in this area until a master plan has been approved and the UDA designation has been removed.

The added language is intended to refine the definition of UDA, by clarifying that the County will accept Master Plan applications for areas within UDAs. Master Plans require the preparation of technical studies similar to those the County would do to determine the appropriate configuration of urban land uses. The eliminated language is intended only to clean up the definition of the UDA designation and remove extraneous information.

Land use related environmental impacts associated with the revised UDA designation are ***less than significant***.

URBAN DEVELOPMENT AREA DESIGNATION PROPOSAL

Additionally, the project includes a proposal to add the UDA designation to the east side of the project area south of the Mather Golf Course. The intent of this designation is to proactively identify where the County desires to have appropriately planned future urban uses. The UDA will allow for studies and master planning efforts to be conducted ensuring that future development is desirable and compatible with existing development, and that appropriate levels of residential, commercial and employment-

related development are accommodated within this area in a cohesive manner that does not result in disjointed piecemeal development patterns.

The proposed designation is located within both the Urban Services Boundary and Urban Policy Area (UPA) and is consistent with the land use strategies, goals and policies of the Sacramento County General Plan. The UDA is consistent with the General Plan because it will allow for future urban development in an area expected to receive urban levels of public infrastructure and services, is adjacent to existing developed areas, can provide a balance of employment, services and different housing types in an underutilized portion of the unincorporated County and can help accommodate projected population and employment growth.

It should be noted that UDA designation acts as a "holding" designation that only identifies where future development may occur and any future master planning efforts within the UDA will require further permitting and environmental review. Land use related environmental impacts resulting from the new UDA designated site are ***less than significant.***

Natural Preserve

The purpose of the Natural Preserve designation is to identify critical natural habitat for priority resource protection. The designation includes riparian, valley oak woodland and permanent or seasonal marshes with outstanding wildlife value, the extent of which has declined greatly throughout the Central Valley during the 20th century. This designation shows Natural Preserve on both public and privately owned land. Preserve boundaries do not include intensively farmed areas. The purpose of the Resource Conservation Area-Protected combining designation is to identify areas with special resource management needs that are currently preserved or permanently protected under conservation easements or another form of protection. The designation illustrates certain natural resources as being important on the Land Use Diagram while recognizing the validity of the underlying land use designation. The Resource Conservation Area-Protected combining designation may be combined with Recreation, Natural Preserve, Agricultural-Cropland, and General Agricultural (20 and 80 acres) designations.

The proposed Natural Preserve Resource Conservation-Protected designation is centrally located and covers an area containing a large network of vernal pools, vernal swales and other wetland features that provide suitable habitat for federally protected vernal pool species. The intent of the designation is to preserve the habitat within and protect it from development or other uses that could negatively affect the continued viability of the habitat and its related species. This designation does not conflict with the General Plan because it is consistent with the goal of directing growth in a way that results in the preservation of valuable environmental resources.

The Natural Preserve area is proposed to be located in an area designated for recreational uses. According to the Zoning Consistency Matrix, natural preserve uses are consistent with the Recreation designation of the site. Land use related environmental impacts associated with the addition of the Natural Preserve land use designation are ***less than significant.***

Although several land use designation modifications are proposed, the designation changes will not result in land uses not already allowed within the site. According to the Zoning Consistency Matrix of the Land Use Element, the Public Quasi-Public designation allows for the widest array of uses of all the land use designations and no uses not already allowed in the project area would be allowed. Additionally, due to the designations that will remain on the site in the post project condition, no uses currently allowed would be precluded from being on site.

GENERAL PLAN LAND USE DESIGNATION CONCLUSION

Although several land use designation changes are proposed to occur through the approval of this project, the designations proposed would allow for uses generally consistent with those currently allowed and are not in conflict with the General Plan Land Use Element Strategies, goals and policies and are not expected to result in substantial changes in land use development. Additionally, Mather Field is located within the USB and UPA which is an area planned to accommodate growth projected over the 25 year planning period. Lastly, ~~Additionally,~~ due to the designations that will remain on the site in the post project condition, no uses currently allowed would be precluded from being on site. Land use related environmental impacts associated with the General Plan designation changes are ***less than significant***.

GENERAL PLAN CIRCULATION ELEMENT

In addition to the General Plan Land Use Designation amendments, the proposed project includes a request to amend the General Plan Transportation Diagram. The amendment would reflect the proposed realignment of Zinfandel Drive from just south of Woodring Road to approximately 650 feet north of Kiefer Boulevard where the alignment would come back to the west and connect with Kiefer Boulevard in its current location. Zinfandel Drive, in this location, would be realigned to the east to a maximum distance of approximately 850 feet. The realignment would allow for the proposed natural preserve area to have a larger contiguous footprint and would result in the preservation of more vernal pool habitat than if the alignment remained in its current location. The proposed Transportation Diagram would result in only the realignment and the roadway and Zinfandel Drive would remain designated as a four lane arterial with pedestrian amenities.

The realigned roadway would not be inconsistent with the goals of the Circulation Element and would still be able to provide accommodations for a roadway that provides mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise. Land use related environmental impacts associated with the Transportation Diagram amendment are ***less than significant***.

CORDOVA COMMUNITY PLAN

The Mather Field project does not require any amendments to the Cordova Community Plan. The proposed project is intended to provide for the redevelopment of the Mather Field consistent with the intent of the Community Plan as it relates to Mather Field. The proposed land use plan for Mather Field is anticipated to aid in the transformation of the area consistent with one of the primary goals of the Community Plan. Additionally, the proposed project includes land use designations that will provide the opportunity for the revitalization of Mather Field, the introduction of industrial, business park, mixed use, residential, and infrastructure and transportation concepts that are in line with the stated objectives and implementation measures of the Community Plan. Land use related environmental impacts associated with consistency with the Cordova Community Plan are ***less than significant.***

MATHER FIELD SPECIFIC PLAN

Generally, the objectives of the Mather Field Specific Plan are to guide the evolution of Mather Field in a way that will encourage coordinated development and reuse and to encourage new investment and revitalization while preserving the environmental resources, including vernal pools and wetlands associated with Morrison Creek and ensuring that mineral resources are protected from development to allow for timely extraction.

The proposed project includes an amendment to the Mather Field Specific Plan. The amendment would result in the addition of the Natural Preserve Resources-Protected, Urban Development Area and Industrial Extensive-Aggregate Resource Area land use designations. Additionally, the project proposal will result in the reallocation of some of the existing designations on the site.

The intent of the addition of the Natural Preserve Resources- Protected designation is to preserve the large network of suitable habitat for vernal pool species that exists on site. The intent of the addition of the UDA designation is to encourage coordinated development, reinvestment and reuse within the project area while the addition of the Industrial Extensive (Aggregate Resources) land use designation identifies where valuable mineral resources are located within the project site.

CITY OF RANCHO CORDOVA

Currently, Sacramento County's Mather Field Specific Plan includes approximately 300 acres of land that is within the City of Rancho Cordova just north of Mather Airport. This land is under the jurisdiction of and is currently regulated by the City. The proposed project includes the removal of this land from the County's Specific Plan and is considered only a cleanup effort of the Plan to reflect the existing conditions of the Specific Plan area resulting from the incorporation of the City of Rancho Cordova. The area within the City of Rancho Cordova will still be governed by the City as it is in its current condition and removing this area from the County's Plan will not result in any physical changes, land use allowances or restrictions not already contemplated.

Mather Field Specific Plan Conclusion

The proposed Mather Specific Plan amendments are consistent with the intent of the Plan and build on the existing objectives within. The proposed project furthers the vision for the reuse of the Mather Field area and its transition from military to civilian uses. Land use related impacts resulting from the Mather Field Specific Plan land use amendments are ***less than significant.***

Mather Field Special Planning Area Ordinance

The proposed project includes a Zoning Ordinance Amendment of the Mather Field Special Planning Area (SPA) and includes numerous changes to the SPA text and exhibits to accommodate new Natural Preserve and Urban Development Area Land Use Districts.

The proposed Natural Preserve District is intended to create a secure, actively managed habitat preserve that will protect and aid in the conservation of suitable habitat for special status vernal pool species as well as other habitat and species. Uses allowed within the Preserve would be limited to those required for the maintenance and management of the preserve.

The proposed Urban Development Area District identifies an area where development may occur in the future. Development within the UDA can include residential, commercial, recreation and public uses. Although the UDA designation effectively sets aside an area for potential development, no development is this area is allowed outright and the preparation of a Specific Plan/ Master Plan would be required before any land improvements could take place. In addition to the land use district changes, the project will include infrastructure improvements along Zinfandel Drive. The improvements include a roadway extension from just south of Douglas Boulevard to approximately 2,100 feet south of Woodring Road and a sewer extension from North Mather Boulevard to approximately 2,100 feet south of Woodring Road. South of Woodring Road, Zinfandel Drive will be shifted to the east by approximately 850 feet to accommodate the proposed Natural Preserve District to the west. The proposed roadway improvements will include a 6 foot wide multipurpose lane on each side of Zinfandel Drive allowing for improved pedestrian connectivity in the project area.

City of Rancho Cordova

Currently Sacramento County's Mather Field SPA includes approximately 300 acres of land that is within the City of Rancho Cordova just north of Mather Airport. This land is under the jurisdiction of and is currently regulated by the City. The proposed project includes the removal of this land from the County's SPA and is considered only a cleanup effort of the Plan to reflect the existing conditions of the SPA resulting from the incorporation of the City of Rancho Cordova. The area within the City of Rancho Cordova will still be governed by the City as it is in its current condition and removing

this area from the County's SPA will not result in any physical changes, land use allowances or restrictions not already contemplated.

MATHER FIELD SPECIAL PLANNING AREA CONCLUSION

The proposed districts and infrastructure improvements are consistent with and support the intent of the Mather Special Planning Area. Land use related impacts resulting from the Mather Field Specific Plan land use amendments are ***less than significant.***

MATHER AIRPORT MASTER PLAN

An update to the Mather Airport Master Plan (Master Plan) was recently proposed by the Department of Airports specific to Mather Airport and airport operations. The Master Plan received approval by the Board of Supervisors on August 26, 2014. The updated Master Plan establishes a program for modifications of existing facilities and development of new facilities at Mather Airport through the year 2035. The Master Plan provides flexible recommendations for facilities and phasing of projects that will accommodate users and tenants. The Master Plan includes facility upgrades, airfield improvements, runway upgrades, building construction and roadway and runway extensions. In addition to the physical changes, the Master Plan proposal to extend the northern runway will result in the extension of the north eastern Approach/ Departure Safety Zone related to the northern runway.

All of the physical improvements proposed in the Master Plan, as well as the extended Approach/ Departure Safety Zone, are located on the northern portion of Mather Field SPA and outside of the areas subject to land use changes related to this project. Land use impacts related to project consistency with the Mather Airport Master Plan are ***less than significant.***

CONSISTENCY WITH ADJACENT LAND USES

The lands surrounding the project site largely have land use zones that allow for industrial, agricultural and commercial types of uses.

Lands located southwest and west of the project site are largely zoned for industrial uses (IR, M2, M1) and contain active mining operations as well as various industrial uses. Additionally this area contains a narrow parcel with the RM-1 Land Use Zone which is a zoning designation allowing for mobile home parks and some areas zoned for agricultural uses (AG80, AG20) (refer to Plate LU -2). The proposed project includes a Specific Plan land use designation change at the southwest corner of the site from PQP to Extensive Industrial with an Aggregate Resource overlay which will allow mining to be conducted in that location. The proposed mining designation is not incompatible with the adjacent Industrial Reserve Surface Mining designation to the southwest. The proposed project does not include any land use changes along the west side of the property and no new incompatibility issues are expected along the western portion of the site.

Lands located north of the project area are within the City of Rancho Cordova and predominantly zoned SPA, and for office, business professional and light industrial uses (refer to Plate LU -3). The proposed project will not result in land use designation changes along the majority of the northern portion of the project area; however, the Specific Plan designation for the northeastern portion of the site will be changed from PQP to Industrial. The specific plan change to industrial is similar to the industrial zone to the north and the proposed project will not be incompatible with the industrial zone located within the City of Rancho Cordova.

The land to the east of the project site is zoned for recreational uses and generally make up the Folsom South Canal area while lands south across Kiefer Boulevard are currently zoned for industrial and agricultural uses (refer to Plate LU -4). The proposed project includes a Specific Plan land use designation change from Recreation to ~~**PQP**~~**UDA**. The ~~**PQP**~~**UDA** designation is **a placeholder for future urban development and specific land uses will be planned during a future entitlement process. For the time being, the UDA designation is** generally compatible to industrial and agricultural uses. However the Sacramento Rendering Company's rendering plant is located just south of Kiefer Boulevard adjacent to the proposed ~~**PQP**~~**UDA** designation at the southeast corner of the project site.

Sacramento Rendering Company

Immediately south of the eastern portion of the southern project boundary is the Sacramento Rendering Company's rendering plant (refer to Plate LU -5). The Sacramento Rendering Company has operated a rendering plant on Kiefer Boulevard since 1955. A rendering plant processes animal "waste materials" that would otherwise be sent to a landfill and processes them ("renders") into other usable materials. Waste materials which are processed at the facility include everything from fats, bone, gristle, and post-date meats from restaurants and grocery stores to whole animal carcasses from ranches or roadkill. The plant operates 24 hours a day and seven days a week, though operations occasionally cease for maintenance. The waste materials arrive throughout the day and night, and are delivered by trucks operated by the Sacramento Rendering Company, by independent or contract haulers, and by ranchers or dairy farmers.

Rendering plants create loud noise day and night (from trucks and on-site equipment), involve nighttime lighting, and generate objectionable odors. These conditions are potentially incompatible with urban uses, depending upon the degree to which the conditions exist, the distance of the facility to the urban uses, the type of urban use, and other factors such as the direction of prevailing winds and the intervening landscape type. In fact, the rendering plant was relocated from its prior location within the City of Sacramento in part due to its incompatibility with residential development within the South Land Park area.

Plate LU -2: Adjacent Zoning Southwest and west of the Project Site

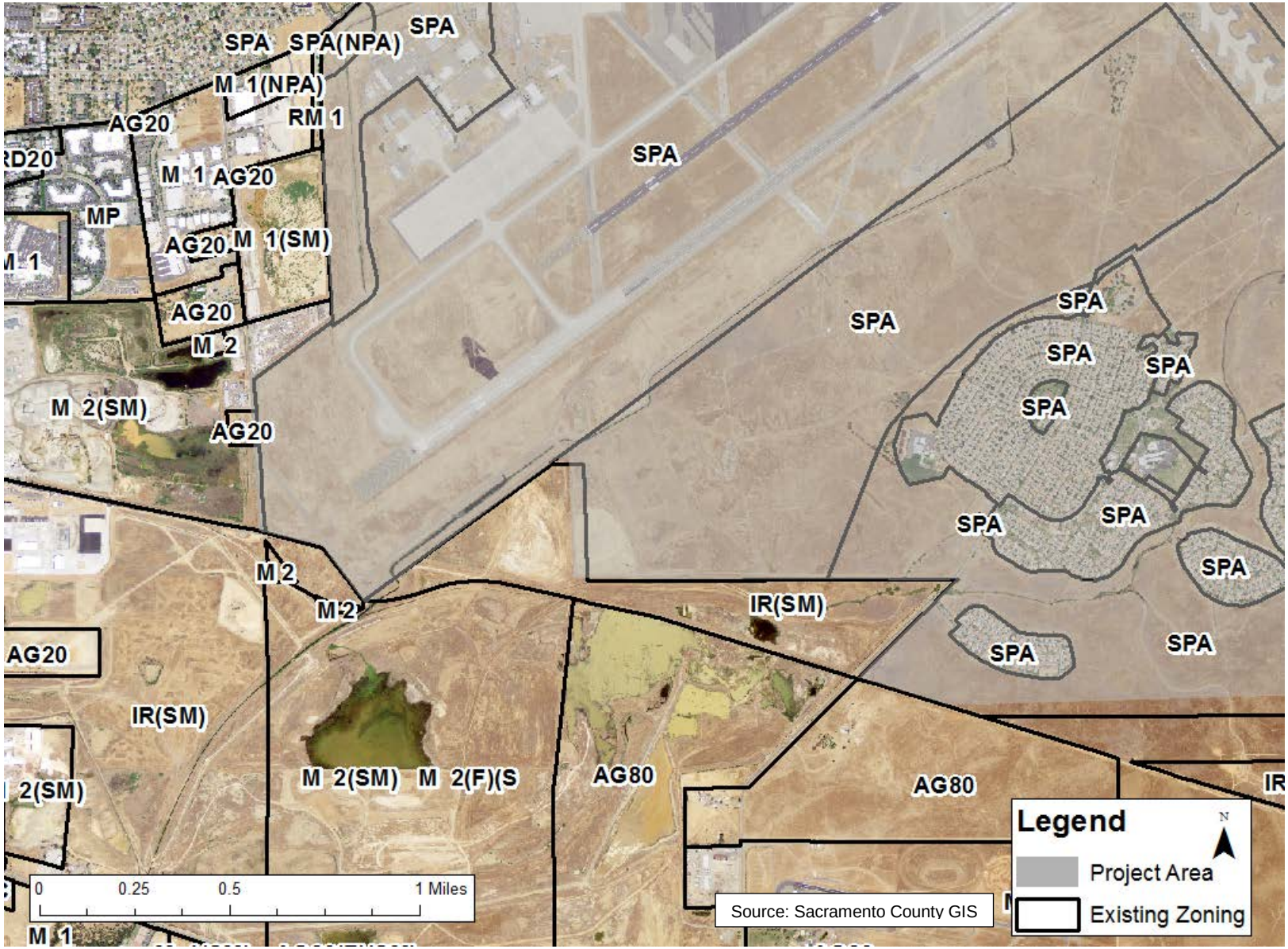


Plate LU -3: Adjacent Zoning North of the Project Site

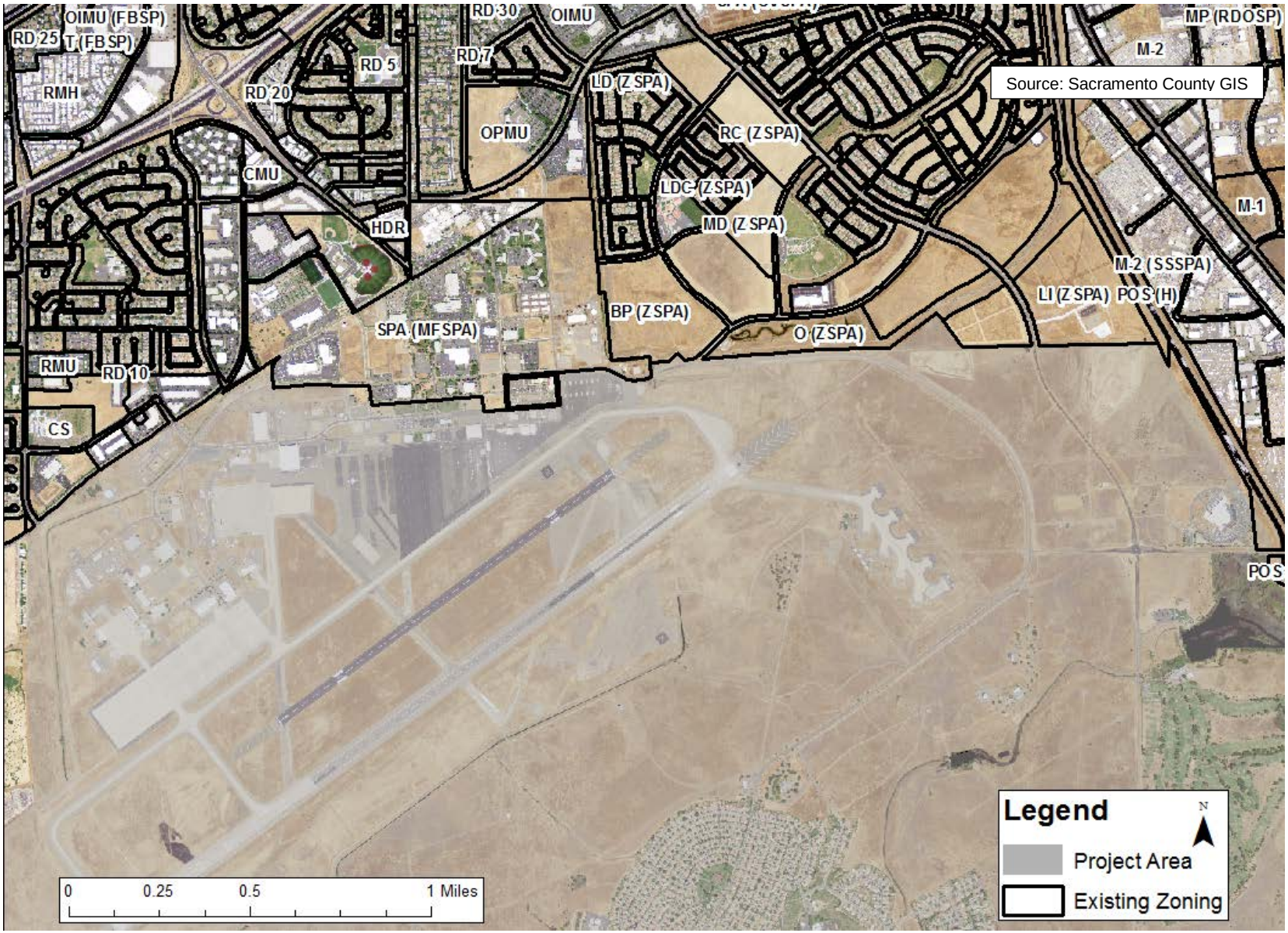
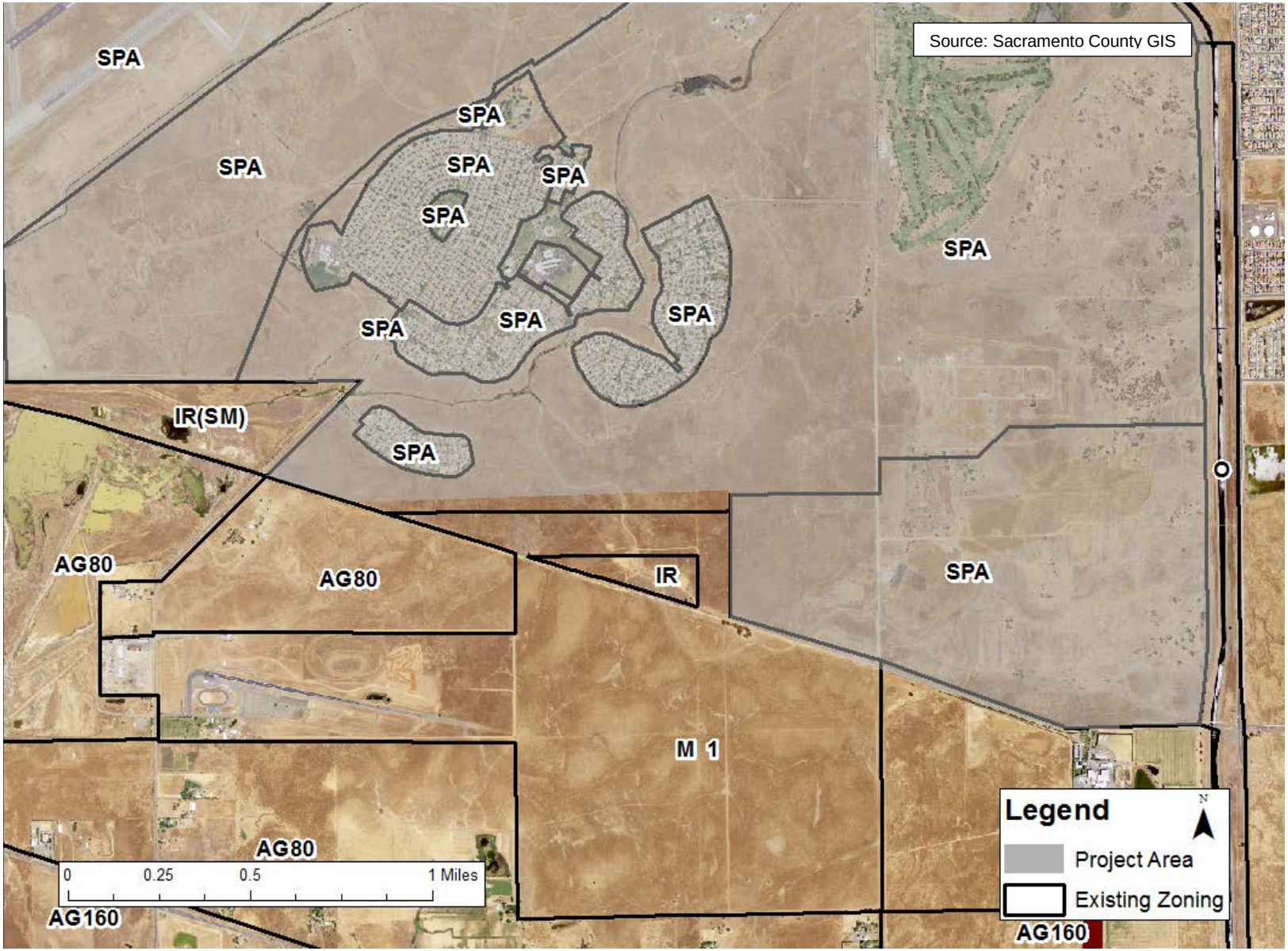


Plate LU -4: Adjacent Zoning East and South of the Project Site



Currently there are preliminary plans in process with the County that contemplate the future removal or relocation of the rendering plant but, since the timing of the removal is unknown, this EIR assumes that the rendering plant will remain in operation in order to provide a conservative analysis of potential issues related to it.

The rendering plant property is located immediately south of the project site and divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area.

The proposed project includes a General Plan Amendment and Specific Plan Amendment to change the land use designation of the project area closest to the rendering plant site. The amendments will change the General Plan and Specific Plan land use designations of the area just north of Kiefer Boulevard and east of Zinfandel Drive from Recreation to PQP. The PQP designation generally allows for a broader variety of uses than the Recreation designation; however, the SPA will dictate the uses actually allowed at the site.

The Mather Field SPA notes that the area next to the rendering plant is currently within the Commercial Recreation District. Permitted uses within the existing Commercial Recreation District are those uses permitted in the Agricultural 20 (AG-20) Land Use Zone as listed in Zoning Code Section 205-07, subject to special conditions referenced in Section 201-04. ~~The proposed project will slightly modify the boundaries of the Commercial Recreation District; however, the area of the project site adjacent to the rendering plant will remain within the Commercial Recreation District and the permitted uses adjacent to the rendering plant will continue to be those allowed in the AG-20 Land Use Zone.~~ **The proposed revised project will designate the area north of the rendering plant as Urban Development Area, which will require a subsequent master planning process and associated environmental review prior to actual physical development of the site. Land use compatibility issues associated with the rendering plant will be analyzed in the subsequent environmental document for future development of the Urban Development Area.**

Although the proposed General Plan and Specific Plan Land Use Designation will allow for a wide array of uses, the SPA changes will not allow for uses not currently permitted in the Commercial Recreation District and no new uses incompatible with the rendering plant will result. Land use impacts associated with land use designation changes along Kiefer Boulevard and the Sacramento Rendering Company's rendering plant are ***less than significant.***

SACOG'S BLUEPRINT

As stated in the regulatory section above, the SACOG Blueprint should be interpreted as a concept-level illustration of the growth principles for an area and is not intended to be applied or implemented in a literal, parcel level manner. The Blueprint concept plan for the Mather Field area depicts conceptual build out in the year 2050 and includes public, residential, retail, office and open spaces (see Plate LU -6). The proposed project will allow for uses that are similar to those listed for in the preferred scenario for

Mather Field. The proposed project complies with the guiding land use assumptions of the Blueprint preferred scenario and no conflicts with the preferred scenario have been identified. Land use impacts related to project consistency with the SACOG Blueprint are *less than significant.*

~~Plate LU -5: Commercial Recreation District and the Rendering Plant~~

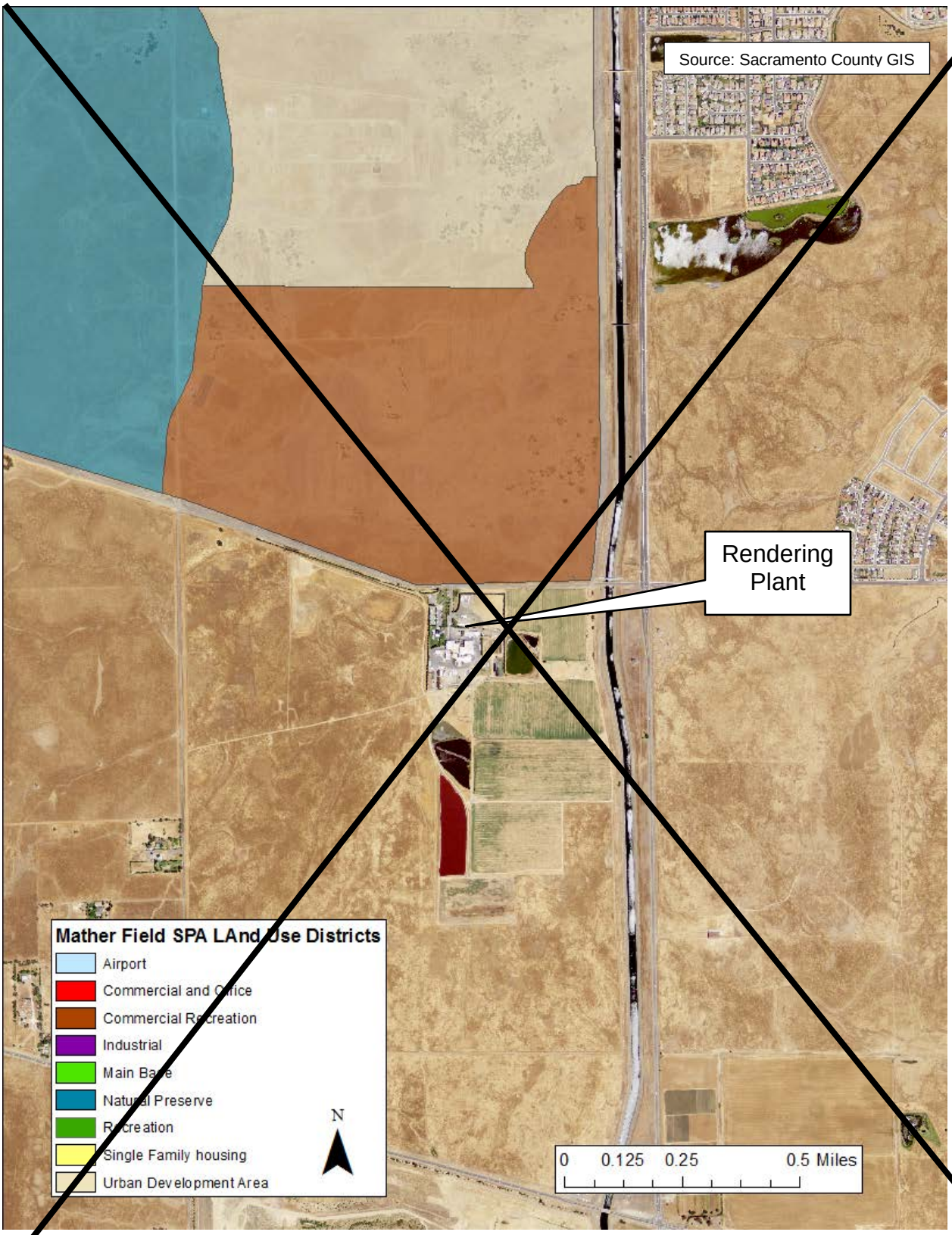


Plate LU -6: Urban Development Area District and the Rendering Plant (Revised)

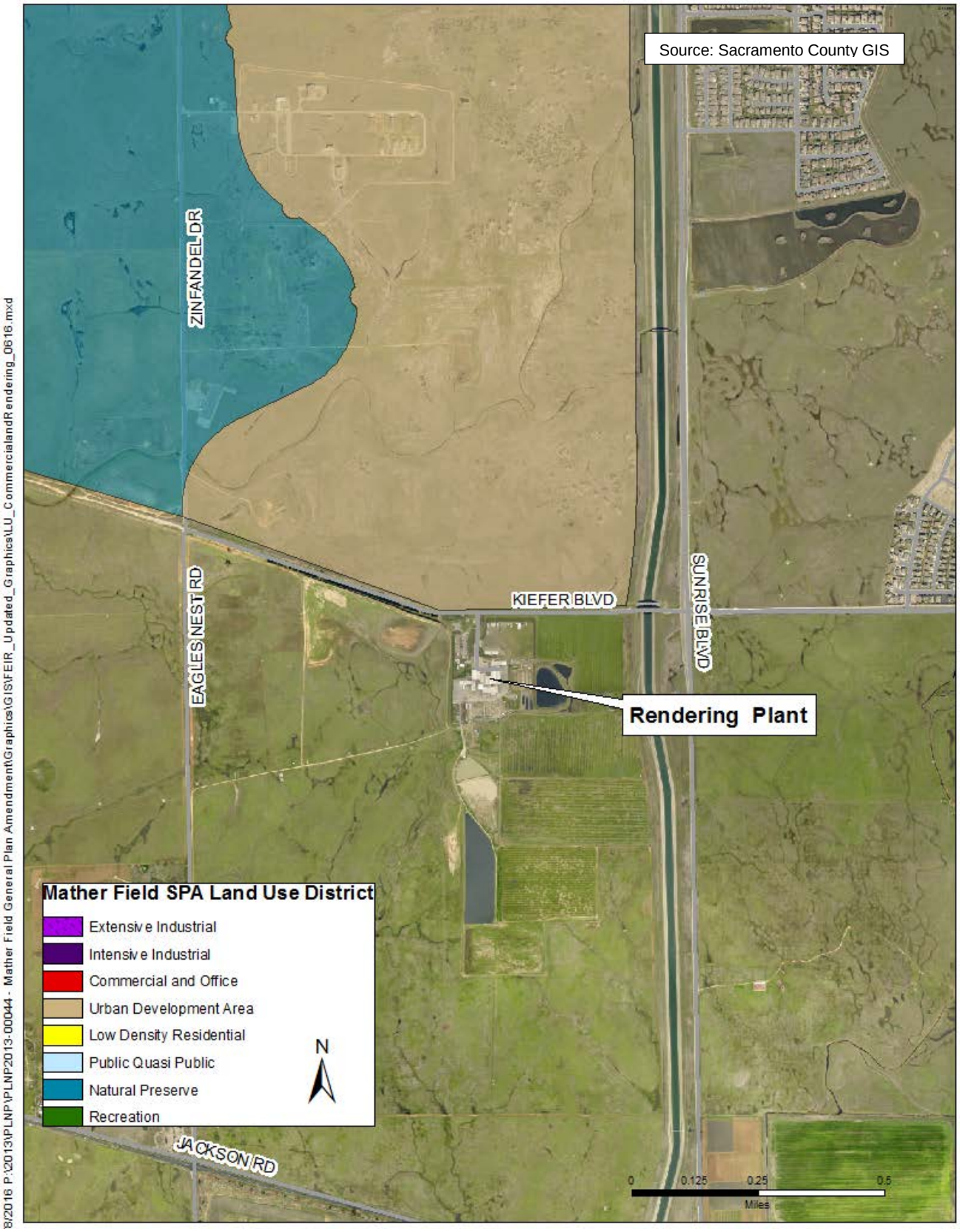
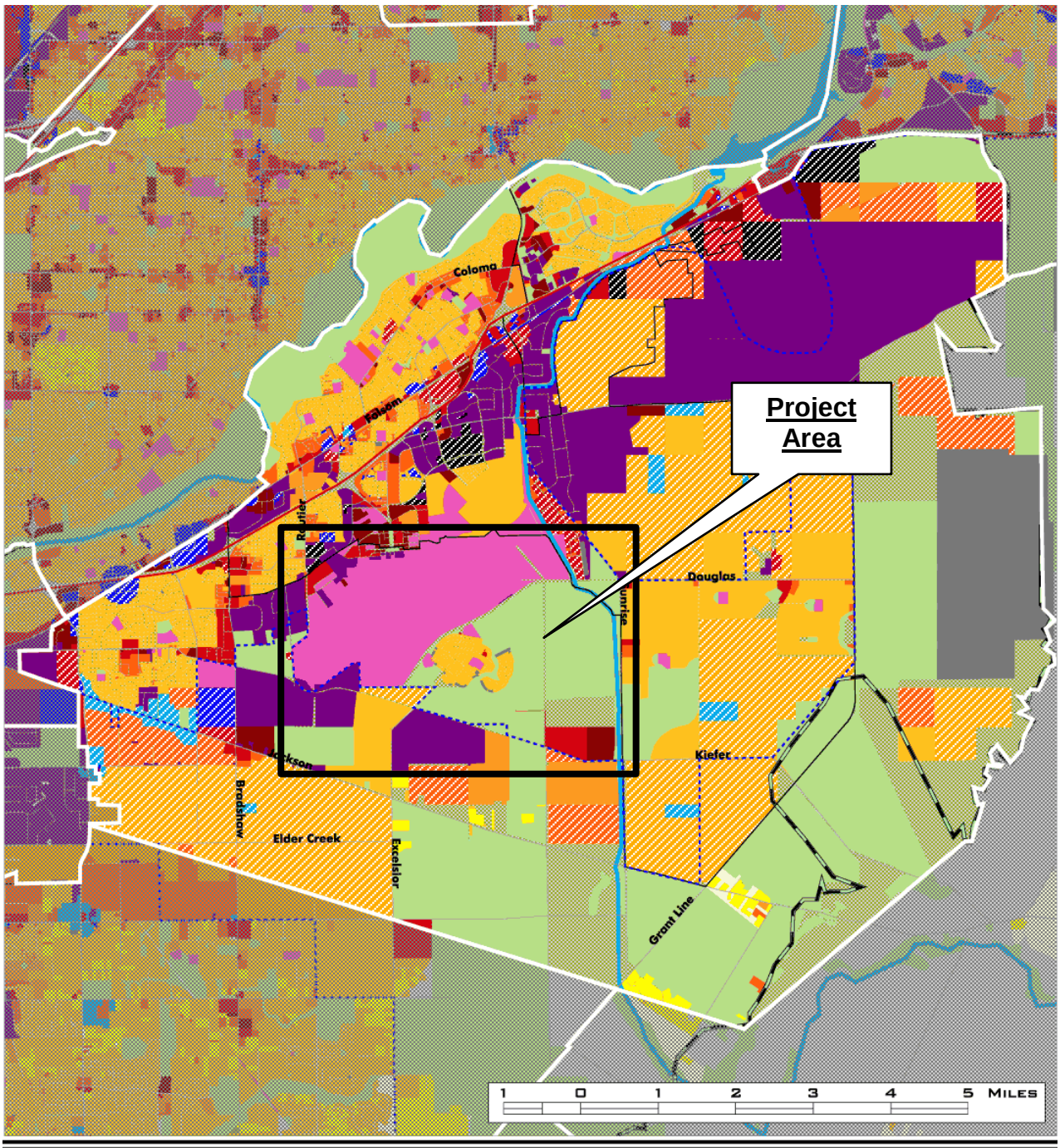


Plate LU -7: SACOG Blueprint Prefered Scenario for Mather Field



MITIGATION MEASURES

None recommended.

5 AIRPORT COMPATIBILITY

INTRODUCTION

Mather Airport is located within the project area. In the vicinity of airports, special considerations are taken into account to address potential conflicts related to airport operations and the surrounding uses. California Code, Comprehensive Land Use Plans (CLUPs) and the Sacramento County General Plan all include policies or regulations to address the issues of airport noise and safety, with the intent of protecting airport operations from encroachment by incompatible land uses, as well as protecting the citizens on the ground from the impacts of excessive noise and aircraft accidents.

This chapter examines the compatibility of the proposed project with Mather Airport and identifies applicable regulations and policies affecting the project site. This section evaluates potential impacts associated with the Project related to airport safety and noise as well as the Project's consistency with the Mather Comprehensive Land Use Plan.

AIRPORT SETTING

The project site contains Mather Airport and airport operations occur at the northwest portion of the site. The airport runways are centrally located and have a northeast/ southwest orientation. Land use designation changes included in the project proposal are located adjacent to the airport operations area and the runways.

REGULATORY SETTING

AIRPORT LAND USE POLICY

INTRODUCTION

Airports have widespread and potentially severe impacts on surrounding land uses. The state of California regulates airports under the authority of the Airport Land Use Commission Law, Chapter 4, Article 3.5, California Public Utilities Code. The purpose of the Airport Land Use Commission Law is to:

1. Protect public health, safety and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise.

2. Prevent the encroachment of incompatible uses around public-use airports, thereby preserving the utility of these airports into the future.

These purposes are implemented through Airport Land Use Commissions (ALUCs), which are required in every county with a public use airport or with an airport served by a scheduled airline. The Sacramento Area Council of Government (SACOG) has been designated as the ALUC for the counties of Sacramento, Sutter, Yolo and Yuba. Under the provisions of the law, the ALUC is required to prepare an Airport Land Use Compatibility Plan (ALUCP), formerly called a Comprehensive Land Use Plan (CLUP), for each public airport within its jurisdiction.

The ALUCP or CLUP must be based on either a 20-year master plan or an airport layout plan if the Caltrans Division of Aeronautics makes a determination that the existing airport layout plan is adequate for use in ALUCP/CLUP preparation. ALUCPs and CLUPs regulate land use in three major areas:

SAFETY ZONES

The probability of airplane accidents is highest in the immediately vicinity of airports. Consequently, safety zones are delineated around airports which are associated to restrictions in land use. Ranging from most to least restrictive are the clear zone at the end of each airstrip, the approach/departure zone extending out away from the ends of each airstrip, and the overflight zone extending around the airstrip. The densities of land uses allowed in these zones are inversely related to probability of an accident in the zone (refer to Plate AC -1).

NOISE ZONES

Noise that emanates away from airstrips and airplane flight paths is represented by concentric noise contours around the airport. The contours delineate zones where land use is restricted, protecting the citizens from the detrimental effects of exposure to excessive airplane noise. The contours are constructed using the FAA's Integrated Noise Model. The result is a 24-hour day/night average called either Day-Night Average Sound Level (DNL) or Community Noise Equivalent Level (CNEL). The cumulative noise descriptor required for aircraft noise analyses in the State of California is the CNEL. The actual noise levels around an airport are a function of the number, time of day, and frequency of operations of each aircraft type. Noise levels are also influenced by the variations in monthly and seasonal flight schedule changes by the airlines. The contours are used to determine compatible land uses around the airport (refer to Plate AC -2).

HEIGHT RESTRICTIONS

Buildings surrounding airports are prohibited from intruding into aircraft airspace except when permitted by the California Department of Transportation, Division of Aeronautics. Compliance with the height restrictions is tested by comparing the height of proposed projects with an imaginary surface surrounding each airport. Their imaginary surfaces are based on FAA Regulations (FAR Part 77, Imaginary Surfaces). The height restrictions applicable to Mather Airport are shown in Plate AC -3.

State Law requires that General Plans be made consistent with ALUC adopted ALUCPs and/or CLUPs. Consistency can be achieved through either of the following actions:

1. Amending general/community plan elements and other land use regulations, where necessary, to be consistent with the ALUCP/CLUP, or Prevent the encroachment of incompatible uses around public-use airports, thereby preserving the utility of these airports into the future.

2. In the event the Board of Supervisors does not agree with a provision of the plan, it can satisfy the consistency requirement for that provision by overruling the ALUC by a two-thirds vote. The overruling must, however, be made after a public hearing and must be based on specific findings that the proposed actions is consistent with the purposes of the Airport Land Use Commission Law.

Once consistency is achieved between the ALUCP/CLUP and County land use controls through either of the above two methods, State law requires that certain types of projects be referred to the ALUC for a determination of their consistency with an adopted ALUCP/CLUP. Such projects include amendments to the General Plan, or a community plan, and adoption or amendments to zoning ordinances that affect an area within an airport planning boundary as established by an ALUCP/CLUP. If the ALUC determines the proposed project to be inconsistent, the County may overrule the ALUC by a two-thirds vote, again after a public hearing, and based on specific findings.

MATHER AIRPORT COMPREHENSIVE LAND USE PLAN (CLUP)

In May 1996, the ALUC (SACOG) prepared a Draft Mather Airport CLUP Update to establish new height, noise and safety zones for Mather Airport based on its projected buildout use as a County-operated aviation facility. A revised version of the Draft Mather Airport CLUP was prepared in October 1996. An amended version of the Mather CLUP was adopted by the ALUC Board on May 15, 1997. On June 24, 1998, the Sacramento County Board of Supervisors approved a package of amendments to the General Plan that included the Mather Field CLUP.

The Mather Airport Master Plan and updated aviation forecasts may be used by SACOG for a future update to the Mather CLUP. If the Mather CLUP is revised to reflect the noise contours in the Mather Airport Master Plan, land use restrictions surrounding Mather Airport could be reduced because the model of the updated forecast show a reduction in the size of the 60 CNEL and 65 CNEL noise contours. The noise contours and land use restrictions in the currently adopted CLUP would remain in effect after approval of the Mather Airport Master Plan until such a time that a revised CLUP or ALUCP is approved by the SACOG Board. A revised CLUP or ALUCP would require adequate CEQA documentation prior to approval.

Plate AC -1: Mather Airport Safety Zones

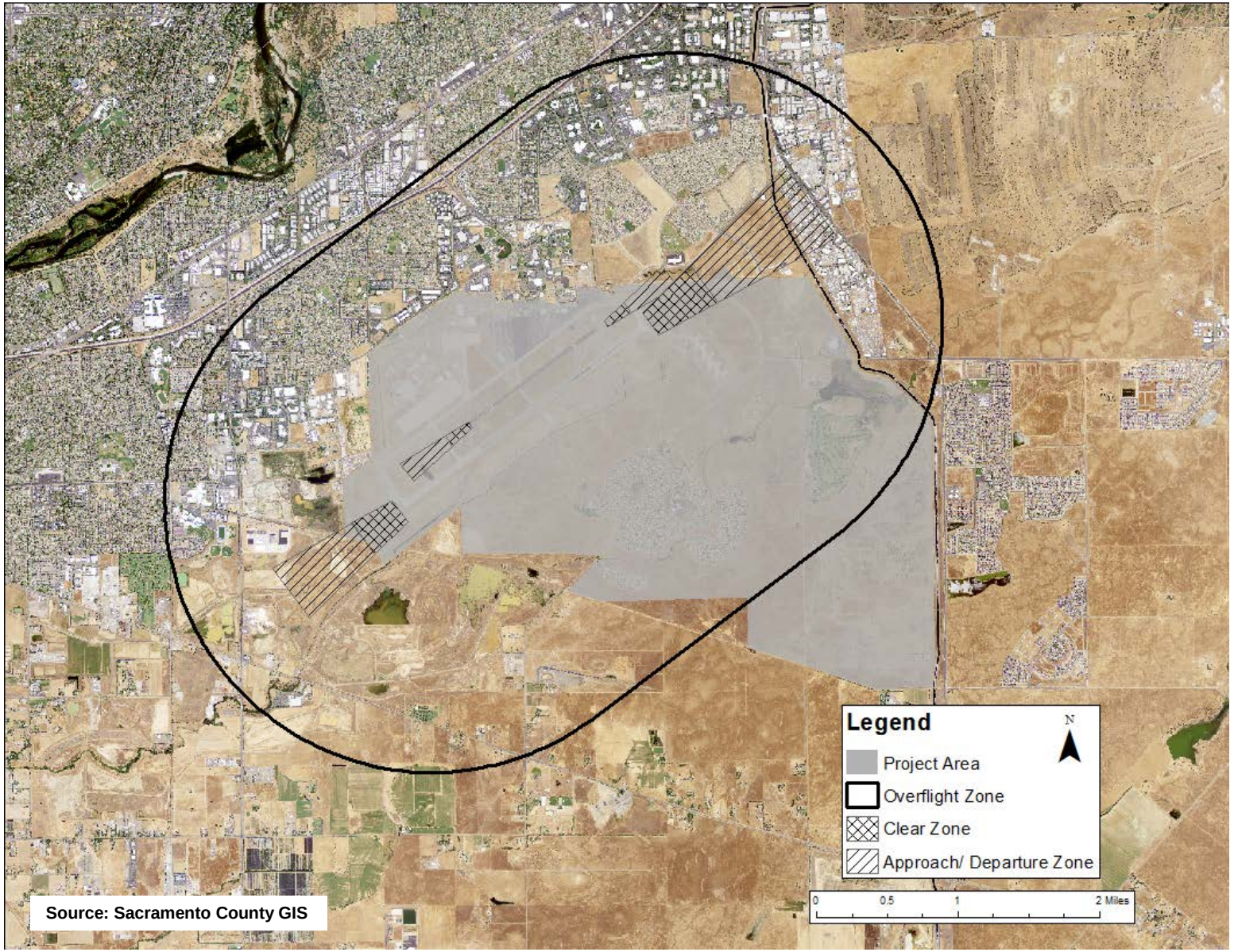


Plate AC -2: Mather Airport Theoretic Capacity Noise Contours

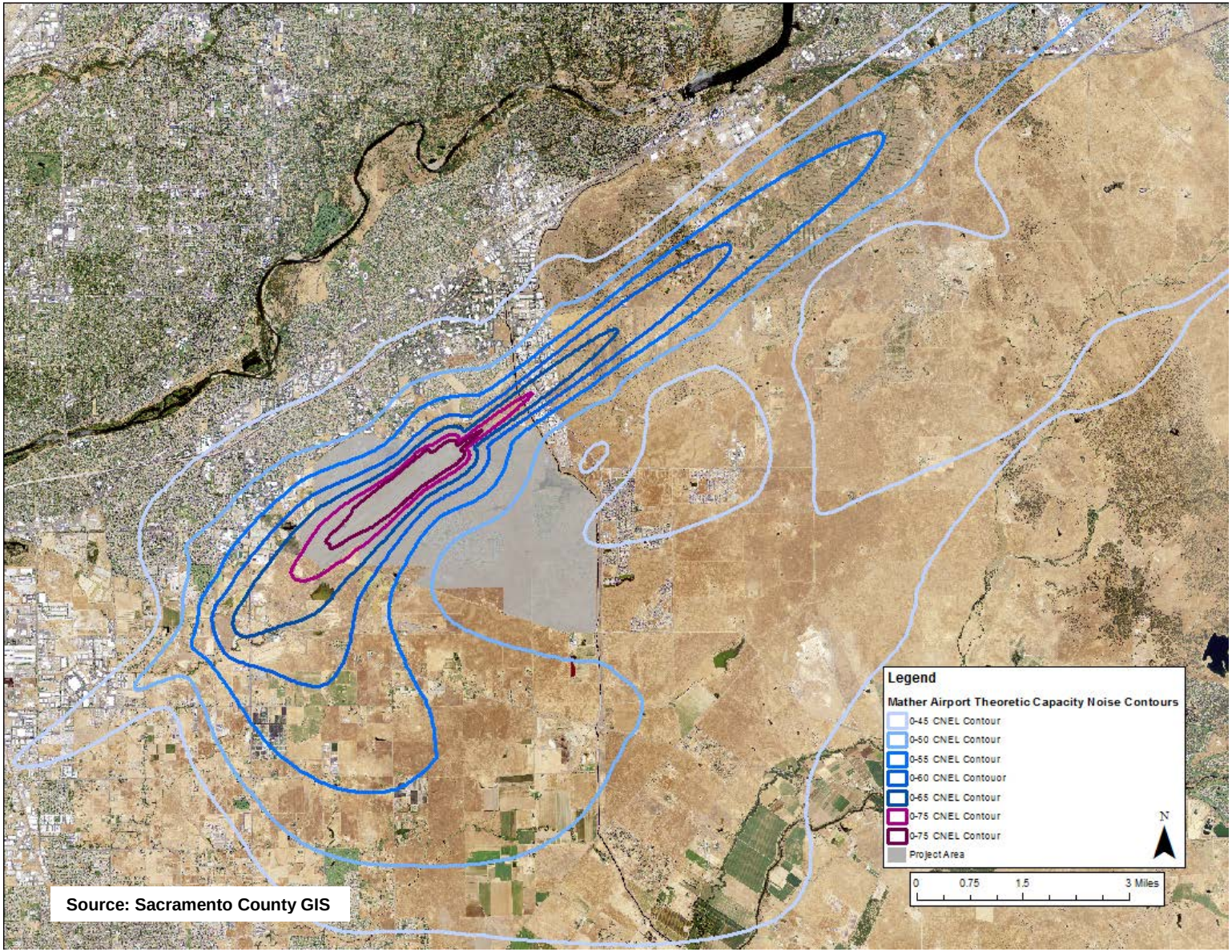
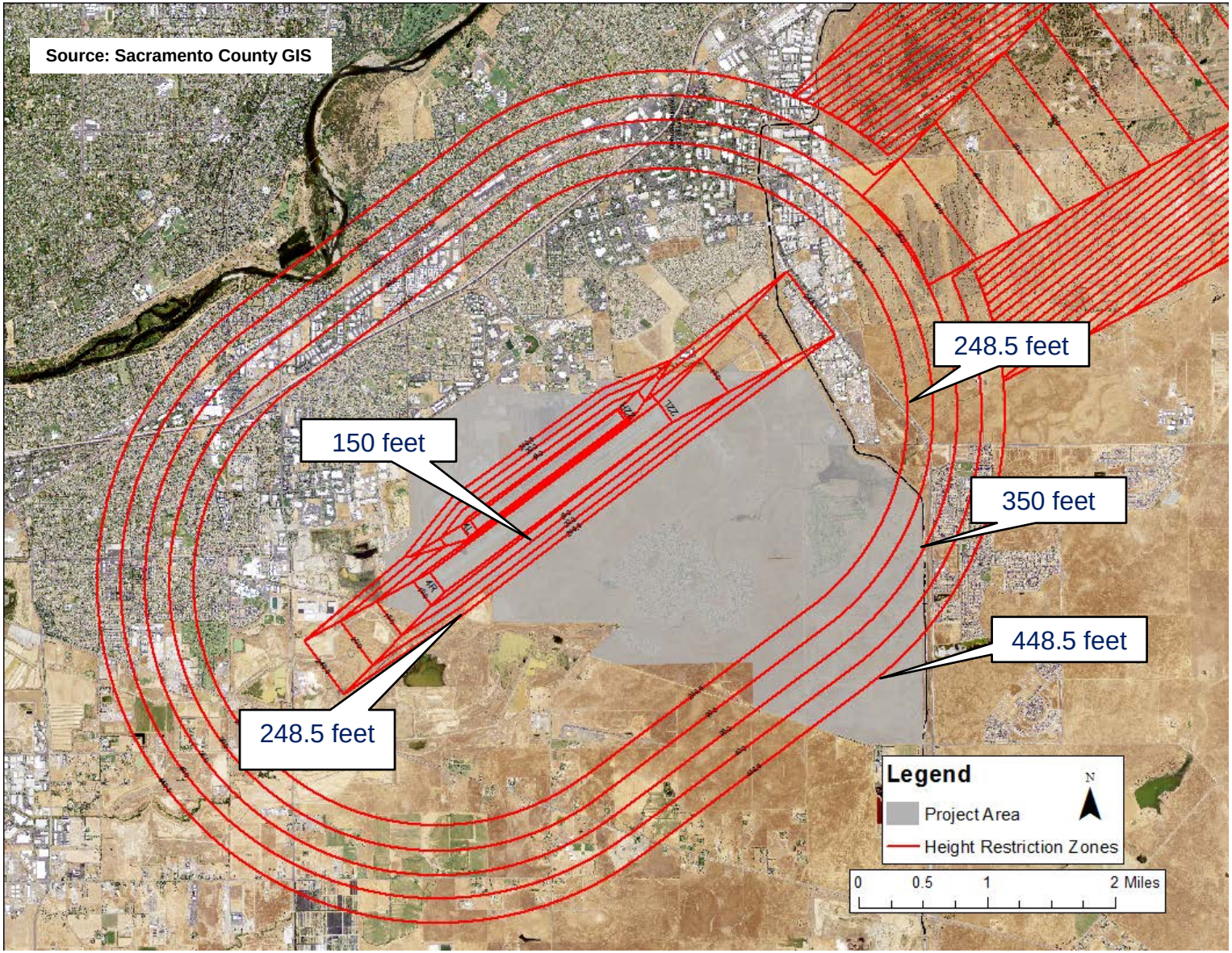


Plate AC -3: Mather Airport Height Restrictions



MATHER AIRPORT PLANNING POLICY AREA

In 2006, Sacramento County adopted the Mather Airport Planning Policy Area (APPA), which places specific limitations on conditions of new residential development within certain proximity to Mather Airport (MHR). Specifically, the Mather APPA conditions:

1. Prohibit new residential development inside the current Board approved 60 CNEL noise contour for MHR.

2. Condition new residential land uses within the APPA boundary but beyond the current Board approved 60 CNEL noise contour for MHR as follows:

    a. Minimum noise insulation to protect persons from excessive noise within new residential dwellings, including detached singe family dwellings, that limits noise to 45 dB CNEL, with windows closed, in any habitable room.

    b. Notification in the Public Report prepared by the California Department of Real Estate disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet Above Ground Level (AGL)

    c. Execution and recordation with the Sacramento County Recorder of Avigation Easements prepared by the Sacramento County Counsel's Office on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All avigation easements recorded pursuant to this Policy shall, once recorded, be copied to the Director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the appropriate airport.

Exceptions: New accessory residential dwellings on parcels zoned Agricultural, Agricultural Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural, shall be exempt from the Airport Planning Policy Area's prohibitions.

SACRAMENTO COUNTY 2030 GENERAL PLAN

The Sacramento County General Plan contains goals and policies that are intended preserve the viability of airports and to prevent land use conflicts related to aircraft noise and safety at existing airports.

The goal in the Land Use Element that is applicable to the project is:

> Ensure the continual vitality and long-term viability of airports in Sacramento County to serve current and future air transportation demand through careful and appropriate land use planning around airports, consistent with Federal Aviation Administration (FAA) regulations and grant-in-aid obligations, adopted airport master plans, and Airport Land Use Compatibility Plans.

The Land Use Element policy applicable to the project related to this goal is:

LU-87 Because land use decisions around airports by local governments have a direct impact on an airport's long-term viability and utility, proposed new land use projects and land use practices near airports within Sacramento County shall consider consistency with current federal, State, and local airport land use compatibility regulations, orders, policies, plans, standards and guidance pertaining to public safety and minimization of hazardous wildlife attractants within five statute miles of County airports.

Page 87 of the Land Use Element includes a table that shows the compatible land uses within the safety zones surrounding airports. Table AC-1 details the types of uses are which allowed within the Clear Zones, Approach/Departure Zones and the Overflight Zones of airports.

The goals in the Noise Element that are applicable to the project are listed below.

> To protect the economic base of Sacramento County by preventing the encroachment of noise-sensitive land uses into areas affected by existing noise-producing uses. More specifically, to recognize that noise is an inherent by-product of many land uses and to prevent new noise-sensitive land uses from being developed in areas affected by existing noise-producing uses.
>
> To provide the County with flexibility in the development of infill properties which may be located in elevated noise environments.

The Noise Element policy applicable to the project related to this goal is listed below.

NO-2 Proposals for new development within Sacramento County which may be affected by aircraft noise shall be evaluated relative to Table 4: *Land Use Compatibility for Aircraft Noise*. (Table AC-2 of this chapter).

NO-3. New residential development within the 60 CNEL noise contours adopted by the County for planning purposes at any airport or Helipad within Sacramento County shall be prohibited. This policy is not applicable to Executive Airport.

NO-4. New residential development within adopted Airport Policy Area boundaries, but outside the 60 CNEL, shall be subject to the following conditions:

A. Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.

B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within an Airport Policy Area.

C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport.

Exceptions: New accessory residential dwellings on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural and between the 60 and 65 CNEL contours, shall be permitted within adopted Airport Policy Area boundaries, but would be subject to the conditions listed above.

The Airport Planning Policy Area for Mather Airport, referenced in Policy NO-4 is shown on Plate AC-4. The Policy Area is intended to increase the awareness of future residents of their possible exposure to aircraft operations; to limit the potential for conflict between the airport and adjacent communities; and, to protect future airport development and aircraft operations flexibility.

It should be noted that the 60 CNEL noise contour adopted by the County for planning purposes for Mather Airport, as referenced in Policy NO-3, is depicted on the General Plan Land Use Diagram and is the same as the 60 CNEL theoretic capacity noise contour originally developed for the Mather Airport Planning Policy Area in 2005.

Table AC-1: Land Use Compatibility For Airport Safety

Land Use Category	SAFETY ZONES		
	Clear	Approach /	Overflight
RESIDENTIAL			
• Single-family detached	No	Yes[1]	Yes[18]
• Two-family dwelling	No	No	Yes[18]
• Multi-family dwelling (3+ families)	No	No	Yes[18]
• Group Quarters & Rooming Houses	No	No	Yes[15,18]
• Mobile Home Parks or Courts	No	No	Yes[15]
INDUSTRIAL / MANUFACTURING			
• Food and kindred products	No	Yes[2,17]	Yes[18]
• Textiles and apparel	No	Yes[2,17]	Yes[18]
• Transportation equipment	No	Yes[2,17]	Yes[18]
• Lumber and wood products	No	Yes[2,17]	Yes[18]
• Furniture and fixtures	No	Yes[2,17]	Yes[18]
• Paper and allied products	No	Yes[2,17]	Yes[18]
• Printing and publishing	No	Yes[2,17]	Yes[18]
• Chemicals and allied products	No	No	No
• Asphalt paving and miscellaneous petroleum	No	No	Yes[18]
• Petroleum refining and related industries	No	No	No
• Rubber and plastics	No	No	No
• Stone, glass, clay, and concrete products	No	Yes[2,17]	Yes
• Primary and fabricated metals	No	Yes[2,17]	Yes[18]
• Electrical and electronic equipment	No	Yes[2,13,16,17]	Yes[13,18]
• Leather products	No	Yes[2,17]	Yes[18]
• Industrial, commercial, and computer equipment	No	Yes[2,13,17]	Yes[13,18]
• Photo, optical, and medical equipment	No	Yes[2,17]	Yes[18]
• Miscellaneous manufacturing	No	Yes[2,17]	Yes[18]
TRANSPORTATION, COMMUNICATIONS, AND			
• Streets, roads, and highways	No	Yes[2]	Yes
• Heavy rail lines: freight and passenger	No	Yes[2]	Yes
• Light rail lines: passenger	No	Yes[2]	Yes
• Trucking and rail freight terminals	No	Yes[2,17]	Yes[18]
• Warehousing and storage4	No	Yes[2,17]	Yes[18]
• Passenger terminals and stations	No	No	Yes[17]
• Water transportation: freight and passenger	No	Yes[17]	Yes[18]
• Parking lots	No	Yes[2,2A]	Yes[18]
• Transportation services	No	Yes[2,5,17]	Yes[18]
• Radio, television, and telephone	No	No	Yes[13,18,21]
• Cellular radio transmission antenna[22]	No	Yes[14,17]	Yes
• Courier service	No	Yes[2,17]	Yes[18]
• Electrical and natural gas generation and switching	No	No	Yes[13,18]
• Natural gas and petroleum pipelines and storage	No	No	Yes[18]
• Water treatment plants	No	No	Yes[18]
• Sewer treatment plants	No	No	Yes[6,18]
• Sanitary landfills	No	No	Yes[6,18]
• Recycling and transfer facilities[7]	No	Yes[2,6,17]	Yes[6,18]
• Hazardous material facilities	No	No	Yes[6,18]

Land Use Category	SAFETY ZONES		
	Clear	Approach /	Overflight
WHOLESALE TRADE			
• Paints, varnishes, and supplies	No	No	Yes[18]
• Chemicals and allied products	No	No	Yes[18]
• Petroleum terminals and wholesalers	No	No	Yes[18]
• Miscellaneous wholesale trade	No	Yes[2,17]	Yes[18]
RETAIL TRADE			
• Department and variety stores (single)	No	No	Yes[18]
• Lumber, building materials, and nurseries	No	Yes[2,17]	Yes[18]
• Grocery and drug stores	No	No	Yes[18]
• Paint, glass, wallpaper, and hardware	No	No	Yes[18]
• Auto, truck, boat, and recreational vehicle dealers	No	Yes[2,17]	Yes[18]
• Mobile home dealers	No	Yes[2,17]	Yes[18]
• Auto and truck service stations	No	No	Yes[18]
• Fuel dealers	No	No	Yes[18]
• Apparel and shoes	No	No	Yes[18]
• Home furnishings	No	No	Yes[18]
• Eating and drinking	No	No	Yes[15,18]
• Miscellaneous retail trade	No	No	Yes[18]
BUSINESS AND PERSONAL SERVICES			
• Auto, truck, boat, RV, and miscellaneous repair	No	Yes[2,17]	Yes[18]
• Mobile home repair	No	Yes[2,17]	Yes[18]
• Commercial laundries and cleaning	No	Yes[2,17]	Yes[18]
• Coin operated laundries	No	No	Yes[18]
• Photographers, beauty and barber, shoe repair	No	No	Yes[18]
• Funeral services	No	No	Yes[18]
• Business services	No	Yes[2,17]	Yes[18]
• Computer programming and data processing	No	No	Yes[18]
• Travel agencies	No	No	Yes[18]
• Legal and engineering	No	No	Yes[18]
• Banks, credit unions, and financial	No	No	Yes[18]
• Hotels, motels, inns, bed and breakfast	No	No	Yes[15,18]
• Business parks and industrial clusters	No	Yes[2,8,17]	Yes[18]
• Offices for rent or lease	No	No	Yes[18]
• Business and vocational schools	No	No	Yes[18]
• Construction businesses	No	Yes[2,17]	Yes[18]
• Miscellaneous personal services	No	No	Yes[18]
SHOPPING DISTRICTS			
• Neighborhood shopping centers	No	No	Yes[18]
• Community shopping centers	No	No	Yes[18]
• Regional shopping centers	No	No	No

Land Use Category	SAFETY ZONES		
	Clear	Approach / Departure	Overflight
PUBLIC AND QUASI-PUBLIC SERVICES			
• Post offices	No	No	Yes[18]
• Government offices	No	No	Yes[15,18]
• Government social services	No	No	Yes[15,18]
• Elementary and Secondary schools	No	No	Yes[9,16,17]
• Colleges and universities	No	No	No
• Hospitals	No	No	No
• Medical and dental laboratories	No	Yes[2,17]	Yes[18]
• Doctor and dentist offices	No	No	Yes[15,18]
• Museum and art galleries	No	No	Yes[15,18]
• Libraries	No	No	Yes[15,18]
• Churches	No	No	Yes[15,18]
• Cemeteries	No	Yes[2,2A,10]	Yes[18]
• Jails and detention centers	No	No	No
• Child care programs (six or more children)	No	No	Yes[15,18]
• Nursing care facilities	No	No	Yes[15,18]
RECREATION			
• Neighborhood parks	No	No	Yes[18,20]
• Community-wide and regional parks	No	No	Yes[17]
• Riding stables	No	Yes[2,12,17]	Yes[18]
• Golf courses	No	Yes[2,2A,11]	Yes[18,19]
• Open space and natural areas	Yes[3,6]	Yes[2,2A,6,12]	Yes[6,18,20]
• Natural water areas	Yes[3,6]	Yes[2,2A,6,12]	Yes[6,18,20]
• Recreation and amusement centers	No	No	Yes[15,18]
• Physical fitness and gyms	No	No	Yes[15,18]
• Camps, campgrounds, and recreational vehicle parks	No	No	Yes[17]
• Dance halls, studios, and schools	No	No	Yes[15,18]
• Theaters - live performance	No	No	Yes[15,17]
• Motion picture theater - single or double	No	No	Yes[15,17]
• Motion picture theater complex - three or more	No	No	No
• Professional sports	No	No	No
• Stadiums and arenas	No	No	No
• Auditoriums, concert halls, and amphitheaters	No	No	No
• Fairgrounds and expositions	No	No	No
• Racetracks	No	No	No
• Theme parks	No	No	No
AGRICULTURAL AND MINING			
• Row and field crops	Yes[3,6]	Yes[2,2A,6]	Yes[6]
• Tree crop	No	Yes[2,2A,6]	Yes[6]
• Intensive livestock	No	Yes[2,2A,6]	Yes[6]
• Nursery products	No	Yes[2,2A,6]	Yes[6]
• Poultry	No	Yes[2,2A,6]	Yes[6]
• Pasture and grazing	Yes[3,6]	Yes[2,2A,6]	Yes[6]
• Agricultural services	No	Yes[2,2A]	Yes
• Mining and quarrying	No	Yes[2,2A,6]	Yes[6]
• Oil and gas extraction	No	No	Yes

FOOTNOTES

A. These guidelines define only compatible land uses within safety areas. Where proposed land uses fall within the established Noise Contours or may penetrate any of the imaginary height surfaces, additional restrictions apply, which can be found in the Noise Element of this Plan.

B. Executive Airport compatibilities apply only to the Overflight Zone as the Clear and Approach/Departure Zones do not enter County jurisdiction.

1. For all but Rio Linda and Sacramento International Airports, single-family residential uses shall not exceed a density of one unit per five acres. Single-family residential uses for Rio Linda Airport shall not exceed a density of two units per acre. For Sacramento International Airport, residential uses shall be compatible only if directly related to the agricultural use of the property for the provision of the owner's immediate family, or for employees required for the protection of the property. All such dwellings shall be encouraged to locate outside of the Approach-Departure Zones if parcel lines permit.

2. Use is compatible only if they do not result in a large concentration of people. A large concentration of people is defined as a gathering of individuals in an area that would result in an average density of greater than 25 persons per acre per hour during any 24 hour period ending at midnight, not to exceed 50 persons per acre at any time. Note: if entry also refers to footnote 2A, see below.

2A. For Sacramento International Airport, use is compatible only if it does not result in a concentration of persons greater than 25 persons per acre at any time or the storage of flammable or explosive material above ground.

3. No buildings, structures, above ground transmission lines, or storage of flammable or explosive materials above ground, and no uses resulting in a gathering of more than 10 persons per acre at any time.

4. No bulk petroleum products or chemical storage.

5. Tour operator passenger facilities not allowed.

6. Uses compatible only if they do not result in a possibility that a water area that may cause ground fog or a bird hazard.

7. Household hazardous waste facilities operated as part of an integrated waste management program and resulting in only temporary storage of materials is allowed.

8. Uses in buildings must be compatible.

9. Uses compatible only if the requirements of California Education Code, Sections 39005.7, 81036, and 81038 are fulfilled.

10. No chapels or funeral homes.

11. No clubhouses, bars, restaurants or banquet facilities. Ancillary uses such as pro shops, snack bars and specialty food and beverage services are allowed. New course layouts and revisions to existing courses must be reviewed by ALUC for safety impacts.

12. No high intensity uses or facilities, such as structured playgrounds, ballfields, or picnic pavilions.

13. No use that would cause electrical interference that would be detrimental to the operation of aircraft or aircraft instrumentation.

14. Use compatible only if there will be no on-site employees, and the Federal Aviation Administration has conducted an Aeronautical Study on the proposal and has concluded that the antenna will not constitute a hazard to air navigation.

15. For Executive Airport only, uses are compatible only if they do not result in structures over 25 feet in height.

16. Use not compatible at Executive Airport.

17. Use not compatible at Sacramento International Airport.

18. For Sacramento International Airport, see as Footnote 2. This does not apply to Metro Airpark Special Planning Area.

19. For Sacramento International Airport, same as Footnote 11.

20. For Sacramento International Airport, same as Footnote 12.

21. Uses permitted providing they meet density, height, and non-interference requirements and meets requirements of footnotes 2 and 13.

22. Use not included in any CLUP Noise and Safety Compatibility tables other than Mather Airport.

Table AC-2: Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
RESIDENTIAL[1,8]					
• Single-family detached[2]	No[6]	No	No	No	No
• Two-family dwelling	No[6]	No	No	No	No
• Multi-family dwelling (3+ families)	No[6]	No	No	No	No
• Group Quarters & Rooming Houses	No[6]	No	No	No	No
• Mobile Home Parks or Courts	No[6]	No	No	No	No
• Agricultural/Residential (min. 2 ac parcel size)	Yes[6,9]	Yes[6,9]	No	No	No
INDUSTRIAL MANUFACTURING					
• Food and kindred products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Textiles and apparel	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Transportation equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Lumber and wood products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Furniture and fixtures	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Paper and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Printing and publishing	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Chemicals and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Asphalt paving and miscellaneous petroleum	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Petroleum refining	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Rubber and plastics	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Stone, glass, clay, and concrete products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Primary and fabricated metals	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Electrical and electronic equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Leather products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Industrial, commercial, & computer equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Photo, optical and medical equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Miscellaneous manufacturing	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
TRANSPORTATION, COMMUNICATIONS, & UTILITIES					
• Streets, roads, and highways	Yes	Yes	Yes	Yes	Yes
• Heavy rail lines: freight and passenger	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Light rail lines: passenger	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Trucking and rail freight terminals	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Warehousing and storage	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Passenger terminals and stations	Yes	Yes	Yes[3]	Yes[3]	No
• Water transportation: freight and passenger	Yes	Yes	Yes[3]	Yes[3]	No
• Parking lots	Yes	Yes	Yes[3]	Yes[3]	Yes
• Transportation services	Yes	Yes	Yes[3]	Yes[3]	No
• Radio, television, and telephone	Yes	Yes	Yes[3]	Yes[3]	No
• Cellular radio transmission antenna	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Courier service	Yes	Yes	Yes[3]	Yes[3]	No
• Electrical and natural gas generation and switching	Yes	Yes	Yes[3]	Yes[3]	Yes[3,7]
• Natural gas and petroleum pipelines and storage	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Water treatment plants	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Sewer treatment plants	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Sanitary landfills	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Recycling and transfer facilities	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Hazardous material facilities	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
WHOLESALE TRADE					
• Paints, varnishes, and supplies	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Chemicals and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Petroleum terminals and wholesalers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Miscellaneous wholesale trade	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
RETAIL TRADE					
• Department and variety stores (single)	Yes	Yes	Yes[3]	Yes[3]	No
• Lumber, building materials, and nurseries	Yes	Yes	Yes[3]	No	No

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
• Grocery and drug stores	Yes	Yes	Yes[3]	Yes[3]	No
• Paint, glass, wallpaper, and hardware	Yes	Yes	Yes[3]	Yes[3]	No
• Auto, truck, boat, & recreational vehicle dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Mobile home dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Auto and truck service stations	Yes	Yes	Yes[3]	Yes[3]	No
• Fuel dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Apparel and shoes	Yes	Yes	Yes[3]	Yes[3]	No
• Home furnishings	Yes	Yes	Yes[3]	Yes[3]	No
• Eating and drinking	Yes	Yes	Yes[3]	Yes[3]	No
• Miscellaneous retail trade	Yes	Yes	Yes[3]	Yes[3]	No
BUSINESS AND PERSONAL SERVICES					
• Auto, truck, boat, RV, and miscellaneous repair	Yes	Yes	Yes[3]	Yes[3]	No
• Mobile home repair	Yes	Yes	Yes[3]	Yes[3]	No
• Commercial laundries and cleaning	Yes	Yes	Yes[3]	Yes[3]	No
• Coin operated laundries	Yes	Yes	Yes[3]	Yes[3]	No
• Photographers, beauty and barber, shoe repair	Yes	Yes	Yes[3]	Yes[3]	No
• Funeral services	Yes	Yes	Yes[3]	Yes[3]	No
• Business Services	Yes	Yes	Yes[3]	Yes[3]	No
• Computer programming and data processing	Yes	Yes	Yes[3,7]	Yes[3]	No
• Travel agencies	Yes	Yes	Yes[3]	Yes[3]	No
• Legal and engineering	Yes	Yes	Yes[3]	Yes[3]	No
• Banks, credit unions, and financial	Yes	Yes	Yes[3]	Yes[3]	No
• Hotels, motels, inns, bed and breakfast	Yes	Yes	Yes[3]	Yes[3,4]	No
• Business parks and industrial clusters	Yes	Yes	Yes[3]	Yes[3]	No
• Office (for rent or lease)	Yes	Yes	Yes[3]	Yes[3]	No
• Business and vocational schools	Yes	Yes	Yes[3]	Yes[3]	No
• Construction businesses	Yes	Yes	Yes[3]	Yes[3]	No
• Miscellaneous personal services	Yes	Yes	Yes[3]	Yes[3]	No
SHOPPING DISTRICTS					
• Neighborhood shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Community shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Regional shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
PUBLIC AND QUASI-PUBLIC SERVICES					
• Post offices	Yes	Yes	Yes[3]	Yes[3]	No
• Government offices	Yes	Yes	Yes[3]	Yes[3]	No
• Government social services	Yes	Yes	Yes[3]	Yes[3]	No
• Elementary and Secondary schools	Yes	Yes[3,4]	No	No	No
• College and universities	Yes	Yes[3,4]	No	No	No
• Hospitals	Yes	Yes[3,4]	Yes[3,4]	No	No
• Medical and dental laboratories	Yes	Yes	Yes[3]	Yes[3]	No
• Doctor and dentist offices	Yes	Yes	Yes[3]	Yes[3]	No
• Museum and art galleries	Yes	Yes[3,4]	No	No	No
• Libraries	Yes	Yes[3,4]	No	No	No
• Churches	Yes	Yes[3,4]	No	No	No
• Cemeteries	Yes	Yes	Yes[3]	Yes[3]	No
• Jails and detention centers	Yes	Yes	Yes[3]	No	No
• Child care programs (six or more children)	Yes	Yes[3,4]	No	No	No
• Nursing care facilities	Yes	Yes[3,4]	No	No	No
RECREATION					
• Neighborhood parks	Yes	Yes	Yes[3]	No	No
• Community-wide and regional parks	Yes	Yes	Yes[3]	No	No
• Riding stables	Yes	Yes	Yes[3]	No	No
• Golf courses	Yes	Yes	Yes[3]	No	No
• Open space and natural areas	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Natural water areas	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Recreation and amusement centers	Yes	Yes	Yes[3]	Yes[3]	No
• Physical fitness and gyms	Yes	Yes	Yes[3]	Yes[3]	No
• Camps, campgrounds, & recreational vehicle parks	Yes	Yes	No	No	No

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
• Dance halls, studios, and schools	Yes	Yes	Yes[3]	Yes[3]	No
• Theaters - live performance	Yes	Yes[3, 5]	Yes[3, 5]	No	No
• Motion picture theater - single or double	Yes	Yes[3]	Yes[3]	No	No
• Motion picture theater complex - three or more	Yes	Yes[3]	Yes[3]	No	No
• Professional sports	Yes	Yes	Yes	No	No
• Stadiums and arenas	Yes	Yes	Yes	No	No
• Auditoriums, concert halls, and amphitheaters	Yes	Yes[3, 5]	Yes[3, 5]	No	No
• Fairgrounds and expositions	Yes	Yes	Yes	No	No
• Racetracks	Yes	Yes	Yes	No	No
• Theme parks	Yes	Yes	Yes	No	No

Footnotes:

A. This compatibility table does not apply to Borges-Clarksburg Airport, as no noise contours exist there. Also, it does not apply to Executive Airport, as the noise contours do not extend into the unincorporated area of Sacramento County.

B. These guidelines define only compatible land uses within noise contours. Where proposed land uses fall within the established Safety Areas or may penetrate any of the imaginary height surfaces, additional restrictions do apply, which can be found in the safety and height policy sections of this Plan.

1. Caretaker residences are a compatible use within all CNEL ranges, provided that they are ancillary to the primary use of a property, intended for the purpose of property protection or maintenance, and subject to the condition that all residential units be designed to limit intruding noise such that interior levels do not exceed 45 CNEL, with windows closed, in any habitable room.

2. Second residential units are a compatible use within all CNEL ranges, subject to the condition that the proposed second unit be consistent with the provisions of Section 65852.1 and 65852.2 of the California Government Code.

3. Measures to achieve an interior noise level of 50 CNEL must be incorporated into the design and construction of portions where the public is received, office areas, and other areas where people work or congregate.

4. Measures to achieve an interior noise level of 45 CNEL must be incorporated into the design and construction of all noise sensitive areas including, but not limited to, rooms designed for the purpose of sleep, libraries, churches, and areas intended for indoor entertainment events.

5. Only indoor uses permitted.

6. Compatible at Sacramento International Airport and Franklin Field only if the residential use is directly related to agricultural uses, such as dwelling units for the land owner, the owner's immediate family, or for employees. All residential units shall be designed to limit intruding noise such that interior noise levels do not exceed 45 CNEL, with windows closed, in any habitable room.

7. Use not compatible at Mather Airport.

8. New residential uses within 60 CNEL are not compatible, with the exception of accessory residential dwellings on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural. New residential development within the Mather Airport Policy Area boundaries but outside the 60 CNEL shall be subject to the following conditions:

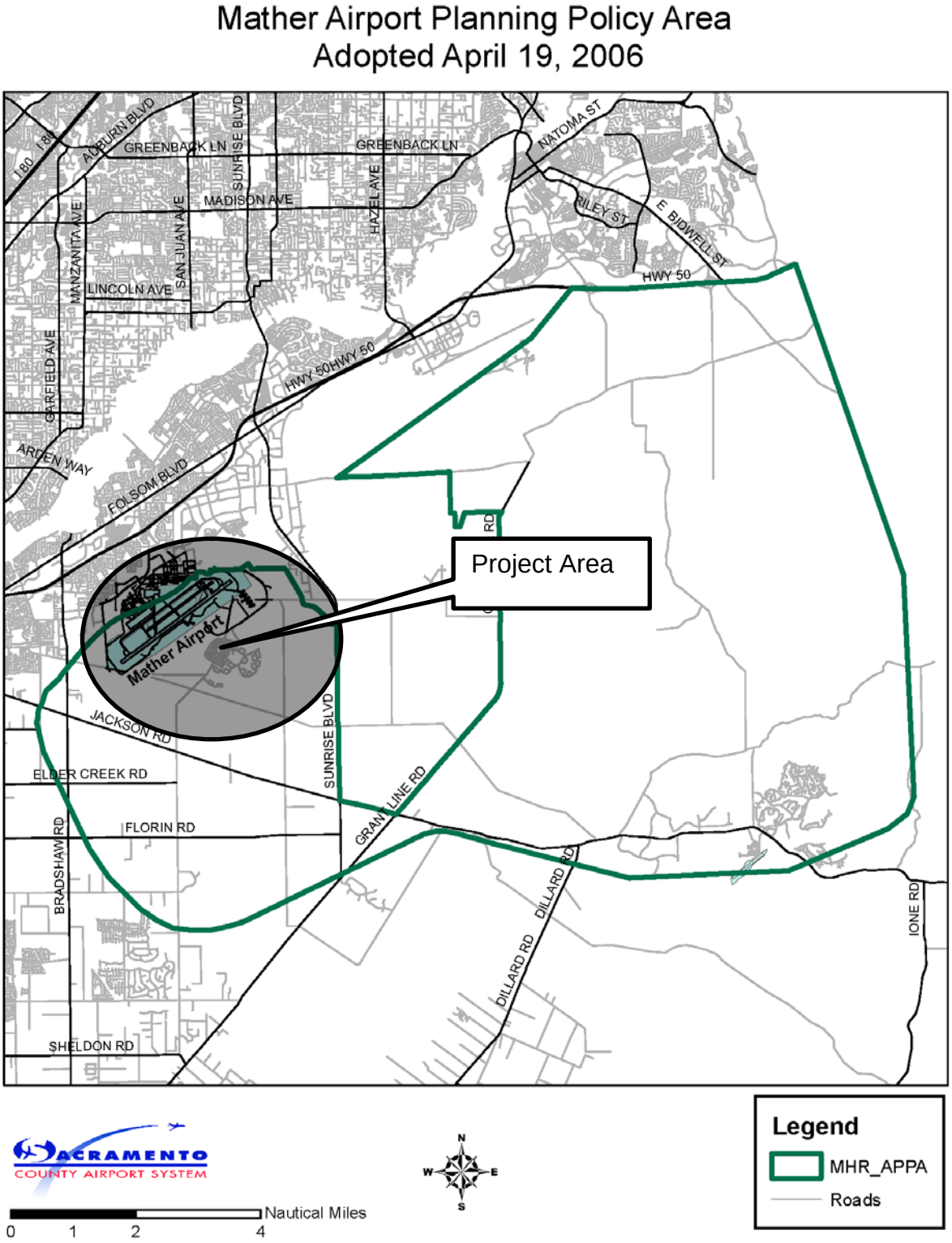
   A. Provide minimum noise insulation to provide 45dB within new residential dwellings, including detached single family dwellings, with windows closed, in any habitable room.

   B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within the Mather Airport Policy Area.

   C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento and recorded with the Sacramento County Recorder and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within the Mather Airport Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport.

9. Compatible with McClellan Park and Mather Airfield only up to 70dB CNEL.

Plate AC-4: Mather Airport Planning Policy Area



SIGNIFICANCE CRITERIA

Based on the CEQA guidelines, an airport compatibility impact is significant if project implementation results in:

1. A safety hazard for people residing or working in the vicinity of an airport/airstrip
2. The exposure of people residing or working in the project area to aircraft noise levels in excess of applicable standards
3. A substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft
4. A change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks.

IMPACTS AND ANALYSIS

Airport Land Commission staff (G. Chew) reviewed the project and provided comments dated May 29, 2014. The ALUC indicated that the proposed project does not contain anything that is inherently incompatible with the Mather CLUP; however, there are a number of potential land uses that might be allowed within the new land use diagram designations that would be incompatible with the CLUP if they are proposed at a later time. The ALUC also indicated that since there are currently no specific use requests identified in the project, the ALUC will have to review development applications if and when they are identified.

NOISE

The project area contains Mather Airport and the entire project site is subject to noise generated from airport operations. The CNEL noise contours associated with aircraft utilizing the airport cover the project area. The noise levels most commonly referred to when assessing land use compatibility with airport noises, as shown in the Land Use Compatibility for Airport Noise above in Table AC-2, range from 60 CNEL to 85 CNEL.

The 75 CNEL and higher noise levels are located wholly within Airport District and outside of land area subject to land use designation changes related to this project. The noise levels associated with the airport that are of most concern to the project range from 60 to 75 CNEL. These noise levels are located just south of the airport runways within the proposed Extensive Industrial, Intensive Industrial and Natural Preserve areas (refer to Plate AC -5).

The proposed Extensive Industrial and Intensive Industrial will be located within the proposed Industrial District of the Mather Field SPA. The SPA indicates that permitted uses within the Industrial District include this uses permitted within the Light Industrial and Office Park Land Use Zones.

The Light Industrial and Office Park Land Use Zones permit several uses that are incompatible with the noise levels that encompass the proposed Industrial District or require measures to achieve appropriate interior noise levels such as computer programming and software design, child care centers, churches and various office type uses. The northern boundary of the proposed Industrial District is nearer to the runway than the existing South Airport Industrial Subarea and the allowed uses have the potential to be located nearer to the airport runways and within an area subject to greater noise levels resulting from airport operations.

In order to ensure that the permitted uses of the proposed Industrial District are compatible with the noise levels associated with the project site mitigation is recommended. With mitigation, impacts related to airport noise levels will be ***less than significant.***

SAFETY

NAVIGABLE AIRSPACE

Navigable airspace could be impacted if building heights in the project area exceed designated height standards. According to the Mather Airport CLUP, height standards for defining obstructions to air navigation are established by the Federal Aviation Administration (FAA) and are defined in Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. The CLUP further discusses the need for height restrictions as follows:

> Height restrictions are necessary to ensure that objects will not impair flight safety or decrease the operational capability of the airport. FAR Part 77 defines a series of imaginary surfaces surrounding airports. Any object or structure which would penetrate any of these imaginary surfaces is considered by the FAA to be an obstruction of air navigation.

The “imaginary surfaces” for Mather Airport are most restrictive adjacent to the runway and become less restrictive further away. The height restrictions that apply to the project site, where the northern boundary of the proposed Industrial District will be located closer to the airport than the existing South Mather Industrial Subarea, require that the maximum building or structure heights be limited to between 150 and 448.5 feet above mean sea level depending on their proximity to the airport runway.

The most restrictive height zone applicable to the areas where land use changes are proposed, restricting building heights too between 150 and 200 feet above mean sea level, is a narrow strip of land just southeast of the existing runway alignment along the northwestern edge of the proposed Intensive Industrial area and the northernmost portion of the proposed Extensive Industrial area within the proposed Industrial District (refer to Plate AC -6). The ground surface elevation in these areas fluctuate from between 70 to 130 feet above sea level and the maximum building heights in this most restrictive zone can be between approximately 20 to 130 feet in height depending on the ground elevation and the distance from the runway. It should be noted that the

majority of the project area would allow for higher buildings because the remainder of the proposed land use changes are located further away from the runways and within less restrictive height zones.

The Mather Field SPA Development Standards discuss requirements for building heights within the proposed Industrial District and refers to the Sacramento County Zoning Code height allowances for buildings within industrial zones. According to Zoning Code Sections 301-20 through 301-25 and Section 325-04 the maximum building height within the Industrial zone is 150 feet.

Building heights allowed by the Mather Field SPA Development Standards have the potential to be greater than those that would be compatible with the height restriction zones related to Mather Airport and could affect navigable airspace. Mitigation is recommended in order to ensure that building heights are in compliance with the height standards established by the FAA. With mitigation the project is not expected to result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft and project related impacts to navigable airspace are expected to be ***less than significant***.

Airport Safety Zones

Airport Comprehensive Land Use Plans (CLUPs) define three safety zones: the clear zone, approach/departure zone and the overflight zone. The clear zone is the area at each end of the runway where noise and risk of off-runway accidents are the greatest. The approach/departure zone is the area between the clear zone and the overflight zone where aircraft have either just left the ground or are preparing for touchdown and the overflight zone is the area where aircraft maneuver to either exit or enter the airport space for landing or take off. In terms of quantifying the dimensions involved for each of the above mentioned zones, the Mather Airport CLUP defines the safety zones specific to Mather Airport as follows:

1. Clear Zones:

   Runway 4R- The Clear Zone for Runway 4R begins at the primary surface, 200 feet beyond the end of the paved runway surface, is centered along the extended runway centerline, has an inner width of 1,000 feet, extends outward for a length of 1,700 feet, and has an outer width of 1,425 feet.

   Runway 22L- The Clear Zone for Runway 22L begins at the end of the primary surface, 200 feet beyond the end of the paved runway surface, is centered along the extended runway centerline, has an inner width of 1,000 feet, extends outward for a length of 2,500 feet, and has an outer width of 1,750 feet.

   Runway 4L-22R- The Clear Zones for this runway begin at the end of the primary surface at each end of the runway end, 200 feet beyond the paved runway surface, are centered along the extended runway centerline, have an inner width of 250 feet, extend outward for a length of 1,000 feet, and have an outer width of 450 feet.

~~Plate AC -5: Mather Airport Noise Contours and Proposed Industrial Areas~~

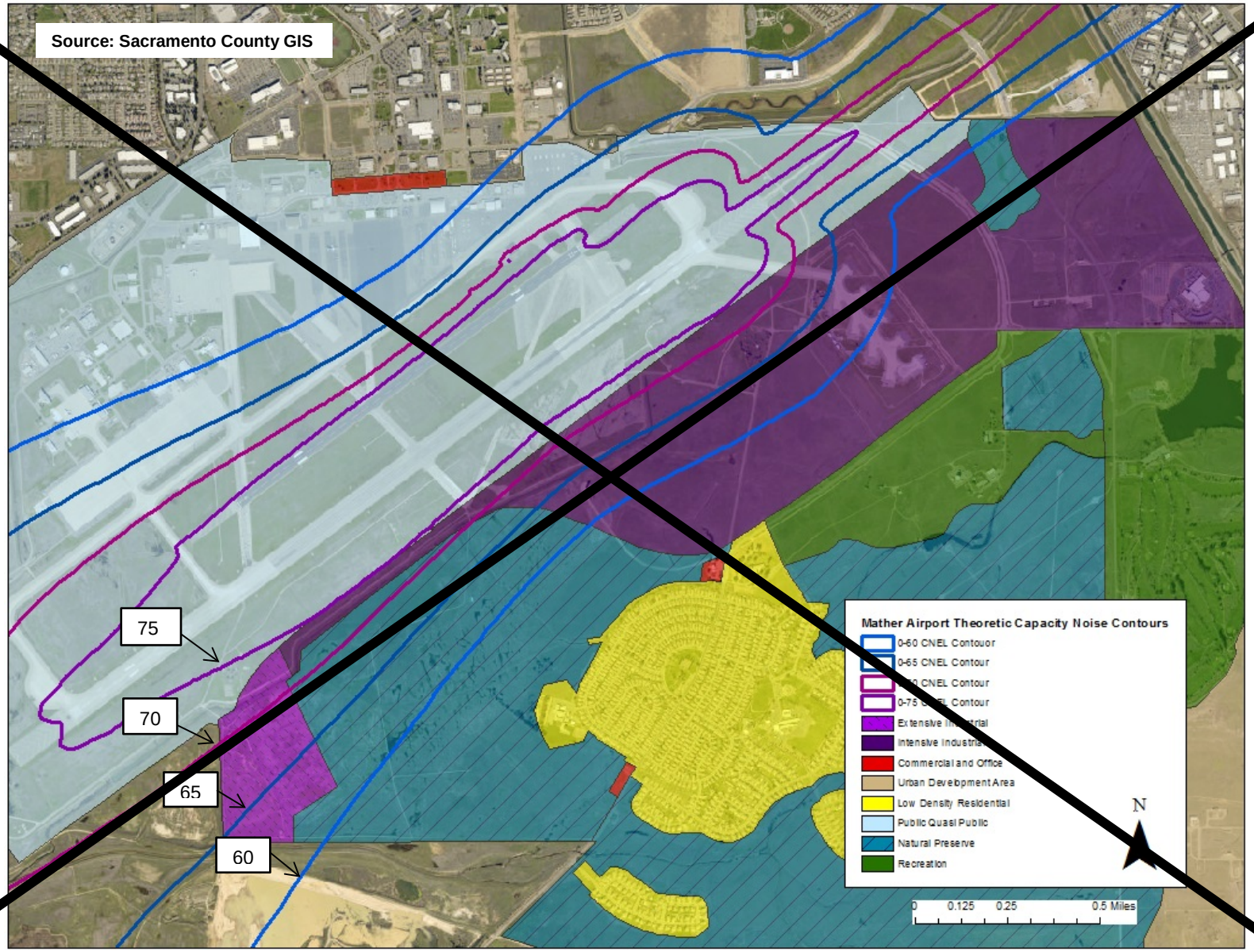
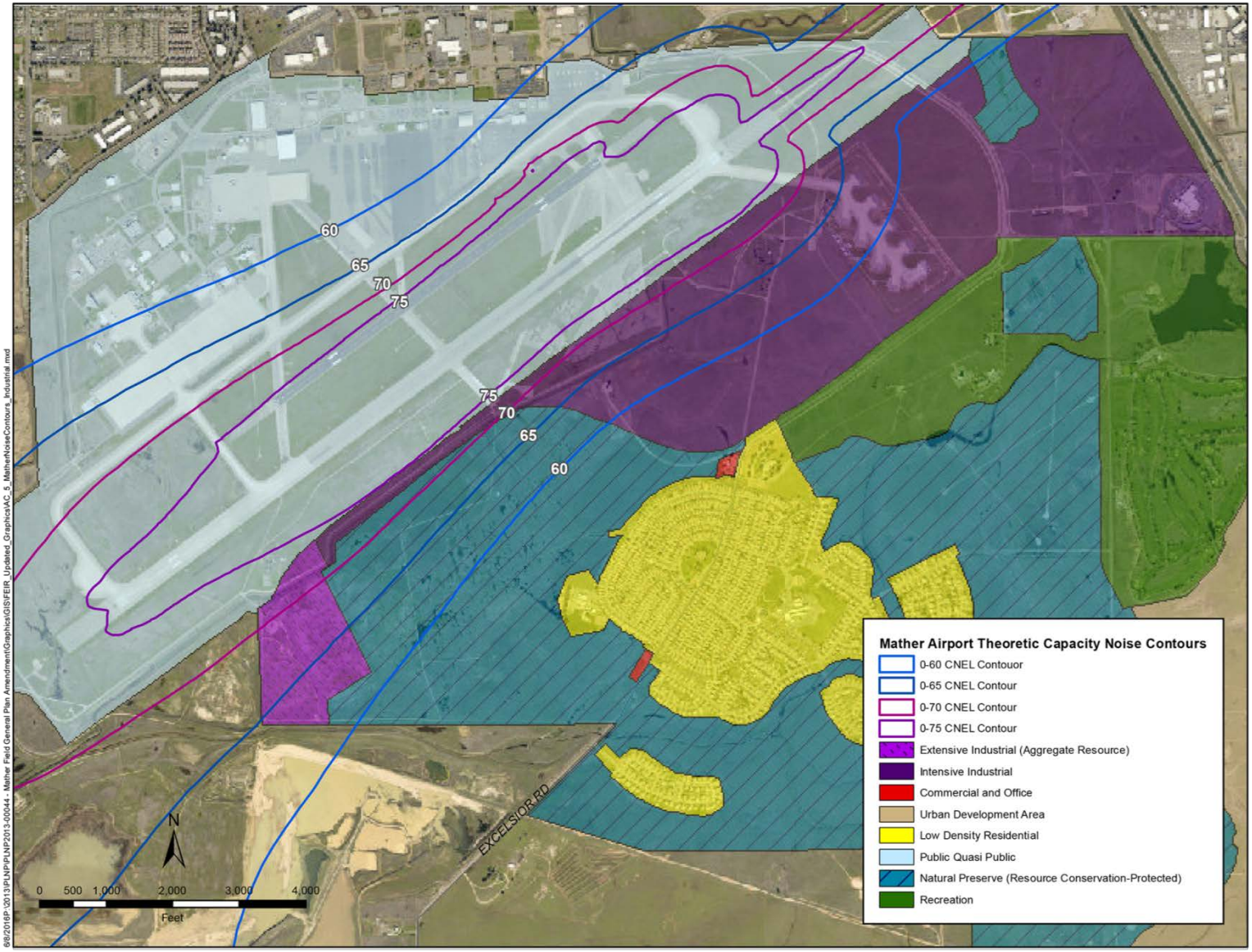


Plate AC -6: Mather Airport Noise Contours and Proposed Industrial Areas (Revised)



~~Plate AC -7: Height Restrictions and Industrial Areas~~

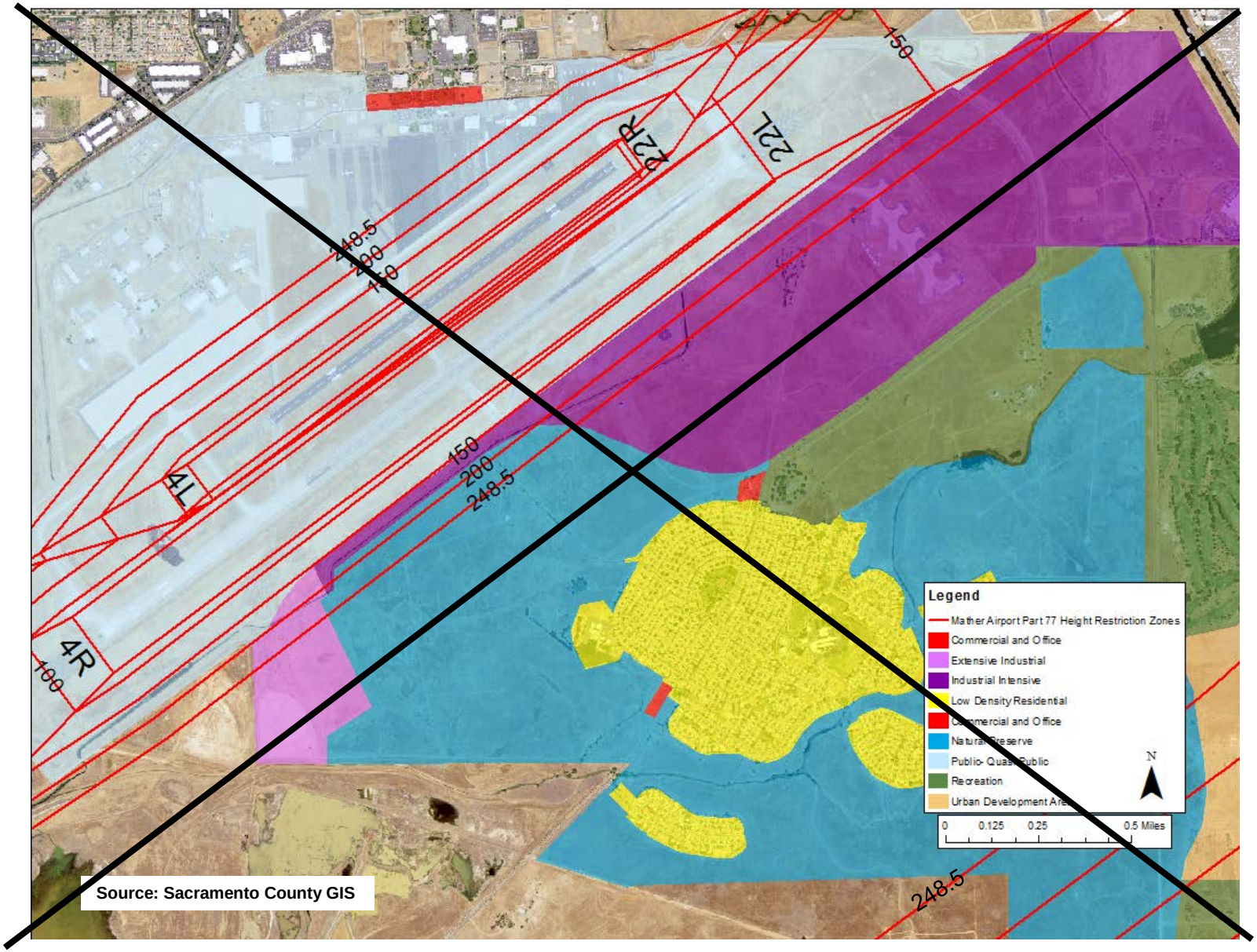
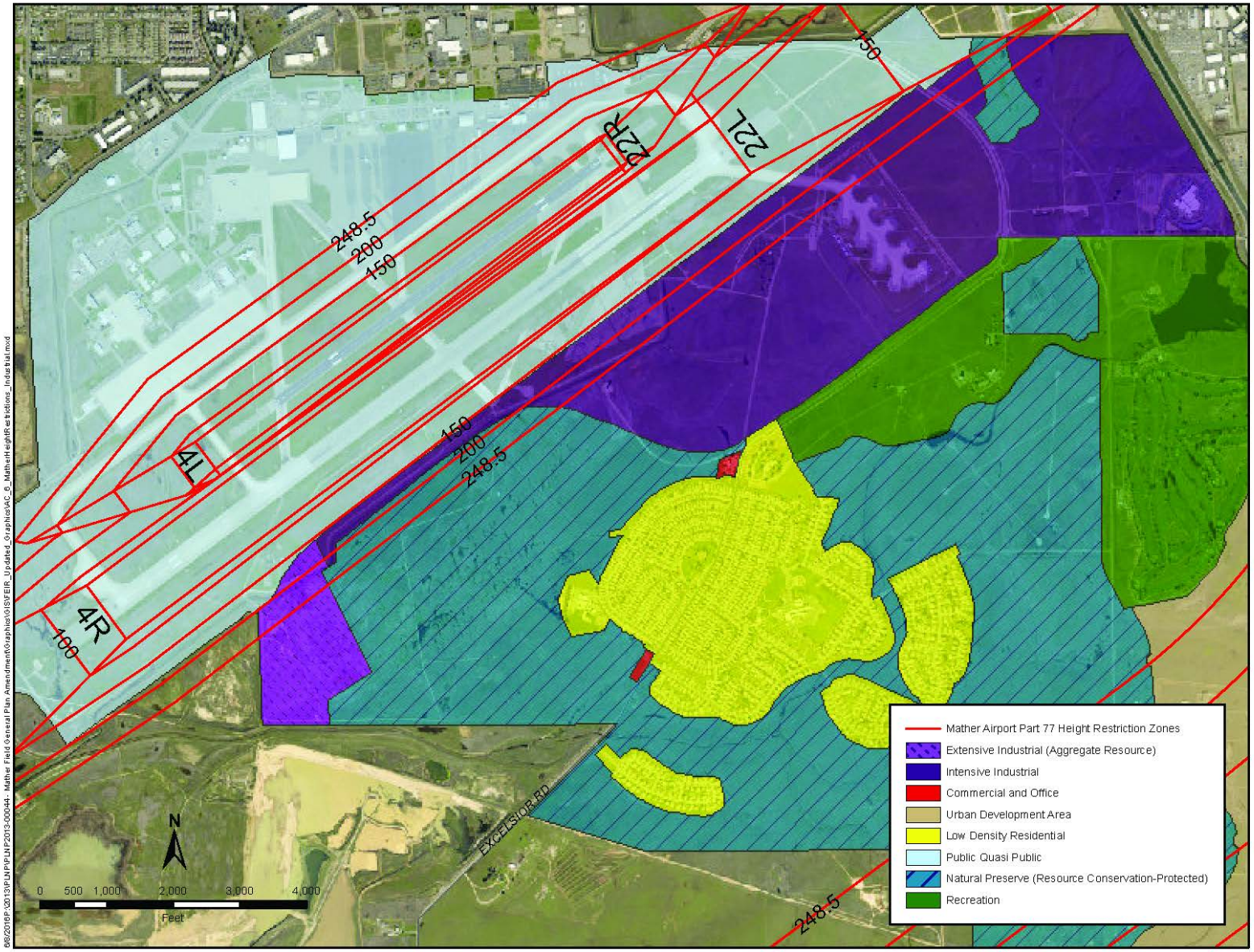


Plate AC -8: Height Restrictions and Industrial Areas (Revised)



2. Approach/Departure Zones:

   Runway 4R- The Approach/Departure Zone for this runway begins at the outer end of the Clear Zone, is centered along the extended runway centerline, has an inner width of 1,425 feet, extends outward for a length of 3,400 feet, and has an outer width of 2,275 feet.

   Runway 22L- The Approach/Departure Zone for this runway begins at the outer edge of the Clear Zone, is centered along the extended runway centerline, has an inner width of 1,750 feet, extends outward for a length of 5,000 feet, and has an outer width of 3,250 feet.

   Runway 4L-22R- The Approach/Departure Zones for this runway begin at the outer end of the Clear Zone at each end of the runway end, are centered along the extended runway centerline, have an inner width of 450 feet, extends outward for a length of 2,000 feet, and have an outer width of 850 feet.

3. Overflight Zone:

   The Overflight Zone generally coincides with the area overflown by aircraft during normal traffic pattern procedures and coincides with the area under the Horizontal Surface, but outside of the Clear and Approach/Departure Zones. For Mather Airport, the perimeter of the Overflight Zone is constructed by swinging arcs of 10,000 foot radii from the center of each end of the primary surface of all runway ends and connecting these arcs by lines tangent to these arcs.

Within the three safety zones discussed above, the risk of aircraft accident is the least for the overflight zone and most for the clear zone.

According to the CLUP for Mather Airport, which is adopted as part of the General Plan, the project is located partially within the Mather Airport Approach/ Departure Zone and Overflight Zone. The following is a discussion of project-related impacts within each of the zones.

APPROACH/ DEPARTURE ZONE

The majority of project related land use changes are outside of the Approach/ Departure Zones for Mather Airport. However, the northern boundary of the proposed Industrial District will be located closer to the airport than the existing South Mather Industrial Subarea and a portion of the industrial District boundary overlaps the Approach Departure Zone. Approximately one acre of the proposed Industrial District area overlaps the Approach/ Departure Zone (refer to Plate AC -7).

The proposed Specific Plan includes the following description of land uses allowed within the Industrial zone:

> **Industrial-Intensive**. This land use category provides for office and light industrial activities, such as industrially related offices, campus-style office parks, limited production, product assembly, storage, warehousing and

distribution, research and development, industrial services, and limited sales and distribution of items manufactured on site. This designation is applied to a portion of land along Douglas Road at the eastern entrance to the planning area and would provide for aviation-related industries associated with the airport as well as research and development uses, as well as a portion of land southwest of the Airfield area that will provide for mining activities. Allowable floor area ratios in this district range from 0.15 to 0.80.

The Mather Field SPA further defines the uses permitted in the Industrial area and notes that the uses allowed in the Industrial District are those allowed on the Light Industrial and Business Park Land Use Zones. The Business Park Land use Zone allows for offices, churches, child care centers and other similar business and uses.

According to the "Land Use Compatibility for Airport Safety" table, uses within the Approach/ Departure Zone are more stringently regulated as compared to those uses located within the Overflight Zone. This is due to the fact that any uses within the Approach/ Departure Zones that may result in even a moderate concentration of people, is considered a substantial safety issue that could result from aircraft crashes or emergency landings. Based on the airport safety tables, virtually no public and quasi-public services, recreational services, wholesale trade, retail trade, business and professional services or shopping districts are allowed within the zone.

Based on the uses allowed within the proposed Industrial area there is a potential for office uses and other uses that may result in concentrations of people over those concentrations seen as compatible with the Approach/ Departure Zone. To ensure that the project is compatible with the allowed uses within the Approach/ Departure Zone mitigation is recommended to restrict allowed uses within the zone to be consistent with the "Land Use Compatibility for Airport Safety" table. With mitigation project related impacts to compatibility with the Approach/ Departure Zone are ***less than significant***.

OVERFLIGHT ZONE

The Overflight Zone boundary is generally located south of Folsom Boulevard, east Mayhew Road, north of elder Creek Road and west of Cades Cove Drive. Approximately 80% of the project area is within the Overflight Zone (refer to Plate AC -8). The proposed Industrial District is entirely within the Overflight Zone and the proposed project will allow for industrial uses to be located closer to the airport than in the existing condition.

According to the proposed Mather Field SPA, uses allowed in the Industrial District include rubber and plastics manufacturing, chemical manufacturing and petroleum processing. These uses are incompatible with the Overflight Zone.

To ensure that the project is compatible with the allowed uses within the Overflight Zone mitigation is recommended to restrict allowed uses within the zone to be consistent with the "Land Use Compatibility for Airport Safety" table. With mitigation project related impacts to compatibility with the Overflight Zone are ***less than significant***.

~~Plate AC -9: Mather Airport Approach/ Departure Zone and Industrial Area~~

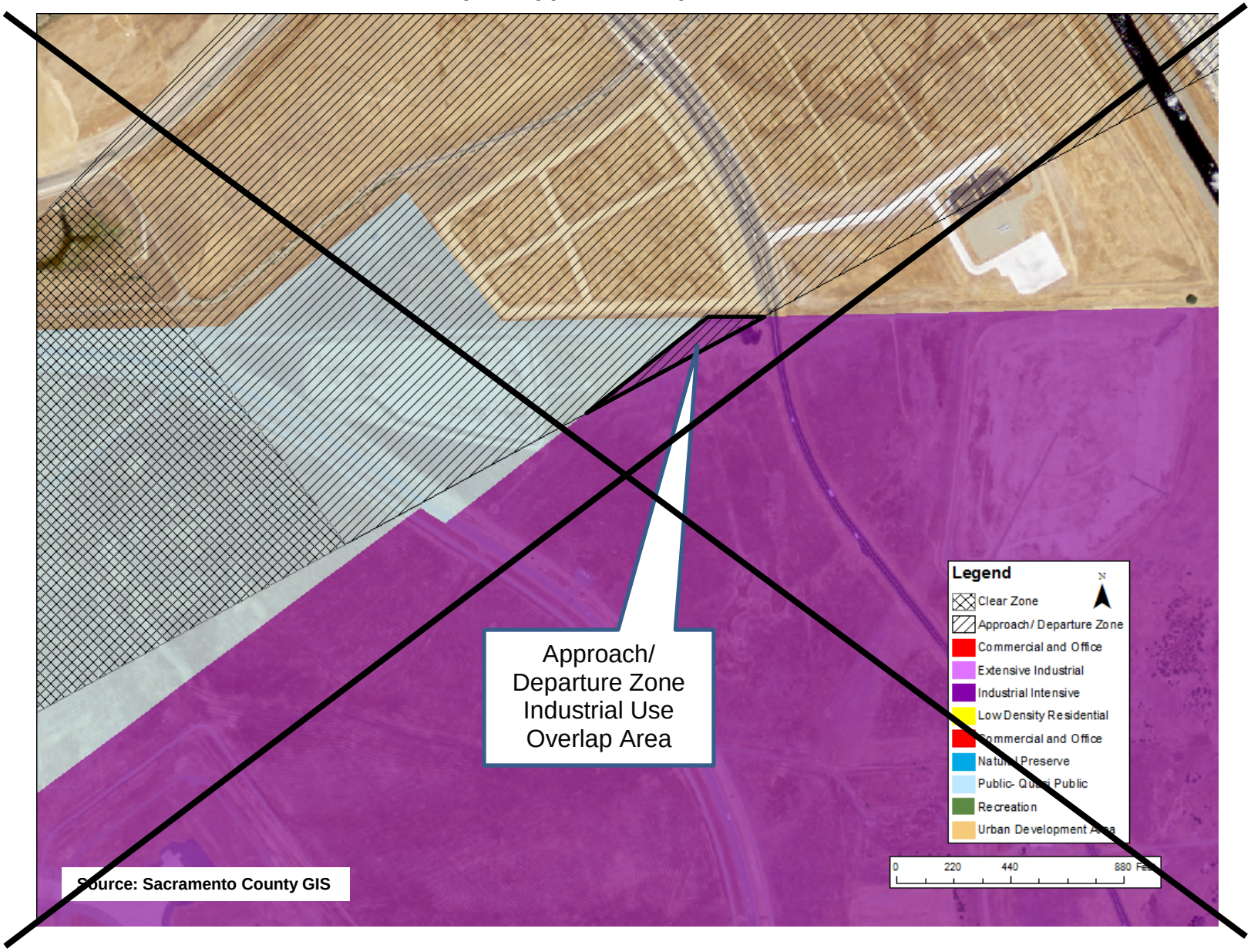
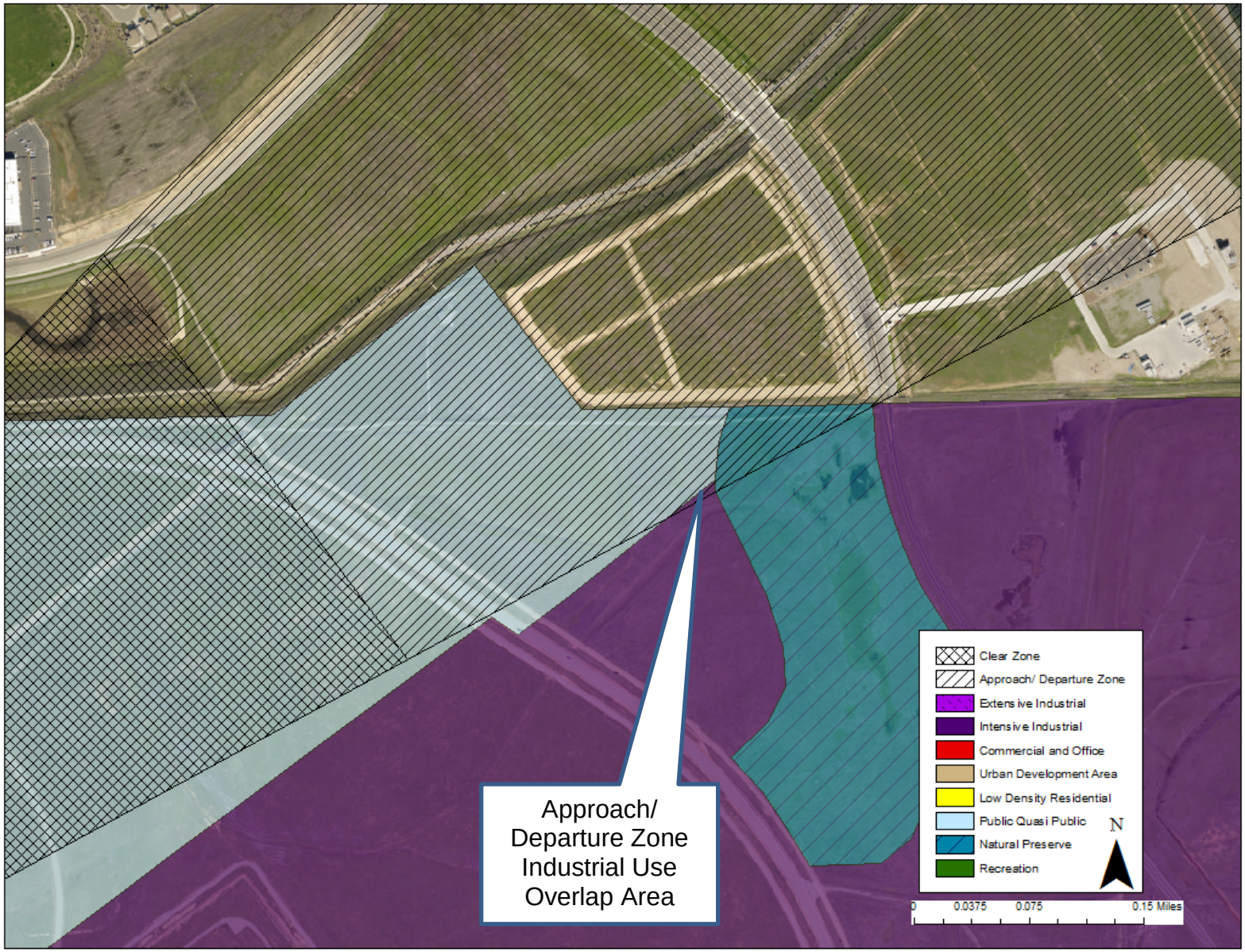


Plate AC -10: Mather Airport Approach/ Departure Zone and and Industrial Area (Revised)



~~Plate AC -11: Mather Airport Overflight Zone and Project Area~~

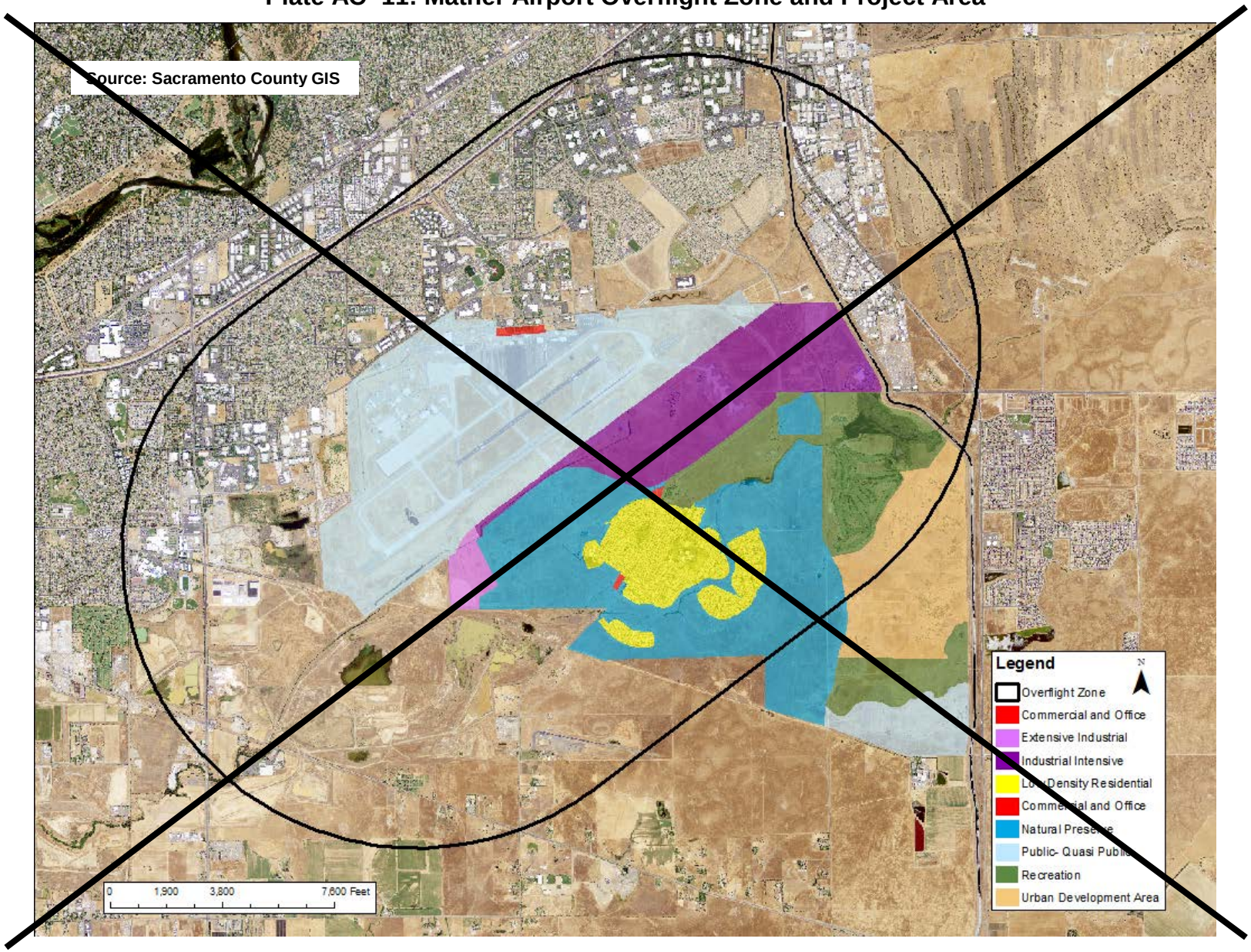
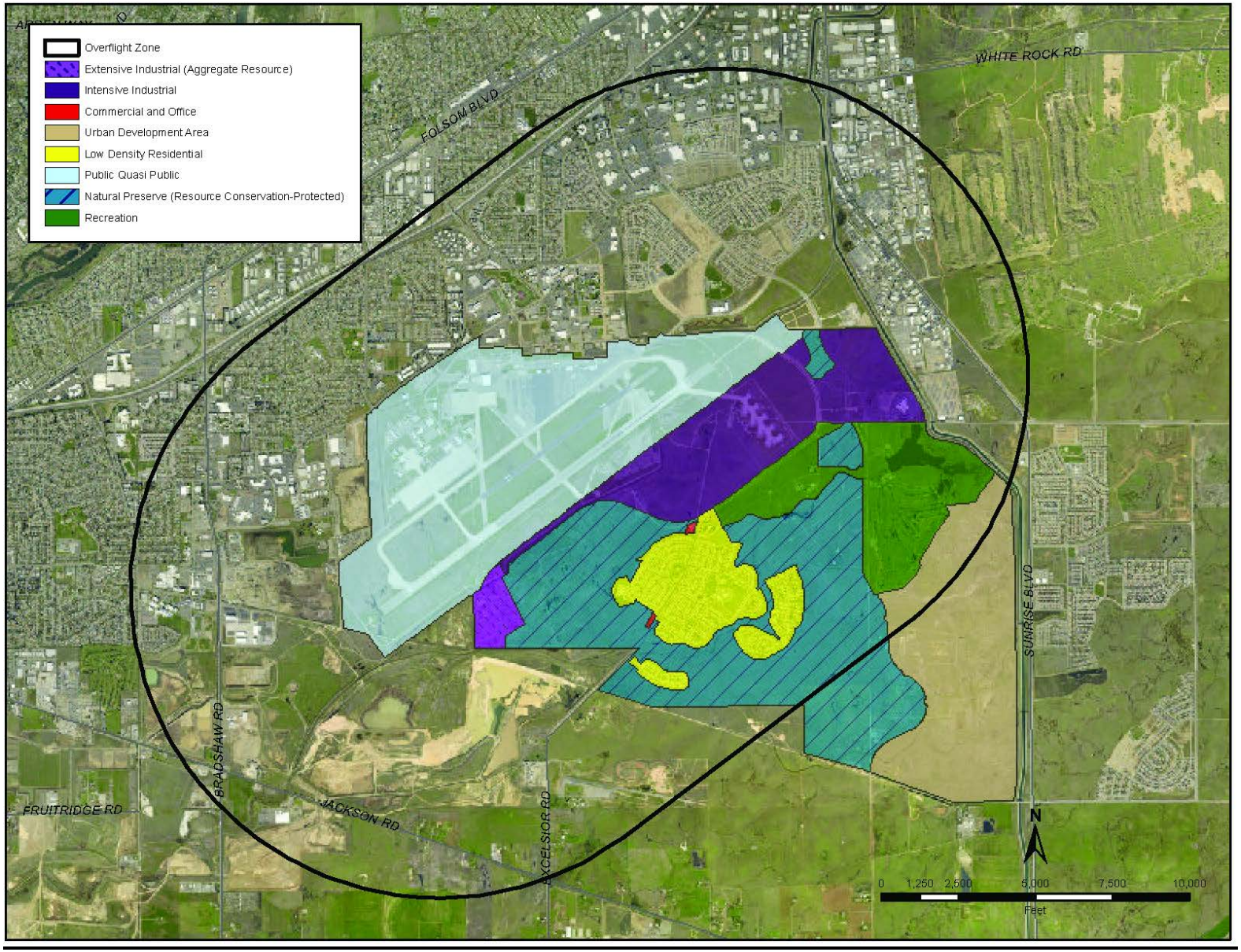


Plate AC -12: Mather Airport Overflight Zone and Project Area (Revised)



MITIGATION MEASURES

AC-1: AIRPORT NOISE

Proposed uses within the Mather Field Special Planning Area shall be in compliance with the uses and standards included in Table 4: *Land Use Compatibility for Airport Noise* found within the Noise Element of the Sacramento County General Plan.

AC-2: NAVIGABLE AIRSPACE

The following language shall be added to the Mather Field SPA Development Standards:

> All development and redevelopment projects within the Mather Field SPA shall be in compliance with the Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*.

AC-3: MATHER AIRPORT SAFETY ZONES

The following language shall be added to the Mather Field SPA Development Standards:

> All development or redevelopment within the Mather Airport Approach/Departure and Overflight Safety Zones shall be consistent with the allowed land uses detailed in the “Land Use Compatibility for Airport Safety” table.

AC-4: FUTURE DEVELOPMENT APPLICATIONS

Future development applications within the Mather Airport safety zones shall be reviewed by the Airport Land Use Commission in order to ensure that proposed projects are compatible with the safety zones.

6 AIR QUALITY

INTRODUCTION

The Sacramento Metropolitan Area is a federal non-attainment area and one of the worst air quality areas nationally. This section describes the existing climate and air quality in the Project area and details the applicable federal, state and regional air quality standards applicable to the Project and assesses the potential air quality effects of the Project. This section also assesses the potential odor impacts the Sacramento Rendering Company's rendering plant may have on the proposed project.

AIR QUALITY SETTING

LOCATION, CLIMATE AND ATMOSPHERIC CONDITIONS

The Mather Field site consists of approximately 5,400 acres located generally south of Folsom Boulevard, west of the Folsom South Canal, north of Kiefer Boulevard and east of Happy Lane in the central portion of Sacramento County, at the southern end of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin is bound by the North Coast Ranges to the west and the Sierra Nevada Mountains to the east. Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, the temperature may range from a low of 20 degrees Fahrenheit to a high of 110 degrees, with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches, with very rare snowfall. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north. Winds within the Project area are predominantly from the south.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The situation of having warm air on top of cooler air is referred to as a temperature inversion, because the temperature profile of the atmosphere is "inverted" from its usual state.[1] The highest frequency of air stagnation occurs in the autumn and early winter, when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground.

[1] National Oceanic and Atmospheric Administration
http://www.wrh.noaa.gov/slc/climate/TemperatureInversions.php. Accessed August 20, 2014

The ozone (O_3) season (May through October) in the Sacramento Valley is characterized by stagnant air or light winds, with the delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north, out of the Valley. During about half of the days from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north, carrying the pollutants out of the Valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon’s effect exacerbates the pollution levels in the area and increases the likelihood of violating federal or state standards. [2] The Schultz Eddy normally dissipates around noon, when the delta sea breeze arrives.

AIR POLLUTANTS AND AMBIENT AIR QUALITY STANDARDS

The Clean Air Act, which was last amended in 1990, requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards: primary and secondary standards. Primary standards set limits to protect public health, including the health of "sensitive" populations, such as asthmatics, children, and the elderly. Typically, primary pollutants are substances directly emitted from a process, such as ash from a volcanic eruption or carbon monoxide gas emitted from a motor vehicle exhaust. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Secondary pollutants are not emitted directly; they form in the air when primary pollutants react or interact to create substances, such as ground-level ozone, which is a component of photochemical smog.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called "criteria" pollutants. Criteria air pollutants are a group of pollutants for which federal or state regulatory agencies have adopted ambient air quality standards. Federal criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter less than 10 and 2.5 microns in diameter, and lead. State-designated criteria pollutants also include visibility-reducing particles, sulfates, and hydrogen sulfide.[3] Criteria air pollutants are classified in each air basin, county, or, in some cases, within a specific urbanized area. The classification is determined by comparing actual monitoring data with state and federal standards. If a pollutant concentration is lower than the standard, the area is classified as in “attainment” for that pollutant. If an area exceeds the standard, the area is classified as in “non-attainment” for that pollutant. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.” Sacramento County is designated as nonattainment areas for national and state ambient air quality standards (AAQS) for ozone, PM_{10} and $PM_{2.5}$. The County

[2] SMAQMD Air Guide to Air quality assessment in Sacramento County, December 2009. http://www.airquality.org/ceqa/cequguideupdate/Ch1IntroAQFINAL.pdf. Accessed August 22, 2014.

[3] EPA; http://www.epa.gov/air/criteria.html. Accessed August 22, 2014.

was designated in attainment or unclassified for all remaining pollutants.[4] The main criteria pollutants are described below.

Ozone (O_3) is not usually emitted directly into the air, but is created at ground level by a chemical reaction between oxides of nitrogen (NO_X) and volatile organic compounds (VOC) in the presence of sunlight. The United States Environmental Protection Agency formerly called VOC reactive organic gases, or ROG – the latter term is still in use in most modeling programs and by the Sacramento Metropolitan Air Quality Management District. The term ROG is used throughout this document. Ozone has the same chemical structure whether it occurs miles above the earth or at ground level. In the earth's lower atmosphere, ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents, as well as natural sources, emit NO_X and ROG that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause a chemical reaction between ozone precursors and increase the levels of ozone to potentially harmful concentrations. As a result, it is known as a summertime air pollutant. Many urban areas tend to have high levels of ground-level ozone, but even rural areas are subject to increased ozone levels because wind carries ozone and the pollutants that form it hundreds of miles away from their original sources.

Carbon Monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Other sources of CO emissions include industrial processes such as metals processing and chemical manufacturing, residential wood burning, and natural sources such as forest fires. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air.

Particulate Matter (PM_{10} and $PM_{2.5}$) is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller because those are the particles that generally pass through the throat and nose and enter the lungs. EPA groups particle pollution into two categories:

"Inhalable coarse particles," such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter.

"Fine particles," such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as

[4] Sacramento Metropolitan Air Quality Management District. *http://www.airquality.org/aqdata/attainmentstat.shtml* Accessed: August 22, 2014.

forest fires, or they can form when gases emitted from power plants, industries, and automobiles react in the air.

Nitrogen Dioxide (NO_2) is one in a group of highly reactive gasses known as nitrogen oxides (NO_X). Other nitrogen oxides include nitrous acid and nitric acid. While EPA's NAAQS covers this entire group of NO_X, NO_2 is the component of greatest interest and the indicator for the larger group of nitrogen oxides. NO_2 forms quickly from emissions from cars, trucks and buses, power plants, and off-road equipment. In addition to contributing to the formation of ground-level ozone and fine-particle pollution, NO_2 is linked to a number of adverse effects on the respiratory system.

Sulfur Dioxide (SO_2) is one of a group of highly reactive gasses known as oxides of sulfur. The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73%) and other industrial facilities (20%). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur-containing fuels by locomotives, large ships, and non-road equipment.

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent during the same time period. Today, the highest levels of lead in air are usually found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.[5]

Exposure to these pollutants is associated with numerous effects on human health, including increased respiratory symptoms, hospitalization for heart or lung diseases, and even premature death. Health effects of the main criteria pollutants are shown below in Table AQ-1.

[5] http://www.epa.gov/airquality/urbanair/. Accessed August 22, 2014.

Table AQ-1: Health Effects of Main Criteria Pollutants

Pollutant	Adverse Effects
Ozone	▪ Ozone can irritate lung airways and cause inflammation. Other symptoms include wheezing, coughing, and breathing difficulties during exercise or outdoor activities. People with respiratory problems are most vulnerable, but even healthy people that are active outdoors can be affected when ozone levels are high. ▪ Repeated exposure to ozone pollution for several months may cause permanent lung damage. ▪ Even at very low levels, ground-level ozone triggers a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis. ▪ Ground-level ozone interferes with the ability of plants to produce and store food, which makes them more susceptible to disease, insects, other pollutants, and harsh weather. ▪ Ozone reduces crop and forest yields and increases plant vulnerability to disease, pests, and weather.
Carbon Monoxide	▪ The health threat from lower levels of CO is most serious for those who suffer from heart disease. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. ▪ Healthy people can be affected by high levels of CO as well. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death. ▪ CO contributes to the formation of ground-level ozone, which can trigger serious respiratory problems.
Particulate Matter	▪ Particle pollution, especially fine particles, contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; decreased lung function, aggravated asthma, development of chronic bronchitis; irregular heartbeat, nonfatal heart attacks; and premature death. ▪ Particles can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.
Nitrogen Dioxide	▪ One of the main ingredients involved in the formation of ground-level ozone, which can trigger serious respiratory problems. ▪ Reacts to form nitrate particles, acid aerosols, as well as NO2, which also cause respiratory problems. ▪ Contributes to formation of acid rain; to nutrient overload that deteriorates water quality; and to atmospheric particles that cause visibility impairment. ▪ Reacts to form toxic chemicals.
Sulfur Dioxide	▪ SO2 causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. ▪ Peak levels of gaseous SO2 can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures to high levels of SO2 gas and particles cause respiratory illness and aggravate existing heart disease. ▪ SO2 reacts with other chemicals in the air to form tiny sulfate particles. When these are breathed, they gather in the lungs and are associated with increased respiratory symptoms and disease, difficulty in breathing, and premature death.

Pollutant	Adverse Effects
Lead	▪ People, animals, and fish are mainly exposed to lead by breathing and ingesting it in food, water, soil, or dust. Lead accumulates in the blood, bones, muscles, and fat. Infants and young children are especially sensitive to even low levels of lead. ▪ Excessive exposure to lead causes seizures, mental retardation, behavioral disorders, memory problems, and mood changes. Low levels of lead damage the brain and nerves in fetuses and young children, resulting in learning deficits and lowered IQ. ▪ Lead exposure causes high blood pressure and increases heart disease, especially in men. Lead exposure may also lead to anemia.

Source: U.S. Environmental Protection Agency, Six Common Air Pollutants, www.epa.gov/air//urbanair/6poll.html, accessed November 12, 2010.

Toxic Air Contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs are also referred to as toxic air pollutants or hazardous air pollutants. A wide range of sources, from industrial plants, gasoline stations, dry cleaners, automobiles (diesel exhaust), to households emit TACs. Because it is not practical to eliminate all TACs, these compounds are regulated through risk management programs. These programs are designed to eliminate, avoid, or minimize the risk of adverse health effects from exposures to TACs. TACs are known to be highly hazardous to health, even in small quantities.[6]

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The federal and state ambient air quality standards have been set at levels where concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts with a margin of safety. Table AQ-2 identifies the federal and state ambient air quality standards that are applicable in California.

[6] http://www.airquality.org/ceqa/cequguideupdate/Ch5TACFinal.pdf. Accessed August 22, 2014.

Table AQ-2: State and Federal Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard, as parts per million		Standard, as micrograms per cubic meter		Violation Criteria	
			California	National	California	National	California	National
Ozone	O_3	1 hour	0.09		180	--	If exceeded	If exceeded more than 3 days in 3 years
		8 hours	0.070	0.075	137	147	If exceeded	If exceeded more than 3 days in 3 years
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded more than 1 day per year
Nitrogen dioxide	NO_2	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded
		1 hour	0.18	0.1	339	188	If exceeded	
Sulfur dioxide	SO_2	24 hours	0.04		105		If exceeded	If exceeded more than 1 day per year
		1 hour	0.25	0.075	655	196	If exceeded	N/A
Hydrogen sulfide	H_2S	1 hour	0.03	--	42	--	If ≥	N/A
Vinyl chloride	C_2H_3Cl	24 hours	0.01	--	26	--	If ≥	N/A
Inhalable particulate matter	PM_{10}	Annual arithmetic mean	--	--	20	--	If exceeded	N/A
		24 hours	--	--	50	150	If exceeded	If exceeded more than 1 day per year
Fine particulate matter	$PM_{2.5}$	Annual arithmetic mean	--	--	12	12	See National	If exceeded over 3-year average
		24 hours	--	--	--	35	See National	If exceeded over 3-year average
Sulfate particles	SO_4	24 hours	--	--	25	--	If ≥	N/A
Lead particles	Pb	Quarterly average	--	--	--	1.5	N/A	If exceeded more than 1 day per year
		Rolling 3-month average	--	--	--	0.15	If ≥	N/A
		30-day average	--	--	1.5	--	If ≥	

Source: ARB 2011 http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed August 2014. NOTES: 1) All standards are based on measurements at 25 C and 1 atmosphere pressure. 2) National standards shown are the primary (health effects) standards. **3)** N/A = not applicable.

EXISTING AIR QUALITY CONDITIONS

The California Air Resources Board (ARB) collects ambient air quality data through a network of air monitoring stations throughout the state. Many of the monitoring stations are part of the state and local air monitoring plans, which collect data on ambient levels of gaseous and particular air pollutants used to determine attainment status.

EMISSION SOURCES

Stationary sources of air pollution near the Project site include A. Teichert & Son Aggregate, Aerojet, Puente Wood Products, Sacramento Rendering Company, Teledyne MEC, Granite Construction, and concrete recycling. There are also hard-rock quarries further to the east of the site. Mobile sources of air pollution include cars, trucks, buses, motorcycles, off-road equipment, construction activities, and consumer products, as well as gas-powered lawn tools and mowers, farm and construction equipment, recreational vehicles, planes, and trains. Sources of toxic air contaminants include manufacturing facilities, the Kiefer Landfill, and emissions from auto body shops, auto machine shops, dry cleaners, and gas stations. Indirect sources of air pollution, including diesel exhaust, are predominantly from vehicle trips along major thoroughfares in the vicinity of the Project area. There are some existing agriculture uses in the vicinity of the Project site and Mather Airport is located within the project site.

Some individuals are considered to be more sensitive than others to air pollution. Reasons for greater sensitivity can include existing health problems, duration of exposure to air pollutants, or certain peoples' increased susceptibility to pollution-related health problems due to factors such as age.

The ARB issued a guidance document on air quality and land use called *Air Quality and Land Use Handbook: A Community Health Perspective*, which recommends that sensitive land uses not be located within 500 feet of a freeway or other high traffic roadway and that a site-specific health risk assessment be performed as a way to more accurately evaluate the risk for sensitive uses planned within 500 feet of such roads.[7]

MONITORING DATA

The Sacramento Metropolitan Air Quality Management District (SMAQMD) and ARB maintain several air quality monitoring stations in the Sacramento area. The nearest monitoring site for ozone is at Sloughhouse, and the nearest monitoring site for carbon monoxide, $PM_{2.5}$, nitrogen dioxide, and sulfur dioxide is at Del Paso Manor at 2701 Avalon Dr. in Sacramento. The nearest monitoring station for PM_{10} is the Sacramento County Branch Center Road site, located near Bradshaw Road south of U.S. 50. Based

[7] http://www.arb.ca.gov/ch/landuse.htm. Accessed August 22, 2014.

on these monitoring sites, all federal ambient air quality standards have been met in the County, with the exception of ozone, which exceeded the eight-hour average on 5 occasions in 2013. Also, California standards for PM_{10} and ozone were exceeded in the County in 2011, 2012, and 2013 as shown in **Table AQ-3**.

Table AQ-3: Exceedance of National and State Air Pollution Standards in the Sacramento Area

Pollutant	2011	2012	2013
OZONE (1-hour)[1]			
Highest 1-hour (ppm)	0.123	0.125	0.105
Days>0.09 ppm (State)	9	10	2
OZONE (8-hour)[1]			
Highest 8-hour (ppm)	0.094	0.107	0.084
Days>0.08 (National)	19	18	2
Days>0.07 (State)[1]	27	25	5
CARBON MONOXIDE[2]			
Highest 8-hour (ppm)	2.27	1.51	--
Days>=9.0 ppm (National and State)	0	0	--
PARTICULATE MATTER (PM_{10})[3]			
Highest 24-hour Concentration (ug/m^3)	73	60	63
Days>150 ug/m^3 (National)	0	0	0
Days>50 ug/m^3 (State-estimated)	12.2	17.8	6.1
NITROGEN DIOXIDE			
Highest 1-hour (ppm)	0.047	0.051	0.045
Days>.25 ppm (State)	0	0	0

[1]Data derived from Sloughouse monitoring station. Sloughhouse monitoring station only collects data for ozone levels.
[2]Data Derived from Del Paso Manor monitoring station. Del Paso is the nearest station that collects CO data.
[3] Data Derived from Branch Center Road Monitoring station. Branch Center Road is the nearest station that collects PM_{10} data.
Source: California Air Resources Board, http://www.arb.ca.gov/adam, accessed August 8, 2014.

ADDITIONAL SITE-SPECIFIC AIR QUALITY ISSUES

TOXIC AIR POLLUTANTS

The ARB has identified approximately 200 toxic substances, including those identified by EPA on the California Air Toxic's Program TAC List. Toxic air contaminants are different from the criteria pollutants, in that ambient air quality standards have not been established for toxic air contaminants, largely because there are hundreds of air toxics and their effects on health tend to be local rather than regional. The dose of a TAC to

which receptors are exposed is the primary factor used to determine health risk. Duration of exposure, concentration of TAC exposure, and breathing rate in relationship to body size are important factors used in determining health risks. Health effects associated with TACs include cancer, birth defects, neurological damage, genetic damage; or short-term acute affects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. As mentioned above, TACs can be emitted from various common sources such as industrial plants, gasoline stations, dry cleaners, small businesses, automobiles, and trucks (in the form of diesel exhaust).

Odors

The issue of odor as a health concern is still an evolving concept. Merely identifying the hundreds of sources that cause offensive odors poses a big challenge. Odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can cause respiratory complications. Second, the chemicals that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

Immediately south of the eastern portion of the southern project boundary is the Sacramento Rendering Company's rendering plant. The Sacramento Rendering Company has operated a rendering plant on Kiefer Boulevard since 1955. A rendering plant processes animal "waste materials" that would otherwise be sent to a landfill and processes them ("renders") into other usable materials. Rendering plants create generate objectionable odors. These conditions are potentially incompatible with urban uses, depending upon the degree to which the conditions exist, the distance of the facility to the urban uses, the type of urban use, and other factors such as the direction of prevailing winds and the intervening landscape type. For more information related to the rendering plant refer to the Land Use chapter of this EIR.

Sensitive Receptors

Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large. While the ambient air quality standards are designed to protect public health and are generally regarded as conservative for healthy adults, there is greater concern to protect adults who are ill or have long-term respiratory problems and young children whose lungs are not fully developed. According to ARB, sensitive receptors include children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases.

Land uses such as day care centers, primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they can be exposed to pollutants for extended

periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on human respiratory function.

REGULATORY SETTING

AIR QUALITY

FEDERAL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The EPA is the federal agency responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. The EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The EPA also has jurisdiction over emission sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the EPA requires each state with non-attainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in non-attainment areas, using a combination of performance standards and market-based programs.

FEDERAL CLEAN AIR ACT

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the EPA to establish NAAQS with states retaining the option to adopt more stringent standards or to include other specific pollutants. These standards are the levels of air quality considered, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Current NAAQS and area attainment status is discussed under Regional and Local Air Quality above. The CAA and its subsequent amendments require each state to prepare a SIP. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with

jurisdiction over them. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

STATE

CALIFORNIA AIR RESOURCES BOARD

ARB, a part of the California EPA (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the ARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. The ARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts.

In addition to standards set for the six criteria pollutants, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Further, the state has established a set of episode criteria for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. The attainment status of the CAAQS for the Project area is discussed under Air Pollutants and Ambient Air Quality Standards, above.

CALIFORNIA CLEAN AIR ACT

The CCAA of 1988 requires non-attainment areas to achieve and maintain the CAAQS by the earliest practicable date and local air districts to develop plans for attaining the state ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. The CCAA also requires that by the end of 1994 and once every three years thereafter, the air districts are to assess their progress toward attaining the air quality standards. The triennial assessment is to report the extent of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding three-year period.

THE AIR TOXICS HOT SPOTS INFORMATION AND ASSESSMENT ACT

California Health and Safety Code Section 44300 et seq., provides for the regulation of over 200 air toxics and contain the primary air contaminant legislation in the state. Under the Act, local air districts may request that a facility account for its TAC emissions. Local air districts then prioritize facilities on the basis of emissions, and high-priority designated facilities are required to submit a health risk assessment and communicate the results to the affected public. The TAC control strategy involves reviewing new sources to ensure compliance with required emission controls and limits, maintaining an inventory of existing sources of TACs, and developing new rules and

regulations to reduce TAC emissions. The purpose of AB 2588 is to identify and inventory toxic air emissions and to communicate the potential for adverse health effects to the public.

~~On November 16, 2006, the Air Resources Board adopted amendments to the AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidelines Regulation (Title 17, California Code of Regulations, Section 93300.5) that will accommodate stationary diesel engines in the "Hot Spots" Program.~~

On March 6, 2015, the State Office of Environmental Health Hazard Assessment (OEHHA) released the revised *Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for the Preparation of Health Risk Assessments* (referred to as the Guidance Manual or OGM). OEHHA's work in revising the risk assessment methodology was triggered by the passage of the Children's Health Protection Act of 1999 (SB 25, Escutia) which required OEHHA to ensure infants and children are explicitly addressed in assessing risk.

In the last decade, advances in science have shown that early-life exposures to air toxics contribute to an increased lifetime risk of developing cancer, or other adverse health effects, compared to exposures that occur in adulthood. The new risk assessment methodology addresses this greater sensitivity and incorporates the most recent data on childhood and adult exposure to air toxics, along with other exposure related refinements. The methodologies contained in the Guidance Manual seek to develop more representative estimates of the potential risk from exposure to the emissions of air toxics for individuals of all ages, and with adjustments based on new science about the increased childhood sensitivity to air toxics. The new risk methodologies will result in higher estimated risks for many situations than would have been calculated by the 2003 risk methodology. In some cases, the new estimated inhalation cancer risk would be only slightly higher than the 2003 risk estimates; while in other cases, the new estimated inhalation cancer risk could be up to three times higher. The new OEHHA risk assessment methodology and the resulting change in the potential cancer risk estimates are requiring a significant effort by the ARB and CAPCOA to evaluate their programs, policies, guidelines, and procedures to see where, and to what extent, these need to be revised to ensure they are health protective and also do not unnecessarily restrict business. The RMG document is intended to help Districts with their reevaluation process and to communicate the Board's and District's plans, priorities, and policies regarding implementation of the new OEHHA risk assessment methodology.

ASSEMBLY BILL 1807

AB 1807, enacted in September 1983, sets forth a procedure for the identification and control of TACs in California. AB 1807 defines a TAC as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The ARB prepares identification reports on candidate substances under consideration for listing as TACs. The reports and summaries describe the use of and the extent of emissions in California resulting in public exposure, together with their potential health effects.

In 1998, the ARB identified diesel particulate matter (DPM) as a toxic air contaminant under the AB 1807 program. DPM is emitted into the air via heavy-duty diesel trucks, construction equipment, and passenger cars. In October 2000, the ARB released a report entitled Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. This plan identifies DPM as the predominant TAC in California and proposes methods for reducing diesel emissions.

LOCAL

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT.

The SMAQMD was created by state law to enforce local, state, and federal air pollution regulations within the Sacramento Valley Air Basin. The SMAQMD's overall mission is to achieve clean air goals by leading the Sacramento region in protecting public health and the environment through effective programs, community involvement, and public education. The SMAQMD interacts with local, state, and federal government agencies, the business community, environmental groups, and private citizens to achieve these goals. The SMAQMD regulates air pollutant emissions from stationary sources through permit limitations and inspection programs and oversees compliance with state and federal mandates by adopting rules and regulations as necessary.

Because the Sacramento Valley Air Basin is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, the SMAQMD requires the implementation of the following Basic Construction Emission Control Practices (BCECPs), regardless of the project's significance determination under CEQA.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- All roadways, driveways, sidewalks, and parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time by either shutting equipment off when not in use or reducing time of idling to 5 minutes (CCR Title 13 Sections 2449 and 2485). Provide clear signage that posts this requirement for workers at the entrances to the site; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

If implementation of BCECPs does not reduce construction emissions to below the regulatory thresholds, the following Enhanced Construction Emission Control Practices (ECECPs) should be included to further reduce project NO_X, PM_{10}, and $PM_{2.5}$ emissions.

- The project shall provide a plan for approval by the District demonstrating that the heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and a 45% particulate reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available;
- The project shall ensure that emissions from all off-road, diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the lead agency and District shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey;
- If, at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this regulation. Consultation with the District prior to construction will be necessary to make this determination;
- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site;
- Suspend excavation, grading, and/or demolition activities when wind speeds exceed 20 mph;
- Install wind breaks (e.g., plant trees, solid fencing) on windward sides of construction areas;
- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established;
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site;
- Treat site access to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads; and
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The phone number of the District shall also be visible to ensure compliance.

The SMAQMD issued its *2009 Triennial Report* in December of 2009, which identifies "all feasible measures" the SMAQMD would study or adopt over the ensuing three years to make progress toward attainment of state ozone standards. The measures include additional control programs for mobile and stationary sources, land use and transportation programs, community education programs, and ozone transport mitigation in order to reduce NO_X and ROG emissions in order to achieve the state ozone standard. The SMAQMD anticipates an additional reduction in NO_X and ROG emissions of 1.68 tons per day and 1.32 tons per day, respectively, with the implementation of the *2009 Triennial Report and Plan Revision.* In addition to the Triennial Report, ARB requires the SMAQMD to prepare an annual progress report. The *2014 Annual Progress Report*, the most recent, adopted in April 2015, provides updates for all the proposed SMAQMD control programs, the schedule for adopting control measure commitments, and the evaluation of further study measures.

2030 SACRAMENTO COUNTY GENERAL PLAN

The General Plan includes the following policies that pertain to air quality:

AQ-1. New development shall be designed to promote pedestrian/bicycle access and circulation to encourage community residents to use alternative modes of transportation to conserve air quality and minimize direct and indirect emission of air contaminants.

AQ-2. Support Regional Transit's efforts to secure adequate funding so that transit is a viable transportation alternative. Development shall pay its fair share of the cost of transit facilities required to serve the project.

AQ-3. Buffers and/or other appropriate mitigation shall be established on a project-by-project basis and incorporated during review to provide for protection of sensitive receptors from sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", and the AQMD's approved Protocol (Protocol for Evaluating the Location of Sensitive Land uses Adjacent to Major Roadways) shall be utilized when establishing these buffers.

AQ-4. Developments which meet or exceed thresholds of significance for ozone precursor pollutants as adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), shall be deemed to have a significant environmental impact. An Air Quality Mitigation Plan shall be submitted to the County of Sacramento prior to project approval, subject to review and recommendation as to technical adequacy by the Sacramento Metropolitan Air Quality Management District.

AQ-8. Promote mixed-use development and provide for increased development intensity along existing and proposed transit corridors to reduce the length and frequency of vehicle trips.

AQ-10. Encourage vehicle trip reduction and improved air quality by requiring development projects that exceed the SMAQMD's significance thresholds for operational emissions to provide on-going, cost-effective mechanisms for transportation services that help reduce the demand for existing roadway infrastructure.

AQ-16. Prohibit the idling of on-and off-road engines when the vehicle is not moving or when the off-road equipment is not performing work for a period of time greater than five minutes in any one-hour period.

AQ-19. Require all feasible reductions in emissions for the operation of construction vehicles and equipment on major land development and roadway construction projects.

AQ-20. Promote Cool Community strategies to cool the urban heat island, reduce energy use and ozone formation, and maximize air quality benefits by encouraging four main strategies including, but not limited to: plant trees, selective use of vegetation for landscaping, install cool roofing, and install cool pavements.

AQ-21. Support SMAQMD's particulate matter control measures for residential wood burning and fugitive dust.

EN-5. Reduce travel distances and reliance on the automobile and facilitate increased use of public transit through appropriate land use plans and regulations.

CI-40. Whenever possible, the applicant/developer of new and infill development projects shall be conditioned to fund, implement, operate and/or participate in TSM programs to manage travel demand associated with the project.

CI-41. Consider TSM programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.

CI-43. The County shall promote transit-supportive programs in new development, including employer-based trip-reduction programs (employer incentives to use transit or non-motorized modes), "guaranteed ride home" for commute trips, and car-share or bike-share programs.

CI-67. When feasible, incorporate lighter colored (higher albedo) materials and surfaces, such as lighter-colored pavements, and encourage the creation of tree canopy to reduce the built environment's absorption of heat to reduce the urban "heat island" effect.

LU-27. Provide safe, interesting and convenient environments for pedestrians and bicyclists, including inviting and adequately-lit streetscapes, networks of trails, paths and parks and open spaces located near residences, to encourage regular exercise and reduce vehicular emissions.

LU-37. Provide and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings.

LU-39. Support implementation of the ADA Transitional Plan and the Pedestrian Master Plan to create a network of safe, accessible and appealing pedestrian facilities and environments.

LU-40. Employ appropriate traffic calming measures in areas where pedestrian travel is desirable but made unsafe by a high volume or excessive speed of automobile traffic. Preference shall be given to measures that slow traffic and improve pedestrian safety while creating the least amount of conflict with emergency responders.

MATHER FIELD SPECIFIC PLAN

The Mather Field Specific Plan includes an Air Quality section that indicates that development consistent with the Specific Plan designations, at build out, have the potential to create operational emissions in excess of historical emission levels and includes an air quality reduction plan aimed at reducing projected emission levels by 15 percent. From this the Mather Field Air Quality Plan (Air Quality Plan) was developed in 2004. The Air Quality Plan includes measures that are required to be implemented when development within the Mather Specific Plan area occurs. The Air Quality Plan is still in effect and new development is still required to be in compliance with it.

The Mather Specific Plan contains the following policy that is intended in part to improve air quality conditions through the development of alternative transportation modes:

> Policy M-CI-11: Develop a Transportation System Management (TSM) program aimed at achieving regional objectives related to improved air quality, the reduction of automobile trips, and the use of alternative modes.

MATHER FIELD SPECIAL PLANNING AREA ORDINANCE

The Mather Field Special Planning Area Ordinance includes performance standards that apply to new development within the Mather Field Special Planning Area (SPA). According to the performance standards:

> Individual construction projects shall implement the following dust control measures:
>
> - All exposed soils and on-site construction roads shall be watered as needed to control fugitive dust.
>
> - All stockpiled soils shall be enclosed, covered, or watered, reseeded, or otherwise stabilized using methods such as AQMD approved binders or jute netting as needed to control fugitive dust.

Additional performance standards included in the Mather Field SPA Ordinance requires that the Mather Field Specific Plan be included within a Transportation Management Association, and that a comprehensive Transportation System Management (TSM) Program designed to reduce automobile dependence and improve air quality be implemented.

SIGNIFICANCE CRITERIA

AIR QUALITY

A project may be deemed to have a significant effect on the environment if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, conflict or obstruct the implementation of applicable air quality plans, or expose sensitive receptors to substantial pollutant concentrations. SMAQMD has adopted significance thresholds for CEQA projects within the District, as published in the SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD Guide). The adopted significance thresholds for criteria pollutants of the greatest concern in the Sacramento area (those for which the region is in non-attainment) include the following:

- Short-term (construction) emissions of NO_X above 85 pounds per day;
- Long-term (operational) emissions of NO_X or ROG above 65 pounds per day;
- PM_{10} concentrations equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter ($\mu g/m^3$) for 24 hours) at off-site receptors. The SMAQMD holds that if project emissions of NO_X and ROG are below 65 pounds per day then the project would not threaten violations of the PM_{10} AAQS;
- CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm);
- TAC exposures that create a risk of 10 in 1 million for stationary sources;
- A substantial increase to the risk of exposure to TACs from mobile sources;

The CEQA Guidelines Appendix G indicates that a Project should be analyzed to determine whether objectionable odors would be created which would affect a substantial number of people. Numeric thresholds for odor impacts have not been established by the SMAQMD; however, the air district recommends that several factors be taken into account when determining the significance of a potential odor impact. For the purposes of this report, the following were considered when making a determination as to whether a substantial number of people would be affected by objectionable odors:

- The nature of the odor source is typically considered objectionable and offensive to most individuals;

- The buffer zone, in conjunction with meteorology, is insufficient to mitigate for source odors;
- Area meteorology increases the potential for odor impacts; and/or
- There are a substantial number of odor complaints for an existing odor source.

The SMAQMD states that a project's contribution to impacts would be considered to be cumulatively considerable if:

- There is a net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).

METHODOLOGY

AIR QUALITY

The SMAQMD "Guide to Air Quality Assessment in Sacramento County" (April 2011, as amended, hereinafter called the SMAQMD Guide) contains screening thresholds for significant impacts. These screening thresholds are used in this analysis to determine whether impacts to air quality are potentially significant.

Quantitative and qualitative methods are used to evaluate project emissions potential impacts to air quality related to the proposed project. For the programmatic level Mather Field Land Use Designation proposals, construction and operational emissions have not been quantified. A quantitative analysis of construction and operational emissions would require details about proposed uses, densities, building sizes, construction phasing, and equipment lists which are not available at this time. A qualitative discussion of probable construction and operational impacts is presented here.

A quantitative analysis of air quality impacts has been prepared where project level construction details are currently known. In order to analyze the project level construction emissions associated with the proposed Zinfandel Drive/ trunk sewer improvements the *Road Construction Emissions Model* 7.5.1 (Sacramento Metropolitan Air Quality Management District, 2013) was utilized.

IMPACTS AND ANALYSIS

PROGRAMMATIC LEVEL CONSTRUCTION-RELATED EMISSIONS ANALYSIS

IMPACTS TO AIR QUALITY RESULTING FROM FUGITIVE DUST DURING CONSTRUCTION ACTIVITIES

For particulate matter, dispersion modeling conducted for projects of various sizes has resulted in the conclusion that projects involving more than 15 acres of active grading *at any one time* will result in significant impacts, even with standard dust abatement measures. The text is emphasized to note that the screening threshold does not speak to the total project area, but to the largest total area that will be actively graded at any given time. Excepting the Zinfandel Drive/ trunk sewer extension, the project proposal includes no development proposals and details on future construction phasing are not available at this time. Because the specific construction schedule is unknown and the development of individual projects in the SPA may overlap, it is likely that construction activities will not be limited to 15 acres. In fact, standard SMAQMD guidance indicates that it should be assumed that 25% of a total site will be actively graded at any one time, which means that any site of greater than 60 acres will involve more than 15 acres of active grading. It is reasonable to expect that there will be several projects within the SPA area which may involve grading that exceeds the SMAQMD screening threshold, and should be presumed to have significant impacts.

Dust abatement practices are required pursuant to SMAQMD Rule 403 and California Code of Regulations, Title 13, sections 2449(d)(3) and 2485; the SMAQMD Guide simply lays out the basic practices needed to comply. Since these are already required by existing rules and regulations, it is not necessary to include them as mitigation. These practices also constitute all feasible measures available to reduce the impact. Limiting future projects to no more than 15 acres of active grading has been considered, but is infeasible for a variety of reasons. Firstly, subsequent development under the SPA will likely be constructed by separate developers, each with their own schedules, so such a measure would require coordinating among all developers to set schedules which would not result in cumulative exceedance of the 15-acre limitation. The likely result of this would be to prevent certain development projects from progressing until a later construction season. In addition, it would require constant on-site monitoring by County staff to ensure that the measure was being carried out. The measure is impracticable, and is furthermore not recommended by SMAQMD. Despite the application of feasible measures though existing rules and regulations, the Project will result in a ***significant and unavoidable*** impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction.

IMPACTS TO AIR QUALITY RESULTING FROM OZONE PRECURSOR EMISSIONS AND DIESEL PARTICULATE CAUSED BY CONSTRUCTION ACTIVITIES

Although the future amount of construction activity that could occur on any given day consistent with the project proposal is unknown, it is reasonable to assume that construction activities for one or more developments could result in construction

emissions above the SMAQMD construction threshold of significance for ozone precursors (85 pounds per day of NO_X). Therefore, construction-related emissions of ozone precursors resulting from implementation of the proposed project would likely result in an adverse impact to air quality. In addition, construction activities require the use of various diesel-powered vehicles and equipment. Diesel equipment produces particulate matter during combustion which can have an adverse impact on air quality.

Implementation of the proposed project could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of the proposed project would have a potentially significant impact on air quality. Mitigation measures are recommended in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a ***less than significant*** level.

PROGRAMMATIC LEVEL OPERATIONAL EMISSIONS ANALYSIS

Development consistent with the proposed project will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. These are impacts arising from the project as built, such as vehicle emissions associated with residents, customers, or employees coming to or from the site, emissions from the project area's fuel burning appliances, emissions from landscaping equipment, and the use of various consumer products.

IMPACTS TO AIR QUALITY RESULTING FROM OPERATIONAL ACTIVITIES

The proposed land use designation amendments do not directly result in air quality emissions. However, development consistent with the proposed project has the potential to result in various long term operation emissions from commercial, industrial, mining and recreational uses. Although the exact amounts of operational emissions are unknown, it is reasonable to conclude that, at build out, the operational emissions related to the project will be considerably greater than the existing operational emissions at Mather Field.

Even though the post project operational emissions will be greater than existing and historical emissions generated at Mather Field, the permitted uses of the proposed project are similar in nature to the uses currently by the Mather SPA Ordinance. Operational emissions related to the proposed project are expected to be similar to those that would be generated if Mather Field were built out under existing entitlements.

The Sacramento Metropolitan Air Quality Management District (SMAQMD) staff (L. Greene) reviewed the proposed project and indicated that SMAQMD has no comments on the proposed Mather Field Specific Plan and SPA amendments. However, SMAQMD also indicated that the policy and performance standards included in the existing Mather Field Specific Plan and Mather Special Planning Area Ordinance related to air quality, as well as the related measures and requirements of the Mather Field

Transportation System Management Program and Mather Field Air Quality Plan, should be carried through to the current project.

As noted above the Mather Field SPA Ordinance requires that "the Mather Field Specific Plan area shall be included within a Transportation Management Association." The Specific Plan Area is currently included within the *50 Corridor Transportation Management Association* (TMA). The TMA is a private nonprofit organization that helps businesses, developers, building owners, local government representatives, and others to work together to collectively establish policies, programs and services to address local transportation problems and improve mobility and air quality along the Highway 50 corridor and the region. The TMA works with property owner and tenant Employee Transportation Coordinators within Mather Field to disseminate information related to alternative modes of transportation including commute choices, bicycle subsidies and van pool subsidies and transit information with the goal of encouraging employees to utilize modes of travel other than the automobile.

The Mather Field Transportation System Management Program and Air Quality Plan include specific measures development within Mather Field that is required to implements in order to reduce to reduce operational emissions. The goal of the Air Quality Plan is to achieve a 15 percent reduction of emissions from the base case level. The list of measures that apply to development within Mather Field result in a greater than 15 percent reduction and provides options for development in the area to choose from in order to reach a 15 percent reduction in operational emissions.

With participation in the TMA and adherence to the Mather Field TSM Program and Air Quality Plan, impacts to operational emissions are expected to be reduced below base-case levels. However, operational emissions are not expected to be below thresholds or result in a less than significant impact to air quality.

AGGREGATE MINING

The proposed project includes the addition of a surface mining (SM) overlay for approximately 70 acres of the westernmost portion of the proposed Industrial District. The proposed Mather Field Special Planning Area Ordinance Permitted and Conditionally Permitted Uses section includes language changes to the Industrial District to address the (SM) overlay. The SPA notes that the overlay allows mining activities as described and regulated by Zoning Code Sections 235-40 through 235-56.

Section 235-40 of the Zoning Code states that the Surface Mining Combining Zone is designed to protect mineral resources of Sacramento County from incompatible land uses; to manage these mineral resources; to assure the County of an adequate supply of these resources with due consideration of the environment; and to provide for the restoration of mined lands for future uses. The Zoning Code also states that a conditional use permit is required before mining operations can take place within an area with an SM overlay.

The SM designation does not permit mining within Mather Field; its purpose is strictly to identify the area so that it is known that aggregate resources exist and that logical

extraction needs to be considered before incompatible land uses to aggregate extraction are planned for that area. At the time that an application is submitted to the County for a conditional use permit for a proposed mining operation, impacts to the environment, including those related to operational air quality, will be assessed.

OPERATIONAL AIR QUALITY CONCLUSION

Although the property owners and tenants within Mather Field are required to participate in the TMA and development within project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are ***significant and unavoidable.***

Although operational impacts are significant and unavoidable, mitigation measures are recommended in order to reduce impacts. Mitigation is recommended to require that Mather Field continue to be a part of the 50 Corridor Transportation Management Association or other similar TMA and that all development within Mather Field comply with the Mather Field Transportation System Management Program as well as the Mather Field Air Quality Plan or other similar TSM Program or Air Quality Plan endorsed by SMAQMD.

PROJECT LEVEL CONSTRUCTION-RELATED EMISSIONS ANALYSIS

The proposed project includes the extension of Zinfandel Drive and trunk sewer facilities. Zinfandel Drive will be extended approximately 900 feet south of Douglas Road (the existing southern terminus of the recently extended Zinfandel Drive) to approximately 2,100 feet south of Woodring Drive, including T-intersection improvements at Woodring Drive. Temporary improvements related to the construction of Zinfandel Drive are a temporary gravel access road and a temporary gravel parking area located north of the existing parking lot for the Mather Regional Park. The proposed sewer line improvements will be located in the existing or proposed right of way of Zinfandel Drive from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive. **The project also includes an Amendment to the General Plan Transportation Diagram to realign Zinfandel Drive south of Douglas Road to avoid sensitive vernal pool resources. Roadway and sewer line construction beyond the scope of the construction described above will require additional project-specific environmental review when such construction is proposed in the future.**

Construction of roadway facilities results in the temporary generation of ROG, NOx and PM_{10} emissions. Construction related emissions results from construction equipment exhaust, and fugitive dust from land clearing, earthmoving and wind erosion of exposed soil.

Emissions of ROG, NOx and PM_{10} associated with the project were estimated by application of the Road Construction Emissions Model, Version 7.5.1 (SMAQMD, 2013).

This model analyzes emissions associated with construction of roadway improvement projects.

According the Sacramento County Department of Transportation, the construction/reconstruction of Zinfandel Drive and the installation of the sewer line is expected to begin in the year ~~2015~~ **2017** and will take approximately 12 months. It was estimated that the total footprint of the project would be approximately 56 acres and that maximum acreage disturbed per day would be 0.25 acres.

The defaults for the Road Construction Emissions model were unchanged since the exact timing, duration of phases and numbers/type of equipment that will be used during construction are uncertain at this time. Table AQ-4 summarizes the emission estimates for the proposed project.

Impacts to Air Quality Resulting from Fugitive Dust During Roadway and Sewer Construction activities

Construction related to the Roadway Project will disturb a maximum of 0.25 acres per day and is well below the 15 acre area which is known to have significant impacts when graded at any one time. Additionally, dust abatement practices are required pursuant to SMAQMD Rule 403. Therefore, air quality emissions of the Roadway Project resulting from fugitive dust are ***less than significant***.

Impacts to Air Quality Resulting from Ozone Precursor Emissions and Diesel Particulate Caused by Roadway and Sewer Construction Activities

Emissions of ROG and NOx associated with the construction of the proposed Zinfandel Drive/trunk sewer improvements were estimated by running the *Road Construction Emissions Model* with general information related to the construction start year, project construction time, project length and area, and the maximum area to be disturbed per day.

As shown in Table AQ-4, the maximum emissions of ROG and NOx during construction are 12.6 and 119.7 lbs/day, respectively. The SMAQMD has a significant threshold for the construction phase of 85 lbs/day for NOx and no threshold level for ROG. The proposed Zinfandel Drive/ trunk sewer improvements will exceed the short term emissions thresholds by 34.7 lbs/day.

For projects that exceed the threshold, SMAQMD recommends implementation of a standard construction mitigation measure that will reduce heavy-duty off-road diesel powered equipment emissions by 20 percent for NO_x and 45 percent for particulates, as compared with the most recent CARB fleet average. A 20 percent reduction in daily NO_x emissions would result in daily NO_x emissions of 95.76 lbs/day; this is 10.76 lbs/day above the 85 lbs/day NO_x threshold.

For projects with NO_x emissions that remain significant even after the 20 percent reduction afforded by the standard construction mitigation measure, SMAQMD

recommends payment of an off-site air quality mitigation fee to further reduce NO_x emissions to a less than significant level. The mitigation fee is based on the amount of emissions that remain over the threshold after implementation of the standard construction mitigation measure, and the cost of reducing an equivalent amount of off-site emissions. SMAQMD uses the mitigation fees to help fund regional air quality programs, such as the replacement of older construction equipment with newer models, and the retrofitting of older equipment with pollution-reducing components.

Since NO_x is a precursor to regional ozone formation, mitigation fees are used on projects anywhere within the ozone non-attainment area that meet the cost-effectiveness criteria used to determine the fee. The mitigation fee is currently $17,720/ton, which is based on cost-effectiveness standards established by ARB for the Carl Moyer Incentive Program, a state-funded program for reducing emissions from off-road equipment. The mitigation fee also includes a 5% administration fee. The SMAQMD mitigation fee for a specific project is calculated using the following formula: number of pounds per day of construction NO_x remaining over the 85 lbs/day significance threshold (after accounting for the 20% emission reduction due to standard construction mitigation), multiplied by the number of days of construction, divided by 2,000 lbs/ton, multiplied by the standard fee of $17,720/ton NO_x, plus the 5% administration fee. The fee for this project is estimated to be $24,024.11. With the application of mitigation, air quality impacts are ***less than significant***.

PROJECT LEVEL OPERATIONAL EMISSIONS ANALYSIS

OPERATIONAL EMISSIONS FROM ROADWAY PROJECT

Operational thresholds (long term effects) for both ROG and NOx are 65 pounds per day. The Zinfandel Drive extension project is not capacity enhancing, and as such, the operational emissions are the same as they would be without the project. Operational impacts to air quality resulting from the roadway improvements are considered ***less than significant***.

Table AQ-4: Zinfandel Drive/ Trunk Sewer Construction Emissions Estimate

Emission Estimates for >	**Zinfandel Drive/Trunk Sewer**									
Project Phases	**ROG** (lbs/day)	**CO** (lbs/day)	**NOx** (lbs/day)	**Total PM10** (lbs/day)	**Exhaust PM10** (lbs/day)	**Fugitive Dust PM10** (lbs/day)	**Total PM2.5** (lbs/day)	**Exhaust PM2.5** (lbs/day)	**Fugitive Dust PM2.5** (lbs/day)	**CO2** (lbs/day)
Grubbing/Land Clearing	3.8	19.1	27.4	3.9	1.4	2.5	1.8	1.3	0.5	3,302.4
Grading/Excavation	12.6	58.8	119.7	8.8	6.3	2.5	6.3	5.7	0.5	11,714.8
Drainage/Utilities/Sub-Grade	8.2	37.4	63.4	6.4	3.9	2.5	4.1	3.6	0.5	6,765.5
Paving	4.2	20.4	30.6	2.1	2.1	-	1.9	1.9	-	3,540.8
Maximum (lbs/day)	12.6	58.8	119.7	8.8	6.3	2.5	6.3	5.7	0.5	11,714.8
Total (tons/construction project)	1.2	5.5	10.2	0.9	0.6	0.3	0.6	0.5	0.1	1,044.8

Notes:

Project Start Year ->	2017
Project Length (months) >	12
Total Project Area (ac) >	56
Maximum Area Disturbed/Day (ac) ->	0
Total Soil Imported/Exported (yd^3/day)->	21

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.
Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

TOXIC AIR CONTAMINANTS

Though specific development details are unavailable at the programmatic level, based on the land uses of the Project, it is reasonable to assume that some TAC-generating uses could be constructed within the Industrial District. The most stringent applicable ARB buffer for uses that generate TACs is 500 feet. The nearest residential area adjacent to the Industrial District is the Independence at Mather residential development which is approximately 400 feet south of the Industrial District. Although the residential use is within 400 feet of the proposed Industrial District area, no uses not already allowed within the Industrial District will be permitted in the post project condition. The project will not result in new or additional TAC sources over those that are currently allowed in the South Airport Industrial Subarea. Furthermore, much of the southern boundary of the Industrial District will be shifted north and away from the residential area as a result of this project increasing the distance of much of the Industrial District from Independence at Mather.

The nearest existing daycares, hospitals, and other more sensitive receptors are located approximately 4,600 feet north of the Industrial District and further away, north of Mather Airport. Although the proposed project does slightly shift the northern boundary of the industrial area to the north by approximately 200 feet, the project will not result in new or additional TAC sources over those currently permitted and the minor shift will not substantially increase the risk of TAC exposure to sensitive receptors.

Because the uses permitted by the proposed project in the Industrial District are the same as those that can be developed in the existing condition, and because the distance of the proposed Industrial District and the nearest sensitive receptors will not be substantially closer in the post project condition, the Project will not expose existing sensitive receptors to increased risk related to TAC.

Within the project site, the proposed project will result in a new UDA District. The UDA District, according to the proposed Mather Field SPA, is contemplated to contain a residential component, schools, and other uses in the future that may introduce new sensitive receptors into the project area. However, as detailed in the Land Use Chapter of this document, the UDA designation for the site alone does not allow development and no new sensitive receptors will be exposed to TAC by through the implementation of this project. Future analysis related air quality will be required prior to the development of the UDA District.

As analyzed, the Project will not expose existing sensitive receptors to substantial risk related to TAC exposure. Project impacts related to TAC exposure are ***less than significant.***

ODORS

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the project site and is divided from it only by Kiefer Boulevard. The main plant

processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants create generate objectionable odors.

The primary air pollutants emitted from rendering operations are volatile organic compounds (VOC), which readily become gas and generally have strong odors. VOCs are very common in the environment, and are generally responsible for most of the strong odors we experience. Examples of common synthetic substances which emit VOCs are paint, cleaning supplies, glues, and permanent markers. Most of these examples include the VOC known as acetone, and thus they all have a similar sharp, bittersweet odor, but there are many different sources of VOCs which generate varied odors. The breakdown of organic material generates a wide array of different types of VOCs, including ketones (e.g. rotting fruit), sulphides (e.g. rotten eggs), and ammonia (e.g. urine). Many of the VOCs emitted have low odor detection thresholds, which means that they smell so strongly that the odor can be detected even when very small amounts of the compound are present. For this reason, odors from a facility such as a rendering plant may continue to be detectable even at great distances and even if all feasible odor control devices are installed.

These conditions are potentially incompatible with urban uses, depending upon the degree to which the conditions exist, the distance of the facility to the urban uses, the type of urban use, and other factors such as the direction of prevailing winds and the intervening landscape type. According to the Mather Field SPA, the nearest proposed urban land uses to the rendering plant are the Commercial Recreation District just north of Kiefer Boulevard and the Urban Development Area District located approximately 3,500 feet north of the rendering plant. The SMAQMD Guide indicates that an analysis should be provided for any project within four miles of a rendering facility.

The plant operations are regulated by a number of agencies, but the agency relevant to the discussion of odors is the Sacramento Metropolitan Air Quality Management District (SMAQMD). SMAQMD is responsible for ensuring that the Sacramento Rendering Company follows federal, state, and local air pollution control regulations, and does so by means of a permit. The permit includes conditions related to plant operations, and SMAQMD staff regularly inspect the facility to ensure that the permit conditions are being met. The facility includes an enhanced odor control system which was voluntarily installed by the Sacramento Rendering Company in 2004. Once it was installed it became subject to the permitting requirements and inspection processes of SMAQMD, but these requirements are limited to ensuring that the equipment is being maintained and operated. California Civil Code Section 3482.6 (the “Right to Farm Act”) includes rendering facilities in the definition of agricultural activities, and exempts facilities from nuisance rules if they predate the urban uses with which they have come into conflict[8]. For this reason, if the company is meeting its permit conditions, SMAQMD cannot take enforcement action against the facility as a result of odor complaints.

[8] If the nuisance is due to changed offsite conditions, the agricultural activity is exempt if it has been in continuous operation at the current location for at least three years prior to the change in offsite conditions.

Meteorological conditions for the Project site were collected at Mather Air Force Base.[9] The data show that winds blow predominantly from southerly directions (about 53% of the time), while the remainder of the time conditions are almost evenly split between calm conditions and winds from northerly directions. The majority of winds are approximately 12 miles per hour or less. The Project site is directly north of the rendering plant, which is in the path of prevailing winds. More than 75% of the time, winds are blowing from a southerly direction toward Mather Field, or conditions are calm. More detailed examination of the wind direction data indicates that winds blow directly from the south approximately12% of the time, and from a slight southwesterly or southeasterly direction approximately 10% of the time. This means that winds will blow across the rendering facility and toward the nearest portions of the site approximately 30% of the time.

Atmospheric inversions are frequent in the area, especially during winter. Inversions are when temperatures increase as you go higher up in the atmosphere, instead of decrease. These conditions create a barrier to the migration of smog and other pollutants, which traps them in the lower atmosphere – including the constituents that cause odor. This can actually concentrate impacts, because the odors cannot disperse as well.

Wind events which could transport odors to the site are frequent and Project related land use designation changes are as close to the rendering plant as other developed areas where odor complaints have arisen. According to the proposed Mather Field SPA, the project areas closest to the rendering plant include the Commercial Recreation District and the nearest new land use is the proposed Urban Development Area District.

According the SPA, the uses permitted outright in the Commercial Recreation District without additional oversight and environmental review are those allowed within the AG20 Land Use Zone as is the case in the existing condition. Therefore, no new sensitive receptors are expected to be allowed with the portion of the project site nearest to the rendering plant and no new impacts related to odors will result in relation to the proposed Commercial Recreation District.

In regard to the proposed Urban Development Area (UDA) District, the Mather SPA states that “contemplated development within this District includes residential, commercial, recreation, and public uses.” Although the Mather SPA notes that future uses within the UDA District is contemplated to include residential, commercial and public uses, the UDA designation does not allow for development outright and only indicates where studies or master planning efforts will be conducted in order to determine the suitability of the area for urban development.

Although the proposed project area is adjacent to the rendering plant and downwind of the prevailing wind pattern in the Mather Field area, given that the proposed project will not introduce additional sensitive receptors over those currently permitted in the Mather

[9] California Air Resources Board. http://www.arb.ca.gov/toxics/harp/metfiles.htm Accessed August 2013.

Field SPA, impacts related to odor generated at the Sacramento Rendering Plant are ***less than significant***.

MITIGATION MEASURES

AQ-1: PROGRAMMATIC LEVEL CONSTRUCTION EMISSIONS

All future construction projects in the Mather Field SPA shall include an ozone precursor analysis. If the analysis results indicate that the project will generate ozone precursors that exceed the current Sacramento Metropolitan Air Quality Management District thresholds, this mitigation shall apply. This mitigation may be modified if guidance from the Sacramento Metropolitan Air Quality Management District changes in the future.

1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information.

3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction

activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations.

4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination.

To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply:

Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in effect at the time of plan submittal.

AQ-2: Programmatic Level Operational Emissions

In order to reduce operational emissions related to development associated with the proposed project the following language shall be added into the Mather Field SPA:

1. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall be active participants in and financially support the 50 Corridor TMA or other similar transportation management association endorsed by SMAQMD.

2. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are consistent with the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD.

3. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are in compliance with the Mather Field Air Quality Plan to the satisfaction of SMAQMD or other Air Quality Management Plan deemed adequate by SMAQMD.

4. All new tenant lease agreements or agreements for sale of on-site buildings or land within the Mather Field Special Planning Area shall state that

tenants/operators are required to adhere to the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD and the Mather Field Air Quality Plan or other Air Quality Management Pan deemed adequate by SMAQMD.

5. An annual report shall be submitted to the Environmental Coordinator and to SMAQMD detailing the actions taken that year to comply with the Mather Field transportation Systems Management Plan and appropriate Air Quality Management Plan. The report shall be due by October 1 each year, and shall cover the prior fiscal year. The requirement to submit a report to the Environmental Coordinator may be terminated by the Environmental Coordinator once the mitigation is completed, or after three concurrent reporting years demonstrate full compliance, to the satisfaction of the Environmental Coordinator. The requirement to submit an annual report to SMAQMD shall continue in perpetuity.

AQ-3: PROJECT LEVEL CONSTRUCTION EMISSIONS

1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information.

3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and

District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations.

4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination.

To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply:

Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in effect at the time of plan submittal.

7 BIOLOGICAL RESOURCES

INTRODUCTION

This chapter describes the biological resources that occur within the project area, includes a description of applicable federal, State and local regulations and policies that influence biological resources, identifies potential impacts to these resources, and recommends mitigation measures to reduce or eliminate impacts associated with the proposed land use designations and Zinfandel Drive/ trunk sewer improvements.

Impacts to biological resources that may result from implementation of the Mather Field land use designation changes are discussed in a programmatic manner with potential mitigation measures that would apply to future construction level projects since specific site development strategies are unknown at this time. However, impacts to biological resources that will result from the Zinfandel Drive and trunk sewer extension are discussed in detail and specific mitigation measures are included where applicable.

It should be noted that the area analyzed in this document does not include the areas of existing development that will not be subject to land use designation changes or direct physical impacts associated with this project. The excluded areas are, generally, the Independence at Mather residential development, the Mather Golf Course and the majority of the Mather Regional Park, the Tracon facility north of Douglas Boulevard and east of Zinfandel Drive as well as the Mather Airport facility.

ENVIRONMENTAL SETTING

The project area is characterized as primarily flat with a discernible slope towards the southwest; however the project site exhibits a slightly undulating topography characterized by vernal swales and pools intersected by small drainages and creeks. Overall, site elevations range from 65 feet above sea level in the southwestern corner to 150 feet above sea level along the eastern border.

Approximately 2,500 acres of the project site are currently developed or are currently utilized while approximately 3,000 acres are undeveloped. The majority of the undeveloped portion of the site contains annual grasslands with some wetlands, vernal pools and wooded areas distributed throughout.

A number of biological studies have been conducted within portions of the project site. These resulted in the following reports: *Mather Field Airport Natural Resources Assessment* (Wetlands Research Associates, 2004c), *Final Report for Mather Field Vernal Pool Study* (Jones & Stokes, 2001), and the *South Mather Wetlands Management Plan* (Sacramento County, 2013). In addition, wetlands and other waters of the U.S. have been delineated. Wetlands were originally delineated in 2004 (Wetlands Research Associates, 2004a and 2004b), re-delineated between 2011 and

2013 (Sacramento County 2011 and Sacramento County 2013) and re-verified by the Army Corps of Engineers in February of 2013. Vegetation within the project site was also classified through remote sensing techniques by Sacramento County for the South Sacramento Habitat Conservation Plan (Sacramento County, 2007). Existing vegetation types within the project site were derived from these data sources in addition to field investigations. Field conditions were verified by ESA biologists in July 2010 and subsequently mapped. In addition an arborist report was prepared for the Zinfandel Drive/ trunk sewer infrastructure project and noted that several trees including cottonwood, oak and willow trees are located along Zinfandel Drive.

ANNUAL GRASSLAND

Annual grassland habitat type makes up the majority of the project site. Annual grasslands have been modified by past land uses, including off-road vehicle use, military uses and dumping. Other areas were modified by grading activities conducted for roadway improvements, residential developments, recreation facilities, and construction of the Folsom South Canal. This vegetation type is dominated by non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, that have replaced native perennial grasslands and scrub as a result of human disturbance. On the project site, non-native annual grassland surrounds vernal pool complexes, providing an important upland element that may be used for species movement and dispersal between pools. It should be noted that there has been recent movement in academia to move away from the annual grassland labeling of such landscapes to that of California Prairie or Vernal Pool Prairie where grassland areas are coincidental to vernal features. This is due, in part, to the misconception that grasslands often contain a monoculture of non-native grasses when in fact the areas noted to be grasslands in California often contain a much greater variety of plant species.

Common grass species that have been documented within the project site include silver hairgrass (*Aira caryophyllea*), slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and Italian ryegrass (*Lolium multiflorum*). Native wildflowers documented in the project site include elegant brodiaea (*Brodiaea elegans*), Fremont's tidy-tips (*Layia fremontii*), miniature lupine (*Lupinus bicolor*), vinegar weed (*Trichostema lanceolatum*), white-tipped clover (*Trifolium variegatum*), white hyacinth (*Triteleia hyacinthina*), and butter and eggs (*Triphysaria eriantha*). Invasive plants documented in the project site include yellow starthistle (*Centaurea solstitialis*), milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), medusahead grass (*Taeniatherum caput-medusae*), yellow glandweed (*Parentucellia viscosa*), barbed goatgrass (*Aegilops triuncialis*), and stinkwort (*Dittrichia graveolens*).

WETLANDS AND SURFACE WATERS

SEASONAL WETLANDS

The seasonal wetland vegetation community has some similarities to the vernal pool habitat type (see below), but differs due to differences in topography, duration of

inundation, and/or plant species composition. This community occurs in shallow depressions within annual grassland (either due to natural topographic features or previous site disturbance) or in man-made drainage ditches and supports annual hydrophytic plant species, but generally in much lower numbers and/or with much less native species diversity than that of vernal pools. Within the project site, common plant species in the seasonal wetland community include Vasey's coyote thistle, Fitch's spikeweed (*Centromadia fitchii*), and creeping spikerush, but the dominant plant species include non-native plants such as Mediterranean barley, Italian ryegrass, and hawkbit (*Leontodon saxatilis*).

Vernal Pools

Vernal pools are ephemeral wetlands that form in shallow depressions underlain by an impervious or restrictive soil layer near the surface that impedes the percolation of water. Vernal pools pond during the wet season and become dry in late spring or early summer. Germination and growth begin with winter rains, often continuing even when inundated. The vernal pools within the project site have been classified as northern hardpan vernal pools (Holland, 1986), and have formed on old, very acidic, iron-silica cemented hardpan soils.

Vernal pools are present throughout the project site; however the highest density and, in general, highest functioning vernal pools are present between Mather Airport and Independence at Mather. Within the proposed Preserve, there are two different groups of vernal pools (eastern vs. western) that are distinguished by elevation and soil types.

Vernal pools within the eastern part of the proposed Natural Preserve occur on thin, rocky soils mainly classified as Redding Gravelly Loam. These pools tend to be shallow and pond water for a shorter period of time, relative to pools in other parts of the proposed Preserve. They also tend to be more similar to those pools located outside of the proposed Preserve to the east within the proposed UDA and Commercial Recreation Districts. These pools are typically vegetated by white navarretia (*Navarretia leucocephala*) and other vernal pool plant species including Fremont's goldfields (*Lasthenia fremontii*), slender popcorn-flower (*Plagiobothrys stipitatus*), and dwarf woolly-heads (*Psilocarphus brevissimus*). There are also substantial blooms of Douglas' mesamint (*Pogogyne douglasii*) among these pools. While this plant does not have a special-status ranking, it is restricted in Sacramento County to only a handful of locations. Two special-status plant species that have been documented within these pools, these are Ahart's dwarf rush (*Juncus leiospermus* var*. ahartii*) and Boggs Lake hedge-hyssop (*Gratiola heterosepala*).

Pools found in the western part of the proposed Natural Preserve differ in that they occur at a lower elevation and are concentrated on soils mainly mapped as Hedge Loam soils. These pools are also affected by hydrologic modifications created by a berm running through the vernal pools in an east/west direction along the route of an existing sewer pipeline. These pools are inundated longer and support a different suite of species than other pools within the proposed Preserve (WRA, 2004c). The plant species observed within these pools are dominated by vernal pool buttercup (*Ranunculus bonariensis* var*. trisepalus*). There is also a large component of iris-leaf

rush (*Juncus xiphioides*) due to the longer ponding duration. The vast majority of the legenere (*Legenere limosa*) populations, a special-status species, occur among these pools. Other plant species observed include creeping spikerush, coyote thistle (*Eryngium castrense*), and smooth goldfields (*Lasthenia glaberrima*).

Pools within the proposed Industrial District are similar in size to pools found in the western part of the proposed Preserve, have formed on similar soils, and support a similar suite of plants. Pools in protected areas west of the Mather Airport runway more closely resemble pools found in the eastern part of the proposed Preserve and are characterized by similar plant species composition, soils, and geomorphic settings. Both legenere and Ahart's dwarf rush have been reported from these pools (WRA, 2004a).

Additionally, the project site contains a number of features that have been previously mapped as "vernal marsh" and "vernal swale" (WRA, 2004a). Vernal marshes are similar to vernal pools in that they support many of the same species; however, the growing season for vernal marsh vegetation is typically later than in vernal pools, with peak blooms occurring into the late spring and early summer, one to two months after the peak vernal pool flowering period. This native vegetation community consists of low-growing hydrophytic plant species, dominated (more than 50 percent cover) by perennial species but also containing annual herbs. Within the project site, this vegetation community generally occurs in depressions deeper than those which support northern hardpan vernal pool or seasonal wetland vegetation communities (WRA, 2004b). The dominant species in this community are creeping spikerush and/or iris-leaved rush, both native emergent perennial plants; other common native species observed in these aquatic features on the project site include dwarf woolly-heads and Vasey's coyote thistle (*Eryngium vaseyi*) (WRA, 2004b).

Vernal swales are somewhat linear, concave depressions that form in topographically complex grasslands and commonly connect to vernal pools, seasonal wetlands, or water courses. Vernal swales are characterized by soil and hydrologic conditions similar to those of vernal pools; vernal swales are found throughout the project site and generally support many of the same plants as vernal pools.

The vernal pools in the project site have the potential to support a number of special-status plant species, including slender Orcutt grass (*Orcuttia tenuis*) and Sacramento Orcutt grass (*Orcuttia viscida*). In particular, the larger, deeper vernal pools which retain water until May or June provide optimal conditions for all member of the Orcuttieae tribe (USFWS, 2005).

Many of the wildlife species occurring in vernal pools are adapted to ephemeral habitat conditions. A number of invertebrates have been observed in and around the vernal pools on site and include aquatic beetles (*Dystiscidae* and *Hydrophilidae*), snails (*Gastropoda*), clam shrimp (*Cyzicus californicus*), seed shrimp (*Ostracoda*), dragon flies (*Anisoptera*), and solitary bees (*Andrenidae*), as well as special-status species such as vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), California linderiella (*Linderiella californica*), midvalley fairy shrimp

(*Branchinecta mesovallensis*) and Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*).

Drainage Ditches, Channels and Streams

Various types of ditches and drainages are found on the project site, including roadside ditches and storm drains. Morrison Creek is the primary stream channel within the project site. Various small ephemeral tributaries also feed into Morrison Creek. These riverine communities are typically characterized by a mixture of species commonly found in lacustrine, seasonal wetland, and freshwater marsh communities.

Common species found within or adjacent to these channels include water primrose (*Ludwigia peploides*), willow smartweed (*Persicaria lapathifolia*), and algae. Along channel edges and on banks common species include creeping spikerush (*Eleocharis macrostachya*), Bermuda grass (*Cynodon dactylon*), pennyroyal (*Mentha pulegium*), Italian ryegrass, Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), and hyssop loosestrife. Within more heavily disturbed roadside ditches and drainages, a variety of ruderal species as described in the disturbed / ruderal community are also present.

Lakes/ Ponds

Open water, or lacustrine, habitat in the project site occurs in Mather Lake, a small impoundment of a tributary to Morrison Creek. The margins of Mather Lake also support emergent marsh, seasonal wetlands, and riparian species.

Trees

The project area contains a variety of trees and different wooded habitat types. According to previous habitat assessments and arborist evaluations of the project area, the site contains primarily cottonwood, willow, California sycamore, interior live oak and valley oak trees as well as cottonwood woodland and riparian habitat.

Cottonwood Woodland

Within the project site, this habitat type occurs in scattered patches near the east boundary within historically disturbed areas. This community also occurs as patches along some of the intermittent streams where oaks are sometimes present within the open canopy (WRA, 2004c).

Fremont cottonwood (*Populus fremontii*) is the sole or dominant tree in the canopy of this native vegetation community. The canopy is continuous or open and the understory is variable, typically consisting of annual grassland species or scattered coyote brush (*Baccharis pilularis*) shrubs. While this community typically occurs where soils are intermittently or seasonally flooded or saturated, such as riparian areas, within the project site it is not associated with a more typical riparian or wetland community and primarily occurs where groundwater is shallow. Other native species that are present in these stands include narrowleaf willow (*Salix exigua*), arroyo willow (*S. lasiolepis*), and California sycamore (*Platanus racemosa*), although in many of these stands the

understory is lacking a shrub component and consists primarily of annual grassland species (WRA, 2004c).

RIPARIAN

Valley foothill riparian habitat has been identified within the Mather Field. This native vegetation community consists of an open to dense, broad-leafed, winter-deciduous shrubby streamside thicket dominated by Fremont cottonwood and arroyo willow. The densest stands have little understory or herbaceous component but do support occasional patches of emergent species including rushes, sprikerushes, bulrush, and cattail, while the more open stands have grassy understories vegetated by non-native annual grass species. Within the project site, this vegetation community most commonly occurs as patches along the shores of Mather Lake (WRA, 2004c) but can also be found along streams and drainage features.

SPECIAL STATUS SPECIES

A list of special-status plant and wildlife species that have the potential to occur within the vicinity of the project site was compiled based on a background information search for previously documented special-status species within the project vicinity. The California Natural Diversity Database (CNDDB) Rarefind program (California Department of Fish and Wildlife [CDFW], 2012) and the U.S. Fish and Wildlife Service (USFWS) online list (USFWS, 2012b) were queried for the Carmichael and Buffalo Creek, California 7.5-minute quadrangles. **In addition to the studies and database searches above, local biologists associated with the Mather Stewardship Network provided documentation of surveys for sensitive bird species conducted between January 4 and June 13, 2014.** Project site habitats were also evaluated for their suitability to support special status species. Examples of the special status species that have the potential to occur at or utilize Mather Field includes vernal pool branchiopods, valley elderberry longhorn beetle, Sacramento and slender Orcutt, Swainson's hawk and western spadefoot toad.

Conclusions regarding habitat suitability and species occurrence are based on a reconnaissance-level assessment conducted by ESA biologists in the summer of 2010, as well as previous survey results, existing literature and database searches.

REGULATORY SETTING

GENERAL PLAN (GP) CONSERVATION ELEMENT

The General Plan contains numerous goals, policies, concepts and strategies to protect and/or preserve biological resources. The following provides the goals and policies applicable to the proposed Project:

AG-17 The establishment of conservation easements combining preservation of agricultural uses, habitat values, and open space on the same property should be encouraged where feasible.

CI-60. Encourage maintenance of natural roadside vegetation and landscaping with native plants which usually provide the best habitats for native wildlife.

CO-25. Support the preservation, restoration, and creation of riparian corridors, wetlands and buffer zones.

CO-58. Ensure no net loss of wetlands, riparian woodlands, and oak woodlands.

CO-59. Ensure mitigation occurs for any loss of or modification to the following types of acreage and habitat function:

- vernal pools,
- wetlands,
- riparian,
- native vegetative habitat, and
- special status species habitat.

CO-60. Mitigation should be directed to lands identified on the Open Space Vision Diagram and associated component maps (please refer to the Open Space Element).

CO-61. Mitigation should be consistent with Sacramento County-adopted habitat conservation plans.

CO-62. Permanently protect land required as mitigation.

CO-64. Consistent with overall land use policies, the County shall support and facilitate the creation and biological enhancement of large natural preserves or wildlife refuges by other government entities or by private individuals or organizations.

CO-65. Create a network of preserves linked by wildlife corridors of sufficient size to facilitate the movement of species.

CO-66. Mitigation sites shall have a monitoring and management program including an adaptive management component including an established funding mechanism. The programs shall be consistent with Habitat Conservation Plans that have been adopted or are in draft format.

CO-67. Preserves and conservation areas should have an established funding mechanism, and where needed, an acquisition strategy for its operation and management in perpetuity. This includes existing preserves such as the American River Parkway, Dry Creek Parkway, Cosumnes River Preserve and other plans in progress for riparian areas like Laguna Creek.

CO-68. Preserves shall be planned and managed to the extent feasible so as to avoid conflicts with adjacent agricultural activities (Please also refer to the Agricultural Element).

CO-69. Avoid, to the extent possible, the placement of new major infrastructure through preserves unless located along disturbed areas, such as existing roadways.

CO-70. Community Plans, Specific Plans, Master Plans and development projects shall:

- include the location, extent, proximity and diversity of existing natural habitats and special status species in order to determine potential impacts, necessary mitigation and opportunities for preservation and restoration.

- be reviewed for the potential to identify non-development areas and establish preserves, mitigation banks and restore natural habitats, including those for special status species, considering effects on vernal pools, groundwater, flooding, and proposed fill or removal of wetland habitat.

- be reviewed for applicability of protection zones identified in this Element, including the Floodplain Protection Zone, Stream Corridor Ordinance, Cosumnes River Protection Combining Zone and the Laguna Creek Combining Zone.

CO-71. Development design shall help protect natural resources by:

- Minimizing total built development in the floodplain, while designing areas of less frequent use that can support inundation to be permitted in the floodplain,

- Ensuring development adjacent to stream corridors and vernal pools provide, where physically reasonable, a public street paralleling at least one side of the corridor with vertical curbs, gutters, foot path, street lighting, and post and cable barriers to prevent vehicular entry.

- Projects adjacent to rivers and streams shall integrate amenities, such as trail connectivity, that will serve as benefits to the community and ecological function.

- Siting of wetlands near residential and commercial areas should consider appropriate measures to minimize potential for mosquito habitation.

- Development adjacent to stream corridors and vernal pools shall be designed in such a manner as to prevent unauthorized vehicular entry into protected areas.

CO-72. If land within river and stream watersheds in existing agricultural areas is developed for non-agricultural purposes, the County should actively pursue easement dedication for recreation trails within such development as a condition of approval.

CO-75. Maintain viable populations of special status species through the protection of habitat in preserves and linked with natural wildlife corridors.

CO-78. Plans for urban development and flood control shall incorporate habitat corridors linking habitat sites for special status species. (Please also refer to the Open Space Element for related policies.)

CO-83. Preserve a representative portion of vernal pool resources across their range by protecting vernal pools on various geologic landforms, vernal pools that vary in depth and size, and vernal pool complexes of varying densities; in order to maintain the ecological integrity of a vernal pool ecosystem.

CO-84. Ensure that vernal pool preserves are large enough to protect vernal pool ecosystems that provide intact watersheds and an adequate buffer, have sufficient number and extent of pools to support adequate species populations and a range of vernal pool types.

CO-85. Utilize proper vernal pool restoration techniques as approved by United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and the Army Corps of Engineers (Corps).

CO-86. Limit land uses within established preserves to activities deemed compatible with maintenance of the vernal pool resource, which may include ranching, grazing, scientific study and education.

CO-91. Discourage introductions of invasive non-native aquatic plants and animals.

CO-134. Maintain and establish a diversity of native vegetative species in Sacramento County.

CO-138. Protect and preserve non-oak native trees along riparian areas if used by Swainson's hawk, as well as landmark and native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5 feet above ground.

CO-139. Native trees other than oaks, which cannot be protected through development, shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.

CO-140. For projects involving native oak woodlands, oak savannah, or mixed riparian areas, ensure mitigation through either of the following methods:

An adopted habitat conservation plan.

Ensure no net loss of canopy area through a combination of the following: (1) preserving the main, central portions of consolidated and isolated groves constituting the existing canopy and (2) provide an area on-site to mitigate any canopy lost. Native oak mitigation area must be a contiguous area on-site which is equal to the size of canopy area lost and shall be adjacent to existing oak canopy to ensure opportunities for regeneration.

Removal of native oaks shall be compensated with native oak species with a minimum of a one to one dbh replacement.

A provision for a comparable on-site area for the propagation of oak trees may substitute for replacement tree planting requirements at the discretion of the County Tree Coordinator when removal of a mature oak tree is necessary.

If the project site is not capable of supporting all the required replacement trees, a sum equivalent to the replacement cost of the number of trees that cannot be accommodated may be paid to the County's Tree Preservation Fund or another appropriate tree preservation fund.

If on-site mitigation is not possible given site limitation, off-site mitigation may be considered. Such a mitigation area must meet all of the following criteria to preserve, enhance, and maintain a natural woodland habitat in perpetuity, preferably by transfer of title to an appropriate public entity.

- Equal or greater in area to the total area that is included within a radius of 30 feet of the dripline of all trees to be removed;
- Adjacent to protected stream corridor or other preserved natural areas;
- Supports a significant number of native broadleaf trees; and
- Offers good potential for continued regeneration of an integrated woodland community.

CO-145. Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the 15-year shade cover values for tree species.

CO-146. If new tree canopy cannot be created onsite to mitigate for the non-native tree canopy removed for new development, project proponents (including public agencies) shall contribute to the Greenprint funding in an amount proportional to the tree canopy of the specific project.CO-147. Increase the number of trees planted within residential lots and within new and existing parking lots.

LU-15. Planning and development of new growth areas should be consistent with Sacramento County-adopted Habitat Conservation Plans and other efforts to preserve and protect natural resources.

OS-1. Actively plan to protect, as open space, areas of natural resource value, which may include but are not limited to wetlands preserves, riparian corridors, woodlands, and floodplains associated with riparian drainages.

OS-2. Maintain open space and natural areas that are interconnected and of sufficient size to protect biodiversity, accommodate wildlife movement and sustain ecosystems.

OS-9. Open space easements obtained and offered as mitigation shall be dedicated to the County of Sacramento, an open space agency, or an organization designated by the County to protect and manage the open space. Fee title of land may be dedicated to the County, the open space agency, or organization provided it is acceptable to the appropriate department or agency (Please also refer to Section V of the Conservation Element for related policies).

The major goal outlined in the Conservation Element of the General Plan is for the management and protection of natural resources for the use and enjoyment of present and future generations, while maintaining the long-term ecological health and balance of the environment. In addition to the Conservation Element goals and objectives, the Open Space Element further identifies two key concepts that form the basis of the goals, objectives and policies contained in the element: (1) protecting the urban edge and (2) establishing natural area linkages.

The urban edge is defined as the Urban Services Boundary (USB) in the Land Use Element. This boundary is the ultimate boundary of the urban area and is based upon natural and environmental constraints to urban growth. Protection of the urban edge allows accommodation of large scale urban development, while maintaining substantial rural, natural open space areas. Confining urban development within the USB prevents urban sprawl into the rural and open space areas of the County; protecting the urban edge protects the existing open space and rural areas of the County from being lost to development.

Open space linkages increase the ecological value of the open space lands by connecting ecosystems and wildlife habitats. This is beneficial to species higher in the food chain since mammals and birds of prey require considerable supporting territory. When the habitat is reduced to isolated patches, the long term viability of the species is threatened. Furthermore, the establishment of natural habitat corridors facilitates migration of species between breeding populations, thus enlarging the gene pool and helping to ensure genetically diverse and healthy populations of individual species. In the rural areas of the County, contiguous open space already exists, allowing for preservation of larger, high quality natural areas.

SACRAMENTO COUNTY TREE ORDINANCE

The Sacramento County Tree Preservation and Protection Ordinance (Chapter 19.12 of the County Code) states that “it shall be the policy of the County to preserve all trees possible through its development review process.” In addition, the “approving body shall have the authority to adopt mitigation measures as conditions of approval for projects in order to protect other species of trees.” This protection is afforded to native oak trees, other native trees, and landmark trees (defined in Section 19.04.030 of the County Code as “an especially prominent or stately tree on any land in Sacramento County”). Furthermore, the Sacramento County General Plan Conservation Element Policy CO-138 states that the County “protect and preserve non-oak native trees along riparian areas if used by Swainson’s Hawk, as well as landmark and native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5

feet above ground." County policy identifies a list of native oak and specific non-oak native trees, which are listed below.

- Valley Oak/*Quercus lobata*
- Interior live oak/*Quercus wislinzenii*
- Blue oak/*Quercus douglasii*
- Coast live oak/*Quercus agrifolia* (in Delta area)
- Oracle oak/*Quercus X morehus*
- Native oak hybrids
- California sycamore/*Platanus racemosa*
- Northern California black walnut/*Juglands californica v. hidsii*
- Oregon ash/*Fraxinus latifolia*
- Goodding's black willow/*Salix goddingii*
- Box elder Acer/*Negundo v. caifornicum*
- White alter/*Alnus rhombifolia*
- California buckeye/*Aesculus califnornica*

SWAINSON'S HAWK IMPACT MITIGATION FEE PROGRAM ORDINANCE

The California Department of Fish and Wildlife requires that mitigation for foraging habitat be provided within the known foraging radius of a nesting Swainson's hawk. In 1997, in response to the need to mitigate for the loss of Swainson's hawk foraging habitat in Sacramento County, the Board of Supervisors adopted an ordinance that established a Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code). The Program has been amended several times; the latest amendment went into effect December 2009. By adopting the Program, the Board of Supervisors found that "the most effective means of mitigation for the loss of suitable Swainson's hawk foraging habitat is the direct preservation, in perpetuity, of equally suitable foraging habitat on an acre-per-acre basis based on the Project's determined acreage impact".

Under the Swainson's Hawk Impact Mitigation Program, only projects which have an impact of less than 40 acres are eligible to pay fees. Projects impacting 40 acres or more of foraging habitat must provide land acceptable to CDFW and the County. Land can be provided in fee title or through conservation easement. The Sacramento County Community Planning and Development Department, Planning and Environmental Review Division (PER) administers the Swainson's Hawk Impact Mitigation Program and more information on lands likely to be determined as acceptable replacement habitat can be found at their website http://www.per.saccounty.net/EnvironmentalDocuments/Pages/SwainsonsHawkOrdinance.aspx.

FEDERAL AND STATE REGULATORY AUTHORITY

The two major federal laws regulating impacts to wetlands and wildlife species are the Clean Water Act (Section 404 and 401) and the Endangered Species Act (Section 7, 9, and 10). The U.S. Army Corps of Engineers (Corps) is responsible for administering the

Clean Water Act (CWA), Section 404, with the U.S. Environmental Protection Agency serving in an oversight capacity. The U.S. Fish and Wildlife Service (USFWS) is responsible for administering the Endangered Species Act, Sections 7, 9, and 10. The state Regional Water Quality Control Board is the regulatory agency that enforces Section 401 of the CWA. The three most important state laws regulating wildlife species, streams, and wetlands are the California Endangered Species Act (Section 2081), Section 1600 of the Fish and Game Code, and the Porter-Cologne Water Quality Control Act. The first two are administered by the state Department of Fish and Wildlife (CDFW), and the latter is administered by the Regional Water Quality Control Board (Regional Water Board).

Clean Water Act Section 401 and 404 Permit Guidelines

The Army Corps regulates discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the U.S. are generally defined as "navigable waters," which are defined as traditional navigable waters that are or were used for commerce, or may be used for interstate commerce; tributaries of navigable waters; and wetlands adjacent to navigable waters. "Discharge of fill material" is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. The Solid Waste Agency of Northern Cook County (SWANCC) vs. United States Army Corps of Engineers decision made by the Supreme Court in 2001 altered the types of wetlands that can be regulated by Section 404. Isolated wetlands, that is, wetlands that are not hydrologically connected to other "navigable" surface waters (or their tributaries), are not considered to be subject to Federal jurisdiction. However the SWANCC decision only prohibits Federal jurisdiction over isolated waters; State and local jurisdiction still applies.

The California State Regional Water Quality Control Board (Regional Water Board) regulates wetlands pursuant to Section 401 of the CWA. Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA) of 1973, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as endangered or threatened. FESA defines "endangered" species as any species in danger of extinction throughout all or a significant portion of its range. A "threatened" species is any species that is likely to become an "endangered" species within the foreseeable future throughout all or a significant portion of its range. Additional special-status species include "candidate" species and "species of concern." "Candidate" species are those for which USFWS has enough information on file to propose listing as

endangered or threatened. "Species of concern" are those for which listing is possibly appropriate but for which USFWS lacks sufficient information to support a listing proposal. A species that has been "delisted" is one whose population has met its recovery goal target and is no longer in jeopardy of extinction. Taking of federally listed species is prohibited under Section 9 of FESA. To "take" is defined by FESA (Section 2[19]) to mean "to harass, harm, pursue, hunt, shoot, would, kill, trap, capture, or collect, or attempt to engage in any such conduct."

All government agencies must review their actions and determine if a "may affect" situation occurs with respect to a federally listed or proposed species. If the agency makes a "may affect" determination, it is then required to formally consult with National Oceanic and Atmospheric Administration, Fisheries (NOAA Fisheries).

For federal agencies, the consultation is conducted under Section 7 of FESA. The agency submits a Biological Assessment to USFWS that evaluates the potential adverse effects to federally listed species. USFWS then prepares a Biological Opinion that addresses the requirements that must be followed to avoid, minimize, and compensate for impacts to federally listed species and their habitats.

For non-federal agencies or individuals (i.e. private applicants), the consultation is conducted under Section 10 of FESA. The agency or individual submits an incidental take[1] permit application to USFWS accompanied by a habitat conservation plan (HCP). The purpose of the habitat conservation planning process associated with the permit is to ensure there is adequate minimization and mitigation of the effects of the authorized incidental take. The purpose of the permit is to authorize the incidental take of a listed species, not to authorize the activities that result in take (USFWS 2005).

Further explanation is provided in the following notification, which was submitted to the County by USFWS for inclusion[2] into all environmental documents when threatened or endangered species may be adversely affected:

As a requirement of the Department of Interior, U.S. Fish and Wildlife Service, the following notification is provided to proponents of any Project that has the potential to adversely affect threatened or endangered species:

> "The applicant is hereby notified of additional conditions as stipulated by the U.S. Fish and Wildlife Service. Features of the applicant's Project may adversely affect federally listed threatened or endangered species. An applicant must go through one of two processes to obtain authorization to take federally listed species incidental to completing his or her Project. One of the processes is

[1] Incidental take is take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant (50 CFR 402.2).

[2] As a condition of the USFWS Biological Opinion for the "Fazio Water" 101-514 water contract, the County of Sacramento has agreed to include Fish and Wildlife notification language in Initial Studies and EIRs when endangered and threatened species may be adversely affected.

formal consultation. When the authorization or funding of a Federal agency is an aspect of a Project that may affect federally listed species, Section 7 of the Endangered Species Act requires the Federal agency to formally consult with the Service.

Formal consultation is concluded when the Service issues a biological opinion to the Federal agency. The biological opinion includes terms and conditions to minimize the effect of take on listed species. The Federal agency must make the terms and conditions of the biological opinion into binding conditions of its own authorization to the Project applicant. An example of this process is when the U.S. Army Corps of Engineers consults with the Service prior to issuing a permit to fill jurisdictional waters under Section 404 of the Clean Water Act. The terms and conditions of the biological opinion become binding on the Project applicant through the Corps' 404 authorization. When no Federal funding or authorization is involved in a Project, an applicant must prepare a habitat conservation plan and obtain a permit directly from the Service in accordance with Section 10(a)(1)(B) of the Act. For additional information on these processes please contact the Endangered Species Division of the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office at (916) 414-6600".

California Endangered Species Act (CESA)

The California Endangered Species Act (established in Fish and Game Code §2050) generally parallels the main provisions of the FESA and is administered by CDFW for most terrestrial species, with assistance from the NOAA Fisheries (formerly known as the National Marine Fisheries Services, or NMFS) for most freshwater fishery species. The CESA prohibits the taking of state listed species except as otherwise provided by state law. Unlike the federal ESA, the CESA extends the take prohibitions to not only listed species but also for species petitioned for listing. "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 of the CESA identifies the following criteria that must be met for CDFW to authorize the take of endangered, threatened or candidate species:

- The taking of a listed or candidate species can be minimized and fully mitigated.
- The take would not jeopardize the continued existence of the species.
- Authorization for take must be based on the best scientific material that is reasonably available, and that due consideration will be given to the species' ability to survive and reproduce.

California Fish and Game Code

Animals and Plants

Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto. Section 3503.5 make it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess, or destroy the

nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto. Sections 1908, 3511, 4700, 5050 state that Fully Protected plant and animals or parts thereof may not be taken or possessed at any time.

SURFACE WATERS

Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state.

Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. CDFW will determine whether a Lake or Streambed Alteration Agreement is required for the activity. An agreement will be required if the activity could substantially adversely affect an existing fish and wildlife resource. If an agreement is required, it will be prepared by CDFW in coordination with the applicant. The agreement will include measures, as necessary, to protect fish and wildlife resources while conducting the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1916 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the MBTA, of which 58 are legal to hunt.

Porter-Cologne Water Quality Control Act

This Act (State Water Code Section 13020) mandates that all the waters of the state be protected, that activities and factors affecting water quality be regulated to attain the highest water quality “within reason”, and that the state be prepared to exercise its power and jurisdiction to protect water quality from degradation. Waters of the state are defined as any surface or groundwater within the boundaries of the state. The Regional Water Board issues permits, with varying conditions, to allow the discharge of dredge or fill material or a waiver of waste discharge into waters of the state.

SIGNIFICANCE CRITERIA

The significance of an environmental impact cannot always be determined through use of a specific quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement: "An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." Significance of an impact to the biological resources discussed in this chapter rely on the policies, codes, and regulations described in the Regulatory Setting section, as well as the following CEQA Sections:

Section 15065:

(a) A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:

(1) The project has the potential to*:* substantially degrade the quality of the environment*;* substantially reduce the habitat of a fish or wildlife species*;* cause a fish or wildlife population to drop below self-sustaining levels*;* threaten to eliminate a plant or animal community*;* substantially reduce the number or restrict the range of an endangered, rare or threatened species*;* or eliminate important examples of the major periods of California history or prehistory.

Section 15382:

"Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

Standards for determining thresholds of significance were established based on the State CEQA Guidelines and professional standards. Impacts to biological resources were considered significant if the project would result in the following:

1. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a special-status species in local or regional regulatory guidance, plans, policies, or regulations or by CDFW or USFWS;

2. Have a substantial adverse effect on any riparian habitat or any other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

3. Have a substantial adverse effect on protected surface waters, as defined by the Army Corps of Engineers Wetland Delineation Manual (1987 ed.) and/or as defined by Sections 401 and 404 of the Clean Water Act (including, but not

limited to, seeps, vernal pools, swales, drainages, and perennial waterways) through direct removal, filling, hydrological interruption, or other means;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

5. Conflict with any local policies or ordinances protecting biological resources; or

6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or approved local, regional, or state habitat conservation plan.

Note that there are no approved habitat conservation plans applicable to the Project area, and thus criterion five does not apply.

METHODOLOGY

The methodologies used to determine significance rely on documents published by or endorsed by regulatory agencies. The applicable documents and methods are cited and described in the applicable impact discussions below. In absence of such published documents, the analyses rely on the general definitions of significance.

An evaluation of potential impacts to biological resources that may result from implementation of the Mather Field land use designation changes are discussed in this section in a programmatic manner while project level Impacts to biological resources that will result from the Zinfandel Drive and trunk sewer extension are discussed in detail and specific mitigation measures are included where applicable.

IMPACTS AND ANALYSIS

The project site totals approximately 5,400 acres and approximately 2,500 acres has been developed for many years. Of the undeveloped 2,900 acres, approximately 1,272 acres is within an area that will be designated as a Natural Preserve while the remaining 1,630 acres will be designated for urban uses (Industrial, Recreation, Commercial Recreation, Public/ Quasi-Public and Urban Development Area [UDA]). Those areas to be avoided contain grasslands with large complexes of vernal pools, wetland swales, and seasonal wetlands.

Although a large Natural Preserve designation is proposed through project implementation, it is anticipated that future development will be allowed within the Industrial, Recreation, Commercial Recreation and Urban Development Area Districts located west, north and east of the Natural Preserve area. The proposed 1,272 acre Natural Preserve, although disturbed, is not urbanized and is largely vacant and contains various types of habitat that have the potential to support a number of species

including special status species. Implementation of the proposed project has the potential to impact a number of wetlands, vernal pools and Waters of the U.S., special status species and species habitat, riparian habitat and trees.

WETLANDS AND SURFACE WATERS

As noted above several resource evaluations have been prepared for Mather Field over the years including several wetland delineations. A total of 208.8 acres of water features have been identified within Mather Field (refer to Plate BR -1). Corps verified jurisdictional features include a total of 135.5 acres of wetlands and 73.3 acres of other waters of the U.S. A summary of Corps-verified jurisdictional features and their extent within the project site is presented in Table BR-1, and includes seasonal wetlands, vernal pools and swales, and open water (drainage ditches, lakes/ponds, and streams and channels).

Table BR-1: Jurisdictional Features at Mather Field

Type of Jurisdiction Feature	Acres
Wetlands	
Seasonal Wetlands	61.6
Vernal Pools/ Swales	73.9
Total area of wetlands	**135.5**
Other Waters	
Drainage Ditches	2.5
Lakes/ponds	40.9
Streams and Channels	29.9
Total area of other waters	**73.3**
Total area of jurisdictional features	**208.8**

PROGRAMMATIC LEVEL IMPACTS TO JURISDICTIONAL WATERS

Although the future amount of construction activity that could occur consistent with the project proposal is unknown, it is reasonable to assume that construction activities will occur that will result in the fill of jurisdictional waters within Mather Field. As a conservative estimate it is assumed that all jurisdictional features may be filled as a result of future development proposals in the project area. Table BR-2 below details the estimated area of jurisdictional waters that may be impacted through future development of the project area as well as the feature type**; the preferred alternative alignment of Zinfandel Drive, as discussed in Chapter 3, was used to analyze these impacts**. **Plates BR-2 and BR-3 illustrate the preferred alignment and surrounding wetland features' watersheds.**

Plate BR -1: Wetlands and Surface Waters

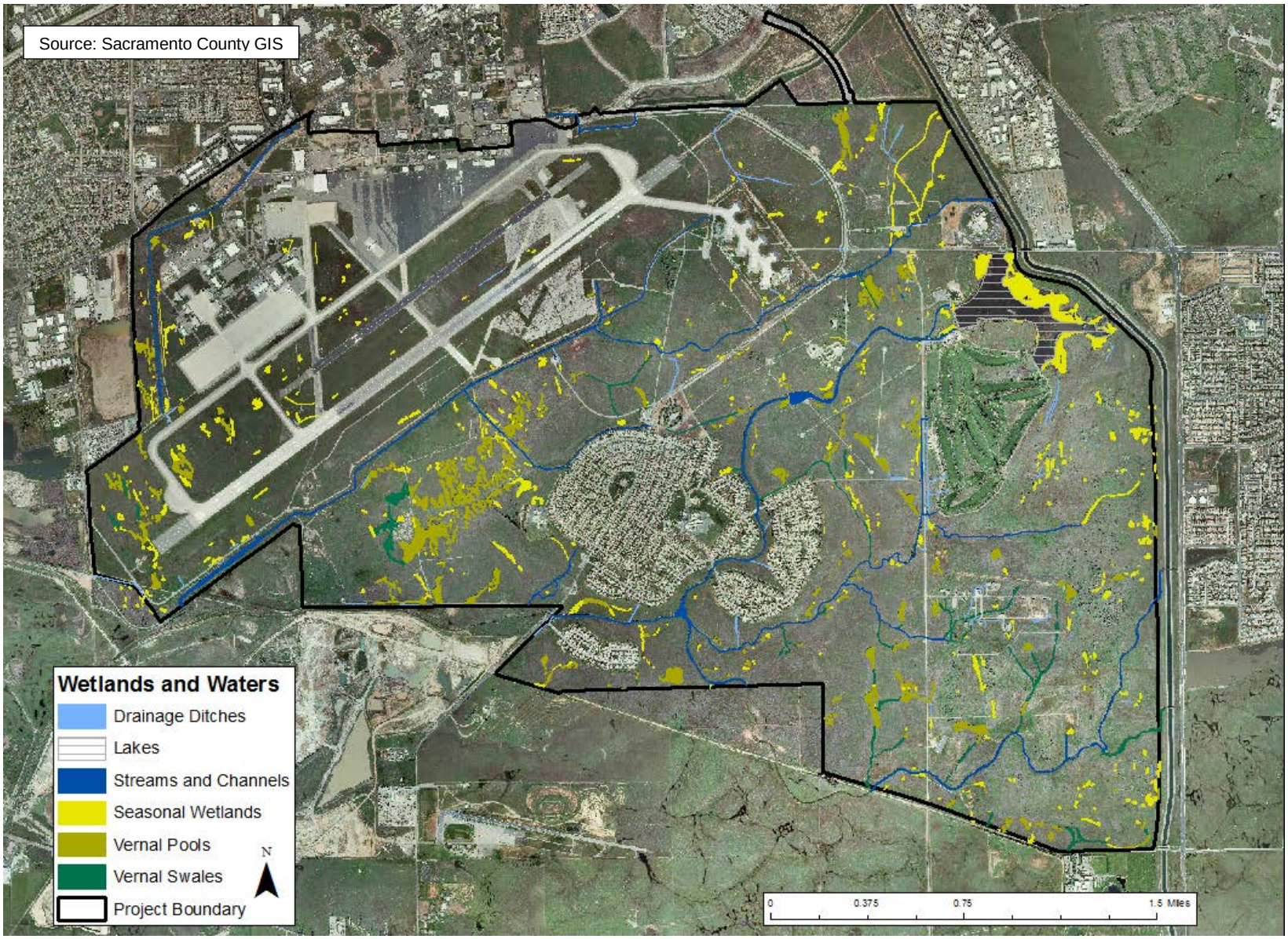
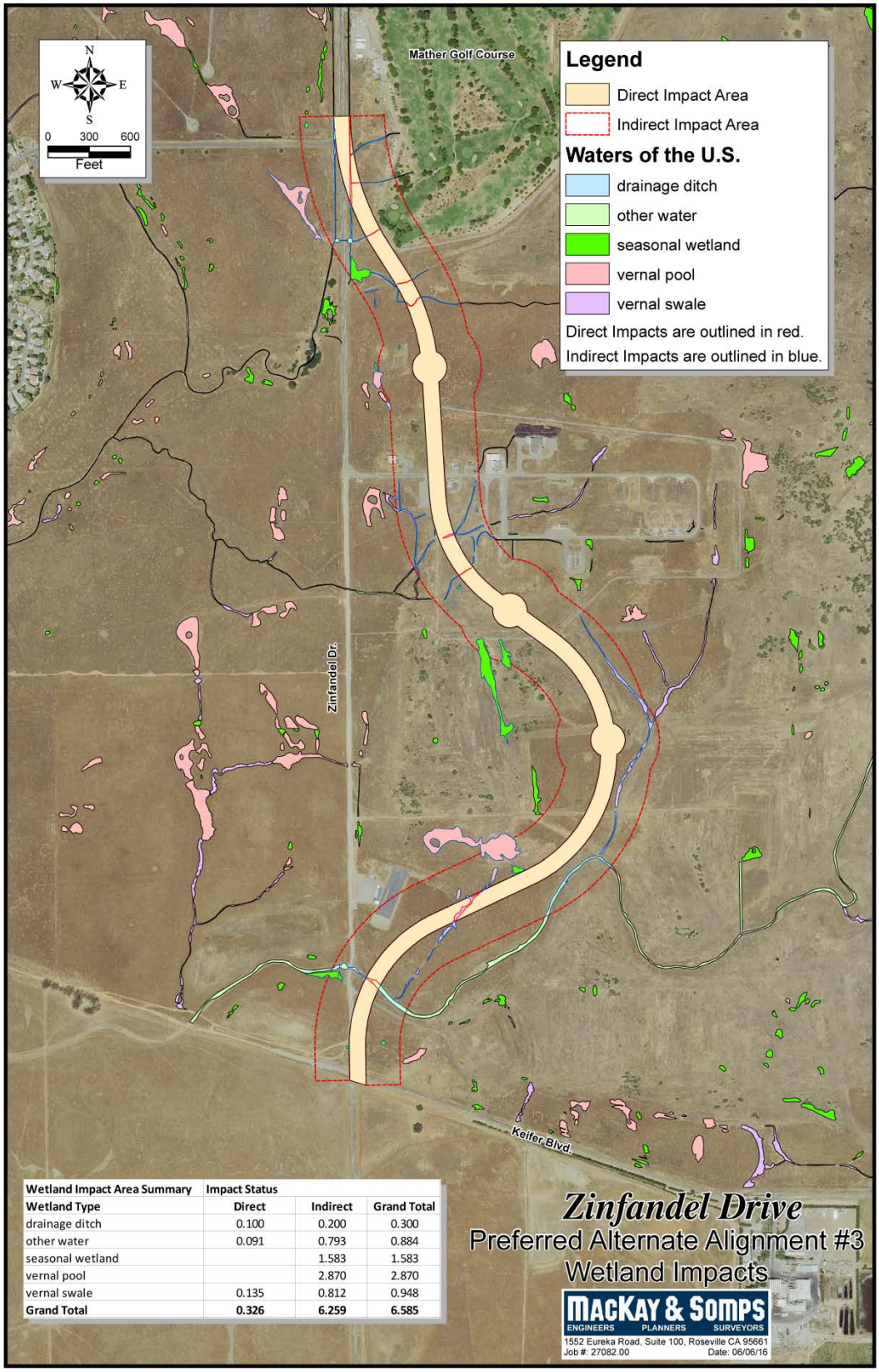


Plate BR-2: Preferred Alignment of Zinfandel Drive



Wetland Impact Area Summary	Impact Status		
Wetland Type	**Direct**	**Indirect**	**Grand Total**
drainage ditch	0.100	0.200	0.300
other water	0.091	0.793	0.884
seasonal wetland		1.583	1.583
vernal pool		2.870	2.870
vernal swale	0.135	0.812	0.948
Grand Total	**0.326**	**6.259**	**6.585**

Plate BR-3: Preferred Alignment and Nearby Watersheds

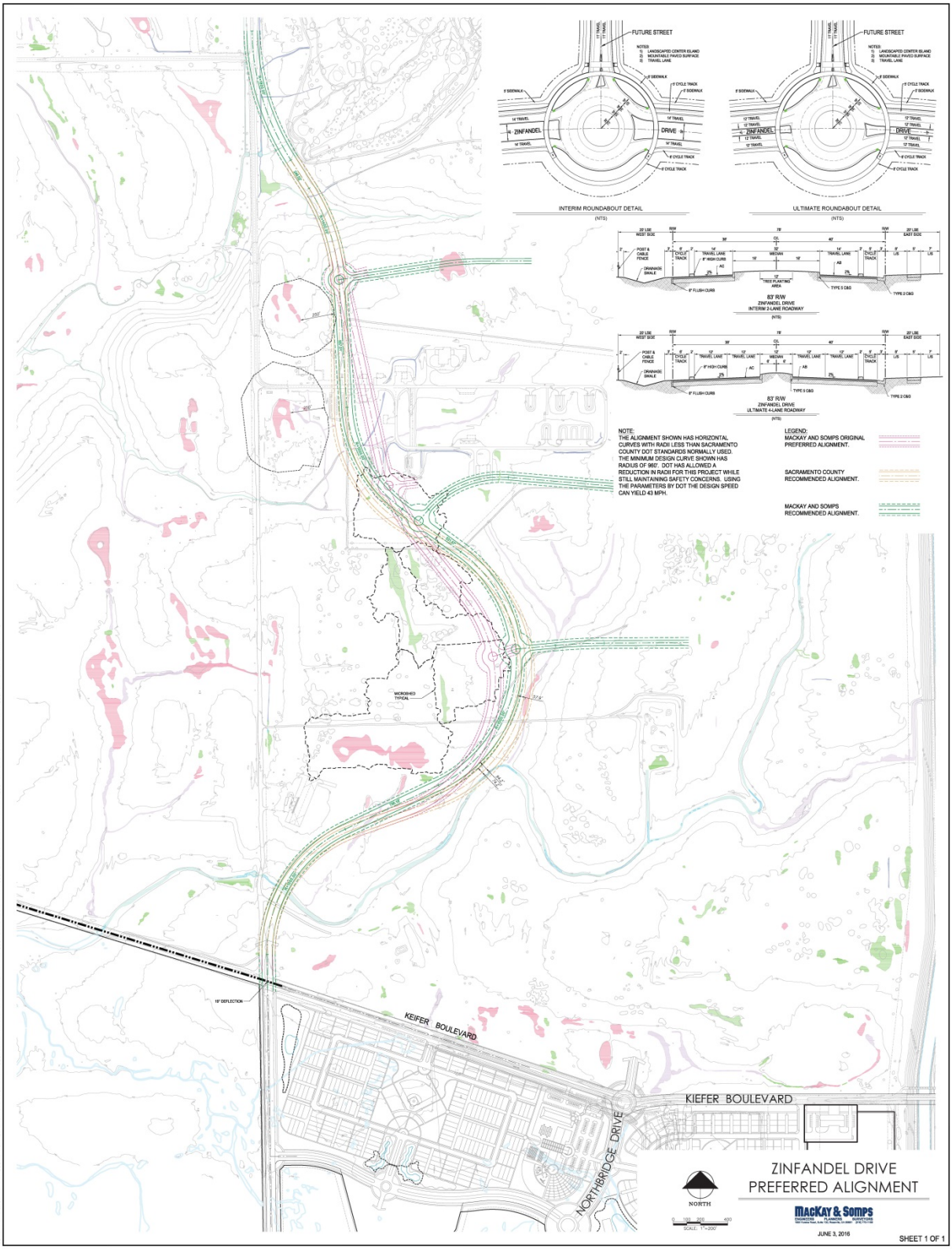


Table BR-2: Potential Impacts to Jurisdictional Features

Type of Jurisdiction Feature	Acres
Wetlands	
Seasonal Wetlands	~~19.36~~ **18.88**
Vernal Pools/ Swales	~~15.19~~ **10.62**
Total area of wetlands	~~**34.55**~~ **29.5**
Other Waters	
Drainage Ditches	~~1.39~~ **0.00**
Lakes/ponds	0.00
Streams and Channels	~~6.64~~ **0.49**
Total area of other waters	~~**8.03**~~ **0.49**
Total impact area of jurisdictional features	~~**42.58**~~ **29.99**

Approximately ~~42.58~~ **29.99** acres of juristictictional waters may be filled as a result of the proposed project. According to Corps mitigation guidelines and County mitigation requirements, minimum mitigation requirements are 1:1 (no net loss) for directly impacted wetlands and waters. Based on the minimum requirements, mitigation for direct impacts to ~~42.58~~ **29.99** acres of wetlands and other waters would be required.

The wetland delineations have been verified by the Corps and applications for a Section 404 permits for wetland loss have been submitted, but permits have not yet been issued. Thus, the amount of wetland area that will require mitigation has not been finalized by the Corps. However, prior to direct impacts to wetland features the Project applicant will be required to obtain all required permits from the Army Corps, U.S. Fish and Wildlife Service , California Department of Fish and Wildlife, and the Regional Water Board.

A large portion of the on site jurisdictional features are anticipated to be within a proposed ~~1,272~~ **1,383.2** acre Natural Preserve located toward the center of Mather Field as well as a riparian buffer area along a tributary of Morrison Creek at the southeast corner of the project site (refer to ~~Plate BR -~~2). The Natural Preserve and buffer will result in the avoidance of approximately ~~75.66~~ **81.30** acres of on site jurisdictional waters and is a part of the mitigation strategy intended to offset impacts to jurisdictional waters consistent with Corps requirements.

The proposed Natural Preserve is intended to allow for the onsite compensation for the project related loss of onsite wetlands and waters. As part of the creation of the Natural Preserve conservation easements will be placed over the preserve area in order to ensure that the area is set aside as a conservation area in perpetuity. In addition to the Natural Preserve designation, an Interim Wetlands Management Plan (IWMP) has been developed consistent with the Corps permitting process, in order to assist in the compensation efforts. The U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. EPA and California Department of Fish and Wildlife approved the Interim Mather Wetlands Management Plan (IWMP) in the second quarter of 2014.

The IWMP is intended, in part, to detail a plan to restore and enhance existing wetland habitat and functions within the proposed Natural Preserve. The proposed conservation and restoration efforts included in the IWMP will allow for the compensation of the project related loss of ~~42.58~~ **29.99** acres of jurisdictional waters. Although project impacts are intended be compensated for though the development of the Natural Preserve and the conservation and restoration of wetland habitat on site in accordance with the approved IWMP, Mitgation Measures BR-1 and BR-2 are recommended to ensure that impacts are reduced. With mitigation, impacts to waters and wetlands that will result from development are ***less than significant.***

Project Level Impacts to Jurisdictional Waters

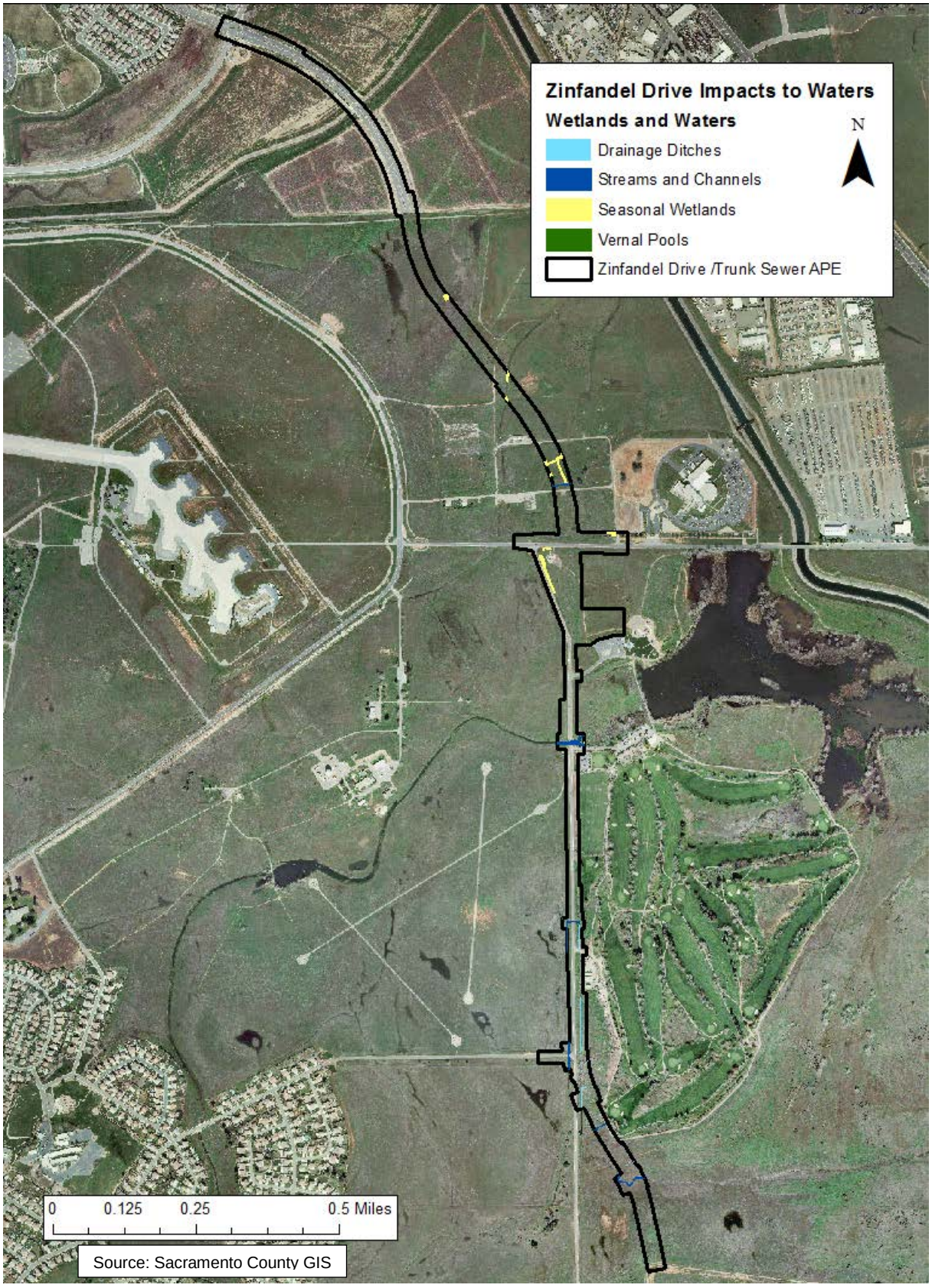
The proposed Zinfandel Drive and trunk sewer extension area lies directly over several jurisdictional waters including seasonal wetlands, drainage ditches, channels/ streams and vernal pools (refer to Plate BR -4). Table BR-3 below details the area of jurisdictional waters that construction activities related to the Zinfandel Drive/ trunk sewer will impact.

Table BR-3: Impacts to Jurisdictional Features

Type of Jurisdiction Feature	Acres
Wetlands	
Seasonal Wetlands	0.404
Vernal Pools/ Swales	0.003
Total area of wetlands	**0.41**
Other Waters	
Drainage Ditches	0.274
Lakes/ponds	0.000
Streams and Channels	0.285
Total area of other waters	**0.56**
Total impact area of jurisdictional features	**0.97**

Approximately 0.97 acres of jurisdictional waters will be filled as a result of the construction of the proposed Zinfandel Drive/trunk sewer improvements. These project-level impacts are a subset of the impacts discussed above. As noted previously, a large preserve area with conservation easements and an IWMP are proposed to be utilized in order to protect and restore on site wetlands to compensate for impacts to jurisdictional waters within Mather Field including the impacts related to the Zinfandel Drive/trunk sewer improvements. Although the impacts are expected to be offset through the development of the Natural Preserve and the implementation of the IWMP, Mitigation Measures BR-1and BR-2 are recommended in order to ensure that impacts are reduced. With mitigation, project level impacts associated with waters and wetlands are ***less than significant***.

Plate BR -4: Zinfandel Drive and Trunk Sewer Impacts to Jurisdictional Waters



~~Plate BR -5: Proposed Natural Preserve and Riparian Buffer~~

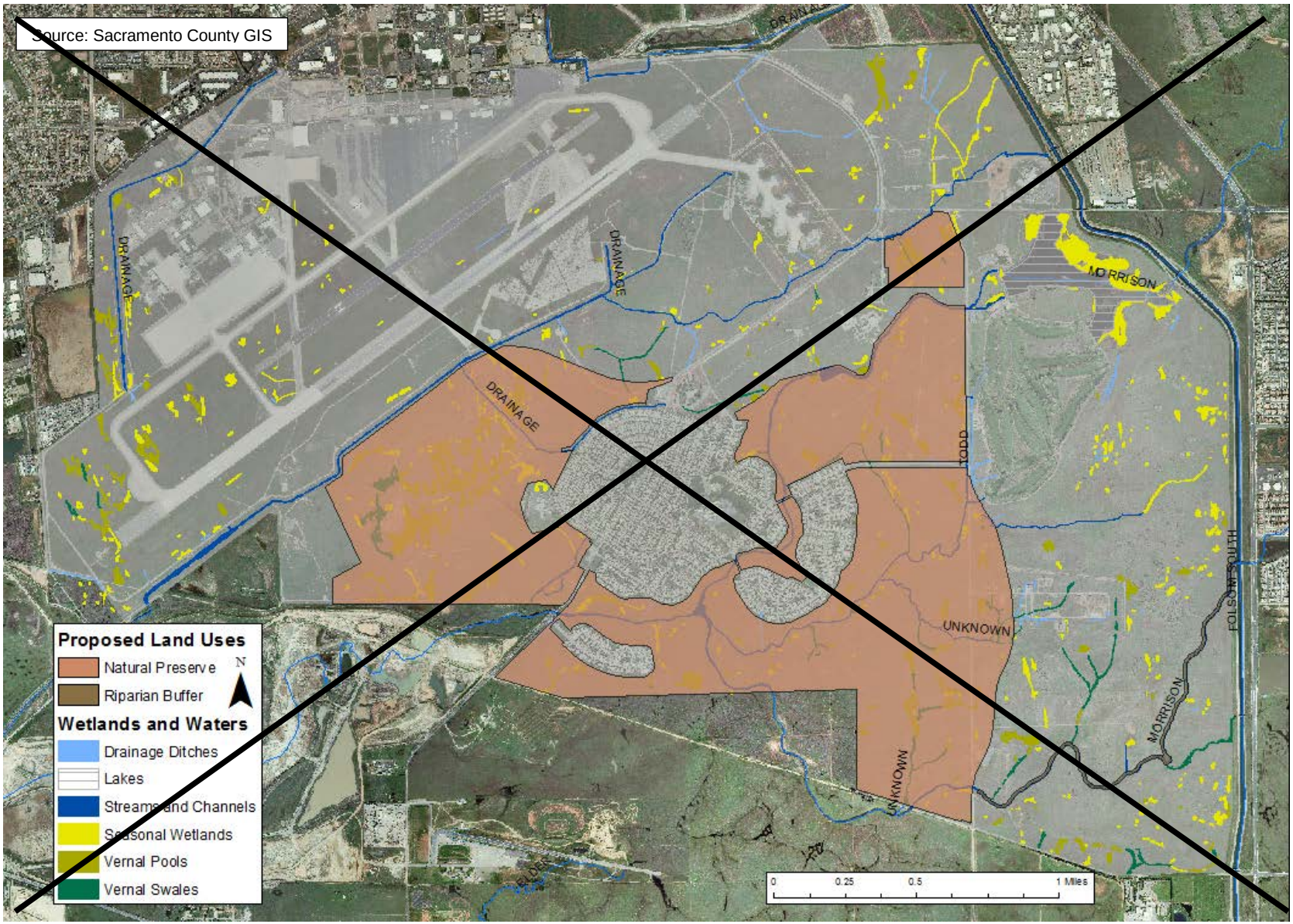
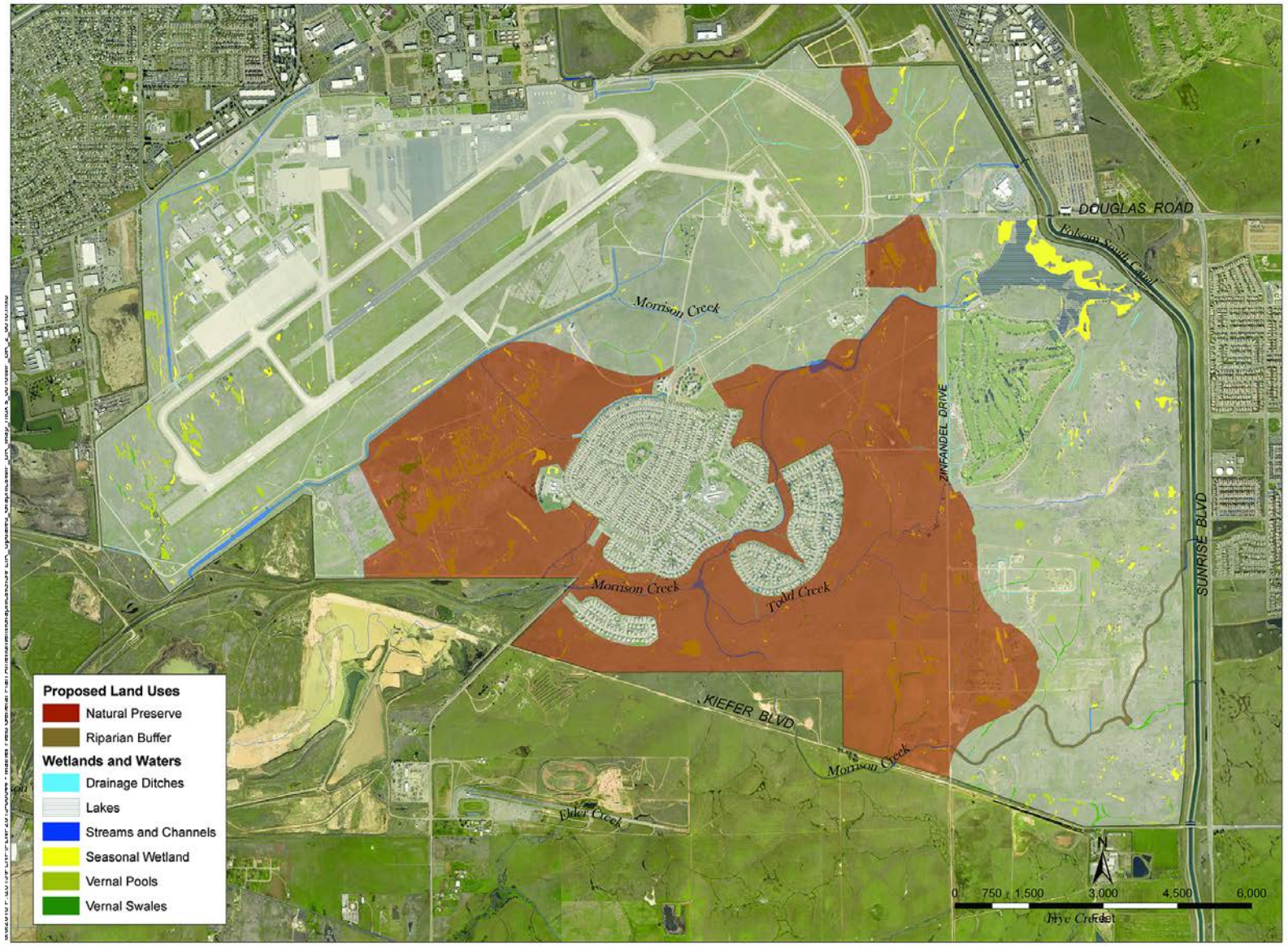


Plate BR -6: Proposed Natural Preserve and Riparian Buffer (Revised)



TREES

The project area contains a variety of trees. According to previous habitat assessments and arborist evaluations of the project area, the site contains primarily cottonwood, willow, California sycamore, interior live oak and valley oak trees. Other trees on site are those commonly used for landscaping purposes and along street frontages including red and cork oak, liquidambar, and Chinese elm.

NATIVE TREES

PROGRAMMATIC LEVEL IMPACTS TO NATIVE TREES

Although a detailed and comprehensive survey of the trees within Mather Field has not been completed and Mather Field is not a heavily wooded area, native trees are known to be located within the project area. Although the specific development and building footprints are unknown at this time, future development consistent with the Project has the potential to result in the removal or encroachment of native trees that are afforded protection through the Sacramento County Tree Ordinance and Sacramento County General Plan. The removal of, or substantial encroachment within, native trees requires in-kind replacement.

The degree of impacts to native trees that will result from development and redevelopment associated with the Project is uncertain at this time. The proposed change to land use designations within the plan area does not in itself require the removal of any on-site native or non-native trees. As specific parcel redevelopment and development plans are not part of the proposed project, impacts associated with development on native trees cannot be determined at this time. Impacts are considered potentially significant. Mitigation Measure BR-3 is included to provide for the protection and preservation of native tree resources within Mather Field as well as a requirement for in-kind planting of native trees in the event that native trees are required to be removed for future development projects. With mitigation impacts to native trees will be ***less than significant***.

PROJECT LEVEL IMPACTS TO NATIVE TREES

An arborist report was prepared by Sierra Nevada Arborists for the Zinfandel Drive/ trunk sewer improvement area. The arborist report indicates that several native and non-native trees are located adjacent to Zinfandel Drive within the proposed work area. The tree inventory took place on May 21 and June 6th, 2014. Table BR-4 describes the native trees noted to be within the Zinfandel Drive/ trunk sewer work area and impacts resulting from project construction.

Table BR-4: Zinfandel Drive/ Trunks Sewer Native Trees

Tree #	Tree Type	Total BDH (inches)	Impact	Mitigation Requirement (inches)
2576	Valley Oak	7	No Impact	None
2577	Valley Oak	8	No Impact	None
2578	Valley Oak	7	No Impact	None
2579	Valley Oak	8	No Impact	None
2580	Valley Oak	7	No Impact	None
2581	Fremont Cottonwood	21	Removal	21
Totals				**21**

Native oak trees 2576 through 2580 are located west of Zinfandel Drive and south of Douglas Road. Although these trees are located in the identified work area associated with the Zinfandel Drive/ trunk sewer improvements, the work area in this location is identified to show where only staging may occur. Improvements associated with the Zinfandel Drive/ trunk sewer extension will be located east of Zinfandel Drive and these trees are not expected to be directly impacted by project related construction activities. However, due to the close proximity of the trees to proposed construction activities and proposed staging areas, protection measures are recommended for these trees in order to protect them from inadvertent impacts. Tree 2581, a Fremont cottonwood, is located east of Zinfandel Drive and north of Douglas Road within the identified work area for the Zinfandel Drive/ trunk sewer extension. This tree is expected to be removed and in kind replacement will be required totaling 21 inches. The remaining identified trees within the project work area are non-native are discussed in detail below.

In addition to the trees identified within the work area, several trees that have not been identified are within and adjacent to the work area that may be subject to impacts from project related construction activities. The species, size and health of these trees is currently unknown; therefore, a conservative approach to assess impacts has been taken and it is assumed that the trees are native. Mitigation requiring in kind replacement for the unidentified trees within the construction area that will be removed is recommended. Also, mitigation is recommended to protect the trees that are not required to be removed and are located adjacent to the proposed work area from impacts associated with project related construction.

Aside from the trees within the work area, several trees are located adjacent to the proposed work limits that may be affected by project related construction activities. With Mitigation Measure BR-3 impacts to native trees are ***less than significant***.

Non-native Trees

Programmatic Level Impacts to Non-native Trees

Although a detailed and comprehensive survey of the trees within Mather Field has not been completed and Mather Field is not a heavily wooded area, non-native trees are known to be located within the project area. Although the specific development and building footprints are unknown at this time, future development consistent with the Project has the potential to result in the removal or encroachment of non-native trees. According to the Sacramento County General Plan, the removal of non-native tree canopy requires that the creation of new tree canopy, equivalent to the acreage of non-native tree canopy removed, be completed.

To compensate for the loss of non-native tree canopy, Mitigation Measure BR-4 is recommended requiring tree plantings consistent with General Plan policy CO-145. This will be accomplished by planting enough trees from the County's approved landscape tree list so that the planted trees yield an equivalent amount of canopy utilizing the 15 year shade values. With mitigation, impacts related to non-native tree canopy loss are ***less than significant.***

Project Level Impacts to Non-native Trees

Several non-native trees have been identified within the proposed work area associated with the Zinfandel Drive/ trunk sewer improvements. However, not all trees within the work area that will be removed have been identified.

To compensate for the loss of non-native tree canopy associated with the Zinfandel Drive/ trunk sewer extension, Mitigation Measure BR-4 is recommended requiring tree plantings consistent with General Plan policy CO-145. This will be accomplished by planting enough trees from the County's approved landscape tree list so that the planted trees yield an equivalent amount of canopy utilizing the 15 year shade values. With mitigation, impacts related to non-native tree canopy loss are ***less than significant.***

Riparian Habitat

Although a detailed and comprehensive survey of riparian habitat within Mather Field has not been completed, riparian habitat is known to be located within the project area.

Programmatic Level Impacts to Riparian Habitat

Riparian habitat has been identified at Mather Field. The riparian habitat predominantly occurs in patches along the shores of Mather Lake and a small portion of Morrison Creek just between Mather Lake and Zinfandel Drive and along drainage features west of the Mather Golf Course and east of Zinfandel Drive near Woodring Drive. The riparian habitat is largely within the exclusion area of Mather Field and located outside of the area where land use designation changes are proposed (refer to ~~Plate BR -5~~). Therefore, development proposals consistent with the proposed project will not affect

riparian habitat within Mather Field. Impacts to riparian habitat are ***less than significant***.

Project Level Impacts to Riparian Habitat

The Zinfandel Drive/ trunk sewer work area crosses a number of drainages and creek channels including the branch of Morrison Creek that extends west from Mather Lake just north of the Mather Golf Course and drainages that extend along Zinfandel Drive and from the Mather Golf Course near Woodring Drive The majority of the channels and streams in the project area do not contain associated riparian habitat; however, the portion of Morrison Creek that will be affected by project related construction activities contains Valley Foothill Riparian Habitat (ESA 2010). The drainage features near Woodring Drive just west of the Mather Golf Course also contains riparian habitat.

Plate BR -7 shows the riparian habitat that will be affected by the project along Morrison Creek and Plate BR -8 shows the habitat near Woodring Drive. Approximately 0.608 acres of riparian habitat will be removed in order to allow for the proposed improvements associated with the Zinfandel Drive/ trunk sewer improvements. Mitigation BR-5 is recommended to protect riparian habitat to the maximum extent feasible and to require habitat compensation consistent with General Plan Policy and/or federal permitting requirements. With mitigation, impacts to riparian habitat are ***less than significant.***

Special Status Species

As noted above, several resource and habitat assessments have been conducted at Mather Field to identify and evaluate the potential for special status species and their related habitat to be located on site. The results of these assessments are summarized in Table BR-5. A “special status” species is one which has been identified as having relative scarcity and/or declining populations. Special status species include those formally listed as threatened or endangered, those proposed for formal listing, candidates for federal listing, and those classified as species of special concern. Also included are those species considered to be "fully protected" by CDFW, those granted “special animal” status for tracking and monitoring purposes, and those plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS). There are multiple status designations applied to animal and plant species; the relevant definitions are provided below[3]:

- *Endangered Species*: Any species which is in danger of extinction throughout all or a significant portion of its range.
- *Threatened Species*: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

[3] Source: California and Federal Endangered Species Acts, http://www.dfg.ca.gov/wildlife/nongame/ssc/, http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html, and http://www.cnps.org/cnps/rareplants/ranking.php.

- *Species of Concern*: Any species with declining population levels, limited ranges, and/or other factors that make them vulnerable to extinction and may ultimately qualify the species for threatened or endangered status.
- *Fully Protected*: The classification of Fully Protected was California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Most have subsequently been defined as endangered or threatened, but there are exceptions.
- *Special Animals*: A general term that refers to all of the taxa that CDFW is interested in tracking, regardless of their legal or protection status. Though the species themselves have not declined to the extent that they are listed by one of the classifications noted above (endangered, etc.), such species are closely associated with a habitat that is declining in California.
- *List 1B Plants*: Plants that are rare throughout their range, and have declined significantly over the last century. The majority of plants on this list are endemic to California.
- *List 2 Plants*: The same as List 1B plants, except that List 2 plants are common outside of California.

Potentially affected species are shown in bold.

~~Plate BR -7: Programmatic Level Riparian Habitat Area~~

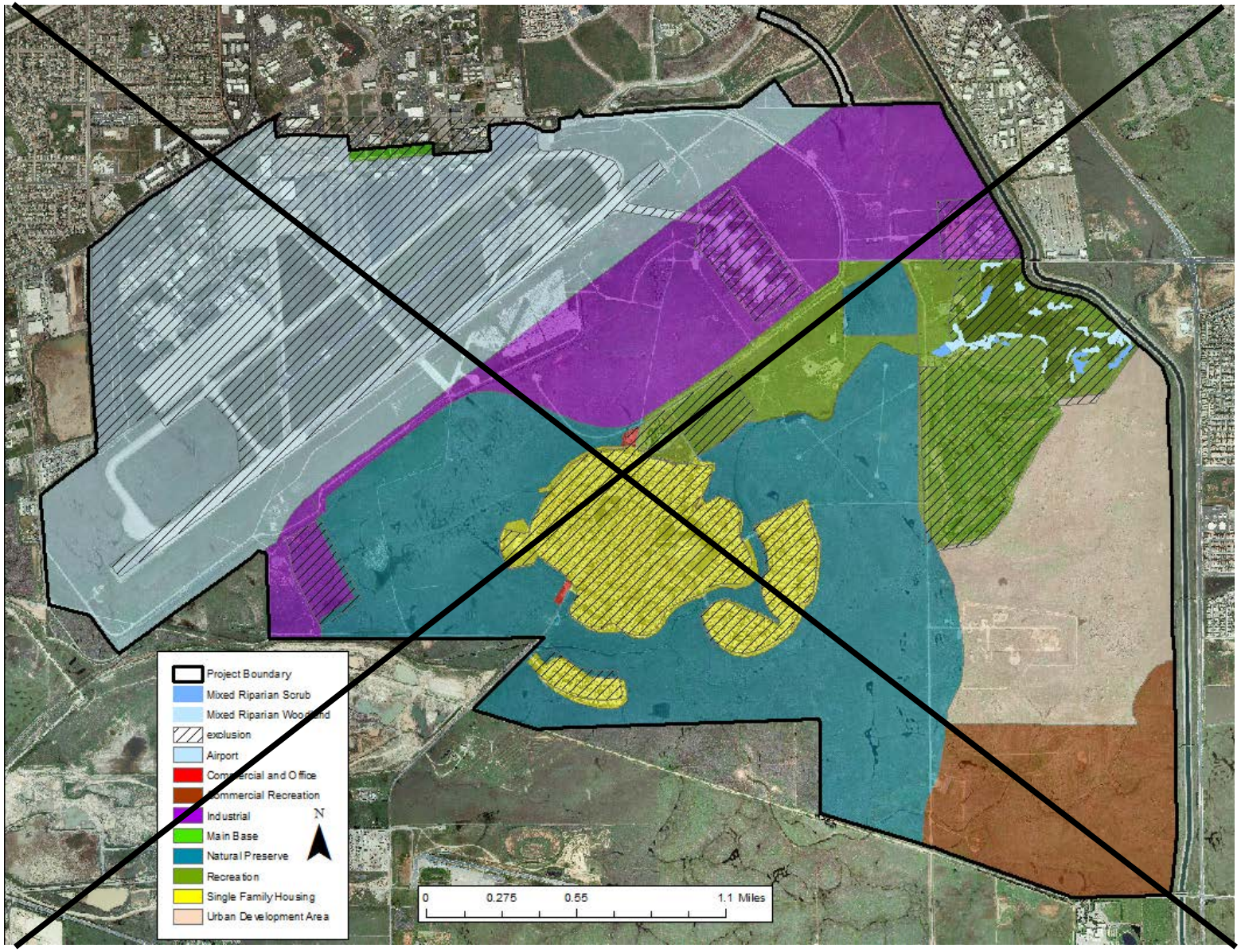


Plate BR -8: Programmatic Level Riparian Habitat Area (Revised)

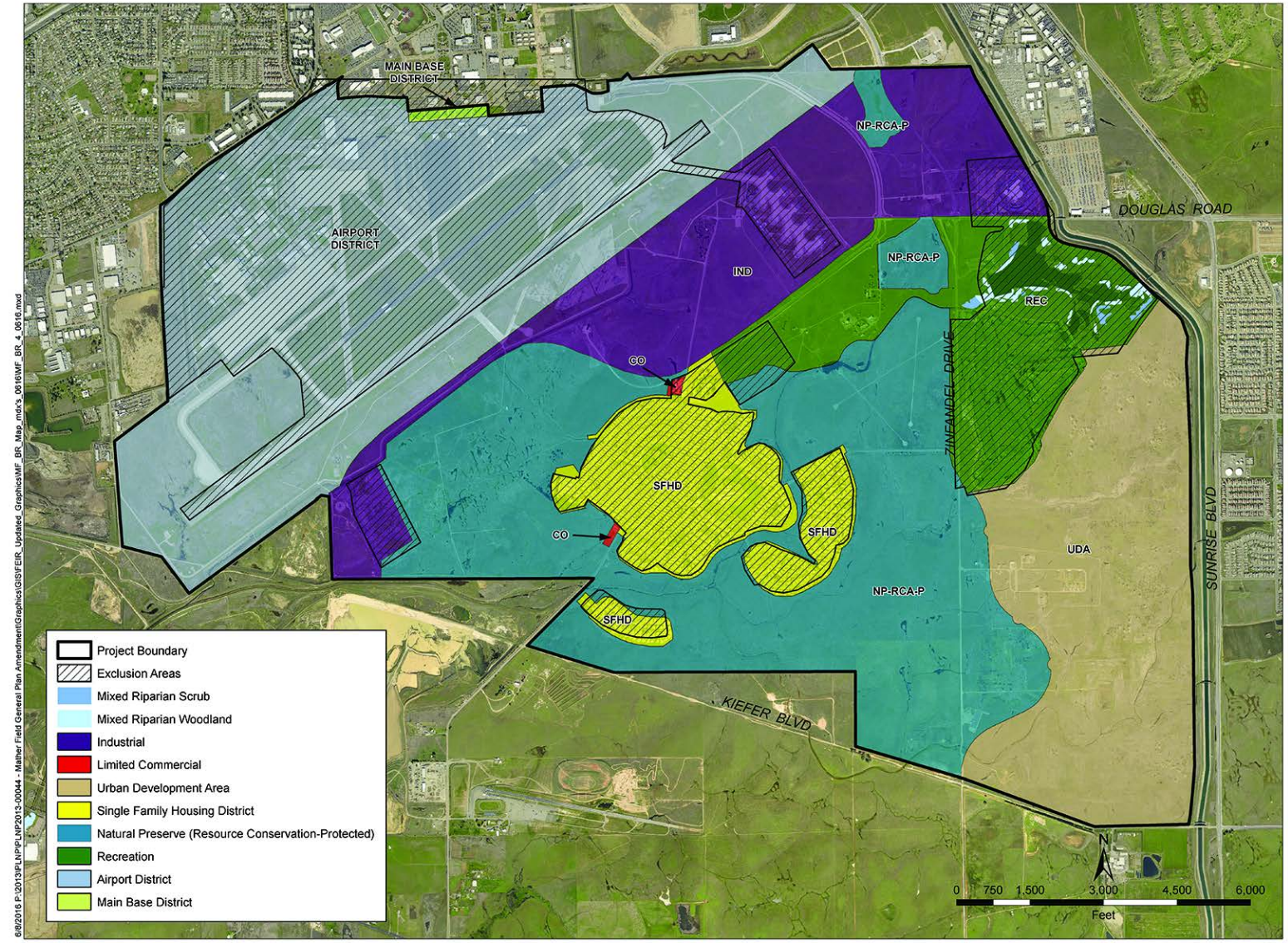


Plate BR -9: Zinfandel Drive/Trunk Sewer Impacts to Riparian Habitat

Plate BR -10: Zinfandel Drive/ Trunk Sewer Impacts to Riparian Habitat Near Woodring Drive

Table BR-5: List of Potentially Affected Species and Habitats

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
FEDERALLY LISTED SPECIES			
Invertebrates			
Branchinecta conservatio Conservancy fairy shrimp	FE/--/--	Occurs in large, turbid vernal pools in the northern two-thirds of the Central Valley. Pools are typically astatic and are formed in old, braided alluvium.	Not likely to affect. Currently this species does not occur in the Mather Core area.
Branchinecta lynchi **Vernal pool fairy shrimp**	FT/--/--	Occurs in vernal pools, seasonally ponded areas within vernal swales, rock outcrop ephemeral pools, playas and alkali flats from Shasta County through most of the length of the Central Valley to Tulare County. Pools are grass or mud bottomed, with clear to tea-colored water, and are often in basalt flow depression pools in grasslands	May affect. Suitable habitat is present in the project site and the species has been recorded from several vernal pools within the project site.
Desmocerus californicus dimorphus **Valley elderberry longhorn beetle**	FT/--/--	Breeds and forages exclusively on elderberry shrubs (*Sambucus mexicana*) typically associated with riparian forests, riparian woodlands, elderberry savannas, and other Central Valley habitats. Occurs only in the Central Valley of California. Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for “stressed” elderberries.	May affect. Suitable habitat is present in the project site. There are no known occurrences of this species within project site. The nearest recorded occurrence is 1.5 miles north of the project site.
Lepidurus packardi **Vernal pool tadpole shrimp**	FE/--/--	Occurs in vernal pools containing clear to highly turbid water.	May affect. Suitable habitat is present in the project site and the species has been recorded from numerous vernal pools within the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Fish			
Hypomesus transpacificus Delta smelt	FT/ST/--	Open surface waters in the Sacramento/San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators.	No effect. No suitable habitat within the project site.
Oncorhynchus mykiss Central Valley steelhead	FT/--/--	This evolutionary significant unit (ESU) enters the Sacramento and San Joaquin Rivers and their tributaries from July to May; spawning from December to April. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays.	No effect. No suitable habitat within the project site.
Oncorhynchus tshawytscha Central Valley spring-run Chinook salmon	FT/ST/--	This ESU enters the Sacramento and San Joaquin Rivers and tributaries March to July; spawning from late August to early October. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays.	No effect. No suitable habitat within the project site.
Oncorhynchus tshawytscha Sacramento River winter-run Chinook salmon	FE/SE/--	This ESU enters the Sacramento River December to May; spawning peaks May and June. Upstream movement occurs more quickly than in spring run population. Young move to rearing areas in and through the Sacramento River, Delta, and San Pablo and San Francisco.	No effect. No suitable habitat within the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Amphibians			
Ambystoma californiense California tiger salamander, central population	FT/CSC/--	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Needs underground refuges and vernal pools or other seasonal water sources.	Not likely to affect. Suitable habitat exists in the project site, although populations have not been documented in this area and surveys of pools have not detected larvae of this species. The nearest recorded occurrence is 12.5 miles southeast of the project site
Rana draytonii California red-legged frog	FT/CSC/--	Breeds in slow moving streams, ponds, and marshes with emergent vegetation and an absence or low occurrence of predators.	Not likely to affect. Potential habitat for this species (perennial streams, ponds, and Mather Lake) is populated by exotic predators, such as bullfrogs and centrarchids. There are no known occurrences in the project site vicinity.
Reptiles			
Thamnophis gigas Giant garter snake	FT/CT/--	Found primarily in marshes, sloughs, drainage canals, and irrigation ditches, especially around rice fields, and occasionally in slow-moving creeks in California's interior.	Not likely to affect. Project site is located outside of the extant range of this species and the nearest recorded occurrence is approximately 10 miles to the southwest. Ditches are well maintained and provide limited habitat opportunities for the species.
Birds			
Aquila chrysaetos **Golden eagle**	BEPA/CFP/--	Forages in open terrain such as grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats.	May affect. Suitable nesting habitat is not present; however the species has been observed foraging within the project site along Zinfandel Drive.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Plants			
Orcuttia tenuis **Slender Orcutt grass**	FT/CE/1B.1	Small annual grass found in vernal pools in valley and foothill grasslands. Blooms: May-September. Elevation: 100 to 5,750 ft.	May affect. Suitable habitat is present within the project site, although no known occurrences have been recorded within the project site. The nearest recorded occurrence is within one mile of the project site.
Orcuttia viscida **Sacramento Orcutt grass**	FE/CE/1B.1	Small annual grass found in vernal pools in valley and foothill grasslands. Blooms: May-June. Elevation: 100 to 350 ft.	May affect. Suitable habitat is present within the project site, although no known occurrences have been recorded within the project site. The nearest recorded occurrence is within one mile of the project site.
Critical Habitat			
Branchinecta lynchi- **Vernal pool fairy shrimp**	Critical Habitat		May affect. Critical Habitat unit occurs within project site.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	Critical Habitat		No effect. Critical Habitat does not occur near the project site.
Lepidurus packardi **Vernal pool tadpole shrimp**	Critical Habitat		May affect. Critical Habitat unit occurs within project site.
Oncorynchus mykiss Central Valley steelhead	Critical Habitat		No effect. Critical Habitat does not occur near the project site.
Orcuttia tenuis **Slender Orcutt grass**	Critical Habitat		May affect. Critical Habitat unit occurs within project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Orcuttia viscida **Sacramento Orcutt grass**	Critical Habitat		May affect. Critical Habitat unit occurs within project site.
STATE/LOCAL PROTECTED SPECIES			
Amphibians			
Spea hammondii **Western spadefoot**	--/CSC/--	Occurs seasonally in grasslands, prairies, chaparral, and woodlands, in and around wet sites. Breeds in shallow, temporary pools formed by winter rains. Takes refuge in burrows.	May affect. Suitable habitat is present in the project site and the species has been recorded from several vernal pools within the project site.
Reptiles			
Actinemys marmorata marmorata **Western pond turtle**	--/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	May affect. Suitable habitat is present in the project site and the species has been recorded within the project site.
Birds			
Agelaius tricolor **Tricolored blackbird**	--/CSC/--	Nests in colonies within vicinity of fresh water/ marshy areas. Colonies prefer heavy growths of cattails and tules.	May affect. Suitable nesting habitat is present within the project site. The species has been observed south of Mather Lake and along the southeastern border of the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Asio flammeus **Short-eared owl**	--/CSC/--	Require open country that supports concentrations of rodents and herbaceous cover sufficient to conceal their ground nests from predators. Suitable habitats may include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures.	May affect. Suitable nesting habitat is present within the project site, and has been documented within the project site.
Athene cunicularia **Western burrowing owl**	--/CSC/--	Found in open grasslands with low vegetation, golf courses, and disturbed/ruderal habitat in urban areas.	May affect. Suitable nesting habitat is present within the project site, and burrowing owls are known to nest throughout the project site.
Buteo regalis ***Ferruginous hawk***	--/--/--	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Listed for preservation of wintering habitat.	Moderate Potential. The nearest recorded occurrence is just under six miles west of the site. The site contains foraging habitat for the species.
Buteo swainsoni **Swainson's hawk**	--/CT/--	Forages in open and agricultural fields and nests in mature trees usually in riparian corridors.	May affect. Suitable nesting habitat is present within the project site, although no known nesting occurrences have been recorded within the project site. The species has been observed foraging over grasslands within the project site.
Circus cyaneus **Northern harrier**	--/CSC/--	Forages in grasslands, freshwater marsh; nests in agricultural fields and other open habitat.	May affect. Suitable nesting habitat is present within the project site, although no known nesting occurrences have been recorded within the project site. The species has been observed foraging and perching throughout the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Elanus leucurus **White-tailed kite**	--/CFP/--	Forages in open grasslands and agricultural fields and marshes. Nests in scattered mature trees within foraging habitat.	May affect. Suitable nesting habitat is present within the project site, and the species has been recorded nesting at Mather Lake. The species has been observed foraging throughout the project site.
Lanius ludovicianus **Loggerhead shrike**	--/CSC/--	Breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. Require tall shrubs, trees, fences or power lines for hunting perches; open areas of short grasses, forbs, or bare ground for hunting; and large shrubs or trees for nest placement.	May affect. Suitable nesting and foraging habitat within project site. The species has been observed foraging and perching throughout the project site.
Picoides nuttalli *Nuttall's woodpecker*	--/--/--	A common, permanent resident of low-level deciduous and oak habitats. Nests located mostly in riparian habitat in dead trunk or limb of willow, sycamore, cottonwood, or alder. Forages mostly in oak and riparian deciduous habitat.	May affect. Suitable foraging and nesting habitat on site.
Riparia riparia Bank swallow	--/ST/--	Banks of rivers, creeks, lakes, and seashores; nests in excavated dirt tunnels near the top of steep banks.	No effect. No suitable nesting habitat within the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Mammals			
Taxidea taxus **American badger**	--/CSC/--	Found in dry, open grasslands, fields, and pastures.	May affect. Suitable habitat is present within the project site. Although this species has not been observed within the project site, several dens have been documented in the banks of drainage channels in the project site, one south of Independence at Mather and two east of Zinfandel Drive.
Plants			
Gratiola heterosepala **Boggs Lake hedge-hyssop**	--/CE/1B.2	Annual herb found along the margins of marshes and swamps and in vernal pools with clay soil. Blooms April-August. Elevation: 30 to 7,800 ft.	May affect. Suitable habitat is present within the project site, and the species has been recorded from several vernal pools within the project site. This species has not been observed with the project site since 2000.
Juncus leiospermus **var.** ***ahartii*** **Ahart's dwarf rush**	--/--/1B.2	Annual herb found along vernal pool margins and vernal swales. Blooms March-May. Elevation: 100 to 750 ft.	May affect. Suitable habitat is present within the project site, and the species has been recorded from several vernal pools within the project site.
Legenere limosa **Legenere**	--/--/1B.1	Annual herb found in vernal pools. Blooms April-June. Elevation: 0 to 2,900 ft.	May affect. Suitable habitat is present within the project site, and the species has been recorded from several vernal pools within the project site
Sagittaria sanfordii **Sanford's arrowhead**	--/--/1B.2	Perennial, rhizomatous, emergent herb found in marshes, swamps, and assorted shallow freshwater habitats. Blooms: May-October. Elevation: 0 to 2,000 ft.	May affect. Suitable habitat is present within the project site, and this species has been observed growing along a perennially wet drainage within the project site.

Species	Status Federal/ State/ CNPS	Suitable Habitat	Potential for Project to Affect
Natural Communities			
Northern Hardpan Vernal Pool	Natural Community		May affect. Natural community occurs within project site.

STATUS CODES:

Federal
FE = Endangered
FT = Threatened
FC = Candidate
BEPA = Bald Eagle Protection Act

State
CE = Endangered
CT = Threatened
CR = RareN
CFP = Fully Protected
CSC = (CA) Department of Fish and Wildlife Special Concern species

California Native Plant Society
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 = Plants about which we need more information--a review list
List 4 = Plants of limited distribution--a watch list

0.1 = Seriously endangered in California
0.2 = Fairly endangered in California
0.3 = Not very endangered in California

SOURCE: CDFW, 2012, USFWS, 2012b

IMPACTS TO VERNAL POOL HABITAT AND SPECIAL STATUS INVERTEBRATES

PROGRAMMATIC LEVEL IMPACTS VERNAL POOL SPECIES

Vernal pools, vernal swales and seasonal wetlands throughout the project site are known to support special status species including populations of the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. Plate BR -9 details the extent of habitat suitable to support vernal pool species. The project would result in direct and indirect effects to this suitable habitat.

Potential direct and indirect effects to suitable habitat for vernal pool species are summarized in Table BR-6 and Plate BR -10. Direct effects would occur if suitable habitat for vernal pool species is affected by site grading or other ground disturbing activities. In calculating direct effects to habitat for vernal pool species, it is assumed that if any portion of a vernal pool, vernal swale or seasonal wetland is directly affected by site grading or other ground disturbing impacts, then the entire feature is directly affected. Direct effects to dispersal habitat such as channels and streams were limited only to the portions of the feature within the disturbance area. Indirect effects may occur if proposed activities within 250 feet of suitable habitat alter the surface and/or subsurface hydrology of the area.

In regard to indirect effects, federal regulatory agencies recognize the potential for indirect impacts associated with construction and development that may occur adjacent to vernal pool habitat. The USACE/USFWS February 1996 Programmatic Formal Endangered Species Act Consultation indicates that all habitat within 250 feet of proposed development may be subject to indirect impacts. Indirect impacts can include but are not limited to polluted runoff and other urban contaminants, dust and siltation, the introduction of non-native species, and hydrologic changes. The federal guidelines are applicable to all suitable habitat whether it is supplied with water through direct precipitation, overland drainage, or subsurface flows.

Although the USACE/USFWS February 1996 Programmatic Formal Endangered Species Act Consultation indicates that all habitat within 250 feet of proposed development may be subject to indirect impacts, more recent scientific studies seem to suggest that the surface and subsurface hydrogeology in vernal pool landscapes can vary based on location-specific conditions, and strict application of the 250-foot methodology may not be applicable in all circumstances. A surface watershed or catchment methodology may be a more scientific representation of the potential impacts associated with development in areas containing vernal pool habitat. The watershed methodology uses LIDAR (light detection and ranging) to measure surface topography, and Geographic Information Systems (GIS) analysis with computer modeling to render surface microwatersheds for the wetlands in the project area. LIDAR is an optical remote-sensing technique that uses laser light to densely sample the surface of the earth, producing highly accurate three-dimensional measurements. At this time, it is unknown whether the USFWS and USACE will accept the watershed methodology for this project's wetland impact analysis, though surface watershed modeling has been performed by Dudek to define surface watersheds

in the Urban Development Area and the area slightly west of the realigned Zinfandel Drive. The wetland impact calculations reported in this EIR use the methodology described in the 1996 Programmatic Agreement.

The studies mentioned above include "Hydrology of Vernal Pools on Non-Volcanic Soils in the Sacramento Valley" (Hanes and Stromberg, 1998) and "The Role of Perched Aquifers in Hydrological Connectivity and Biogeochemical Processes in Vernal Pool Landscapes" (Rains, et al, 2006). The Hanes and Stromberg study was conducted directly east of Mather Field, across Sunrise Boulevard between Douglas Road and Kiefer Boulevard. The Rains study was conducted at Mather Regional Park, within the boundaries of the project site. Generally, both studies were conducted to assess the relative importance of direct precipitation, overland flow, and subsurface flow on the water level regimes of vernal pools underlain by a claypan or duripan. According to the Rains study, "perched groundwater discharge accounted for 30-60% of the inflow to the vernal pools [in the study] during and immediately following storm events." Given that the Rains study was conducted on a relatively small subset of the vernal pools at Mather Field and varying soil conditions exist in different parts of Mather Field due to disturbance associated with Air Force activities and the construction of the Folsom South Canal, a broad conclusion regarding rates of subsurface water flow cannot be applied to the larger vernal pool landscape within the project area.

This is a highly technical area in which there is some disagreement among experts in the field of hydrogeology. For example, the rate and distance of subsurface flow can vary depending site-specific circumstances. The two studies cited above are representative of two methodologies. According to the studies, Hanes and Stromberg (1998) conducted a bromide tracer study and found the majority of the bromide traveled 30 feet down gradient in the subsurface in 13-18 days, for an approximate groundwater velocity of 1.7 to 2.3 feet per day. Some of the bromide, however, reached the down-gradient trench in a few days, clearly traveling at a faster rate. Rains et al, (2006) did not measure groundwater velocity or horizontal hydraulic conductivity in the soils hosting the perched groundwater. Instead, the Rains study cites literature suggesting that the hydraulic conductivity of Redding soils is between 0.33 to 3.3 feet per day. It is generally acknowledged that direct precipitation, surface flow and subsurface flow of perched groundwater contribute to the functionality of the vernal pool ecosystem. The amount of perched groundwater entering a vernal pool depends on the subsurface groundwater gradient, the thickness of the soil, and the annual precipitation, with higher groundwater contributions in wetter years. As noted in the Rains study, local land use changes "may have considerable impacts on the vernal pools nearby. The degree to which small changes in local land use might affect the vernal pools is poorly understood, because the fundamental hydrogeological characteristics of perched aquifers remain relatively unexplored."

The proposed project does not include a specific development proposal for the Urban Development Area. As stated in the Project Description chapter, future development in the UDA will be subject to a separate master planning process that includes additional technical studies and associated environmental review. The future environmental review associated with the master planning process for the proposed Urban Development Area will include a detailed drainage study, consistent with County standards described in the Hydrology and Water Quality chapter. In order to maintain the functionality of the vernal pool ecosystem in the proposed preserve, it is important to maintain the surface hydrologic regime associated with flows entering the preserve from the Urban Development Area. As described above, the contribution of subsurface flows is not well understood, and may be difficult to quantify. It is anticipated that an analysis of the potential impacts of the future UDA development on the hydrologic regime of the wetland preserve will be conducted.

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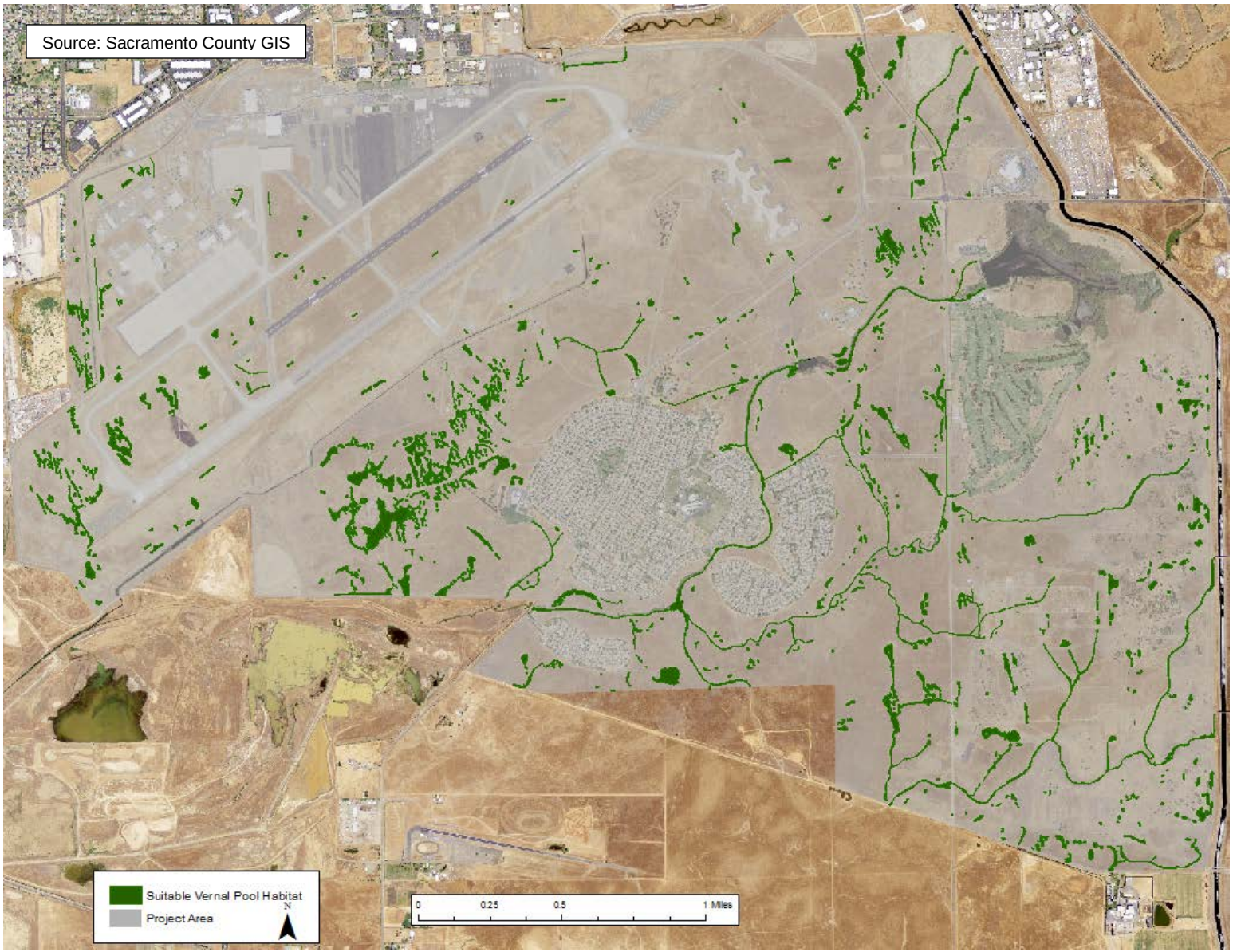
Plate BR -11: Mather Field Suitable Vernal Pool Habitat



~~Plate BR -12: Programmatic Level Impacts to Suitable Vernal Pool Habitat~~

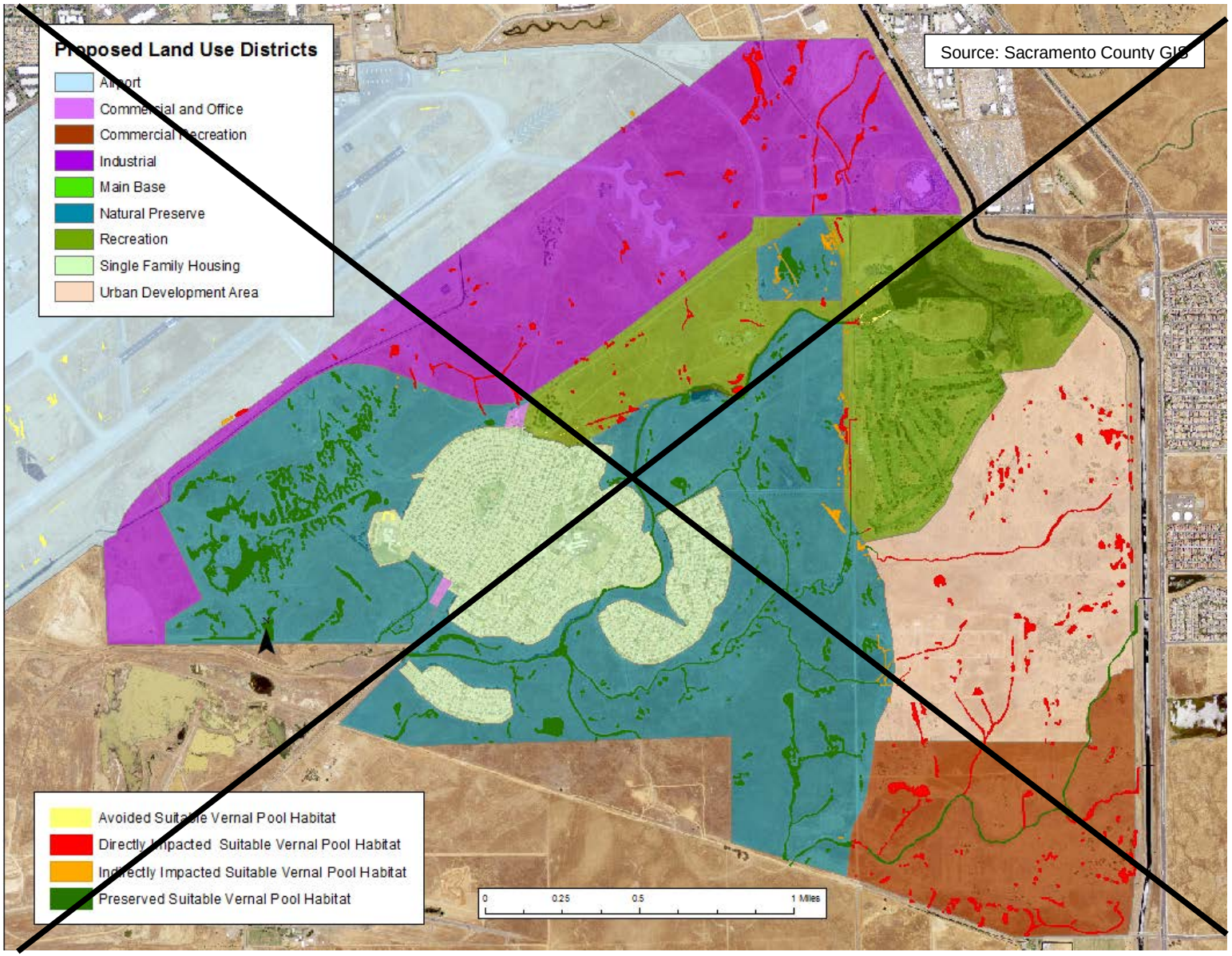


Plate BR -13: Programmatic Level Impacts to Suitable Vernal Pool Habitat (Revised)

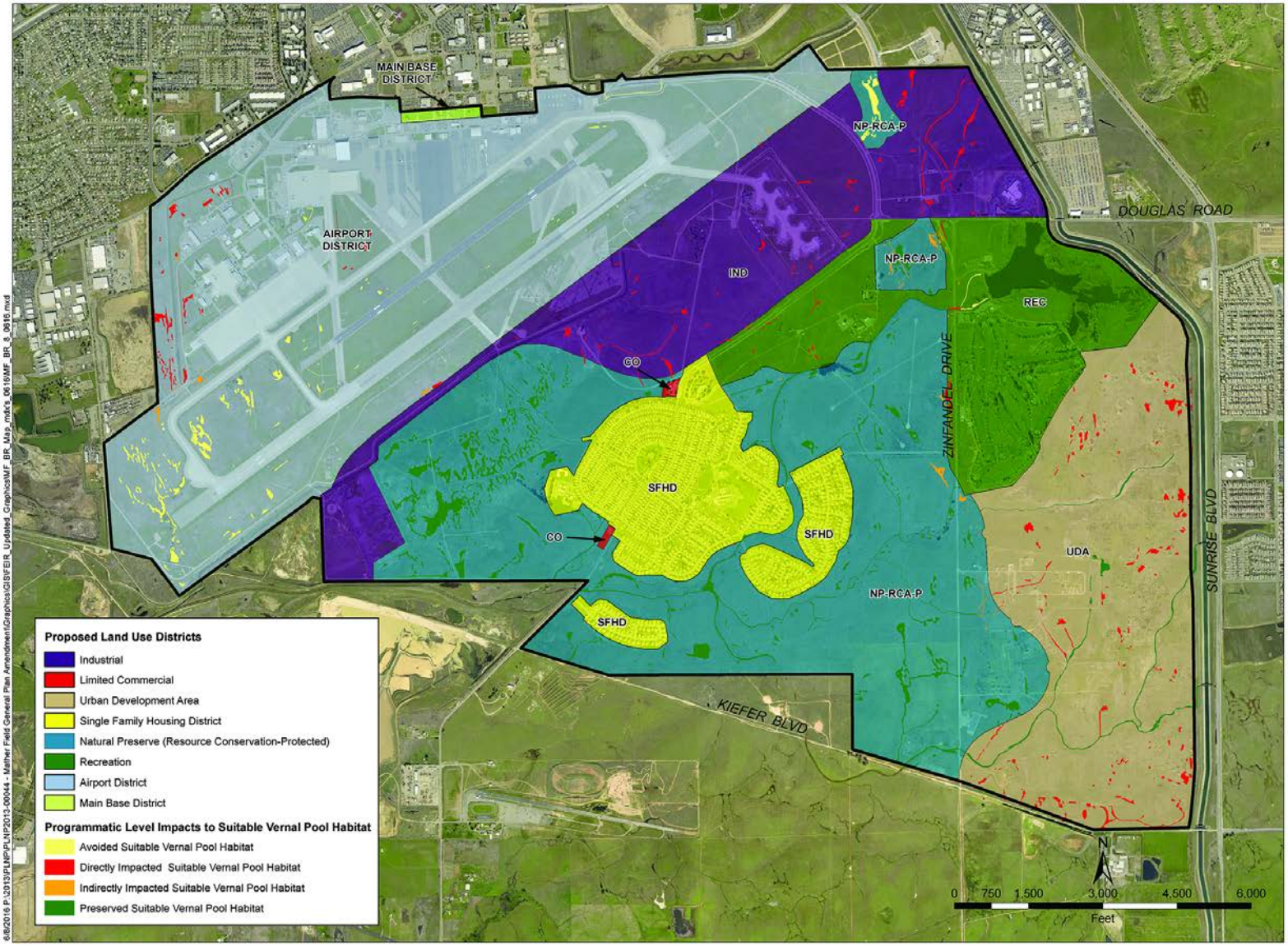


Table BR-6: Impacts to Suitable Vernal Pool Habitat

	Direct Impact (ac)	Indirect Impact (ac)
Suitable VP Habitat	~~**36.48**~~ **29.99**	~~**3.50**~~ **8.37**

Based on this evaluation, future development consistent with the proposed project would result in the direct loss of approximately ~~36.48~~ **29.99** acres of suitable habitat for vernal pool species. Furthermore, project development would indirectly affect up to ~~3.50~~ **8.37** acres of habitat for vernal pool species located in the proposed Natural Preserve and Mather Airport north of the Industrial District.

The direct loss of suitable habitat for these species, including the direct take of species, represents a potentially significant impact. In addition, the proximity of proposed activities to habitat for vernal pool species presents the possibility of secondary (indirect) effects to the habitat due to project-related disturbance. Deterioration of habitat for vernal pool species could result from the introduction of non-native invasive plant species, decreases in water quality due to erosion or sedimentation, changes in surface or subsurface hydrology, and human intrusion. Therefore, potential indirect effects to suitable habitat are also considered a potentially significant impact

Although there is anticipated to be substantial impacts to suitable vernal pool habitat and related species, a number of mitigation strategies are currently in place to reduce impacts to vernal pool habitat at Mather Field. The Mather Field Specific Plan EIR (Control Number 1995-0669) analyzed environmental impacts associated with the adoption of the Mather Field Specific Plan and the general land use designations that currently exist at Mather Field and includes a list of mitigation measures that were designed to reduce impacts associated with biological resources, including special status vernal pool species. The mitigation measures in the 1995 EIR generally recommended that:

- Wetland delineations be prepared for Mather Field,
- surveys be conducted to describe the extent of special status species on the site, and
- a comprehensive mitigation plan be created in consultation with regulatory agencies to demonstrate how impacts to wetlands and special status species will be reduced to less than significant levels.

Since the Mather Field Specific plan was adopted, substantial effort has been given to meeting these measures and, as noted above, several habitat assessments have taken place at Mather Field and in depth discussions have taken place with regulatory agencies in order to develop an appropriate mitigation strategy for onsite habitat. Additionally, an IWMP has been created to, in part, describe a methodology intended to reduce impacts associated with vernal pool habitat and to preserve and manage vernal pool habitat within the proposed Natural Preserve. Furthermore, permit applications for fill into wetlands have been submitted to the Corps and a biological assessment has been completed to document potential affected special status species at Mather Field

and proposed minimization efforts to reduce impacts to species to less than significant levels.

Currently, based on the studies conducted and discussions with regulatory agencies, the mitigation strategy at Mather Field includes a proposal intended to fund, manage, restore and protect in perpetuity (through an endowment, wetlands management plan, and conservation easements) suitable habitat for vernal pool species, including approximately ~~65.30~~ **66.1** acres of habitat within an on-site Natural Preserve, ~~and 3.58~~ **5.98** acres within a riparian buffer area, **and 0.87 acres for vernal pools that will be avoided**.

Even with the preservation and restoration of suitable habitat within the proposed Natural Preserve and Riparian Buffer, impacts to habitat may occur from construction activities and adjacent development. Mitigation to minimize these impacts have been developed and presented to the Corps and USFWS in the BA prepared for the project. The additional measures include:

- The preparation of a comprehensive drainage plan to ensure that proposed development would not result in detrimental increases to downstream stormwater flows,
- the use of best management practices to provide erosion and sediment control from construction sites,
- the implementation of a Worker Environmental Awareness Program for workers engaged in construction activities in the area, limiting access routes and staging areas,
- the use of a biological monitor and protective fencing during construction activities.

The measures included in the BA will reduce impacts to a less than significant level. However, because consultation is ongoing and the proposed mitigation strategy has not been finalized at the time of the writing of this document, standard programmatic consultation mitigation measures are recommended to ensure impacts are less than significant in the event that the proposed methodology is not approved.

Programmatic consultation indicates that mitigation for direct and indirect impacts be determined using preservation and creation ratios. Based on standard mitigation ratios the proposed project would require the preservation of ~~72.96~~ **59.98** acres of vernal pool habitat (at a 2:1 ratio) and the creation of ~~36.48~~ **29.99** acres of new vernal pool habitat (at a 1:1 ratio) for direct impacts. Additionally, to account for indirect impacts, additional preservation mitigation would be required totaling ~~7~~ **16.74** acres (at a 2:1 ratio). In total the project would be required to preserve ~~79.96~~ **76.72** acres of suitable vernal pool habitat and create ~~36.48~~ **29.99** acres.

Because only ~~68.88~~ **72.95** acres of suitable vernal pool habitat is proposed to be preserved on site additional acres would be required to meet the remaining mitigation requirements based on standard mitigation ratios. Mitigation Measure BR-6 is recommended requiring standard mitigation ratios for impacts to vernal pool habitat, or,

if the current on site restoration proposal is found adequate by the appropriate regulatory agencies, requiring that the mitigation strategy presented in the BA is implemented. With Mitigation Measures BR-2 and BR-6 impacts will be ***less than significant***.

PROJECT LEVEL IMPACTS TO VERNAL POOL SPECIES

As a part of the consultation process for the previous roadway construction, the USFWS determined that eleven wetland features within 250 feet of the roadway would not be indirectly impacted by the construction of the road. These features (A3, P283, P299, P300, P301, P302, P303, P304, P305, P308, and P309), were excluded from indirect impact calculations for several reasons. Feature A3 was excluded because of a grade break between it and the planned road, ensuring that there would be no hydrologic impact from the construction of the road. Additionally, the County agreed to use rubberized asphalt for the construction of the road and incorporate a bioswale on the west side of the roadway. These construction practices further minimized any chance of indirect hydrologic impacts to the wetland feature during the operation of the road. The remaining ten features were excluded from indirect impact calculations due to the fact that they are situated west of the abandoned section of the Eagles Nest Road alignment, which in turn is situated between the wetlands and the Zinfandel Drive construction area. The abandoned roadway acted as a barrier to any hydrologic impacts that might have come about from the planned construction of the roadway. This same methodology is utilized in this this section in order to assess impacts to vernal pool features.

Direct and indirect impacts to potentially suitable habitat for federally listed vernal pool invertebrates have been calculated for the Zinfandel Drive and trunk sewer construction. All suitable habitat (vernal pools, vernal swales, vernal wetlands, and seasonal wetlands) that would be directly impacted by the footprint of the project are considered directly impacted in their entirety, even if only a portion of the feature is within the actual footprint of the proposed project. Indirect impacts to suitable habitat were calculated using a 250 buffer from the edge of the construction footprint. The portions of wetland features that are within this 250 foot area were determined to be indirectly impacted. Indirect impacts do not extend beyond 250 feet, even if a feature itself extends beyond the 250 feet. This determination is based on the fact that no fill or direct disturbance will occur within any feature outside of the construction footprint; thus the integrity of these features is not compromised. Where existing barriers occur within the 250 foot indirect impact area (e.g. roads), indirect impacts were not calculated beyond the existing barriers. Table BR-7 details the amount of direct and indirect impacts to vernal pool habitat that will result from the proposed extension of the Zinfandel Drive and trunk sewer. Plate BR -12 shows the direct and indirect effects to suitable habitat for vernal pool species associated with the Zinfandel Drive and trunk sewer extension proposal.

A geotechnical engineering report has been prepared for the proposed trunk sewer line by Wallace, Kuhl and Associates (Appendix BR-1). Concerns were raised in comment letters on the Draft EIR and public testimony at the September 2015 Board of Supervisors hearing on the project regarding the potential for trenching associated with the sewer line construction to disrupt the hardpan soil

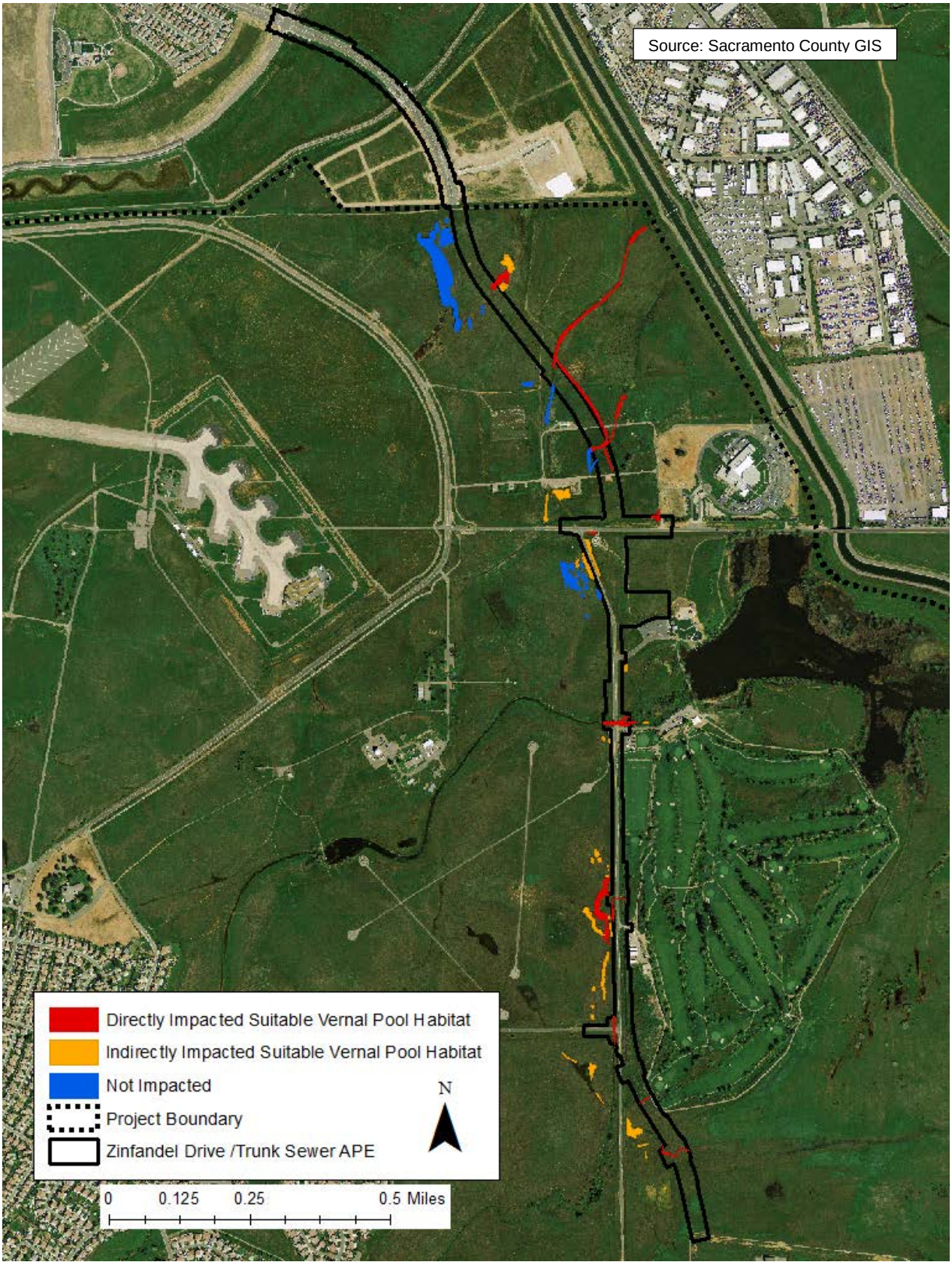
layer. The comments indicated that disruption of the hardpan layer may affect the subsurface hydrology of the vernal pools in close proximity to the sewer line construction activity. These types of impacts are referred to as indirect impacts in the Programmatic Agreement. In response to these concerns, County staff has consulted with geotechnical experts and registered professional hydrogeologists with Wallace, Kuhl and Associates, Wood Rodgers, and Dudek to develop a plan to perform field infiltration tests. identify the upper soil profile characteristics above the hardpan, and to verify the relatively impervious nature of the hardpan. The previous Mitigation Measure BR-7 has been modified to require preparation and implementation of a hardpan restoration plan that will incorporate the results of the testing plan described above. The hardpan restoration plan will be implemented during construction of the trunk sewer line to ensure that the functionality of the hardpan layer in maintaining subsurface flow is restored following construction of the sewer trunk line.

Table BR-7: Impacts to Suitable Vernal Pool Habitat

	Direct Impact (ac)	Indirect Impact (ac)
Suitable VP Habitat	**2.31***	**1.90**
*This total does not include 0.05 acres of Seasonal Wetland A30 which is now a culvert beneath the recently constructed portion of Zinfandel Drive.		

Programmatic consultation indicates that mitigation for direct and indirect impacts be determined using preservation and creation ratios. Based on standard mitigation ratios for direct impacts, the preservation vernal pool habitat at a 2:1 ratio and the creation of new vernal pool habitat at a 1:1 ratio would be required. Additionally, to account for indirect impacts, additional preservation mitigation would be required at a 2:1 ratio.

Plate BR -14: Project Level Impacts to Suitable Vernal Pool Habitat



Although direct impacts are expected to total 2.31 acres, four wetland features (A15, A16, P314 and E132), totaling 12,941 square feet (.30 ac), were assumed to have indirect impacts from the construction of the existing segment of Zinfandel Drive and were previously mitigated for with 2:1 preservation. Therefore, only 1:1 restoration is needed for the now direct impact to these four features. Given previous mitigation, using standard mitigation methods to account for direct impacts, the preservation requirement for the Zinfandel Drive/ trunk sewer extension will be based on an impact area of 2.01 acres while the creation requirement will be based on an impact area of 2.31 acres.

Also, although indirect impacts are expected to total 1.90 acres, three features (A17, P310 and E129b), totaling 19,583 square feet (0.45 ac) in size, were assumed to have indirect impacts from the construction of the existing segment of Zinfandel and were previously mitigated with 2:1 preservation. Therefore, no additional mitigation is needed for potential indirect impacts due to the sewer installation for these features. Indirect impact mitigation requirements will be based on an indirect impact area of 1.45 acres.

Based on standard mitigation ratios the Zinfandel Drive/ trunk sewer extension would require the preservation of 4.02 acres of vernal pool habitat (at a 2:1 ratio) and the creation of 2.31 acres of new vernal pool habitat (at a 1:1 ratio) for direct impacts. Additionally, to account for indirect impacts, additional preservation mitigation would be required totaling 2.90 acres (at a 2:1 ratio). In total the project would be required to preserve 6.92 acres of suitable vernal pool habitat and create 2.31 acres.

Mitigation Measure BR-7 is recommended requiring standard mitigation ratios for impacts to vernal pool habitat, or, if the current on site restoration proposal is found adequate by the appropriate regulatory agencies, requiring that the mitigation strategy presented in the BA is implemented. With Mitigation Measures BR-2 and BR-7 impacts will be ***less than significant***.

VALLEY ELDERBERRY LONGHORN BEETLE

PROGRAMMATIC LEVEL IMPACTS TO VALLEY ELDERBERRY LONGHORN BEETLE

Reconnaissance-level surveys of the project site identified the presence of elderberry shrubs that provide suitable habitat for valley elderberry longhorn beetle (VELB). Surveys were conducted by WRA in 2004 and by County Staff in 2010 for an unrelated project (NSA Pipeline). These shrubs are located in the proposed UDA, Commercial Recreation and Natural Preserve districts as well as the excluded area adjacent to the dam of Mather Lake (refer to ~~Plate BR -13~~). Future development consistent with the proposed project has the potential to adversely affect this species by adversely impacting suitable elderberry shrubs.

While no exit holes were documented by these surveys, the shrubs represent potential habitat for all stages of the VELB's life cycle (Wetlands Research Associates, 2004c). Therefore, removal or degradation of elderberry shrubs may adversely affect VELB and limit management opportunities for its recovery. This impact is considered potentially significant. With recommended Mitigation Measure BR-8 requiring pre construction

surveys and habitat compensation where applicable, impacts would be reduced to a ***less than significant*** level.

PROJECT LEVEL IMPACTS TO VALLEY ELDERBERRY LONGHORN BEETLE

Additional surveys were conducted for the proposed Zinfandel Drive/ trunk sewer extension. Surveys in this area were more refined and complete due to the greater amount of detail known related to proposed construction activities for this area. Two elderberry shrubs were recorded within the proposed Zinfandel Drive/ trunk sewer work area near Woodring Drive (refer to ~~Plate BR -13~~) and will need to be removed to allow for project related construction activities. Table BR-8 summarizes elderberry shrub details with the proposed Zinfandel Drive/trunk sewer work area. While no exit holes were documented by these surveys, the shrubs represent potential habitat for all stages of the VELB's life cycle.

Table BR-8:Zinfandel Drive/ Trunk Sewer Elderberry Shrubs

	Exit Holes	***Riparian Area***	**# Stems = 1"-3"**	**# Stems = 3"-5"**
Elderberry Shrub #1	*no*	*no*	2	0
Elderberry Shrub #2	*no*	yes	2	1

The Conservation Guidelines for the Valley Elderberry Longhorn Beetle (Conservation Guidelines)[4] indicate that complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. U.S. Fish and Wildlife Service must be consulted before encroachment within this buffer would be allowed, and also requires minimum protective measures and restoration measures for any encroachment. The Conservation Guidelines indicate that the minimum protection measures include fencing and flagging the avoidance areas, training contractors and employees about the need to avoid the plants, and posting signs along the edge of the avoidance area with a standardized message about avoiding impacts. Minimum restoration activities include revegetating disturbed areas within the 100-foot buffer, protection of the buffered area from post-construction impacts (establishment of fencing, signs, weeding, and trash removal), prohibition on the use of pesticides or fertilizers within the buffer, and restrictions on grass mowing (for fire hazard reduction).

The Conservation Guidelines indicate that, unless U.S. Fish and Wildlife Service exempts a project from the requirement, all elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level and which cannot be avoided must be transplanted to a conservation area. A list of guidelines for transplanting elderberry shrubs and trees is included which specifies that transplantation must occur

[4] United States Fish and Wildlife Service, "Conservation Guidelines for the Valley Elderberry Longhorn Beetle", July 1999

during dormancy (November through the first two weeks of February) and that a biological monitor must be present. Detailed instructions for appropriate transplantation are also included. In cases where an exemption to transplantation is approved, additional seedlings or cuttings must be planted based on the ratios established in Table BR-9.

Table BR-9: Mitigation Ratios for Elderberry Plant Removal

Location	Stems (maximum diameter at ground level)	Exit holes on shrub[1]: yes or no (quantify)	Elderberry seedling ratio[2]	Associated native plant ratio[3]
Non-riparian	Stems ≥ 1" & ≤ 3"	No:	1:1	1:1
		Yes:	2:1	2:1
Non-riparian	Stems > 3" & < 5"	No:	2:1	1:1
		Yes:	4:1	2:1
Non-riparian	Stems ≥ 5"	No:	3:1	1:1
		Yes:	6:1	2:1
Riparian	Stems ≥ 1" & ≤ 3"	No:	2:1	1:1
		Yes:	4:1	2:1
Riparian	Stems > 3" & < 5"	No:	3:1	1:1
		Yes:	6:1	2:1
Riparian	Stems ≥ 5"	No:	4:1	1:1
		Yes:	8:1	2:1

[1] All stems measuring one inch or greater in diameter at ground level on a single shrub are considered occupied when exit holes are present anywhere on the shrub.

[2] Ratios in the Elderberry Seedling Ratio column correspond to the number of cuttings or seedlings to be planted per elderberry stem (one inch or greater in diameter at ground level) affected by a project.

[3] Ratios in the Associated Native Plant Ratio column correspond to the number of associated native species to be planted per elderberry (seedling or cutting) planted.

Elderberry shrub #1 is outside of a riparian area while elderberry shrub #2 is noted to be within a small streamside riparian area. No exit holes were observed within either of the shrubs. Based on USFWS guidelines, potential mitigation ratio for shrub #1 is 1:1and two elderberry seedlings or cuttings must be planted to compensate for its removal. The mitigation ratio for shrub #2 is 2:1 for two stems and 3:1 for one stem and 5 elderberry seedling or cuttings must be planted to compensate for its removal. This ratio may be altered if the USFWS requires transplantation rather than, or in addition to, credit purchase.

In addition to the elderberry plantings, associated native plant plantings will need to accompany the elderberry plantings. The associated native plant ratio is 1:1 for the for the elderberry stems greater than 1 inch to be removed and 5 associated native plant planting, consistent with USFWS guidelines, is required.

~~Plate BR -15: Elderberry Shrub Locations~~

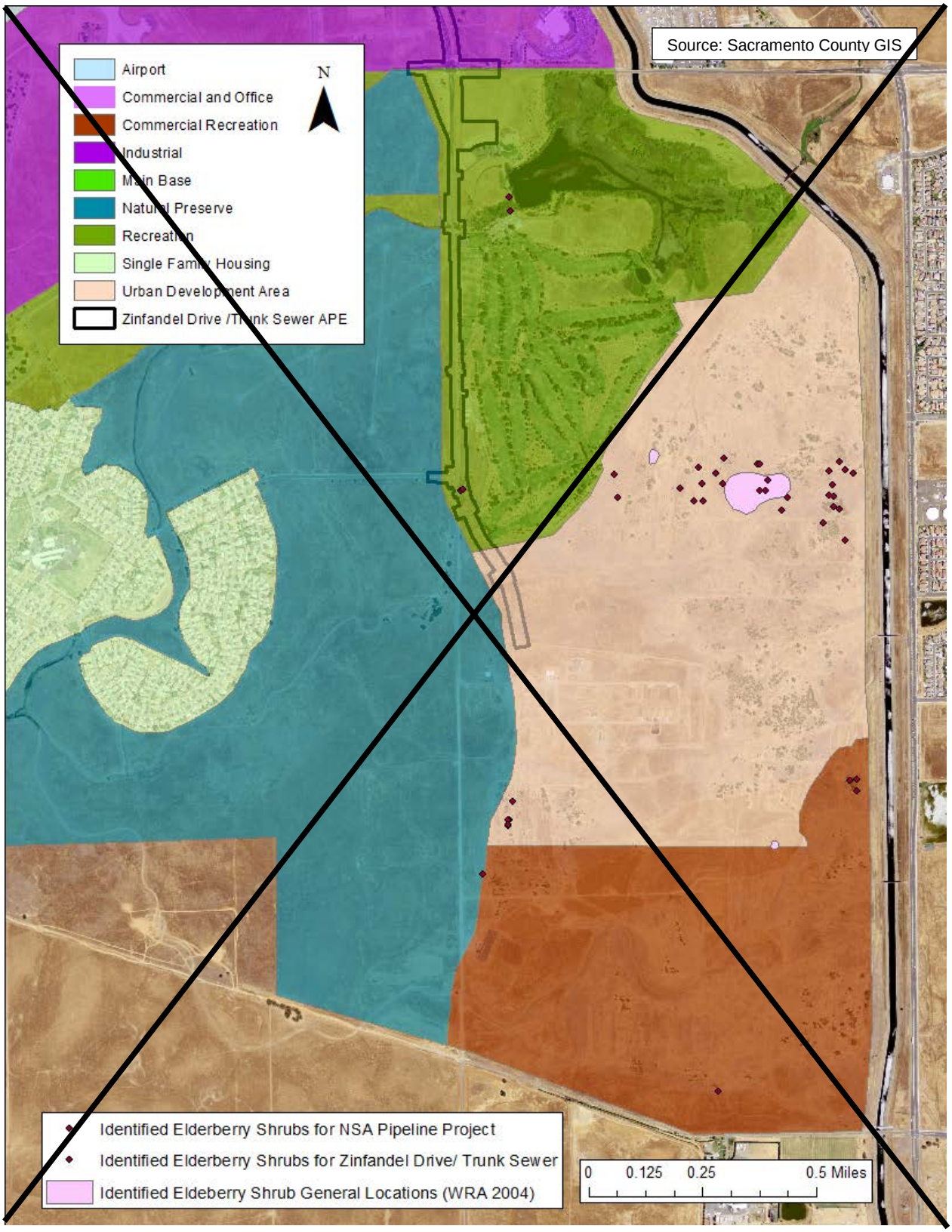
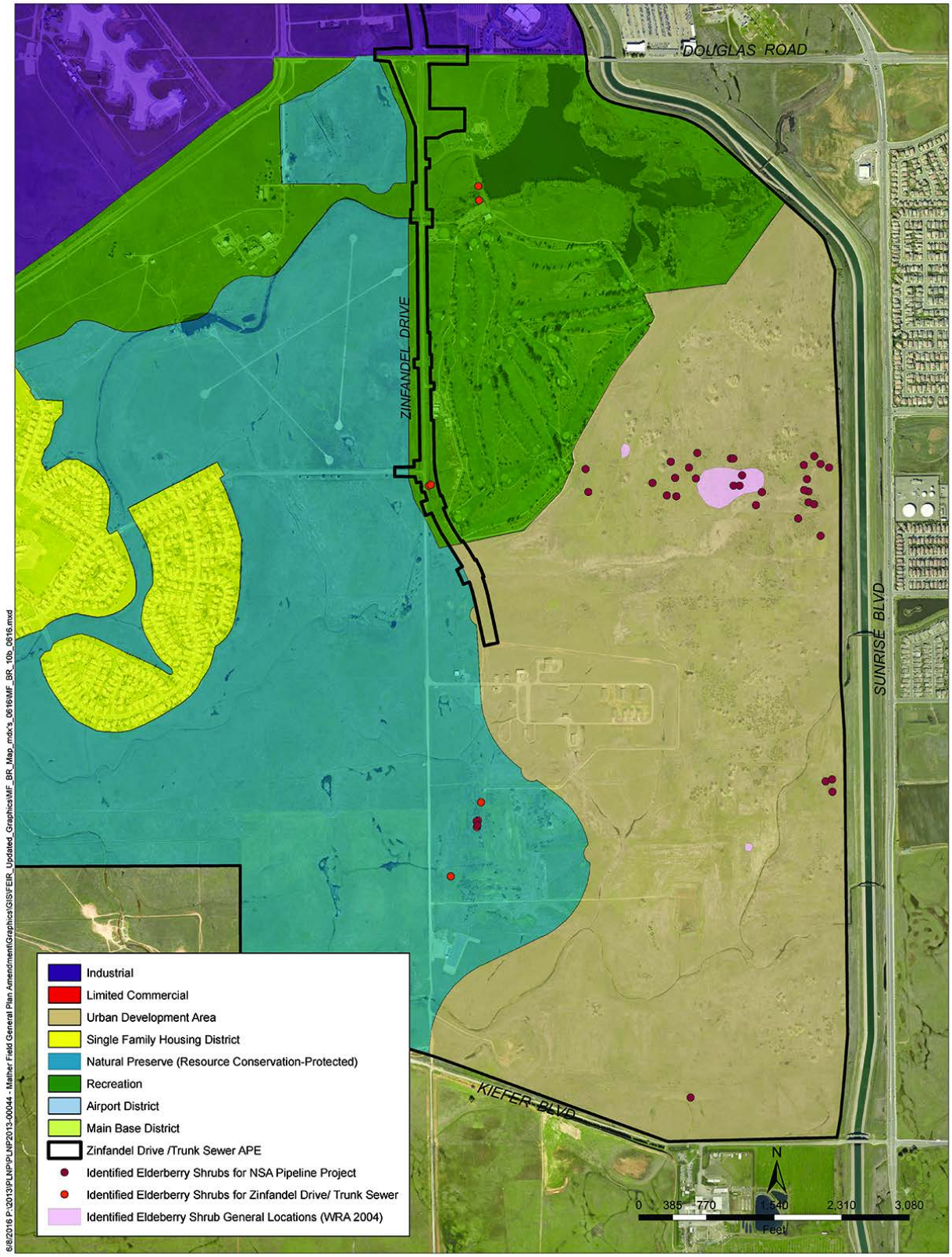


Plate BR -16: Elderberry Shrub Locations (Revised)



While the project ultimately will require the removal of the elderberry shrubs, completing the consultation process and obtaining permits may take some time. Therefore, mitigation has been added to establish a buffer area around the elderberry plants. Site grading and construction outside this buffer area will be allowed prior to obtaining the appropriate removal permits. USFWS guidelines state that complete avoidance (no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants. USFWS may approve encroachment inside the 100-foot buffer area, but a minimum setback of 20 feet must still be provided until a removal permit has been obtained.

Mitigation has been added to ensure that consultation with the USFWS occurs prior to removal of the elderberry shrub and that any losses related to VELB habitat will be offset in accordance with USFWS guidelines. With Mitigation Measure BR-9, impacts to VELB will be ***less than significant***.

Amphibians-Programmatic and Project Level

The western spadefoot (*Scaphiopus (Spea) hammondii)* occurs in shallow, seasonal wetlands in valley and foothill habitats such as grasslands, open chaparral, sage scrubland, short-grass plains, and pine woodlands. Spadefoot occur in both grazed and ungrazed habitat. Adult spadefoot occupy burrows up to three feet in depth in upland habitat during dry periods to avoid desiccation (Zeiner et al., 1990). Individuals may remain in these burrows for eight to nine months. Most surface activity is nocturnal. The spadefoot leave their upland burrows for wetlands during the breeding season, which lasts from January to August, depending on rainfall. It appears that vernal pools and other temporary wetlands may be optimal for breeding due to the absence or reduced abundance of both native and nonnative predators (bullfrogs, fish, and crawfish), many of which require more permanent water sources. Current research on amphibian conservation suggests that average habitat utilization falls within 1,200 feet of aquatic habitats (USFWS 2005). According the U.S. Fish and Wildlife Service's *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Recovery Plan) western spadefoot toads require two distinct habitat components in order to meet life history requirements. They require upland habitat for feeding and constructing burrows and wetland habitat for breeding.

Occurrences of western spadefoot toad have been observed on the project site during previous habitat and species surveys of Mather Field. According to the California Natural Diversity Database, western spadefoot toad populations have been observed at the southern portion of Mather Field east of the proposed Zinfandel Drive extension as well as a vernal pools west of the proposed roadway within the proposed preserve area. Wetland and vernal pool complexes on the Project site vary in size and depth and some retain water for several months. The surrounding upland area is grassland with many burrows. The Project site provides suitable breeding and non-breeding habitat to support the toad. There is no published regulatory guidance on habitat mitigation for this species.

Project development will remove potential habitat and may involve possible take of the species. According to the Vernal Pool Recovery Plan (USFWS, 2005), the western

spadefoot was added as a Species of Concern in 2004. Western spadefoot has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected through National Wildlife Refuges, National Monuments, State Parks, State Ecological Reserves, private preserves, mitigation banks, and conservation easements. Additionally, 23 vernal pool species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot.

While a localized population of the toad may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above. Locally, conservation lands which provide habitat for the western spadefoot toad include the Mather Regional Park, Burke Ranch (1,000 acres), Gill Ranch Conservation bank (1,800 acres) and Sunrise Douglas Preservation Bank (480 acres). Further, Project preservation of 1,272 acres of vernal pool and associated upland habitat and other preservation/creation requirements included in mitigation for vernal pool invertebrates and wetland habitats will contribute to the local and regional conservation of western spadefoot habitat.

Although, the project is not expected to contribute to a substantial reduction in the spadefoot toad species there is potential for individual occurrences to be harmed during construction related activities including construction activities related to the Zinfandel Drive/ trunk sewer extension. Mitigation Measures BR-2 and BR-10 requiring preconstruction surveys and relocations if necessary are recommended in order to ensure impacts to spadefoot toad are ***less than significant.***

Reptiles-Programmatic and Project Level

Mather field contains ponded features, canals and streams that may provide suitable habitat for the western pond turtle. Additionally, occurrences of western pond turtle have been observed during past biological assessments at Mather Field.

According to the CDFW Life History Account for the species, the western pond turtle (*Emys marmorata*)[5] is an aquatic turtle that usually leaves the aquatic site to reproduce, to aestivate, or to overwinter. Western pond turtles require some slack- or slow-water aquatic habitat. High-gradient streams with minimal cover or basking habitat are not suitable. In pond environments the species typically only leaves the water to reproduce, whereas in stream environments the turtles more commonly leave the water to aestivate or overwinter, in addition to leaving for reproduction. Turtles leave the water to overwinter in October or November, and typically become active in March or April. Mating typically occurs in late April or early May, but may occur year-round. Most egg-laying occurs in May or June, but may occur as early as April or as late as August. The

[5] The western pond turtle was identified as being comprised of two subspecies, one of which was the northwestern pond turtle (*Clemmys marmorata marmorata*). It is still listed as such in the CDFW Life History Account, as the account was written in 1994; however, the current special animals list clarifies that subsequent research has shown that the subspecies designations were not warranted, and the western pond turtle is now tracked only by species, not subspecies.

hatchlings remain in the nest over the winter, and emerge in the spring. Suitable nesting locations have dry soils (usually in a substrate with a high clay or silt fraction) on a slope that is unshaded and may be at least partially south-facing. The nest site can be up to 1,300 feet from the aquatic habitat, but it is more typical for the nest to be within 650 feet of aquatic habitat. The Life History Account conservatively recommends a buffer of 1,650 feet to ensure that neither adults nor nests will be impacted.

The CDFW has not published mitigation or other regulatory guidance for the treatment of impacts to this species. As a result, mitigation is focused on preventing construction activities from resulting in direct mortality of a western pond turtle. The project proponent will be required to perform surveys 24-hours prior to ground-disturbing activity to ensure that there are no western pond turtles within or near the construction area. Consultation with CDFW is required regardless of the survey results, given that there may be aestivating turtles or nests below-ground that are unobserved during the survey. Mitigation Measure BR-11 requiring consultation with CDFW and surveys for western pond turtle prior to construction activities within 1,650 feet of aquatic habitat at Mather Field are recommended to ensure impacts to western pond turtle are ***less than significant***.

Birds-Programmatic and Project Level

Based on the species table and types of habitat present on or near the Mather Field, the following special status avian species are identified as having potential to occur on or near the Project site: Swainson's hawk, golden eagle, tricolored blackbird, short eared owl, burrowing owl, ferruginous hawk, northern harrier, white tailed kite, loggerhead shrike and Nuttal's woodpecker. The section also addresses nesting raptors in general, which are afforded minimum protections pursuant to the Fish and Game code regardless of status.

Swainson's hawk

The Swainson's hawk (*Buteo swainsoni*) is listed as a Threatened species by the State of California and is a candidate for federal listing as threatened or endangered. It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months. Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

Swainson's hawks feed primarily upon small mammals, birds, and insects. Their typical foraging habitat includes native grasslands, alfalfa and other hay crops that provide suitable habitat for small mammals. Certain other row crops and open habitats also provide some foraging habitat. The availability of productive foraging habitat near a Swainson's hawk's nest site is a critical requirement for nesting and fledgling success. In central California, about 85% of Swainson's hawk nests are within riparian forest or remnant riparian trees. CEQA analysis of impacts to Swainson's hawks consists of separate analyses of impacts to nesting habitat and foraging habitat.

The CEQA analysis provides a means by which to ascertain impacts to the Swainson's hawk. When the analysis identifies impacts, mitigation measures are established that will reduce impacts to the species to a less than significant level. Project proponents are cautioned that the mitigation measures are designed to reduce impacts and do not constitute an incidental take permit under the California Endangered Species Act (CESA). Anyone who directly or incidentally takes a Swainson's hawk, even when in compliance with mitigation measures established pursuant to CEQA, may violate the California Endangered Species Act.

NESTING HABITAT

For determining impacts to and establishing mitigation for nesting Swainson's hawks in Sacramento County, CDFW recommends implementing the measures set forth in the Fish and Wildlife Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994). These state that no intensive new disturbances, such as heavy equipment operation associated with construction, should be initiated within ¼ mile of an active Swainson's hawk nest in an urban setting or within ½ mile in a rural setting between March 1 and September 15.

FORAGING HABITAT

Swainson's hawks are known to forage up to 18 miles from their nest site; however, that is the extreme range of one individual bird's daily movement. It is more common for a Swainson's hawk to forage within 10 miles of its nest-site. Therefore it is generally accepted and CDFW recommends evaluating projects for foraging habitat impacts when they are within 10 miles of a known nest site.

Statewide, CDFW recommends implementing the measures set forth in the Fish and Wildlife Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994) for determining impacts to Swainson's hawk foraging habitat unless local jurisdictions develop an individualized methodology designed specifically for their location. Sacramento County has developed such a methodology and received confirmation from CDFW in May of 2006 that the methodology is a better fit for unincorporated Sacramento County and should replace the statewide, generalized methodology for determining impacts to foraging habitat.

Swainson's hawk foraging habitat value is greater in large expansive open space and agricultural areas than in areas which have been fragmented by agricultural-residential or urban development. The methodology for unincorporated Sacramento County is based on the concept that impacts to Swainson's hawk foraging habitat occur as properties develop to increasingly more intensive uses on smaller minimum parcel sizes. Therefore, the methodology relies mainly on the minimum parcel size allowed by zoning to determine habitat value. For the purpose of the methodology, properties with zoning of AG-40 and larger are assumed to maintain 100% of their foraging habitat value and properties with AR-5 zoning and smaller are assumed to have lost all foraging habitat value. Table BR-10 below illustrates the continuum between AG-40 and AR-5 that represents the partial loss of habitat value that occurs with fragmentation of large agricultural land holdings. The large, 50% loss of habitat value between AG-20 and AR-

10 is due to the change in land use from general agriculture to agricultural-residential. The methodology does allow case-by-case analysis for projects with unique characteristics.

Table BR-10: Swainson's Hawk Foraging Habitat Value by Zoning Category

Zoning Category	Habitat Value Remaining
AG-40 and above (e.g., AG-80, 160 etc.)	100%
AG-20	75%
AR-10	25%
AR-5 and smaller (e.g., AR-2, 1 or RD-5, 7, 10, 15, 20 etc.)	0%

CONCLUSION

NESTING HABITAT

Although no occurrences of Swainson's hawk have been recorded at Mather Field, according to habitat assessments prepared for the project area, suitable nesting habitat occurs on site.

Preconstruction surveys will be required to determine if there are nesting Swainson's hawk within ½-mile of project related construction activities, including those activities required for the Zinfandel Drive/ trunk sewer improvements. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. If Swainson's hawk nests are found, the developer is required to contact CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. According to the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California (November 1, 1994), the mitigation described above, and included in Mitigation Measure BR-12, will ensure that impacts to nesting Swainson's hawk will be ***less than significant***.

FORAGING HABITAT

The CNDDB, 2013, indicates that the nearest recorded species occurrence for the Swainson's hawk, is approximately 3.5 miles to the southeast of Mather Field and the Project site contains open grasslands that provide foraging habitat for Swainson's hawk. However, the proposed project will not result in a rezone of property or uses that are more intensive than those already allowed. Impacts to Swainson's hawk foraging habitat are ***less than significant***. Additionally the proposed project will result in a proposed Natural Preserve that will protect in perpetuity approximately 1,272 acres of land that provide foraging habitat for Swainson's hawk. Although impacts to foraging habitat are not expected, Mitigation Measure BR-2 is recommended to ensure that foraging habitat remains on site.

NESTING RAPTORS-PROGRAMMATIC AND PROJECT LEVEL

Raptors are defined as members of the order Falconiformes (vultures, eagles, hawks, and falcons) and the order Strigiformes (owls). Common species of raptors found locally include Cooper's hawk (*Accipiter cooperii*) red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), barn owl (*Tyto alba*), and great horned owl (*Bubo virginianus*).

Raptors and their active nests are protected by the California Fish and Game Code Sections 3503.5, 3511, and 3513. The Code states the following: "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird." Because most raptors migrate they are also protected by the Federal Migratory Bird Treaty Act of 1918, which states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. Section 3(18) of the Federal Endangered Species Act defines the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take."

The Project site predominantly contains open annual grassland. Mature trees of sufficient size to support tree-nesting raptors are located along the banks of some of the creeks and channels within Mather Field, around Mather Lake, within Mather Golf Course and within in scattered clumps of trees throughout the site. Raptors, in general, build nests in large mature trees; though there are some ground-nesting species such as the northern harrier and the burrowing owl (refer to species-specific discussions, below).

Since Mather Field contains suitable tree nesting habitat, construction activities may impact nesting raptors if they occur within 500 feet of suitable nesting trees; 500 feet is the buffer used by Sacramento County and other nearby jurisdictions as a screening tool, and has been accepted by CDFW. To avoid impacts to tree-nesting raptors, mitigation is recommended requiring pre-construction nesting surveys. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting raptors, potentially resulting in nest abandonment or other harm to nesting success. If raptor nests are found, the developer is required to contact CDFW to determine what measures need to be implemented in order to ensure that nesting raptors remain undisturbed. The measures selected will depend on many variables, including the distance of activities from the nest, the types of activities, whether the landform between the nest and activities provides any kind of natural screening, and other variables.

Prior to construction or land clearing activities which occur during nesting season (generally March through mid-September), all mature trees within 500 feet of Project construction activities shall be surveyed for nesting raptors. If nesting raptors are observed, the Project developer shall consult with CDFW and determine the appropriate measures that must be implemented. If no nesting raptors are observed, no further

mitigation will be required. With implementation of recommended Mitigation Measure BR-13, impacts to nesting raptors are ***less than significant.***

GOLDEN EAGLE

According to the CDFW Life History Account for the golden eagle, the species is an uncommon permanent resident migrant throughout California, but does not occur in the center of the Central Valley. The species uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops – features that are not present in the center of the Central Valley. Mather Field does not contain suitable nesting habitat for the golden eagle; however, the species has been observed foraging at the site. A portion of this foraging habitat has the potential to be removed by future development consistent with the proposed land use designation changes; however, there is no published regulatory guidance on mitigation of foraging habitat for this species.

Although annual grassland habitat has the potential to be removed from the project site, the proposed project includes a 1,272 acre Natural Preserve which will result in the preservation of foraging habitat for the golden eagle. The Natural Preserve area contains the highest quality grasslands within Mather Field which would be preserved in perpetuity and managed to protect and enhance habitat conditions. The development of the Project site would not result in substantial negative effects to the sustainability of the species; however Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to golden eagle habitat are ***less than significant.***

TRICOLORED BLACKBIRD

According to the CDFW Life History Account for the tricolored blackbird, the species is mostly a resident in California, and common locally throughout the Central Valley. The species is a colonial nester which breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Nesting colonies usually support a minimum of 50 pairs. The species feeds in grassland and cropland habitats. The usual breeding season is mid-April into late July.

According to the CNDDB, the nearest CNDDB recorded species occurrence is approximately 3,000 feet north of Mather Field. Additionally, occurrences of tricolored blackbird have been observed around Mather Lake as well as the southeastern border of the project site. Mather Lake is included in the exclusion area of Mather Field and the project will have no impacts around the Mather Lake area or associated tricolored blackbird nesting habitat. However, due to known occurrences of nesting colonies in the vicinity it is possible that tricolored blackbirds may have nesting colonies within other portions of Mather Field.

In order to reduce potential impacts to nesting tricolored blackbirds, mitigation measures have been included. Equipment operation and noise associated with construction activities may disturb nesting birds. If construction activities are proposed during the breeding season (March 1 through July 15) pre-construction surveys shall be conducted

where suitable nesting habitat is present within 300 feet of the Project site including the work area associated with the Zinfandel Drive/ trunk sewer extension. If tricolored blackbirds are found nesting within 300 feet of the survey area, the California Department of Fish and Wildlife shall be contacted and appropriate avoidance and impact minimization measures shall be implemented. This may include establishing a buffer or postponing construction until fledging of all nestlings (about July 15). Specific measures cannot be outlined at this time, because the extent and type of measures required are highly situational, depending on distance to the nest, the number of nesting individuals, the type of nesting substrate, and other factors. If no tricolored blackbirds are found during the pre-construction survey, no further mitigation would be required.

In addition to potential impacts to nesting birds, the Mather Field provides suitable foraging habitat. The loss of grassland habitat would decrease the availability of foraging habitat. Even though foraging habitat mitigation for the tricolor blackbird is not required, the proposed Natural Preserve will continue to remain open habitat that will continue to provide suitable foraging habitat. With Mitigation Measures BR-2 and BR-14, the project will not result in substantial negative effects to the sustainability of the species and thus impacts to tricolored blackbirds are ***less than significant.***

SHORT EARED OWL

According to the CDFW Life History Account for the short eared owl, the species is found primarily in the Central Valley, in the Western Sierra Nevada foothills and along the coastline. This species is usually found in open areas with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands. The breeding range includes coastal areas in Del Norte and Humboldt Counties, the San Francisco Bay Delta, northeastern Modoc Plateau, the east side of the Sierra from Lake Tahoe to Inyo County, and the San Joaquin Valley. The short eared owl nests on dry ground in a depression concealed in vegetation, and lined with grasses, forbs, sticks, and feathers and will occasionally nest in burrows. Short eared owls breed from early March through July and lay eggs in April and May with fledging occurring in July.

According to the surveys and habitat assessments that have been conducted within Mather Field, suitable nesting habitat for the short eared owl is present on site. Additionally, the open grasslands on Mather Field provide foraging habitat for the species. Although, foraging habitat is expected to be removed the proposed Natural Preserve will provide approximately 1,272 acres of grasslands for foraging opportunities.

Construction activities within Mather Field, including activities associated with the Zinfandel Drive/ trunk sewer extension, have the potential to impact nesting birds. In order to reduce potential impacts to nesting short eared owls, mitigation measures have been included. With Mitigation Measures BR-2 and BR-15 impacts to short eared owls will be ***less than significant.***

BURROWING OWL

The burrowing owl (*Athene cunicularia hypugea*) is a California Species of Concern. Burrowing owl habitat can be found in annual and perennial grasslands, deserts, and arid scrublands characterized by low-growing vegetation (Zarn 1974). Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent to the ground surface. Burrows are the essential component of burrowing owl habitat. Both natural and artificial burrows provide protection, shelter, and nesting habitat for burrowing owls (Henny and Blus 1981). Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also use man-made structures such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement.

Burrowing owls have been documented within Mather Field and are known to nest throughout the project site. Burrowing owls may use a site for breeding, wintering, foraging, and/or migration stopovers. Breeding season takes place from February 1 to August 31 and wintering takes place from September 1 to January 31. Occupancy of suitable burrowing owl habitat can be verified at a site by detecting a burrowing owl, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance. Burrowing owls exhibit high site fidelity, reusing burrows year after year (Rich 1984, Feeney 1992).

The CDFW "Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States, Biological Technical Publication" (BTP-R6001-2003) indicates that the protocols set forth in the "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993) should be used. CDFW published a "Staff Report on Burrowing Owl Mitigation" on October 17, 1995, which is to be used to assess impacts. Though there is some variation, these documents generally mirror one another. To avoid impacts to nesting birds, surveys should be performed for all potential habitat areas within 500 feet of construction activities. The protocols recommend both wintering and breeding season surveys. Avoidance is defined as maintaining a minimum distance of 250 feet from an occupied burrow in addition to preserving a minimum of 6.5 acres of habitat around the occupied burrow for each pair or unpaired resident. If avoidance is not possible, recommended mitigation includes enhancement or creation of burrows in adjacent suitable habitat that is contiguous with the affected habitat. Relocation techniques to move owls out of the affected area are also permitted. If habitat replacement must occur off-site, the mitigation recommendation is increased from 6.5 acres per pair or single resident to between 9.75 and 19.5 acres (depending on the quality and location of the habitat).

In order to reduce potential impacts to owl nests which may be undiscovered, the applicant shall have a qualified biologist perform a focused survey, prior to the construction of improvements or buildings, for burrowing owls according to the "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). If no active burrows are found during the focused survey, no further mitigation will be required. If active burrows are found, mitigation shall be implemented consistent with the CDFW staff report recommendations. Both CDFW and Environmental Review shall be contacted and

provided with an avoidance and mitigation plan. With Mitigation Measures BR-2 and BR-16, the development of the Project site, including the extension of Zinfandel Drive/ trunk sewer, would not result in substantial negative effects to the sustainability of the species and thus impacts to burrowing owls are ***less than significant.***

FERRUGINOUS HAWK

According to the CDFW Life History Account for the ferruginous hawk, the species is an uncommon winter resident and migrant at lower elevations and open grasslands in the Central Valley. The species requires large, open tracts of grasslands, sparse shrub, or desert habitats with elevated structures for nesting. The species is migratory, and generally arrives in California in September and departs by mid-April. There is no published regulatory guidance on mitigation of foraging habitat for this species. According to the Life History Account, the ferruginous hawk breeds from Oregon into Canada.

~~Any species wintering in the general Project area would likely be in competition with the known Swainson's hawk that forage in the vicinity of the site.~~ The Life History Account also indicates that the species has a tendency to displace red-tailed hawks and Swainson's hawks. The fact that Swainson's hawk are successfully occupying the area makes it less likely that ferruginous hawk use the site. Nonetheless, the Project has the potential to remove winter foraging habitat for the species. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation is unnecessary. However, Mitigation Measure BR-2 is recommended to ensure impacts to ferruginous hawk habitat are ***less than significant.***

NORTHERN HARRIER

According to the CDFW Life History Account for the northern harrier the species occurs in a wide range of habitat types and elevations, from grasslands in the Central Valley to alpine meadows as high as 10,000 feet. The species is a widespread winter resident and migrant, though an uncommon nesting season resident in the Central Valley. The population has declined in California, largely due to destruction of breeding habitat. The species is mostly found in flat or hummocky open areas of tall, dense grasses, moist or dry shrubs, with edges for nesting, cover, and feeding. There is no published regulatory guidance on mitigation of foraging habitat for this species.

Development consistent with the proposed project has the potential to remove foraging habitat for the species. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the northern harrier is unnecessary. However, however Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to northern harrier are ***less than significant.***

WHITE TAILED KITE

According to the CDFW Life History Account for the white-tailed kite, the species is a resident in coastal and valley lowlands which is rarely found away from agricultural areas. The species forages in undisturbed grasslands, meadows, farmlands, and

emergent wetlands. Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. The species is listed as Fully Protected due to nesting impacts.

The loss of grassland habitat would decrease the availability of foraging habitat. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the white-tailed kite is unnecessary. However, Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to white-tailed kite are ***less than significant.***

LOGGERHEAD SHRIKE

According to the CDFW Life History Account for the loggerhead shrike (*Lanius ludovicianus*), the species breeds mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs or trees (they also use fences or power lines) for hunting perches, territorial advertisement, and pair maintenance; open areas of short grasses, forbs, or bare ground for hunting; and large shrubs or trees for nest placement. They also need impaling sites for prey manipulation or storage, which can include sharp, thorny, or multistemmed plants and barbed-wire fences. The breeding season for this species begins in mid-March to early April and extends to July. The species is listed as a California Species of Special Concern due to loss of nesting habitat.

According to species and habitat assessments prepared for Mather Field, the site contains nesting and foraging habitat and loggerhead shrike have been observed perching and foraging throughout the project site.

The loss of grassland habitat would decrease the availability of foraging habitat. The proposed Natural Preserve will provide for the preservation of approximately 1,272 acres of foraging habitat and additional mitigation for the loggerhead shrike is unnecessary. However, Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to loggerhead shrike are ***less than significant.***

MAMMALS- PROGRAMMATIC AND PROJECT LEVEL

According to the California CDFW life history account for the species, the American badger (*Taxidea taxus*) is an uncommon, permanent resident which is most often found in drier open stages of shrub, forest, and herbaceous habitats. Badgers dig burrows in soils which are easily crumbled and broken down, and regularly dig new burrows to use for cover during the night. Badgers may exhibit some torpor in winter, but do not hibernate. Home ranges vary by geography and season, but are generally quite large (up to 1,500 acres for males). Badgers mate in the early summer and fall, and young are born in March and April; females bear and rear young within burrows. Badgers prey on small mammals, reptiles, and insects. The conversion of suitable habitat to either urban or agricultural uses has contributed to the decline of the species, as has the usage of rodenticides and other “pest” control mechanisms – which has resulted in

direct mortality due to ingestion and also a substantial reduction in the prey base. The American badger is state-listed as a Species of Special Concern.

According to species and habitat assessments prepared within Mather Field, suitable habitat for the American badger exists on site and badgers have been observed in the past. Several dens have been documented along the banks of drainage channels within Mather Field, one south of the Independence at Mather residential subdivision and two east of Zinfandel Drive. One of the observed dens is located within the Natural Preserve and one is located within the proposed UDA District and one is located within the proposed Commercial Recreation District. The noted den within the UDA District is also in close proximity to the proposed southern terminus of the Zinfandel Drive/ trunk sewer work area.

Although annual grassland habitat has the potential to be removed from the project site through future development consistent with the proposed land use designation changes, the proposed project includes a 1,272 acre Natural Preserve which will result in the preservation of grassland habitat suitable for the American badger. Because of the large amount of grassland that will be located in the Natural Preserve impacts to American badger grassland habitat will be ***less than significant.***

Although habitat suitable for the American badger will remain on site, construction activities associated with future development including the Zinfandel Drive/ trunk sewer extension have the potential to injure or kill badgers by crushing them in their dens or crushing den entrances with construction equipment, which would prevent badgers from escaping. In order to avoid impacts to individuals Mitigation Measure BR-2 and BR-17 is recommended requiring preconstruction surveys for the American badger and consultation with CDFW if badgers are observed. With mitigation impacts to American badger individuals are ***less than significant.***

Special Status Plants-Programmatic and Project Level

Future development associated with the proposed land use changes has the potential to would result in the direct loss of suitable habitat for special-status plants associated with vernal pools. Three special-status plant species, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and legenere, have been identified in the action area during previous surveys (WRA, 2004). The vernal pools containing Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and two of the four legenere populations would be preserved within the proposed Natural Preserve. The remaining two known populations of legenere are found in pools that would be directly affected by development in the proposed Commercial Recreation District. Additional special-status species associated with seasonal wetlands, vernal pool, and emergent marsh habitats that may be affected by include slender Orcutt grass, Sacramento Orcutt grass, and Sanford's arrowhead. The potential loss of special-status plant populations is considered a significant impact. With recommended Mitigation Measure BR-18, impacts would be reduced to a ***less than significant*** level.

SANFORD'S ARROWHEAD

Sanford's arrowhead occurs in emergent marsh habitats, including habitats which are modified or human-made. Sanford's arrowhead is designated as a federal species of special concern and is listed by the California Native Plant Society's Inventory of Rare and Endangered Plants as category 1B.2 (i.e. rare throughout its range in California with a moderate probability of going extinct). Sanford's arrowhead is fairly common in the Sacramento area. Potential suitable marsh habitats include the margins of rivers, streams, ponds, reservoirs, irrigation and drainage canals and ditches, and stock-ponds. In order to avoid impacts to the species, appropriate habitat must be avoided or a survey must be performed demonstrating that the species is not present.

Mather Field contains suitable habitat to support Sanford's arrowhead and has been observed within the channels adjacent to the Industrial District. Given that habitat exists on site for Sanford's arrowhead and the proximity of known occurrences to areas where land use designation changes are proposed and the Zinfandel Drive/ trunk sewer improvements are expected, there is a potential for impacts to Sanford's arrowhead to occur. With Mitigation Measure BR-19 impacts to Sanford's arrowhead are ***less than significant***.

DESIGNATED CRITICAL HABITAT

Within the project site, critical habitat has been identified for vernal pool fairy shrimp, vernal pool tadpole shrimp, slender Orcutt grass, and Sacramento Orcutt grass. This includes the Mather Unit for vernal pool tadpole shrimp and fairy shrimp, and the Southeast Sacramento Valley Unit for slender Orcutt grass and Sacramento Orcutt grass. The Mather Unit contains all four Primary Constituent Elements (PCE) identified in the final rule designating critical habitat for vernal pool tadpole shrimp and fairy shrimp while the Southeast Sacramento Valley Unit contains both of the PCE for slender Orcutt grass and Sacramento Orcutt grass (FR 71:7118-7316). The USFWS defines primary constituent elements as those physical and biological features of a landscape that a species needs to survive and reproduce. When designating critical habitat, the USFWS identifies special management considerations as threats or impacts important to management and recovery. The special management considerations identified for these units include: habitat conversion for urban or agricultural uses, changes in hydrology, grazing, off-road vehicle use, and invasive species. The amount of critical habitat within the project site is summarized in Table BR-11 and Plate BR -15.

Table BR-11: Critical Habitat Within Mather Field

Critical Habitat Unit/ Species	Acres Within Project Site	Acres of Suitable Habitat
Mather Critical Habitat Unit/ Vernal Pool Tadpole and Fairy Shrimp	1,362	57.42
Southeast Sacramento Valley Critical Habitat/ Slender and Sacramento Orcutt grass	72	4.3
Source: USFWS, 2006; Sacramento County, 2011.		

~~Plate BR -17: Critical Habitat and Core Area Within Mather Field~~

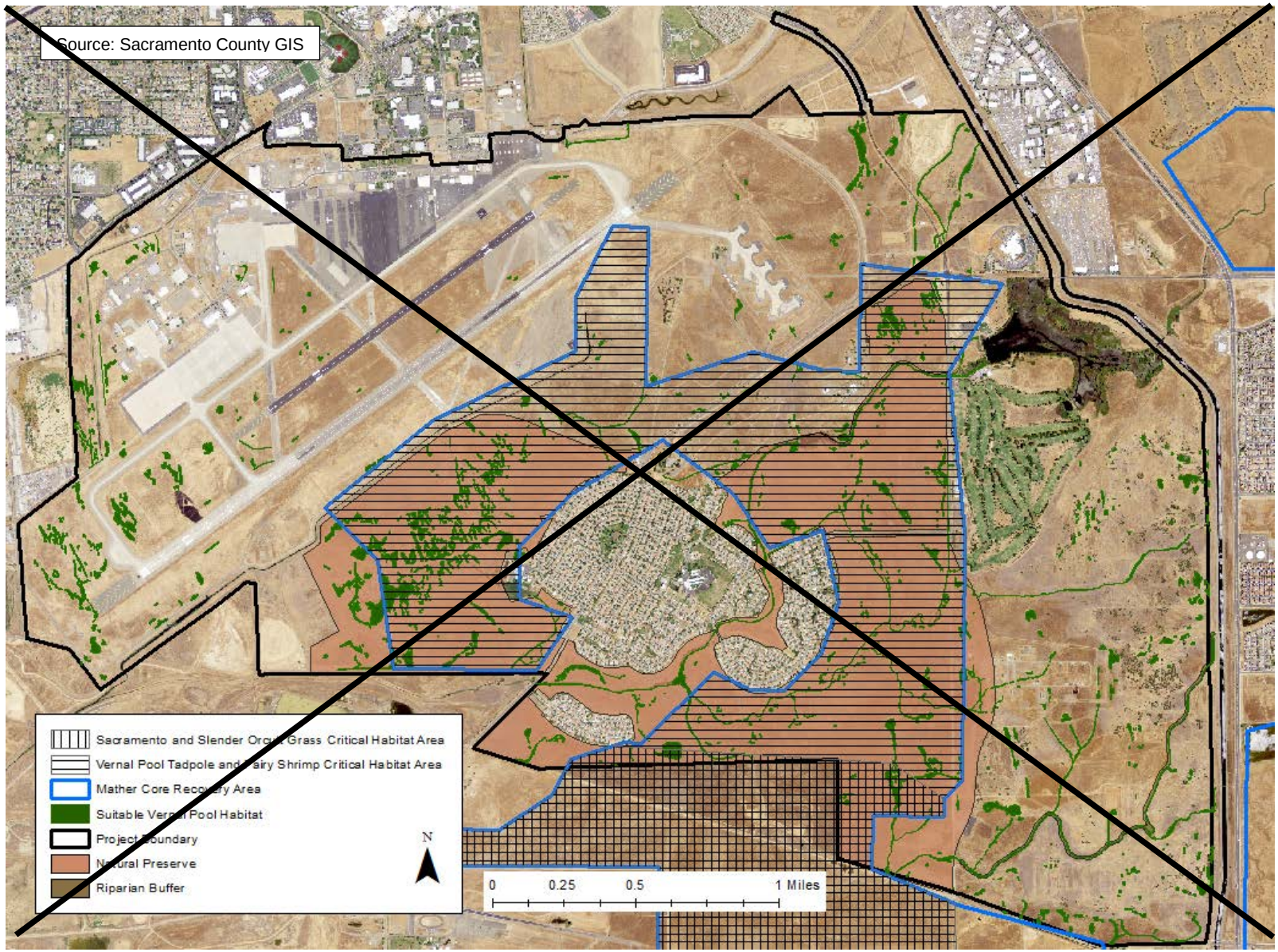
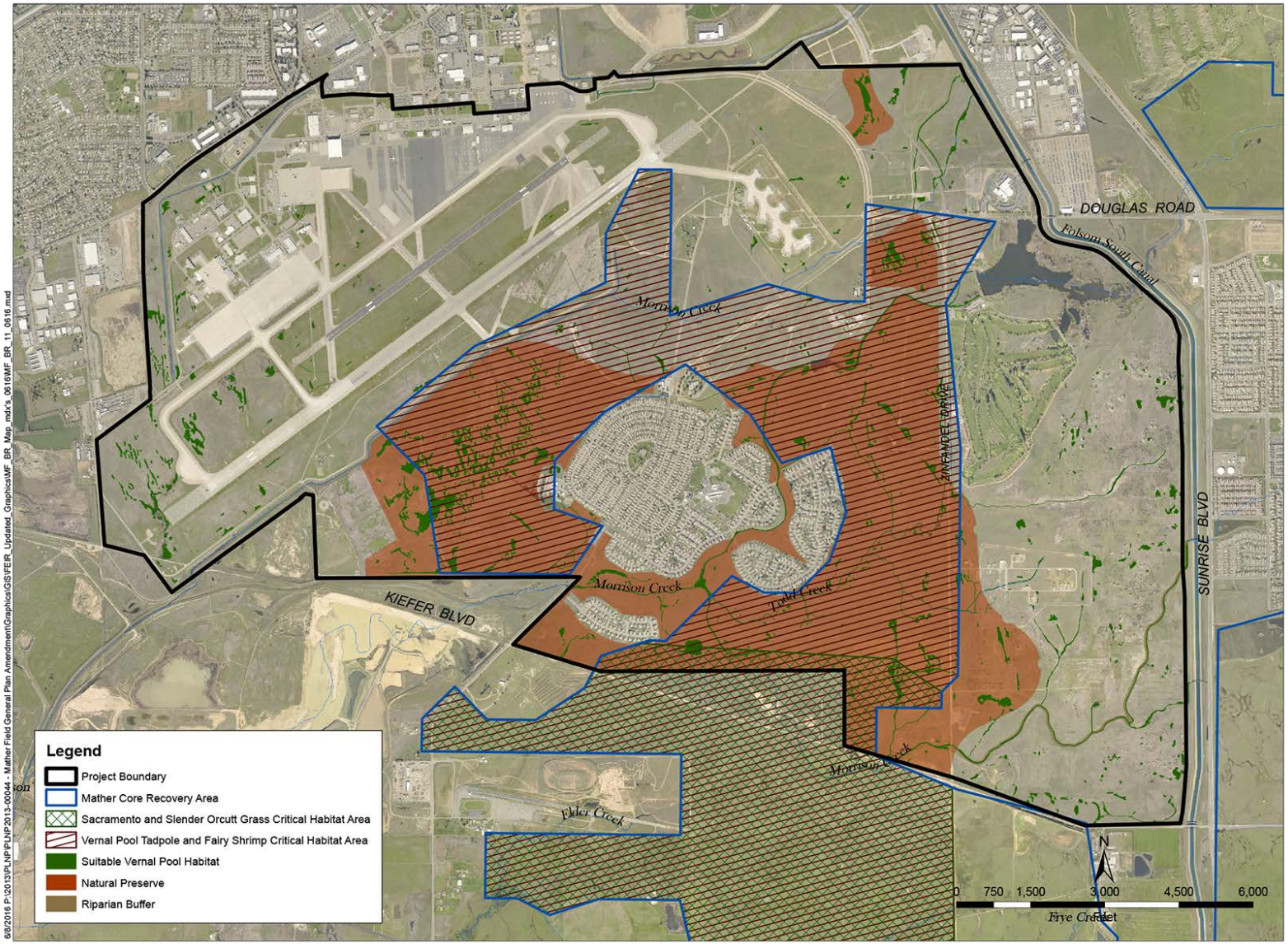


Plate BR -18: Critical Habitat and Core Area Within Mather Field (Revised)



PROGRAMMATIC LEVEL IMPACTS TO DESIGNATED CRITICAL HABITAT

INVERTEBRATES

Designated critical habitat for vernal pool tadpole shrimp and fairy shrimp would be affected by the project. Up to ~~4.98~~ **3.75** acres of critical habitat for vernal pool tadpole shrimp and fairy shrimp would be directly affected and up to 2.89 acres of critical habitat would be indirectly affected. These impact calculations are a subset of those described the Special Status Species section above.

The direct loss of suitable habitat for these species, including the direct take of species, represents a significant impact. In addition, the proximity of proposed activities to habitat for vernal pool species presents the possibility of secondary effects to the habitat due to project-related disturbance. Deterioration of habitat for vernal pool species could result from the introduction of non-native invasive plant species, decreases in water quality due to erosion or sedimentation, changes in surface or subsurface hydrology, and human intrusion. Therefore, potential indirect effects to suitable habitat are also considered a significant impact.

The project includes a proposal intended to restore and protect in perpetuity suitable habitat for vernal pool species, including approximately ~~65.30~~ **66.1** acres of habitat within an on-site Natural Preserve and ~~3.58~~ **5.98** acres within Riparian Buffer areas, **and 0.87 acres for vernal pools that will be avoided**. The majority (approximately ~~52.44~~ **53.66** acres) of the designated tadpole and fairy shrimp critical habitat on site is located within the proposed Natural Preserve area and the protection and restoration efforts expected to accompany the Natural Preserve is intended, in part, to improve the remaining critical habitat on site. Nevertheless, without additional compensation and mitigation, the onsite loss of critical habitat for vernal pool species is considered significant. With recommended Mitigation Measures BR-2 and BR-20, impacts would be reduced to a ***less than significant level***.

PLANTS

Designated critical habitat for slender Orcutt grass and Sacramento Orcutt grass at Mather Field is located solely within the proposed Natural Preserve and no impacts related to future development consistent with the proposed project are expected to result. Critical habitat for Orcutt grass is also located off site to the southwest adjacent to the proposed Commercial Recreation District; however, because of the barrier created by Kiefer Boulevard that divides Mather Field from the critical habitat, no indirect impacts will result. Impacts to designated critical habitat for slender Orcutt and Sacramento Orcutt grass are ***less than significant.***

PROJECT LEVEL IMPACTS TO DESIGNATED CRITICAL HABITAT

INVERTEBRATES

The Zinfandel Drive and trunk sewer extension will affect designated vernal pool tadpole and fairy shrimp critical habitat. Up to 0.66 acres of critical habitat for vernal pool tadpole shrimp and fairy shrimp would be directly affected by the Zinfandel Drive and

trunk sewer extension and up to 1.28 acres of critical habitat would be indirectly affected.

The direct loss of critical habitat for these species represents a significant impact. In addition, the proximity of proposed activities to critical habitat for vernal pool species presents the possibility of secondary effects to the habitat due to project-related disturbance. Deterioration of habitat for vernal pool species could result from the introduction of non-native invasive plant species, decreases in water quality due to erosion or sedimentation, changes in surface or subsurface hydrology, and human intrusion. Therefore, potential indirect effects to critical habitat are also considered a significant impact.

Impacts to vernal pool tadpole and fairy shrimp critical habitat associated with the development of the Zinfandel Drive and trunk sewer extension are proposed to be compensated for though the protection and restoration of suitable habitat within the proposed Natural Preserve. The Natural Preserve will allow for the compensation of direct and indirect impacts to critical habitat associated with the Zinfandel Drive and trunk sewer improvements totaling 0.66 acres of direct impacts and 1.28 acres of indirect impacts. Nevertheless, without additional compensation and mitigation, the onsite loss of habitat for vernal pool species is considered significant. With recommended Mitigation Measures BR-2 and BR-21, impacts would be reduced to a ***less than significant*** level.

PLANTS

Designated critical habitat for slender Orcutt grass and Sacramento Orcutt grass at Mather Field is located solely within the proposed Natural Preserve and no impacts related to future development consistent with the proposed project are expected to result. Critical habitat for Orcutt grass is also located off site to the southwest adjacent to the proposed Commercial Recreation District; however, because of the barrier created by Kiefer Boulevard that divides Mather Field from the critical habitat, no indirect impacts will result. Impacts to designated critical habitat for slender Orcutt and Sacramento Orcutt grass are ***less than significant.***

MATHER CORE RECOVERY AREA CONSISTENCY

The project site is partially located within the Mather Core Area of the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (USFWS 2005), which is a Zone 1 core area having the highest priority for recovery. As stated in the Recovery Plan, the Mather Core Area has specific conservation goals, including protecting 95 percent of suitable habitat for vernal pool tadpole shrimp, slender Orcutt grass, and Sacramento Orcutt grass, and protecting 85 percent of suitable habitat for vernal pool fairy shrimp. Approximately 57.42 acres of suitable habitat for vernal pool species occurs within the area where the Mather Core Area overlaps the project site. These protection goals therefore correspond to the required preservation of approximately 48.81 acres (85 percent) and 54.55 acres (95 percent) of suitable habitat for vernal pool species where the Mather Core Area overlaps the project site (refer to ~~Plate BR -15~~). The Recovery

Plan outlines goals, objectives and strategies necessary for the recovery of vernal pool species.

One of the overall objectives of the Recovery Plan is to promote natural ecosystem processes and functions by protection and conserving intact vernal pools and vernal pool complexes. Habitat protection under the Recovery Plan includes the protection of topographic, geographic, and edaphic features that support hierologically interconnected systems or vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes. As stated on page ix of the Recovery Plan:

> This recovery plan presents an ecosystem-level strategy for recovery and conservation because all of the listed species and species of concern co-occur in the same natural ecosystem and are generally threatened by the same human activities.

Programmatic Level Impacts to Habitat within the Mather Core Recovery Area

The proposed project includes a large Natural Preserve intended to allow for the protection and rehabilitation of habitat for vernal pool species. Approximately ~~52.44~~ **53.66** acres of suitable habitat for vernal pool species within the Mather Core Area would be protected in perpetuity within the Natural Preserve (refer to Plate BR -15). This corresponds to 91 percent of the suitable habitat for vernal pool species within the Mather Core Area of the project site. However, some of this habitat may be indirectly affected by construction on and/or operation of adjacent proposed land use areas. Table BR-12 summarizes the potential effects of future development consistent with the proposed project on suitable habitat for vernal pool species within the Mather Core Area of the project site.

As shown in Table BR-12, the Project would directly affect ~~4.98~~ **3.75** acres of habitat that has the potential to support vernal pool species and would indirectly affect 2.89 acres. However, the Natural Preserve is expected to allow for the protection of suitable habitat for those species targeted for protection within the Mather Core Area through conservation easements and a management plan; with the majority of that being high quality habitat for vernal pool species. The Project would result in the conservation of 86% (~~49.54~~ **50.77** acres) of the suitable vernal pool habitat within the Mather Core Area.

Table BR-12: Effects to Mather Core Recovery Area Suitable Habitat

Habitat Type	Total Acreage in Mather Recovery Area	Directly Affected (Ac)	Potentially Indirectly Affected (Ac)	Habitat in Avoided/Conservation Areas (Ac)/Percent[1]	Habitat in Avoided/ Conservation Areas not Indirectly Impacted (Ac)/Percent[2]
Vernal Pools And Swales	41.96	~~2.86~~ **2.07**	2.01	~~39.10~~ **39.88**/ ~~93~~ **95**%	~~37.09~~ **37.87**/ ~~88~~ **90**%
Seasonal Wetlands	9.94	~~1.95~~ **1.50**	0.88	~~7.99~~ **8.44**/ ~~80~~ **85**%	~~7.11~~ **7.56**/ ~~72~~ **76**%
Ephemeral and Intermittent Channels	5.52	0.18	0.00	5.34 / 97%	5.34 / 97%
Total[3]	**57.42**	**~~4.98~~ 3.75**	**2.89**	**~~52.44~~ 53.66 / ~~91~~ 93%**	**~~49.54~~ 50.77/ ~~86~~ 88%**

1 Habitat within the Mather Core Area that would not be directly impacted.
2 Habitat within the Mather Core Area that would not be directly or indirectly impacted. Indirect impacts are assumed for vernal pools, vernal swales and seasonal wetlands within 250 feet of proposed land disturbance and thus these are excluded from this column.
3 Totals are subject to rounding.
SOURCE: ESA, 2013; Sacramento County, 2013 **and 2016**

Although the project avoids 86% of the vernal pool and vernal swale habitat within the Core Area and the Recovery Plan calls for the avoidance of 95% of the suitable habitat for vernal pool tadpole shrimp, slender Orcutt grass and Sacramento Orcutt grass, it is expected that the vernal pool habitat located within the protected area will include the avoidance of 95% of the tadpole shrimp and Orcutt grass habitat and the project is consistent with the provisions of the Recovery Plan.

Suitable habitat for vernal pool tadpole shrimp, slender Orcutt grass, and Sacramento Orcutt grass is more limited in distribution than that of vernal pool fairy shrimp and is a subset of suitable vernal pool fairy shrimp habitat which occurs in a broader array. The project analysis uses a very conservative approach when identifying potentially suitable habitat for vernal pool species, including channels and seasonal wetlands that may provide habitat in wetter years for vernal pool fairy shrimp, but very unlikely to provide habitat for the more restrictive tadpole shrimp and Orcutt plant species. Suitable habitat for tadpole shrimp and Orcutt grasses is a subset of the vernal pool fairy shrimp habitat, and by avoiding 85 percent of the habitat for fairy shrimp species, at least 95 percent of the habitat for the tadpole shrimp will also be protected.

The project proposal, with the Natural Preserve, is consistent with the goals and the ecosystem protection objective of the USFWS recovery plan for vernal pool species as it avoids at least 85% of the habitat for vernal pool species (including 95% of the tadpole shrimp and slender and Sacramento Orcutt grass habitat) within the Mather Core Area as well at the protection of topographic, geographic and edaphic features that hierologically interconnected systems. However, to ensure that impacts to suitable

habitat within the Mather Core Recovery Area are ***less than significant***, Mitigation Measure BR-2 and BR-20 are recommended.

Project Level Impacts to Habitat within the Mather Core Recovery Area

The Zinfandel Drive and trunk sewer extension will affect suitable habitat within the Mather Core Recovery Area. Up to 0.66 acres of habitat for vernal pool tadpole shrimp and fairy shrimp within the Core Area would be directly affected by the Zinfandel Drive and trunk sewer extension and up to 1.28 acres of habitat would be indirectly affected within the Core Area. These impacts are a subset of those described in the programmatic level evaluation of Core Area impacts above.

As noted above, with the proposed Natural Preserve, the Project is consistent with the goals of the USFWS recovery plan for vernal pool species as it avoids at least 85% of the habitat for vernal pool species (including 95% of the tadpole shrimp and slender and Sacramento Orcutt grass habitat) within the Mather Core Area. However, to ensure that impacts to suitable habitat within the Mather Core Recovery Area are ***less than significant***, Mitigation Measure BR-2 and BR-21 are recommended.

Migratory Birds-Programmatic and Project Level

There is a potential for migratory nesting birds to exist on site that, although may not be considered Special Status Species or requiring discussion under CEQA, are afforded protection through the Migratory Bird Treaty Act (MBTA). The MBTA implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. In order to comply with the Migratory Bird Treaty Act (MBTA), trees with nesting migratory birds should not be removed. Suggested ways to comply with the law would be to survey the tree for nesting birds prior to removal or remove the tree outside of the typical nesting season.

Future project development consistent with the proposed project as well as the Zinfandel Drive/ trunk sewer improvements will result in the removal of trees that may provide nesting habitat for migratory birds. In order to avoid take of nesting migratory birds, mitigation has been included to require that nesting surveys be performed if tree removals are to take place during the nesting season and appropriate measures be taken if nesting birds are found or that tree removal activities occur outside of the nesting season. With Mitigation Measure BR-22, impacts to migratory nesting birds are ***less than significant*.**

MITIGATION MEASURES

BR-1: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO WETLANDS AND OTHER WATERS

To compensate for the permanent loss of wetlands and waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/ uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

C. Prior to the issuance of building permits, grading permits or approval of improvement plans, all areas within the Mather Field SPA designated as Natural Preserve or Riparian buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and 401 wetland permits.

BR-2: PROGRAMMATIC/ PROJECT LEVEL NATURAL PRESERVE AND RIPARIAN BUFFER CONSERVATION EASEMENTS

Prior to issuance of building permits, the Natural Preserve and Riparian Buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must include at least 1,284.79 acres (including 12.79 acres for the proposed Riparian Buffer) and cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

BR-3: PROGRAMMATIC/PROJECT LEVEL NATIVE TREE PROTECTION AND COMPENSATION

Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements); the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall include the species, diameter, dripline, and health of all trees 6 inches in diameter at breast height or larger, and shall be prepared by an ISA certified arborist. The report shall include an exhibit that shows the trees and their driplines in proximity to the project improvements. The report shall identify any tree proposed for removal and shall quantify any encroachment from project equipment or facilities within driplines of native trees.

A) With the exception of the native trees removed and compensated for through Part B below, all healthy native trees that are 6 inches dbh or larger on the project site, all portions of adjacent off-site healthy native trees that are 6 inches dbh or larger which have driplines that extend onto the project site, and all off-site healthy native trees that are 6 inches dbh or larger which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

    1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.

    2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root systems.

    3. Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected native tree shall be done under the direct supervision of a certified arborist. To the maximum extent feasible, demolition work within the dripline protection area of the native tree shall be performed by hand. If the certified arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.

    4. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees.

5. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the dripline of the native trees.

6. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the dripline of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.

7. Before grading, excavation or trenching within five feet outside the driplines of protected native trees, root pruning shall be required at the limits of grading or excavation to cut roots cleanly to a depth of the excavation or 36 inches (whichever is less). Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades or other approved root-pruning equipment under the supervision of an ISA Certified Arborist.

8. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. If lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of a certified arborist.

9. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water.

10. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of the native tree.

11. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the dripline of the native tree.

12. Tree pruning required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker.

13. Landscaping beneath the native tree may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the dripline of the native tree are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

B) To the maximum extent feasible, all on-site healthy native trees shall be protected and preserved. Any substantial (>20%) encroachment and/or removal of native trees shall be compensated by planting native trees equivalent to the

dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Encroachment of over 20 percent within the dripline radius of native trees will require compensatory mitigation based on the percentage of encroachment multiplied by the dbh. Encroachment over 50 percent will require compensation for the entire tree.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1 inch dbh (subject to the approval of the Environmental Coordinator)
- one D-pot seedling (40 cubic inches or larger) = 1 inch dbh
- one 15-gallon tree = 1 inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Replacement tree planting shall be completed prior to the issuance of building permits or a bond shall be posted by the applicant in order to provide funding for purchase, planting, irrigation, and 3-year maintenance period, should the applicant default on replacement tree mitigation. The bond shall be in an amount equal to the prevailing rate of the County Tree Preservation Fund.

Prior to the approval of Improvement Plans or building permits, a Replacement Native Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Native Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved;

2. Method of irrigation;

3. The Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage;

4. Planting, irrigation, and maintenance schedules;

5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement oak trees which do not survive during that period.

6. Designation of 20 foot root zone radius and landscaping to occur within the radius of oak trees < 6-inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single family lots (including front yards), and roadway medians.

Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding, utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an ISA Certified Arborist subject to the approval of the Environmental Coordinator.

If native tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

BR-4: Programmatic/Project Level Non-Native Tree Canopy

Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements), the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall identify all non-native tree canopy in and adjacent to work areas that may be affected by project related construction activities and identify non-native tree canopy that will be removed as a result of the project.

The removal of non-native tree canopy shall be mitigated for with the creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the Sacramento County Department of Transportation 15-year shade cover values for tree species. Preference is given to on-site mitigation, but if this is infeasible, then funding shall be contributed to the Sacramento Tree Foundation's Greenprint program in an amount proportional to the tree canopy lost (as determined by the 15-year shade cover calculations for the tree species to be planted through the funding, with the cost to be determined by the Sacramento County Tree Foundation).

BR-5: Project Level Riparian Habitat

To mitigate for 0.608 acres of riparian habitat removal, an equivalent amount of existing habitat removed shall be placed into a permanent conservation easement, or an equivalent amount of habitat within an existing protected area shall be

revegetated/restored. Revegetation/restoration shall consist of locally native riparian plant and tree species. To ensure species diversity, a single species shall not comprise more than 50% of the total number of trees planted. Restoration activities shall commence prior to or concurrent with removal of riparian habitat in the construction area and shall be monitored for three years from the date of planting. The success criteria for plant survival shall be 80 percent throughout the monitoring period. If the survival rate falls below the success criteria during the monitoring period, in-kind replacement plantings are required. Any new plantings shall be monitored for a further three years. Prior to commencement of restoration activities, a planting plan shall be submitted to and approved by the Environmental Coordinator. The planting plan shall include plant species, planting locations, spacing, maintenance provisions, monitoring requirements, success criteria and plant replacement provisions should a plant die within the monitoring period.

Where appropriate riparian habitat exists, the project proponent shall submit a biological resources report to the Environmental Coordinator prepared by a qualified biologist or botanist delineating the extent of on-site riparian habitat.

1. Prior to initiating project construction, install chain link fencing or a similar protective barrier that maximizes preservation of any on site riparian zone as dictated by the biological report in order to protect and preserve the riparian habitat to the maximum extent feasible. No earthwork shall be conducted within the protection area and fencing shall remain in place for the duration of all construction work.

   Or,

2. Where earthwork is necessary to construct the Zinfandel Drive/ trunk sewer improvements and riparian habitat preservation is not possible, prior to the issuance of grading or other improvement permits, also prepare a re-vegetation plan for any altered riparian habitat, consistent with General Plan Policies that compensates for riparian habitat removals. The re-vegetation plan shall include an implementation program and quantifiable success criteria.

   Disturbed riparian herbaceous areas of the project site shall be re-planted with a combination of creeping wild rye seed, willow plants, or other suitable native species. Replanting shall compensate the removal of riparian vegetation. All tree stock shall be standard six inch tree pots (6” x 16” containers), and shall be chosen from the following native species:

   Acer negundo californicum (California box elder)
   Alnus rhombifolia (White alder)
   Fraxinus latifolia (Oregon ash)
   Juglans californica var. hindsii (California black walnut)
   Populus fremontii (Fremont cottonwood)

Quercus lobata (Valley oak)
Salix. lasiolepis (arroyo willow)
S. exigua (narrow leaf sandbar willow)

The tree plantings shall be monitored for three years from the date of planting. The success criteria for tree survival shall be 80 percent throughout the monitoring period. If at any time during the monitoring period the survival rate falls below the success criteria, in-kind replacement trees shall be planted to achieve the success criteria. Any new trees required shall be monitored for three years after planting.

Or,

3. Any mitigation required by the state or federal permitting agencies that compensates for the loss of riparian vegetation, functions and values and that provides for a native re-vegetation plan consistent with or exceeding the requirements of measure 1 above shall be deemed mitigation sufficient to reduce impacts to a less than significant level and may be utilized in place of items 1 and 2 above.

BR-6: Programmatic Level Impacts to Vernal Pool Habitat

To compensate for the direct impacts to ~~36.48~~ **29.99** acres of suitable vernal pool habitat and indirect impacts to ~~3.5~~ **8.37** acres of suitable vernal pool habitat the following measures shall apply:

Comprehensive Drainage Plan.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

Compensate for the Loss of Habitat for Vernal Pool Species.

The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species.

Ratios. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project

proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows:

- A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed vernal pool species;
- A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and
- A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species.

COMPENSATION FOR DIRECT IMPACTS

To meet the partial preservation requirements of direct fill resulting from the proposed project, an easement (acceptable to USACE and USFWS) shall be recorded over the Mather Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Preserve and Riparian Corridor shall total no less than 68.88 acres.

An additional 4.08 acres of preservation shall occur at an offsite location (acceptable to the USACE and USFWS) in order to satisfy the remaining preservation requirements of the project through one or a combination of the following:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;
- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or
- Apply acres of restored/created/rehabilitated habitat for federally listed vernal pool species resulting from the functional increase of habitat of vernal pool species within the Mather preserve.

The acreage of functional lift will be applied to either preservation for indirect impacts component of the mitigation or to the creation/restoration/rehabilitation component of the mitigation, but not to both.

In addition to the preservation requirements noted above, the creation requirements of the project, totaling no less than 36.48 acres, shall be accomplished by one or a combination of the following methods:

- Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank;

- Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager;

- Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or

COMPENSATION FOR INDIRECT IMPACTS

To meet the preservation requirements of indirect impacts resulting from the proposed project totaling no less than ~~7~~ **16.74** acres shall occur through one or a combination of the following methods:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;

- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or

ADDITIONAL LIMITS UPON COMPENSATION

- Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank.

- Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats.

USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The

program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Or,

In the event that the proposed protection and compensation methodology is approved, to mitigate for direct impacts to ~~36.48~~ **29.99** aces of vernal pool habitat and indirect

impacts to ~~3.50~~ **8.37** acres of vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures.

COMPREHENSIVE DRAINAGE PLAN.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.

CONDITIONED CONVEYANCE

As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a ~~1,272~~ **1,383.2** acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered species and their designated critical habitat). This ~~1,272~~ **1,383.2** acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the ~~1,272~~ **1,383.2** acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act.

TWO STEP ADAPTIVE MANAGEMENT PLAN

In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the ~~1,272~~ **1,383.2** acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step.

FIRST STEP MANAGEMENT PLAN

The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP.

LONG TERM MANAGEMENT PLAN

Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and Wildlife Service and acceptable to the County of Sacramento. The County will place a

USFWS approved conservation easement on the ~~1,272~~ **1,383.2** acre Mather Preserve and will select a non-profit land trust accredited by the Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field.

ABOVE AND BEYOND

It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance.

The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of the BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite.

USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water

Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved

construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

BR-7 Project Level Impacts to Vernal Pool Habitat

To compensate for direct and indirect impacts to suitable vernal pool habitat the following measures shall apply:

Comprehensive Drainage Plan.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.

The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species.

Ratios. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows:

- A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed vernal pool species;
- A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and
- A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species.

COMPENSATION FOR DIRECT IMPACTS

To meet the preservation requirements of direct fill resulting from the Zinfandel Drive and trunk sewer extension, an easement (acceptable to USACE and USFWS) shall be recorded over the proposed Natural Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Natural Preserve and Riparian Corridor shall total no less than 4.02 acres.

In addition to the preservation requirements noted above, the creation requirements of the Zinfandel Drive/ trunk sewer extension, totaling no less than 2.31 acres, shall be accomplished by one or a combination of the following methods:

- Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank;
- Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager;
- Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or

COMPENSATION FOR INDIRECT IMPACTS

To meet the preservation requirements of indirect impacts resulting from the Zinfandel Drive/ trunk sewer extension totaling no less than 2.90 acres shall occur through one or a combination of the following methods:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;

- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or

ADDITIONAL LIMITS UPON COMPENSATION

- Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank.

- Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats.

USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per

the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Prepare a Hardpan Restoration Plan

Prior to the start of construction activity for the sewer trunk line, a hardpan restoration plan shall be developed by a qualified hydrogeologist and geotechnical expert and implemented for sewer trunk line construction adjacent to the proposed preserve. The detailed plan shall include identification and documentation of the hardpan depths during excavation of the sewer trench, and appropriate backfill material to restore the hardpan functionality. The detailed hardpan restoration plan shall be included in the construction specifications for the proposed sewer trunk line.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities

begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Or,

In the event that the proposed protection and compensation methodology is approved, to mitigate for direct and indirect impacts to vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures.

Comprehensive Drainage Plan.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

Compensate for the Loss of Habitat for Vernal Pool Species.

CONDITIONED CONVEYANCE

As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a ~~1,272~~ **1,383.2** acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered species and their designated critical habitat). This ~~1,272~~ **1,383.2** acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the ~~1,272~~ **1,383.2** acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act.

TWO STEP ADAPTIVE MANAGEMENT PLAN

In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the ~~1,272~~ **1,383.2** acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step.

FIRST STEP MANAGEMENT PLAN

The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP.

LONG TERM MANAGEMENT PLAN

Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and

Wildlife Service and acceptable to the County of Sacramento. The County will place a USFWS approved conservation easement on the ~~1,272~~ **1,383.2** acre Mather Preserve and will select a non-profit land trust accredited by the Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field.

ABOVE AND BEYOND

It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance.

The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of the BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite.

USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by

site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Prepare a Hardpan Restoration Plan

Prior to the start of construction activity for the sewer trunk line, a hardpan restoration plan shall be developed by a qualified hydrogeologist and geotechnical expert and implemented for sewer trunk line construction adjacent to the proposed preserve. The detailed plan shall include identification and documentation of the hardpan depths during excavation of the sewer trench, and appropriate backfill material to restore the hardpan functionality. The detailed hardpan restoration plan shall be included in the construction specifications for the proposed sewer trunk line.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion

control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

BR-8: Programmatic Level Impacts to Valley elderberry Longhorn Beetle

Prior to construction within Mather Field where elderberry shrubs may be located, the project site shall be surveyed for the presence of the beetle and its elderberry host plant by a qualified biologist in accordance with USFWS protocols. If elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground surface level

occur on or adjacent to the construction site, or are otherwise located where they may be directly or indirectly affected by the Project, minimization and compensation measures, which include transplanting existing shrubs and planting replacement habitat (conservation plantings), would be undertaken (see below). Elderberry plants with no stems measuring 1.0 inch or greater in diameter at ground level are unlikely to provide habitat for the beetle because of their small size and/or immaturity. Therefore, no minimization measures are required for removal of elderberry plants with all stems measuring 1.0 inch or less in diameter at ground level.

For shrubs with stems measuring 1.0 inch or greater, the project proponent shall ensure that elderberry shrubs within 100 feet of proposed construction be protected and/or compensated for in accordance with the *U.S. Fish and Wildlife Services' (USFWS) Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999) and the *Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office* (USFWS, 1996b).

Avoid and Protect Habitat Whenever Possible: If suitable habitat for the beetle occurs on the project site or within close proximity where beetles will be affected by the project, these areas must be designated as avoidance areas and must be protected from disturbance during the construction and operation of the project. When possible, projects should be designed such that avoidance areas are connected with adjacent habitat to prevent fragmentation and isolation of beetle populations. Any beetle habitat that cannot be avoided as described below should be considered impacted and appropriate minimization measures should be proposed as described below.

Avoidance: Establishment and Maintenance of a Buffer Zone: Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Firebreaks may not be included in the buffer zone. In buffer areas, construction-related disturbance should be minimized, and any damaged area should be promptly restored following construction. The USFWS must be consulted before any disturbances within the buffer area are considered. In addition, the USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures.

Protective Measures

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the drip line of each elderberry plant.

2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.

3. Erect signs every 50 feet along the edge of the avoidance area with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance: Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.

Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.

No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.

The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed.

Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

Transplant Elderberry Plants That Cannot Be Avoided: Elderberry plants must be transplanted if they cannot be avoided by the proposed project. All elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level must be transplanted to a conservation area. At the discretion of the USFWS, a plant that is unlikely to survive transplantation because of poor condition or location, or a plant that would be extremely difficult to move because of access problems, may be exempted from transplantation. In cases where transplantation is not possible, the minimization ratios may be increased to offset the additional habitat loss.

Trimming of elderberry plants (e.g., pruning along roadways, bike paths, or trails) with one or more stems 1.0 inch or greater in diameter at ground level, may result in take of beetles. Therefore, trimming is subject to appropriate minimization measures.

1. Monitor. A qualified biologist (monitor) must be on-site for the duration of the transplanting of the elderberry plants to insure that no unauthorized take of the valley elderberry longhorn beetle occurs. If unauthorized take occurs, the monitor must have the authority to stop work until corrective measures have been completed. The monitor

must immediately report any unauthorized take of the beetle or its habitat to the USFWS.

2. Timing. Transplant elderberry plants when the plants are dormant, approximately November through the first two weeks in February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success.

3. Transplanting Procedure.

a. Cut the plant back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. The trunk and all stems measuring 1.0 inch or greater in diameter at ground level should be replanted. Any leaves remaining on the plant should be removed.

b. Excavate a hole of adequate size to receive the transplant.

c. Excavate the plant using a Vermeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the conservation area. Move the plant only by the root ball. If the plant is to be moved and transplanted off site, secure the root ball with wire and wrap it with burlap. Dampen the burlap with water, as necessary, to keep the root ball wet. Do not let the roots dry out. Care should be taken to ensure that the soil is not dislodged from around the roots of the transplant. If the site receiving the transplant does not have adequate soil moisture, pre-wet the soil a day or two before transplantation.

d. The planting area must be at least 1,800 square feet for each elderberry transplant. The root ball should be planted so that its top is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. As many as five (5) additional elderberry plantings (cuttings or seedlings) and up to five (5) associated native species plantings may also be planted within the 1,800 square foot area with the transplant. The transplant and each new planting should have its own watering basin measuring at least three (3) feet in diameter. Watering basins should have a continuous berm measuring approximately eight (8) inches wide at the base and six (6) inches high.

e. Saturate the soil with water. Do not use fertilizers or other supplements or paint the tips of stems with pruning substances, as the effects of these compounds on the beetle are unknown.

f. Monitor to ascertain if additional watering is necessary. If the soil is sandy and well-drained, plants may need to be watered weekly or twice monthly. If the soil is clayey and poorly-drained, it may not be necessary to water after the initial saturation. However, most transplants require watering through the first summer. A drip watering system and timer is ideal. However, in situations where this is not possible, a water truck or other apparatus may be used.

Plant Additional Seedlings or Cuttings: Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or

destroyed) must be replaced, in the conservation area, with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). Stock of either seedlings or cuttings should be obtained from local sources. Cuttings may be obtained from the plants to be transplanted if the project site is in the vicinity of the conservation area. If the USFWS determines that the elderberry plants on the proposed project site are unsuitable candidates for transplanting, they may allow the applicant to plant seedlings or cuttings at higher than the stated ratios for each elderberry plant that cannot be transplanted.

Plant Associated Native Species: Studies have found that the beetle is more abundant in dense native plant communities with a mature overstory and a mixed understory. Therefore, a mix of native plants associated with the elderberry plants at the project site or similar sites will be planted at ratios ranging from 1:1 to 2:1 (native tree/plant species to each elderberry seedling or cutting). These native plantings must be monitored with the same survival criteria used for the elderberry seedlings. Stock of saplings, cuttings, and seedlings should be obtained from local sources. If the parent stock is obtained from a distance greater than one mile from the conservation area, approval by the USFWS of the native plant donor sites must be obtained prior to initiation of the revegetation work. Planting or seeding the conservation area with native herbaceous species is encouraged. Establishing native grasses and forbs may discourage unwanted non-native species from becoming established or persisting at the conservation area. Only stock from local sources should be used.

BR-9: Project Level Impacts to Valley Elderberry Longhorn Beetle

In order to reduce project impacts to the VELB habitat to a less than significant level the following mitigation measures, consistent with USFWS guidelines, will be required:

1. For construction prior to obtaining the applicable permits allowing removal of the elderberry plants, protective measures shall apply. Prior to initiating construction, the following measures shall be completed:

    a. Temporary construction fencing and flagging shall be installed at least 100 feet outside the edge of the driplines of the elderberry plants. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant and provide documentation of USFWS approval of the reduced setback.

    b. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.

    c. Erect signs every 50 feet along the edge of the avoidance area with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment.” The signs should be

clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

d. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

2. Prior to construction within the 100-foot buffer area (or lesser buffer, as approved by USFWS) established around the elderberry plants implement one of the following methods (or a combination of the following two methods) to reduce impacts to the Valley Elderberry Longhorn Beetle to a less than significant level:

   Either

   a. Elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level shall be transplanted to a conservation area approved by the U.S. Fish and Wildlife Service (USFWS). The project applicant shall consult with the USFWS on all transplantation activities and obtain all applicable permits.

   And/Or:

   b. The project applicant shall compensate for the loss of elderberry plants on the site to the satisfaction of the USFWS and shall obtain any/all applicable permit(s) from the U.S. Army Corps of Engineers (Army Corps) and the USFWS.

BR-10: Programmatic/Project Level Impacts to Western Spadefoot Toad

Prior to construction within or adjacent to wetlands or vernal pools, including construction activities related to the Zinfandel Drive/ trunk sewer extension, a qualified biologist shall conduct a survey for western spadefoot. The survey shall include transecting all suitable habitat that may be affected by proposed activities and identifying suitable burrows that may be used for aestivation. Suitable burrows shall be excavated using hand tools. If a spadefoot is found in a construction area, the biologist shall move the spadefoot from the area to suitable habitat within the proposed Natural Preserve.

BR-11: Programmatic/Project Level Impacts to Western Pond Turtle

Prior to the commencement of ground-disturbing activity within 1,650 feet of aquatic habitat, including construction activities related to the Zinfandel Drive/ trunk sewer extension, the project proponent shall consult with CDFW to establish appropriate avoidance procedures, and to establish procedures which would apply in the event that a turtle is found within the construction area. The developer shall submit written evidence of the consultation and its conclusions to the Environmental Coordinator. If

CDFW recommends obtaining a permit, the applicant shall obtain the permit prior to the commencement of ground-disturbing activities. Unless California Fish and Wildlife recommends other mitigation, the following shall also apply:

1. Twenty four hours prior to the commencement of ground-disturbing activity (i.e. clearing, grubbing, or grading) within 1,650 feet of aquatic habitat, a qualified biologist shall perform a survey for western pond turtle. The survey shall include all suitable upland and aquatic habitat which is within 1,650 feet of all proposed construction areas. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity.

2. If western pond turtles are found during the survey, activities shall not commence until the animal has moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area.

3. If a western pond turtle is encountered during active construction, all construction shall cease until the animal has moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area. California Fish and Wildlife and the Environmental Coordinator shall be notified within 24-hours that a turtle was encountered.

BR-12: Programmatic Level/Project Level Swainason's Hawk Nesting habitat

If construction, grading, or project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to commence between March 1 and September 15, a focused survey for Swainson's hawk nests on the site and within ½ of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Fish and Wildlife shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

BR-13: Programmatic/Project Level Impacts Nesting Habitat

If construction, grading, or other project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to occur between March 1 and September 15, a focused survey for tree or ground nesting raptors within 500 feet of the construction site shall be conducted by a qualified biologist within 14 days prior to the start of construction work. If active nests are found, California Fish and Wildlife shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

BR-14: Programmatic Level/Project Level Impacts to Tricolored Blackbird

If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 300 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following:

1. Consult with the California Fish and Wildlife to determine if project activity will impact the tricolored blackbird colony(s). Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from California Fish and Wildlife. Implement all protective measures recommended by California Fish and Wildlife.

2. With California Fish and Wildlife permission, the applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback, with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). The breeding season typically ends in July.

3. If tricolored blackbird habitat is permanently destroyed follow California Fish and Wildlife procedure to mitigate for habitat loss, and submit documentation of the mitigation to the Environmental Coordinator.

BR-15: Programmatic/Project level Impacts to Short Eared Owls

If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 500 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting short eared owls shall be conducted by a qualified biologist.

1. A survey for nests and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.
2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account

for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.

3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.

4. If occupied nests or short eared owls are found the project proponent shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success.

BR-16: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO BURROWING OWLS

Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following:

1. A survey for-burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.
2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.
3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.

4. If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with

the Survey Report section of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012).

5. If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012) should be used in the development of the mitigation plan.

BR-17: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO AMERICAN BADGER

Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable habitat for American badger den sites, a survey for American badger shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat.

If badgers are detected, the biologist shall passively relocate badgers out of the work area prior to construction if feasible. Badgers shall be relocated to suitable areas within the proposed Natural Preserve. If an active den is located within an identified work area, the project proponent shall avoid the den, if feasible, until the qualified biologist determines the den is no longer active. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation of the den between the time of the survey and the completion of construction activities.

BR-18: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO SPECIAL STATUS PLANTS

Prior to construction, vegetated portions of the project site including wetland habitats shall be surveyed by a qualified botanist for special-status plants following established CDFW *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* which calls for protocol-level surveys during the appropriate flowering/identification period for each potentially affected species.

Known populations of Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and legenere shall be protected within the Natural Preserve. The project would also directly affect two known populations of legenere, and may affect additional, undocumented populations of special-status plants. Measures to compensate for the loss of special status species include:

- Prepare a Mitigation and Monitoring Plan to relocate plants and/or seed banks or reintroduce new populations in suitable habitat and soil types

within the on-site Preserve or at a CDFW or USFWS-approved off-site location;

- Restore or enhance suitable habitat within the Natural Preserve.

BR-19: PROGRAMMATIC/PROJECT IMPACTS TO SANFORD'S ARROWHEAD

Surveys shall be performed by a qualified botanist during the species non-dormant, flowering period (June – October) prior to work within suitable habitat. If the species is not found during the survey, no further mitigation would be required. If plant(s) are found the botanist shall establish distribution of the colony(s) and estimate the number of individuals in the population. Unless deemed infeasible by the Environmental Coordinator, all plants or tuber/rhizomes shall be removed from the area of impact and transplanted to a new or existing preserve or, if the impact is temporary, replanted in the same location after the disturbance. Surveys shall be performed annually at the transplant location for a period of three years, to ensure success. If survival is not meeting a minimum 60% survivorship, transplantation will be deemed failed. In cases where transplanting is deemed infeasible, or where transplanting has failed, compensatory mitigation shall be provided. Compensatory mitigation shall consist of placement of a conservation easement over a known, unprotected population of the species.

BR-20: PROGRAMMATIC LEVEL IMPACTS TO SUITABLE HABITAT WITHIN DESIGNATED CRITICAL HABITAT AND MATHER CORE RECOVERY AREAS

To mitigate for direct impacts to ~~4.98~~ **3.75** aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 2.89 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-6 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.

BR-21: PROJECT LEVEL IMPACTS TO SUITABLE HABITAT WITHIN CRITICAL DESIGNATED CRITICAL HABITAT AND MATHER CORE RECOVERY AREAS

To mitigate for direct impacts to 0.66 aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 1.28 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-7 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.

BR-22: PROGRAMMATIC/PROJECT IMPACTS TO NESTING MIGRATORY BIRDS

To avoid impacts to nesting migratory birds the following shall apply:

1. If construction activity (including clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and

August 31, a survey for active migratory bird nests shall be conducted by a qualified biologist.

2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.

8 CULTURAL RESOURCES

INTRODUCTION

Under CEQA, lead agencies must consider the effects of their projects on cultural resources. This chapter describes the potential impacts to cultural resources that could occur as a result of implementation of the proposed Mather Field project. This chapter also describes the regulatory and environmental setting for cultural resources. Cultural resources is the term used to describe prehistoric and historical archaeological sites, built environment resources including buildings, bridges and infrastructure, and resources of importance to Native Americans.

The key sources of data and information used in the preparation of this section are listed below.

- Detailed records search data.
- Input from Native American tribes and historical organizations.
- A review of historical literature and previous reports.
- Field Survey
- Additional primary research.

Several cultural resources studies have been conducted within the Mather Field project area between 2007 and 2015. It should be noted that the area analyzed in this document does not include the areas of existing development that will not be subject to land use designation changes or direct physical impacts associated with this project. The excluded areas are, generally, the Independence at Mather residential development, the Mather Golf Course and the majority of the Mather Regional Park, the Tracon facility north of Douglas Boulevard and east of Zinfandel Drive as well as the Mather Airport facility. The analysis included in this document includes a programmatic level discussion related to land use amendments associated with the proposed project and a project level discussion related to the prosed Zinfandel Drive and trunk sewer extension.

Plate CR -1 below shows the Mather Field project boundary, the Area of Potential Effect (APE) related to programmatic level analysis, and the previous study locations. Plate CR -2 details the APE for the project level improvements associated with the proposed Zinfandel Drive and trunk sewer extension as well as the cultural study area associated with the improvements.

Plate CR -1: Mather Field Programmatic Study Area and Cultural Resources Survey Coverage

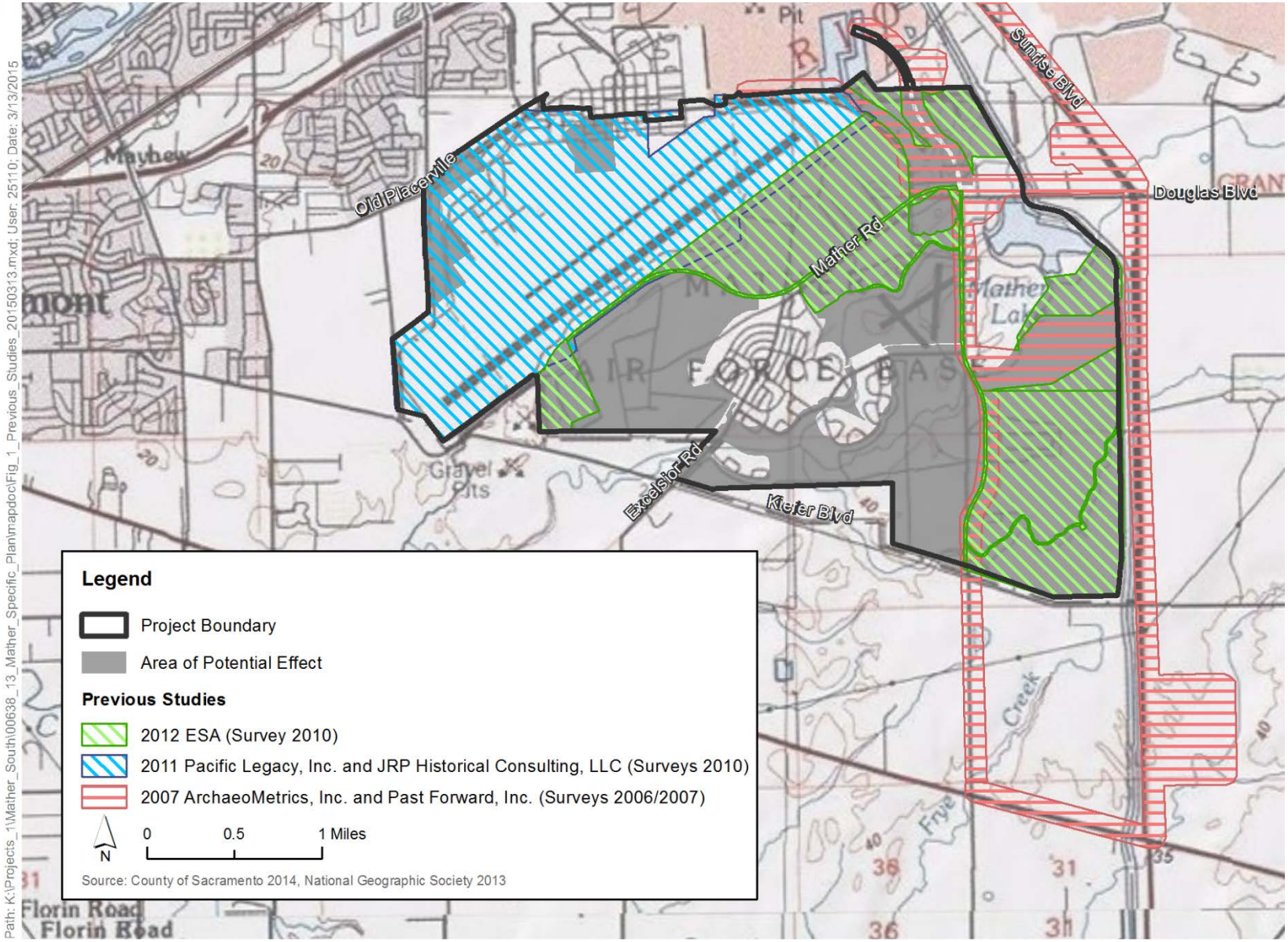
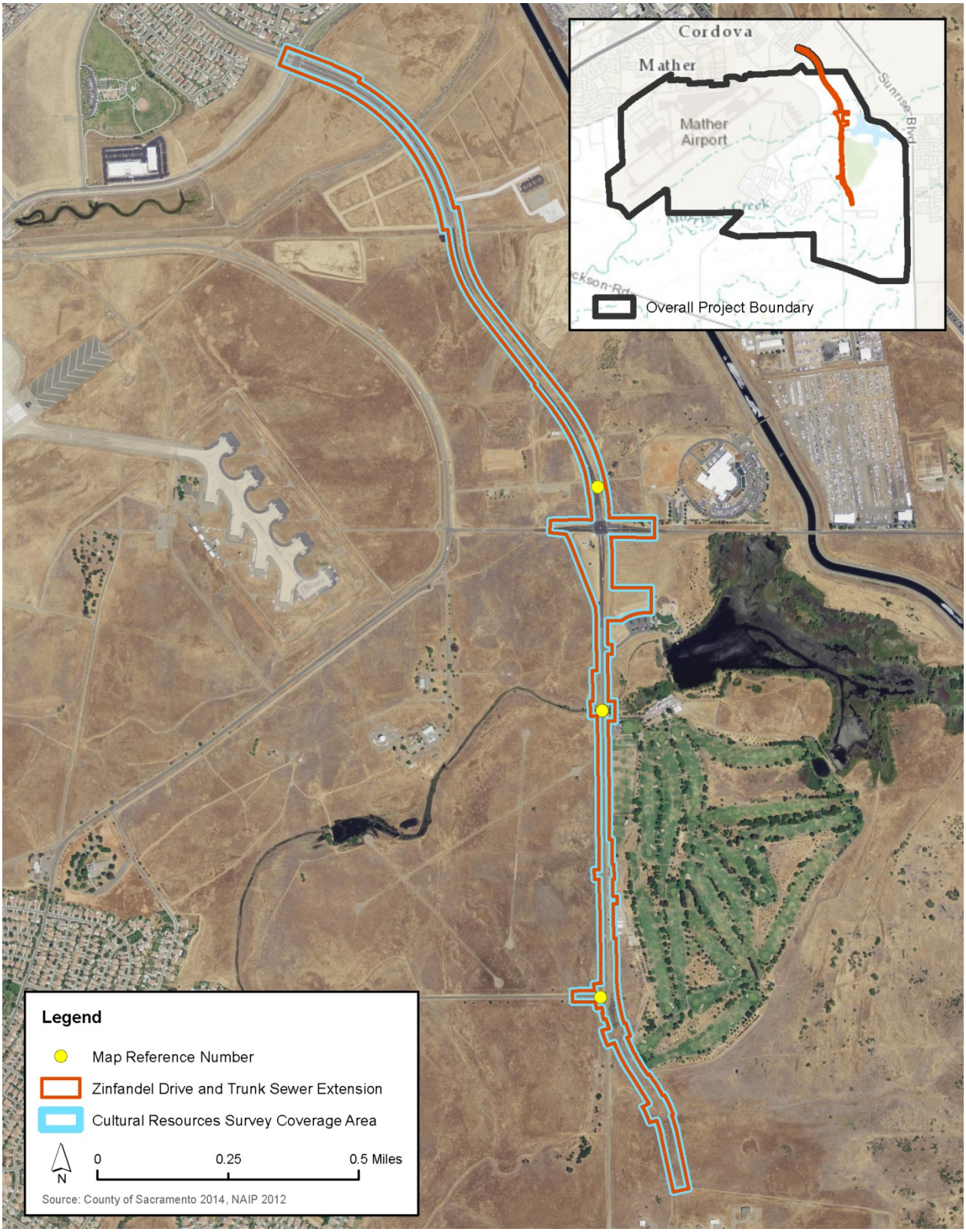


Plate CR -2: Zinfandel Drive and Trunk Sewer Project Study Area



Much of the information utilized in this section is from the ***Mather Field Specific Plan, Cultural Resources Survey Report***, (Survey Report) prepared by Environmental Science Associates, in June 2012. The Survey Report was prepared to support the concurrent processing of the Mather Specific Plan Project, Draft Environmental Impact Statement (EIS). The EIS is the environmental document prepared in accordance with the National Environmental Policy Act (NEPA) to satisfy the federal permitting requirements of the Mather Field project including Section 106 of the National Historic Preservation Act (NHPA). The United States Army Corps of Engineers (USACE) is the NEPA lead for the federal review process of the Mather Field project and is charged with satisfying the requirement of Section 106. Details related to the NHPA and the requirements of Section 106 and included in the Regulatory Setting section below.

Applicable details from the studies conducted within these areas are summarized below. The technical studies can be reviewed at 827 7th Street, Room 225, Sacramento, CA 95814.

CULTURAL HISTORY

In large part, the following Cultural History section is taken directly from the ***Mather Field Specific Plan, Cultural Resources Survey Report***, prepared by ESA, in June 2012 (ESA 2012). Parenthetical citations indicate information from additional sources.

PREHISTORY

Central Valley California archaeology has been described as a series of patterns. Fredrickson (1973) defines pattern as an essentially non-temporal, integrative cultural unit - the general life way shared by people within a given geographic region. Specifically three such patterns, which overlap somewhat in adjoining areas, are recognized for Central Valley California: the Windmiller, Berkeley, and Augustine Patterns.

> The Windmiller Pattern, which may represent the advent of early Penutian speaking populations, extends from approximately 4,500 to 3,000 years before present. This pattern was focused primarily on the lower Central Valley and Delta regions, and reflects the influence of a lacustrine or marsh adaptation.
>
> The Berkeley Pattern extends roughly from 3,000 to 1,500 years before present. The Berkeley Pattern has a greater emphasis on the exploitation of the acorn as a staple than the earlier Windmiller Pattern. The Berkeley Pattern initially may represent the spread of proto-Miwok and Costanoans, collectively known as Utians, from their hypothesized lower Sacramento Valley/Delta homeland.
>
> The Augustine Pattern extended temporally from circa 1,500 years before present to European contact. Augustine initially appears to be largely an

outgrowth of the Berkeley Pattern but may have become a blend of Berkeley traits with those carried into the state by the migration of Wintuan populations from the north.

ETHNOLOGY

The Mather Field area is believed to have been inhabited ethnographically by the Nisenan, also known as Southern Maidu, and the Plains Miwok. The Nisenan, together with the Maidu and Konkow, form the Maiduan language family of the Penutian linguistic stock (Shipley, 1978). The traditional area of the Southern Nisenan is thought to have been located between the drainages of the Feather River and the American River. Within this region, the Nisenan are thought to have occupied the area from about Big Chico Creek to the American River or the Cosumnes River.

HISTORY

Prior to the Gold Rush, the first recorded non-Native presence in the area was in 1827 by Jedediah Smith whose trapping group explored the area in his search for a pass over the Sierra Nevada.

Johann August Sutter arrived in San Francisco in 1839 with a Mexican general passport for a small colony which grew into an enormous land grant of 48,000 acres at the junction of the Sacramento and American Rivers. Here he established New Helvetia (present day Sacramento). In 1839, Sutter built an adobe house which in four years grew into a wooden-walled trading post known as Sutter's Fort. In 1844 William A. Leidesdorff was granted 35,000 acres along the American River called "The Rancho Rio de las Americanos".

When gold was discovered in 1848, mining camps sprang up along the Sacramento and American rivers. Agricultural communities in the American River basin were established in order to feed the miners, and expanded as miners left the gold fields and turned to farming and ranching.

HISTORY OF MATHER AIR FORCE BASE

All of the Cultural Resources located in the study area are related to the development of the former Mather Air Force Base (AFB) property which has been used for aviation since 1918. The following summarizes the history and building types from four major periods: Mather Field: a World War I-era training facility; Mather Field: Interwar and World War II; Mather Air Force Base: a Cold War-era Strategic Air Command Base; and Mather Air Force Base: Post-Base Realignment and Closure. As part of the ***Historic Resources Inventory and Evaluation Report: Sacramento Mather Airport, Sacramento County, California***, JRP prepared a history of Mather Air Force Base (AFB) (JRP 2011). Much of the text below has been summarized from this report.

MATHER FIELD: A WORLD WAR I-ERA TRAINING FACILITY

American aircraft was first used in combat during World War I. The Army Air Corps quickly assembled a string of training facilities in 1917 and 1918 to train pilots in the use

of military aircraft. Mather Field was one such facility. The Army Air Corps purchased about 800 acres of pasture land in Sacramento County, and built a small landing strip and temporary buildings sufficient to allow training to begin in June 1918 (JRP 2011: 4). Opened as Mills Field, the facility was soon renamed to honor Second Lieutenant Carl Spencer Mather, an Army Air Service test pilot killed that year in an aerial training mission. The war ended on November 11, 1918, and shortly thereafter the Air Corps shut down the training operations at Mather Field (JRP 2011: 3-4; Pacific Legacy 2010: 11; ESA 2012: 3-14).

MATHER FIELD, INTERWAR AND WORLD WAR II

Between the two World Wars, Mather Field remained in the ownership of the federal government and was used sparingly as an auxiliary airfield for larger Air Corps facilities elsewhere (JRP 2011: 5). In 1919 and 1920, the Army Air Service and the U.S. Forest Service briefly used Mather Field as a base for jointly operated California aerial fire patrols (Pacific Legacy 2010: 12-13). In 1930, the base was designated a sub-post of the Presidio of San Francisco and Crissy Field. In 1935, it was reassigned as a sub-post of Hamilton Field in Marin County. No buildings remain from this relatively quiet interwar period (Pacific Legacy 2010: 11-12).

By the late 1930s; however, it became clear that the United States could be drawn into wars underway in Europe or Asia, or in both theaters simultaneously. From 1938 to 1941, the War Department established new bases throughout the nation (JRP 2011: 6). California was home to a disproportionately large number of these bases, reflecting the concern that the United States would soon be at war in the Pacific (Foster-Wheeler and JRP 2000: 7-19, 7-20).

Mather Field was reactivated in May 1941 as a separate facility, i.e. not a sub-post to another field (JRP 2011: 6). It served various purposes during World War II. For much of the war, it was a Port of Debarkation, a take-off point for aircraft, equipment, and personnel bound for the Pacific Theater. As the war in Europe wound down, many large bombers first used in Europe were reassigned to Mather before being reassigned to airfields in the Pacific used in bombing Japan (JRP 2011: 8; Pacific Legacy 2010: 12).

MATHER AIR FORCE BASE, COLD WAR-ERA FACILITY

Unlike during the period after World War I, the U.S. military did not demobilize following the conclusion of World War II. Rather, many bases, including Mather, expanded after 1945 in response to perceived threats from the Soviet Union and other potentially hostile nations (JRP 2011: 8).

From 1958 to 1963, Mather Air Force Base was home to a squadron of long-range bombers, many of which were nuclear armed, as part of the Strategic Air Command (SAC). Initially, B-36 bombers were assigned there. By the end of the 1950s, the B-52 was the principal SAC bomber at Mather (JRP 2011: 8-9). SAC's B-52 contingent was part of the 4134th Strategic Wing, a unit whose primary operation at Mather was SAC ground alert, part a program of nuclear deterrence that promised a rapid "massive retaliation" to any Soviet military aggression (JRP 2011: 8; Narducci 1988: 1-2). Conceived in the late 1950s and initially tested during Operation Tryout in 1956, ground

alert required several squadrons of nuclear-armed, long-range bombers to remain on a permanent state of readiness that enabled SAC bombers to take flight with only a few minutes' notice. To achieve this, SAC kept bombers with engines running at the ends of runways and situated flight crews nearby (Narducci 1988: 1-3).

The SAC presence began to diminish in 1963. That year, the 320th Bombardment Wing absorbed the 4134th. The new unit's primary operations were bombardment training and airborne refueling, and, consequently, ground alert operations ceased at Mather AFB. In the periods of 1965 to 1966 and 1972 to 1973, there were major reductions to the 320th. To serve operations in Southeast Asia, SAC relocated much of its Mather unit to new bases (JRP 2011: 9; Ravenstein 1984: 170-171). Through 1989, Mather was home to a variety of aircraft, from refueling craft to navigational training craft.

MATHER FIELD, POST-BASE REALIGNMENT AND CLOSURE

In 1988, the Secretary of Defense created the Base Realignment and Closure Commission, which managed an orderly process for closing or realigning military bases whose original purpose was no longer needed. Over the next decade, dozens of military bases throughout the United States were closed, including numerous facilities in California. The first round of closures was disclosed in December 1988; Mather AFB was on that list (JRP 2011: 13; Pacific Legacy 2010: 12).

As was commonly the case with such closures, the actual deactivation of military uses and initiation of civilian control and use took some time to implement. The Air Force officially closed the facility in September 1993 (JRP 2011: 13; Pacific Legacy 2010: 12). Beginning in the mid-1990s, Sacramento County began to assign portions of the former base for non-military uses. In May 1995, the airport area reopened as a general aviation facility with an air cargo focus, operated by the Airport System of the County. A portion of the base was designated as Mather Regional Park. In 1997, the Department of Veterans Affairs (VA) took over the old Mather hospital and currently operates it as a VA hospital (JRP 2011: 13).

REGULATORY SETTING

FEDERAL

NATIONAL HISTORIC PRESERVATION ACT

Archaeological and built environment resources (buildings and structures) are protected through the National Historic Preservation Act (NHPA of 1966, as amended (16 United States Code [USC] 470f) and its implementing regulations: Protection of Historic Properties (36 Code of Federal Regulations [CFR] Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979.

Prior to implementing an *undertaking* (e.g., issuing a federal permit), federal agencies (e.g., U.S. Army Corps of Engineers [USACE]) are required under Section 106 of NHPA

to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (NRHP). NHPA Section 101(d)(6)(A) allows properties of traditional religious and cultural importance to a tribe to be determined eligible for inclusion in the NRHP. Under the NHPA, a find is significant if it meets the NRHP listing criteria under 36 CFR 60.4, as stated below.

The quality of *significance* in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:

a. Are associated with events that have made a significant contribution to the broad patterns of our history; or
b. Are associated with the lives of persons significant in our past; or
c. Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. Have yielded, or may be likely to yield, information important in prehistory or history.

Federal review of projects is normally referred to as the Section 106 process. The Section 106 process normally involves step-by-step procedures that are described in detail in the implementing regulations (36 CFR Part 800) and summarized here.

- Establish a federal undertaking.
- Delineate the Area of Potential Effects.
- Identify and evaluate historic properties in consultation with the SHPO and interested parties.
- Assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP.
- Consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify ACHP.
- Proceed with the project according to the conditions of the agreement.

STATE

The State of California implements NHPA through its statewide comprehensive cultural resource preservation programs. The California Office of Historic Preservation (OHP), an office of the California Department of Parks and Recreation (DPR), implements the

policies of NHPA on a statewide level. OHP also maintains the California Historical Resources Inventory. SHPO is an appointed official who implements historic preservation programs within the State's jurisdiction.

California Environmental Quality Act

The California Environmental Quality Act (CEQA), as codified in Public Resource Code (PRC) Sections 21000 et seq. and implemented via the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), is the principal statute governing the environmental review of projects in the state. In order to be considered a historical resource, a resource must be at least 50 years old. In addition, the State CEQA Guidelines define a historical resource as follows.

a. A resource listed in the California Register of Historical Resources (CRHR).

b. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g).

c. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The CRHR criteria are based on National Register of Historic Places (NRHP) criteria (PRC Section 5024.1[b]). Certain resources are determined by CEQA to be automatically included in the CRHR, including California properties formally eligible for or listed in the NRHP. To be eligible for listing in the CRHR as a historical resource, a prehistoric or historic-period resource must be significant at the local, state, and/or federal level under one or more of the following criteria.

    1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
    2. Is associated with the lives of persons important in our past.
    3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
    4. Has yielded, or may be likely to yield, information important in prehistory or history (14 CCR Section 4852[b]).

For a resource to be eligible for the CRHR, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. A resource that does not retain sufficient integrity to meet NRHP criteria may still be eligible for listing in the CRHR.

CEQA requires lead agencies to determine if a proposed project would have a significant effect on important historical resources or unique archaeological resources. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and State CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the State CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083.2 regarding unique archaeological resources. A *unique archaeological resource* is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria.

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2 [g]).

The State CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

Madera Oversight Coalition, Inc. v. County of Madera (2011)

In the past, it was common practice for many CEQA practitioners to provide performance-based mitigation for cultural resources, stipulating that further evaluation and treatment of resources would be performed in the future. The 2011 decision from the *Madera Oversight Coalition, Inc. v. County of Madera* (2011 [199 Cal. App.4th 48, 81]) case determined this practice to be unacceptable under CEQA and required evaluation of cultural resources subject to CEQA to be performed at a level sufficient to characterize the resources prior to environmental impact report (EIR) certification (instead of waiting until preconstruction or construction stages of a project). Cultural resources evaluations in this EIR have been completed consistent with the *Madera Oversight* decision.

Discovery of Human Remains

California State Law, Section 7050.5 of the California Health and Safety Code (CHSC) states:

(a) Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].

(b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the [California] Government Code (CGC), that the remains are not subject to the provisions of Section 27491 of the [CGC] or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the [PRC]. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

(c) If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the [Native American Heritage Commission (NAHC)] (California Health and Safety Code Section 7050.5).

Of particular note to cultural resources is subsection (c), requiring the coroner to contact NAHC within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. The MLDs will have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under state law (PRC Section 5097.99).

Senate Bill 18

California Senate Bill (SB) 18 (Burton, Chapter 905, Statutes of 2004) requires local governments to consult with State- and federally recognized Native American tribes prior to making certain planning decisions and to provide notice to the tribes at certain

key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans and specific plans. The principal objective of SB 18 is to preserve and protect cultural places of California Native Americans. SB 18 is unique in that it requires local government consultation with Native American tribes in early stages of land use planning, extends to both public and private lands, and includes both State- and federally recognized Native American tribes. The California Civil Code was amended by SB 18 and now allows State-recognized California Native American tribes to acquire and hold conservation easements.

LOCAL

SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan Conservation Element, states under Section VIII, Cultural Resources, the following goal and six objectives:

> Promote the inventory, protection and interpretation of the cultural heritage of Sacramento County, including historical and archaeological settings, sites, buildings, features, artifacts and/or areas of ethnic historical, religious or socio-economic importance.
>
> 1. Comprehensive knowledge of archeological and historic site locations.
> 2. Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to Native American values.
> 3. Structures with architectural or historical importance preserved to maintain contributing design elements.
> 4. Known cultural resources protected from vandalism unauthorized excavation, or accidental destruction.
> 5. Properly stored and classified artifacts for ongoing study.
> 6. Public awareness and appreciation of both visible and intangible historic and cultural resources.

To implement the primary goal and the objectives, the Conservation Element contains the following policies:

> CO-150. Utilize local, state and national resources, such as the NCIC, to assist in determining the need for a cultural resources survey during project review.
>
> CO-151. Projects involving an adoption or amendment of a General Plan or Specific Plan or the designation of open space shall be noticed to all appropriate Native American tribes in order to aid in the protection of traditional tribal cultural places.

CO-153. Refer projects with identified archeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend appropriate means of protection and mitigation. The Committee shall coordinate with the Native American Heritage Commission in developing recommendations.

CO-154. Protection of significant prehistoric, ethnohistoric and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.

CO-155. Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeological significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project developer shall provide the burden of proof that off site reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.

CO-157. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

CO-159. Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.

CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

CO-162. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

CO-166. Development surrounding areas of historic significance shall have compatible design in order to protect and enhance the historic quality of the areas.

CO-169. Restrict the circulation of cultural resource location information to prevent potential site vandalism. This information is exempt from the "Freedom of Information Act".

DISCLOSURE OF CULTURAL RESOURCES INFORMATION

Public disclosure of site specific cultural resources information is expressly exempt from the California Public Records Act, Government Code Sections 6250-6270. Furthermore, information obtained during Native American consultation or through consultation with the local and state agencies, including the North Central Information Center (NCIC), should remain confidential and is exempt from public disclosure under Senate Bill 922. Additionally Sacramento County staff has signed an "Agreement to Confidentiality" with the NCIC that states that site specific information will not be distributed or released to the public or unauthorized individuals. An authorized individual is a professional archaeologist or historian that qualifies under the Secretary of Interior's standards to view confidential cultural resources materials.

SIGNIFICANCE CRITERIA

CEQA requires project proponents to assess a project's potential effects on significant historical resources (i.e., those that are listed or eligible for listing in the CRHR or in a local register or survey that meets the requirements of PRC 5020.1[k] and 5024.1[g]). This entails the following steps.

- Identify potential historical resources.
- Evaluate the significance of identified historical resources.
- Evaluate the anticipated effects of a project on all significant historical resources.

Under CEQA, only effects on significant resources are considered potentially significant, so only those impacts need be analyzed in detail.

THRESHOLDS FOR DETERMINING SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, a project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Cause a substantial adverse change in the significance of an archaeological resource that is a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of a built environment resource that is a historical resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

METHODOLOGY

Review of previous cultural resource studies, archival research, Native American consultation, and fieldwork were conducted to establish what cultural resources may be present within the project area and, furthermore, may be impacted as a result of implementation of the proposed project.

PRE-FIELD RESEARCH

PREVIOUS STUDIES FOR THE MATHER FIELD AREA

In 2012, ESA prepared a Cultural Resources Survey Report (ESA Report) in support of the Environmental Impact Study (EIS) for the Mather Specific Plan Project. This project has essentially the same boundary as the subject Mather Specific Plan Project. In October of 2014 and again in March of 2015, ICF completed addendums to the ESA Report providing an updated overview of cultural resources located within the Area of Potential Effects (APE) for the project as established by ESA in 2012. To ensure that the cultural resources technical work is addressed for CEQA compliance, the analysis presented in the technical addendum reports covers the entirety of the APE for the EIS, the Mather Field Project area including the proposed Preserve, and includes the proposed project level improvements to the Zinfandel Drive area that differ from what was previously proposed in the EIS.

The information presented here and the analysis of impacts is based on the following studies.

- *Mather Specific Plan Project Sacramento County, California.* Draft Phase Cultural Resources Survey Report. Draft December 2012. Prepared for the United States Army corps of Engineers, Sacramento District (Environmental Science Associates (ESA) 2012).
- *Historic Resources Inventory and Evaluation Report: Sacramento Mather Airport, Sacramento County, California*. Davis, CA (Herbert, Rand, Greg Rainka, and Chandra Miller (JRP) 2011).
- *Revised Draft: Archaeological Resources Inventory and Evaluation of MAMP 3 and MAMP 4, Mather Airport, Sacramento County California. Sacramento, CA* (Holson, John, Stephanie Cimino, Ellie Reese, and Amy Kovak (Pacific Legacy) 2010).
- *Final Archaeological Resources Inventory and Evaluation Sacramento Mather Airport, Sacramento County, California*. Final. January. Prepared for CDM, Sacramento, CA (Pacific Legacy, Inc. 2011).

- *Mather Specific Plan Project Sacramento County, California: Draft Phase, Cultural Resources Survey*. Sacramento, CA (Marks, Brian S. and Kathy Anderson (ESA) 2012).

Previous survey coverage for these reports is illustrated in Plate CR -1. No previously recorded resources identified through the previous studies or the records search have been recommended or determined eligible for listing in the NRHP or CRHR.

INFORMATION CENTER RECORD SEARCH

On April 4, 2014, ICF International (ICF) conducted an updated records search for the Mather Field study area at the North Central Information Center (NCIC) of the California Historical Information System (CHRIS) at California Sacramento State University, Sacramento. The NCIC maintains the State of California's official records of previous cultural resource studies and recorded cultural resources for Sacramento County. ICF consulted the CHRIS base maps of previously recorded cultural resources for the entire APE, and a ¼-mile buffer around the project area. Additional sources of information, consisting of previously conducted cultural resources surveys and historic maps (from the U.S. Geological Survey and General Land Office), were selectively reviewed to identify areas that have a high potential for the presence of historic and prehistoric sites. The following resources were reviewed:

- National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).
- California Office of Historic Preservation Historic Property Directory (2010).
- California Inventory of Historic Resources (1976).
- Historic Properties reference map.

Additionally, ICF requested a new list of studies for the records search area; 33 studies have been conducted. The updated records search identified no new sites in the Mather Field project boundaries subsequent to the 2012 ESA report. However, five new resources were located within the ¼-mile buffer (P-34-2216, P-34-2219, P-34-719, P-34-2224, and P-2225). These resources are all located outside of the overall Mather Field Project Area.

NATIVE AMERICAN AND HISTORICAL SOCIETY CONTACTS

On May 16, 2013, the County of Sacramento Department of Community Development sent a notice to the Native American Heritage Commission (NAHC) requesting that it consult its sacred lands file and send a list of individuals and organizations that may have knowledge of properties of cultural or religious importance to Native Americans located in the APE and vicinity of Mather Field. The NAHC responded, indicating that no sacred lands file resources occur in or near the project area. The NAHC also provided a list of Native American individuals and organizations. The County of Sacramento Department of Community Development sent letters to all parties on the NAHC list and to all federally recognized tribes on July 24, 2013. The Shingle Springs Rancheria

responded by letter on September 6, 2013, indicating a desire to be added as a consulting party in identifying any Traditional Cultural Properties that may exist within the project's APE. Consultation with Shingle Springs Rancheria is ongoing.

Additional Native American Correspondence

On October 2, 2013, ICF sent a letter to the NAHC requesting a search of its Sacred Lands database and a list of Native American contacts for the project area. The NAHC responded by fax on October 17, 2013. The NAHC response letter indicated that no sacred lands are located within the project area. On December 20, 2013, ICF forwarded a copy of the NAHC response to USACE archaeologist Erin Hess.

Area of Potential Effects (APE) for Cultural Resources

The APE used to identify and assess cultural resources for the programmatic level evaluation is shown in Plate CR -1. The APE used for the project level analysis for the Zinfandel Drive and trunk sewer extension is shown in Plate CR -2.

The APEs generally follow the maximum possible area of direct and indirect impacts resulting from the proposed project; including land use designation changes, all new construction, easements and any potential ground disturbing activities which may be required of habitat restoration projects within the proposed Preserve. The APE for the programmatic evaluation does not include the areas of existing development that will not be subject to land use designation changes or direct physical impacts associated with this project. The excluded areas are, generally, the Independence at Mather residential development, the Mather Golf Course and the majority of the Mather Regional Park, the Tracon facility north of Douglas Boulevard and east of Zinfandel Drive as well as the Mather Airport facility. It should be noted that the programmatic APE utilized includes areas north of the Mather Airport runway which are not included in the land use areas associated with the proposed project.

Field Assessment

On May 15 and May 27, 2014, and between January 13 and January 23, 2015, an ICF architectural historian, an ICF archaeologist and ICF cultural resources specialists performed updated field surveys of the APE as presented in Plate CR -1. The surveys resulted in the identification of 73 resources within the Mather Field APE. Of these 73 resources, twelve (12) are located within the proposed Preserve and three (3) are located within the Zinfandel Drive and trunk sewer APE.

During the surveys, an ICF architectural historian conducted a survey of all built environment resources (i.e., buildings, structures and linear features) constructed prior to 1989 located within the proposed project area. These buildings and structures were documented with photographs and written notes.

The ICF archaeologist conducted a pedestrian survey of the Zinfandel Drive and trunk sewer APE using 15-meter-wide parallel transects and the Preserve area using 30-meter-wide parallel transects, inspecting the ground surface for evidence of surface and subsurface deposits. A survey-grade (sub-meter) handheld GPS unit was used to verify

the proposed project area location, and photographs were taken of the proposed project area to document ground conditions. Ground visibility was good, ranging from 70-100% for the Zinfandel Drive area and ranged from good to poor due to dense vegetation within the Preserve area.

California Department of Parks and Recreation (DPR) 523 forms were completed for buildings, structures, objects and sites within the project area. Copies of these DPR forms are provided in ICF's 2014 Addendum Report for this project. This technical study can be reviewed at 827 7th Street, Room 225, Sacramento, CA 95814.

Field Assessment Results, Impacts And Analysis

Summary of Findings for Cultural Resources Located in the Mather Field Study Area

A total of 73 resources (buildings, structures, infrastructure remains, and previously identified sites) originally constructed before 1989 are located in the APE. As noted above, this study follows the methods for evaluating Mather AFB buildings and structures as established by JRP (2011). Resources constructed after 1989 are not included in this study due to their age. Table CR-1, below, provides a summary of the cultural resources identified within the APE noted in the ESA 2012 report and in the ICF 2014 and ICF 2015 Addendum Reports. Overall, the resources that remain within the APE are related to the development of Mather AFB. The resources that are shaded in Table CR-1 are resources within the APE but not subject to land use designation changes related to the proposed project.

Forty-three structures located in the APE and built before 1989 have been categorized according to the property types established in JRP's 2011 report and were fully evaluated under NRHP and CRHR Criteria. These buildings and structures were also evaluated in accordance with Section 15064.5(a) the California Environmental Quality Act (CEQA) guidelines. Through the evaluation, these buildings were found not to be significant resources eligible for listing in the NRHP or CRHR. The following text provides a short summary of why these forty buildings and structures do not have historical significance under the NRHP or CRHR Criterion.

The 43 structures in the APE are among dozens of extant buildings at the former Mather AFB. All of the buildings that remain were constructed during the Cold War-era expansion of the base during the 1950s and 1980s. These resources were not found to be significant additions to Mather AFB. There is no indication that they played an important role individually or as a group in supporting Mather AFB operations and do not appear to be significant under NRHP Criterion A or CRHR Criterion 1.

According the National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation,* NRHP Criterion B "is generally restricted to those properties that illustrate a person's important achievements" (U.S. Department of the Interior 1995: 14). Examples of property types that have proven association with significant individuals

under this Criterion include “the homes of an important merchant or labor leader, the studio of a significant artist, and the business headquarters of an important industrialist” (U.S. Department of the Interior 1995: 14). To be found eligible under NRHP Criteria B or CRHR 2, the property has to be directly tied to the important person and the place where the individual conducted or produced the work for which he or she is known. Military buildings and structures were constructed by the government in order to support various base operations and activities. These resources represent the collective efforts of many individuals, rather than the work of any single individual. Thus, the remaining Mather AFB buildings and structures ultimately lack the level of singular importance necessary for listing in the NRHP under Criterion B or the CRHR under Criterion 2.

Most of these resources are unadorned buildings and structures typical of Utilitarian architecture and engineering features found on military bases throughout California and elsewhere. Therefore, they do not appear to be significant under NRHP Criterion C or CRHR Criterion 3. Finally, because these building and structures are not likely to yield any information important in prehistory or history, they do not appear to be significant under NRHP Criterion D or CRHR Criterion 4.

The remaining 30 of the 73 resources identified, are resources that ICF has categorized as minor, ubiquitous, or fragmentary infrastructure (MUFI). Essentially, they are remains of the Mather AFB infrastructure and no longer retain necessary associations to context, historic distinction, or integrity to be considered eligible for listing in the NRHP or CRHR. For this project MUFI is defined as the following resource type:

- Previously identified resources that no longer exist.
- Building and structure ruins and foundations.
- Air strips and landing pads.
- Culverts.
- Fences, walls, gates, and gate posts.

These resources were fully evaluated under NRHP and CRHR Criteria in DPR 523 forms are located in Appendix D of the ICF 2014 Addendum Report and Appendix C of ICF 2015 Addendum Report.

Table CR-1: Identified Cultural Resources

Resource Reference Number	Previous Site Name	Mather Building Number	Original Use if known	Property Type/Note	Built Environment or MUFI	Year Built	OHP Status Code-6Z*
1	P-34-1979			Foundation is gone	MUFI	n/a	6Z
2				MUFI Structure remains - missile way	MUFI	ca. 1964	6Z
3	MAMP-03			Concrete foundations, well, and trash area	MUFI		6Z

Resource Reference Number	Previous Site Name	Mather Building Number	Original Use if known	Property Type/Note	Built Environment or MUFI	Year Built	OHP Status Code-6Z*
4		7001	Shop			1956-60	6Z
5		7033	Shop			1977	6Z
6	MAMP-04			Trash pit			6Z
7		4376	Aircraft maintenance hanger			1941-42	6Z
8		4442	Warehouse			1971	6Z
9		4468	Shop/offices			1965	6Z
10	MAMP-01		Infrastructure at Mather Air Force Base		MUFI	n/a	6Z
11		unknown	Park Drive		BE	ca. 1966	6Z
12		unknown	off Park Drive		BE	ca. 1966	6Z
13	MSP-03		Concrete observation bunker		BE	ca. 1950s	6Z
14	MSP-04			Concentrated scatter Of munitions	MUFI	n/a	6Z
15	MSP-RAB-01	unknown	Cinderblock building		BE	1960	6Z
16	MSP-06		Isolated flake		MUFI	n/a	6Z
17	MSP-05		Isolated flake		MUFI	n/a	6Z
18				Culvert	MUFI	n/a	6Z
19	MSP-RSB-01	10530	Office		BE	1954	6Z
20	MSP-RSB-02	10550	NavAid Shop		BE	1951	6Z
21	MSP-RSB-07	10410	Office		BE	1960	6Z
22	MSP-RSB-05	10320	Rod and Gun Club		BE	1953	6Z
23	MSP-RSB-06	10300	Administration		BE	1951	6Z
24	MSP-07	n/a		Foundation remains	MUFI	n/a	6Z
25	MSP-RSB-09	10120	FAA long-range radar pad		BE	1960	6Z
26		10150	FAA dry storage		BE	1951	6Z
27	MSP-08	unknown		Remains of original radar dome and modern building	MUFI	n/a	6Z
28	MSP-RSB-08	10360	Office		BE	1962	6Z
29	MSP-RSB-03	10450	Administration		BE	1951	6Z
30	MSP-RSB-04	10400	Training office		BE	1951	6Z
31	MSP-RSB-10	10100	Military Affiliate Radio Station		BE	1951	6Z

Resource Reference Number	Previous Site Name	Mather Building Number	Original Use if known	Property Type/Note	Built Environment or MUFI	Year Built	OHP Status Code-6Z*
			(MARS)				
32	P-34-1980			Building foundations	MUFI	n/a	6Z
33	P-34-1981	unknown	Unknown		BE	ca. 1940s	6Z
34	MSP-02	unknown	Munitions bunker		BE	ca. 1950s	6Z
35	P-34-4167				MUFI	n/a	6Z
36	P-34-4166	8560	Unknown	Building has been demolished	MUFI	ca. 1950s	6Z
37				Culvert	MUFI	n/a	6Z
38				Culvert	MUFI	n/a	6Z
39		18003	Dog kennel		BE	1961	6Z
40		18002	Dog kennel office		BE	1961	6Z
41		18005	Water well		BE	1958	6Z
42		unknown		Structure remains	MUFI	n/a	6Z
43	MSP-MSB-01	108202 and 18021	Entry control office		BE	1958	6Z
44	MSP-MSB-10	18010	Munition maintenance office		BE	1958	6Z
45		18011	Electrical generator station		BE	1980	6Z
46	MSP-MSB-09	18015	Munitions inspection		BE	1958	6Z
47		18018	Missile assembly		BE	1975	6Z
48	MSP-MSB-08	18025	Storage igloo		BE	1958	6Z
49	MSP-MSB-07	18030	Storage igloo		BE	1958	6Z
50	MSP-MSB-06	18035	Storage igloo		BE	1958	6Z
51	MSP-MSB-05	18040	Storage igloo		BE	1958	6Z
52		18092	Security control tower	Structure remains	MUFI	1958	6Z
53	MSP-MSB-04	18050	Storage igloo		BE	1958	6Z
54		18042, 18044, 18046	Storage igloos		BE	1975	6Z
55	MSP-MSB-02	18070	Munitions shop		BE	1958	6Z
56	MSP-MSB-03	18060	Munitions storage		BE	1958	6Z
57a/b		18080 and 18090	Explosives facilities	Structure remains	MUFI	1966	6Z
58		18051	Fire team facility		BE	1980	6Z
59				Culvert	MUFI	n/a	6Z
60				Culvert	MUFI	n/a	6Z

Resource Reference Number	Previous Site Name	Mather Building Number	Original Use if known	Property Type/Note	Built Environment or MUFI	Year Built	OHP Status Code-6Z*
61	MSP-01			Fence posts	MUFI	n/a	6Z
62			Paratrooper landing pad			ca. 1964	6Z
63				In ground metal structure	MUFI	ca. 1953	6Z
64				Concrete foundation and parking lot	MUFI	ca. 1964	6Z
65				Foundation and gridded postholes	MUFI	ca. 1957	6Z
66				Split-rail/ log fence	MUFI	ca. 1966	6Z
67				Foundation	MUFI	ca. 1964	6Z
68				Footings from removed utilities	MUFI	ca. 1954	6Z
69		10090	Storage			1954	6Z
70				Board-formed culvert	MUFI	ca. 1950	6Z
71		10060	Airfield equipment			1954	6Z
72				Concrete foundations and footings from removed utilities	MUFI	ca. 1957	6Z
73				Concrete embankment	MUFI	ca. 1964	6Z
*Found ineligible for NR, CR or Local designation through survey evaluation							

RESOURCES LOCATED IN THE ZINFANDEL DRIVE AND TRUNK SEWER EXTENSION STUDY AREA

Only three (3) resources were located in the Zinfandel Drive Study Area. They are Resource Reference Numbers 36, 37, and 38 and are presented in Plate CR -2. These resources were not found to be eligible for listing in the NRHP or CRHR and therefore are not historical resources for the purposes of CEQA. Details for these resources can be found above in Table CR-1. As noted above, DPRs for these resources are located in the ICF 2014 Addendum Report.

SUMMARY AND CONCLUSIONS

As a result of this study, a total of 73 cultural resources (archaeological and built environment resources) were identified in the overall Mather Field project boundary. The total number of resources includes 12 within the proposed Preserve area and three (3) with the Zinfandel Drive APE. The ICF Addendum Reports conclude that none of these resources appear to meet the criteria for listing in the NRHP and/or the CRHR. There does not appear to be the potential for a historic district or a historic landscape for which these resources might be considered to be contributing elements. Consequently,

none of the 73 buildings, structures or objects appears to be historical resources for the purposes of CEQA nor should they be considered historic resources under NEPA or Section 106 of the Historic Preservation Act.

Programmatic Level Impacts to Cultural Resources

Potential Destruction of Buried Archeological Resources

No archaeological resources were identified as a result of studies conducted in the Mather Field APE, but it is still possible that significant buried archaeological materials may be found within the APE. Disturbance or destruction of these resources may result from ground-disturbing activities associated with construction activities within the APE. This impact would be significant, but implementation of Mitigation Measure CR-1 would reduce this impact to a ***less than significant*** level.

Potential Destruction or Disturbance of Human Remains

No human remains are known to be present within the Mather Field APE. However, it is possible that buried human remains could be located within Mather Field that have not been identified due to a lack of surficial evidence and it is possible that human remains, particularly those outside a designated cemetery, may be encountered during ground-disturbing activities associated with construction activities. This impact would be significant, but implementation of Mitigation Measure CR-1 would reduce this impact to a ***less than significant*** level.

Potential Destruction of Buried Paleontological Resources

Late Pleistocene fossils have been located in the Teichert gravel beds south of Highway 16 and south of Mather Field (U.S. Department of Defense, 1993). Those fossils were approximately 100,000 years old and included terrestrial vertebrates ranging from mammoths to moles, shrews and mice. It has been speculated that similar fossils might be found in the clays and sandy interbeds in the gravel deposits underlying Mather Field. According the Department of Defense the only action that would disturb these deeply buried remains is mining. As noted in the Land Use chapter of this document, the project includes a proposal to add an Aggregate Resource Area combining designation on the west side of the project site; however, any future mining activities will need to undergo further permitting and environmental review processes. Impacts associated with paleontological resources will be assessed when details of future mining operations are known and applications for that activity come forward. The proposed project does not allow for mining activities at Mather Field and impacts to paleontological resources are ***less than significant.***

Potential Disturbance or Destruction of Known Significant Built Environment Historic Resources

No architectural resources that meet the criteria of significance under CEQA were located in the Mather Field APE. Therefore, no known significant architectural resources would be affected by the proposed project. Project impacts related to architectural resources are ***less than significant***.

PROJECT LEVEL (ZINFANDEL DRIVE/ TRUNK SEWER) IMPACTS TO CULTURAL RESOURCES

POTENTIAL DESTRUCTION OF BURIED ARCHEOLOGICAL RESOURCES

No archaeological resources were identified as a result of studies conducted in the Zinfandel Drive/ trunk sewer APE; however, it is still possible that significant buried archaeological materials are present within the study area. Disturbance or destruction of these resources may result from ground-disturbing construction activities associated with the proposed extension of Zinfandel Drive and the trunk sewer line within the project area. This impact would be significant, but the implementation of Mitigation Measure CR-1 would reduce this impact to a ***less than significant*** level.

POTENTIAL DESTRUCTION OR DISTURBANCE OF HUMAN REMAINS

No human remains are known to be present within the Zinfandel Drive/ trunk sewer APE. However, it is possible that buried human remains could be located within the area that have not been identified due to a lack of surficial evidence and it is possible that human remains, particularly those outside a designated cemetery, may be encountered during ground-disturbing construction activities related to the proposed extension of Zinfandel Drive and the trunk sewer line. This impact would be significant, but implementation of Mitigation Measure CR-1 would reduce this impact to a ***less than significant*** level.

POTENTIAL DISTURBANCE OR DESTRUCTION OF SIGNIFICANT BUILT ENVIRONMENT HISTORIC RESOURCES

No significant architectural resources are located within the Zinfandel Drive/ trunk sewer APE that meet the criteria of significance under CEQA. Therefore, no historic architectural resources would be affected by the proposed project. Project impacts related to architectural resources are ***less than significant***.

MITIGATION MEASURES

CR-1: UNANTICIPATED DISCOVERIES OF CULTURAL RESOURCES

If subsurface deposits believed to be cultural or human in origin are discovered during construction activities, including those activities related to and consistent with a wetlands management plan within the proposed Preserve area, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the North Central Information Center (NCIC) as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

9 HAZARDOUS MATERIALS

INTRODUCTION

This chapter describes the hazardous materials and waste in the project area resulting from past and ongoing uses of the property, includes a description of applicable federal, state and local regulations and policies that influence hazardous materials and waste, and identifies potential impacts to future construction activities, residents and workers relating to exposure to hazardous materials and waste.

BACKGROUND

The term "hazardous substances" refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency, or if it has characteristics defined as hazardous by such an agency. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "a substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

The definition of a hazardous waste, as regulated by the California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC), is found in the California Health and Safety Code Section 25141 (b), as follows:

> "…as hazardous waste because of its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed."

A hazardous waste is a "solid waste" that exhibits hazardous characteristics. The Federal Environmental Protection Agency (EPA) has defined the term "solid waste" to include the following: any gaseous, liquid, semi-liquid, or solid material that is discarded or has served its intended purpose, unless the material is excluded from regulation. Such materials are considered wastes whether they are discarded, reused, recycled, or reclaimed. The EPA classifies a waste as hazardous if it (1) is listed on the EPA's list of hazardous waste and/or (2) exhibits one or more of the following properties: ignitability (including oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (including strong acids and bases), reactivity (including materials that are explosive or generate toxic fumes when exposed to air or water), or toxicity (including materials listed by the EPA as capable of inducing systemic damage in humans or animals).

ENVIRONMENTAL SETTING

The primary historic use of the project site is associated with the former Mather Air Force Base (AFB). Mather AFB was used at various times from 1918 to 1993 by the Air Force and the airfield was reopened as a civilian airport in 1995. AFB housing was also developed, then that portion of the project site was redeveloped as the existing Independence at Mather housing development. Due to the types and ages of past uses within the project area, several areas of Mather Field have been contaminated with or contain hazardous materials.

Several studies analyzing the existing conditions at Mather Field have been conducted since the 1980's and contaminated sites have been identified and restrictions and measures have been developed to address hazardous materials at Mather Field. Since 1982, approximately 89 contaminated sites have been identified within Mather Field as a result of aircraft fueling and maintenance activity, fire protection training, corrosion control, past disposal activities, and landfilling. Main contaminants include solvents, petroleum products, and various solid wastes. In addition, pesticides, herbicides, asbestos, polychlorinated biphenyls (PCBs), radon, ordnance, metals (including lead), low-level radioactive waste, landfill gases, and medical waste, which were used, stored, or generated as part of base operations have been identified as potential sources of contamination.

Since Mather Field was operated as a federal military installation, the US EPA, Department of Defense (DOD), U.S. Air Force (USAF), California EPA, and Department of Toxic Substance Control (DTSC) oversee hazardous substances investigations and remediation. The DOD also oversees its own program, Installation Restoration Program (IRP), which identifies, characterizes and remediates contamination at military facilities. The DOD implemented IRPs in 1980 to clean up hazardous substances/waste contamination on its installations. The program established a process for identifying and evaluating past disposal sites, controlling migration of contaminants, and controlling potential hazards to human health and the environment. The DOD has the authority, through Section 211 of the Superfund Amendments and Reauthorization Act (SARA),

codified as the Defense Environmental Restoration Program (DERP), to conduct its own environmental restoration programs.

The Mather IRP identified soil and groundwater contamination throughout the airfield and surrounding areas, and the former Mather Air Force Base is listed on the National Priorities List (NPL). Remediation is currently underway at several locations at Mather, as shown in Plate HM -1. Existing soil contamination is undergoing remediation using in situ treatment (soil vapor extraction (SVE) and/or bioventing) and excavation and transport of contaminated soils to an on-site ex situ bioremediation facility. There are currently nine sites with active SVE/biovent remediation. Three on-site landfills have been capped and closed, and a minimum of thirty years of post-closure monitoring and maintenance is being conducted. Soil sampling is also occurring at the location of two above-ground storage tanks.

According to the U.S. Air Force Civil Engineer Center website (http://www.afcec.af.mil/), Mather Field is in the final stages of environmental cleanup and all major decisions related to the cleanup effort have been made, documented and are overseen by the Air Force Real Property Agency, the U.S. EPA, DTSC, Central Valley Water Quality Control Board, and the Integrated Waste Management Board. The Air Force has spent more than $162 million on cleanup activities and 75 of the 89 identified sites have gone through remediation. Although significant remediation has occurred to date, substantial work remains to be completed.

The GeoTracker program, which is a resource for identifying environmental data (including the location leaking storage tanks, cleanup sites, disposal sites, monitoring wells, sites with hazardous waste permits and the status of such sites) for regulated facilities, and is maintained by the State Water Resources Control Board, indicates that there are several open sites still within Mather Field. Plate HM -2 provides an overview of the closed and open sites within and adjacent to Mather Field. According the GeoTracker database the majority of the sites that are open and still require remediation relate groundwater contaminated with Volatile Organic Compounds (VOC) and perchlorate that is often used to produce rocket fuel, capped landfills and associated groundwater plumes, and soils contaminated with PCE, TCE, Benzine, gasoline and diesel fuel.

According to Sacramento County Environmental Management Department (EMD) staff (D. Von Aspern, pers. Comm Nov. 14, 2013), the hazardous materials issues at Mather Field have been known of and documented for several years and it is unlikely that new substantial discoveries will occur; however, there is a potential for minor discoveries of previously unidentified contaminates during future construction activities.

Plate HM -1: Mather Field Remediation Areas

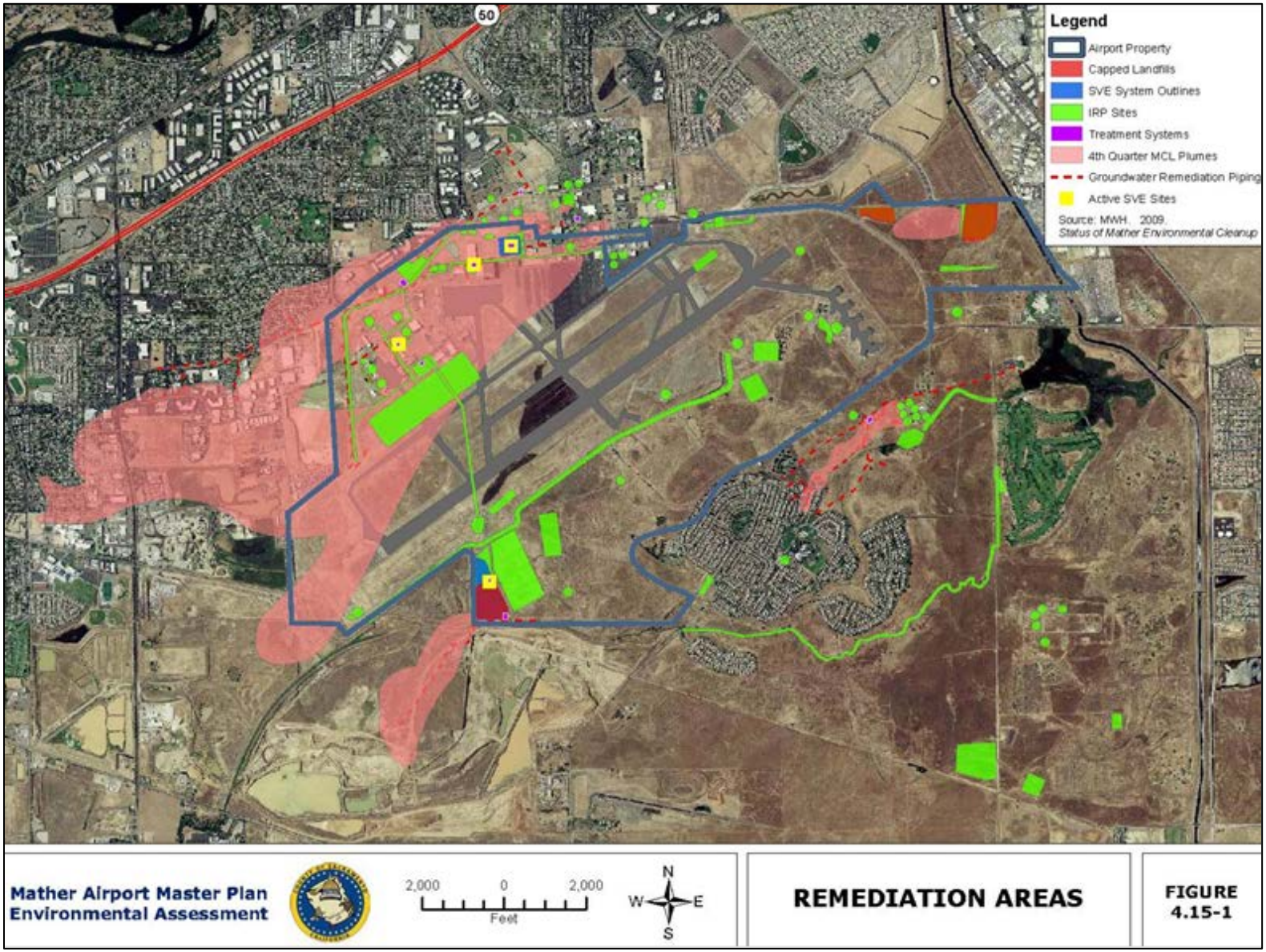
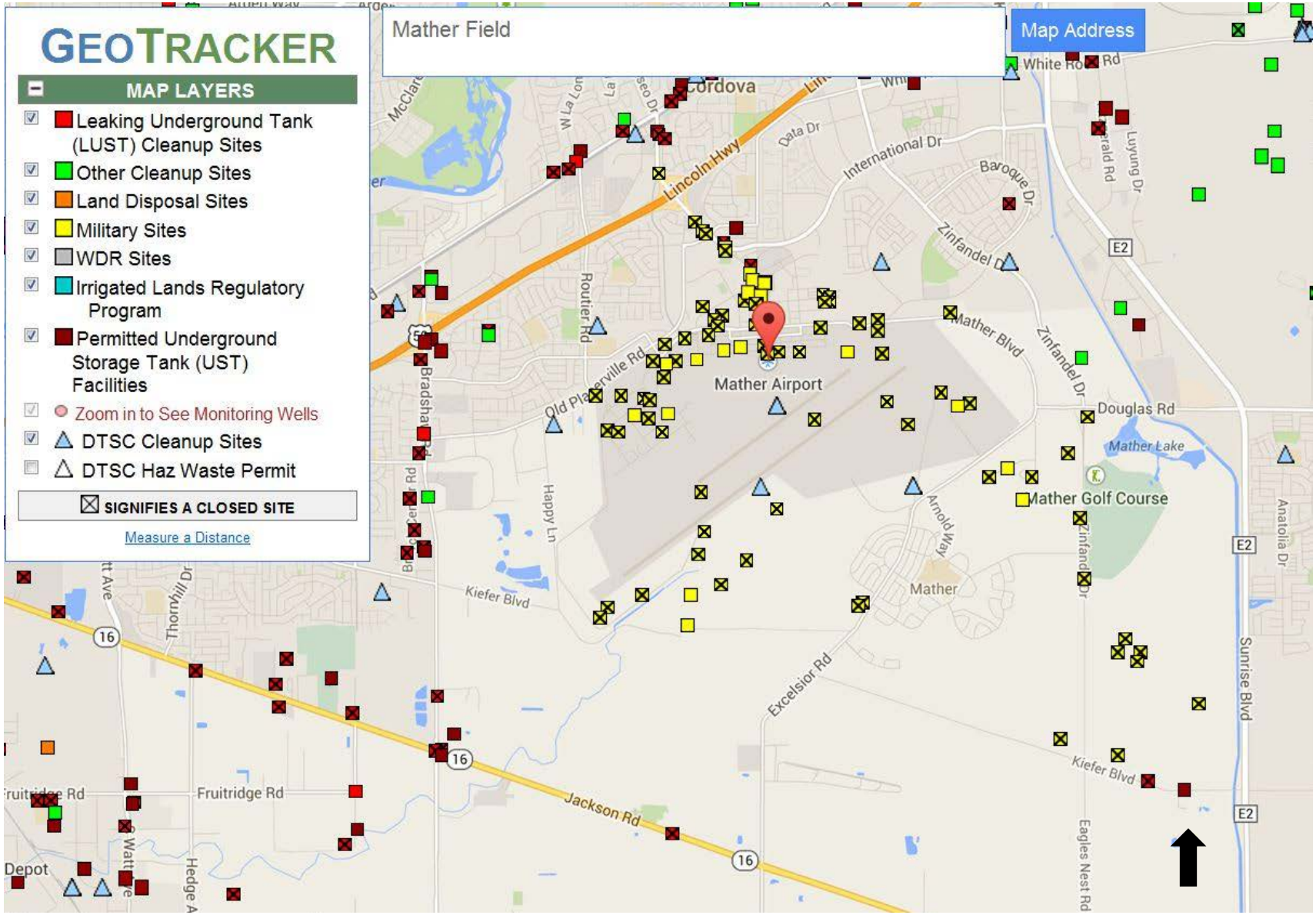


Plate HM -2: GeoTracker Mapped Cotamination Sites in and Adjacent To Mather Field



ASBESTOS-CONTAINING MATERIALS

Asbestos is a naturally occurring mineral that can be hazardous to human health if it becomes airborne. Some of the diseases associated with asbestos exposure include lung cancer, mesothelioma, and asbestosis. Asbestos was previously used and stored at Mather Field. A major base-wide asbestos survey was completed in 1990; results of the survey indicated that asbestos was prevalent in buildings within Mather Field. Asbestos was found in various types of uses including but not limited to piping insulation, floor tiles, and ceiling material (U.S. Air Force, 1992). Asbestos was managed consistent with the Air Force policy for closing bases, which includes removal or control if it is in a location and condition that constitutes a health hazard or is otherwise required by law (e.g. schools).

LEAD BASED PAINT

Human exposure to lead has been determined to result in adverse health risks. Exposure to lead can cause severe adverse health effects, especially in children. Although no comprehensive lead-based paint surveys have been conducted on buildings located throughout Mather Field, it is assumed that lead-based paint is likely present on or within structures that were constructed prior to or during 1978 when EPA banned lead-based paint

REGULATORY SETTING

Throughout the United States including California, hazardous materials are regulated by a number of federal and state laws, most of which are promulgated by the United States Environmental Protection Agency (US EPA) and the California Environmental Protection Agency (Cal EPA). On the federal level, these regulations include the Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Clean Air and Clean Water acts, Safe Drinking Water Act, Hazardous Materials Transportation Act, and the Emergency Planning and Community Right-to-Know Act. Together, these regulations serve as guiding principles governing the storage, use, and transportation of hazardous and other regulated materials from their time of origin to their ultimate disposal. The cleanup and remediation of environmental contamination resulting from the accidental or unlawful release of these materials and substances are also governed by these regulations. Solid wastes that are not classifiable as hazardous are regulated under RCRA and pollution prevention is also regulated under the Clean Air, Clean Water, and Safe Drinking Water acts.

On the state level, Cal EPA's DTSC is responsible statewide for matters concerning the use, storage, transport, and disposal of hazardous materials. Cal EPA's Office of Environmental Health Hazard Assessment (OEHHA) is involved in the evaluation of risks to public health and the environment posed by hazardous materials and environmental contamination. Cal EPA delegates much of the permitting, inspection, and enforcement responsibility for hazardous materials, hazardous waste, ASTs, USTs,

and other related state programs to local governments under the Certified Unified Program Agency (CUPA) program.

County EMD is both the local Environmental Health regulatory agency and the County-wide Certified Unified Program Agency. County EMD is also the Local Oversight Program for UST site investigation, cleanup, and closure, and the Local Enforcement Agency (LEA) for landfills. The Central Valley Regional Water Quality Control Board (CVRWQCB) also has jurisdiction over the management of surface and groundwater contamination such as the cleanup of spill sites. Finally, the Sacramento Metropolitan Air Quality Management District (SMAQMD) is involved in the assessment of health and environmental hazards associated with both "criteria" and toxic (or hazardous) air pollutants.

SACRAMENTO COUNTY GENERAL PLAN POLICIES

The Sacramento County General Plan Hazardous Materials Element provides a hazardous materials policy plan to manage hazardous materials and minimize their effects on humans and the environment. The General Plan policies include measures to educate and inform the public about hazardous waste management, implement public health and safety programs, and coordinate with other agencies to enforce hazardous materials regulations. The General Plan also provides details on emergency response plans for responding to hazardous material spills and other emergency actions.

The Sacramento County General Plan policies that are pertinent to Hazardous Materials are policies HM-1 through HM-15. These policies are intended to support the stated objectives of the Hazardous Materials Element of the General Plan. As presented in the element the objectives are as follows:

> County-wide public awareness of all available hazardous material informational and disposal programs;
>
> Protect the residents of Sacramento County from the effects of a hazardous material incident via the implementation of various public health and safety programs;
>
> Coordinated efforts by the applicable regulatory agencies, thereby facilitating effective long-term hazardous materials management;
>
> Enforce all federal, state, and local regulations and if necessary prosecute those cases involving the mismanagement of hazardous materials; and
>
> The availability of reliable and solvent funding sources to augment hazardous materials management

The policies in the Hazardous Materials Element most applicable to the Project are as follows:

HM-4. The handling, storage, and transport of hazardous materials shall be conducted in a manner so as not to compromise public health and safety standards.

HM-8. Continue the effort to prevent ground water and soil contamination.

HM–9. Continue the effort to prevent surface water contamination.

MATHER FIELD SPECIAL PLANNING AREA ORDINANCE

The Mather Field SPA Ordinance includes performance standards some of which relate to hazardous materials. According to the SPA Ordinance the following performance standards must be met by all public and private development projects and leases/ or sales of existing buildings, facilities and/or property owners:

1. If the potential for previously unidentified contamination is suspected at proposed development sites, or if unidentified contamination is encountered as an unforeseen condition, sampling shall be conducted by qualified personnel, in accordance with all applicable regulations to determine the constituent levels and the extent of the contamination. If contamination is identified, remediation and disposal procedures shall be undertaken by qualified personnel in accordance with all applicable regulations, and in coordination with all applicable regulatory agencies. If remediation is deemed infeasible, construction shall be conducted by trained personnel utilizing proper personal protective equipment and practices and procedures to mitigate any health hazards.
2. If asbestos fibers are suspected or identified in soils, buried asbestos-cement pipe, or existing building materials at proposed development sites, then additional sampling shall be performed prior to any construction activities to identify asbestos-containing materials that may be contained in building materials or obscured behind walls, above ceilings, and beneath floors. Any necessary asbestos abatement procedures or demolition activities affecting asbestos-containing material shall be performed by a licensed asbestos abatement contractor with properly trained personnel in accordance with all federal, state, and local regulations.
3. If lead concentrations above levels at which abatement is recommended are suspected or identified in existing soil or structures at proposed development sites, additional testing shall be performed as necessary to identify lead concentrations. Any necessary lead abatement procedures shall be performed with properly trained personnel in accordance with all applicable federal, state, and local regulations.
4. For property to be leased, transferred, or conveyed to the County by the Air Force, the County of Sacramento shall require that future development at Mather Field comply with any limitations or restrictions pertaining to hazardous substance remediation identified in any lease, transfer, or conveyance agreement. These agreements are currently under negotiation with the U.S. EPA, the California EPA, the U.S. Air Force, and the County.

5. Individual site plans for each development within Mather Field shall be coordinated with locations of groundwater extraction wells, air stripping towers, and other groundwater treatment facilities.
6. The County shall coordinate with the U.S. Air Force, the U.S. EPA, the California EPA, and other involved agencies, as appropriate, to assure that construction activities do not interfere with any adjacent and/or on-site remediation activities or unduly delay either project development or site remediation.

SIGNIFICANCE CRITERIA

Pursuant to the CEQA Guidelines, the County of Sacramento considers impacts to hazards and hazardous materials to be significant if a project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
5. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

METHODOLOGY

In order to identify the contaminated sites and hazardous materials within Mather Field, several resources were reviewed including previous site assessments prepared within the project area, existing regulatory documents related to Mather Field (including the CERCLA covenant to protect human health applicable to Mather Field), and the State GeoTracker and EnviroStor programs. Sacramento County EMD and California Department of Toxic Substances Control (DTSC) staff were also contacted in order to obtain recent updates to the body of knowledge related to toxic sites in the project area and to review project elements to assess any impacts that may result.

The proposed project includes land use designation changes within Mather Field as well as the extension of Zinfandel Drive and trunk sewer from their existing termini to the south along Zinfandel Drive in order to provide improved access and sewer service to

the central portion of the project site. The land use designation component of this project will be evaluated at a programmatic level and the Zinfandel Drive and trunk sewer component will have a project level analysis. The analysis for each level (programmatic and project) includes an overall assessment of soil and groundwater contamination as well as a more detailed assessment of the more substantial hazards within Mather Field.

IMPACTS AND ANALYSIS

PROGRAMMATIC LEVEL IMPACTS RELATED TO HAZARDOUS MATERIALS

CONTAMINATED SOILS AND GROUNDWATER

The project includes land use amendments related to industrial, recreation, public/ quasi-public, and UDA type land use designations. Since the proposed project does not include specific development proposals, it is currently not practical to identify the exact extent of ground disturbing activities that may occur as a result of construction activities within the project area. However, it can be assumed that development consistent with the proposed industrial, recreation, public/ quasi-public and UDA designations would involve site grading, excavation for utilities, trenching, backfilling, and construction of proposed facilities.

The project related land use amendments are located directly over several of the DOD identified IRP sites and capped landfills. Although a majority of IRP sites at Mather Field have been cleaned up and are no longer under remediation, excavation and construction activities at or near these areas could potentially expose construction workers and the general public to previously unidentified soil and/or groundwater contamination. Additionally, according to the *Draft Initial Site Assessment, South Mather Roadways Improvement Project* (pg 33) prepared by Blackburn Consulting in 2007, the land use areas are located where unidentified surficial and sub-surface residual contaminants are likely to be encountered.

Future construction activities could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, lead, contaminated debris, and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public. However, Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

SITE RW-016

According to the CERCLA covenants to protect human health and the environment that were adopted to identify and implement restrictions and remedial actions associated with hazard materials at Mather Field, radioactive waste is potentially present within the

proposed Industrial District southeast of the southern airport runway (refer to Plate HM -3). The radioactive waste site is known as RW-016 and is thought to contain approximately 60 low-level radioactive electron tubes placed in one gallon containers, encased in concrete and buried in 15 foot deep auger holes. Although RW-016 is thought to contain these materials, investigations revealed no radiation at the surface above background levels, nor in water from a nearby groundwater monitoring well. Inspection of the ground surface after the demolition of an overtopping structure revealed no evidence of the reported burial site. The covenant concludes that any excavation at RW-016 should be conducted with caution in order to avoid potential exposure to broken concrete containers and/or electron tubes. With Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered, impacts related to Site RW-016 are ***less than significant***.

Site XU-403

According to the CERCLA covenants to protect human health and the environment that were adopted to identify and implement restrictions and remedial actions associated with hazard materials at Mather Field, Mather Field was used for aerial gunnery and practice bombing activities at various times from 1918 to 1940. The practice bombing site has been identified as Site XU-403. Site XU-403 has been subject to extensive historical records search to assess the potential safety risk and a No Further Action (NFA) Explosive Safety Submission (ESS) was submitted to the Air Force Safety Center and in 2009 the Department of Defense Explosives Safety Board (DDESB) approved the NFA ESS and no land use restrictions apply to the site. However, the DDESB required the creation of a 3,000 foot safety zone for Site XU-403.

The purpose of this safety zone is to define an adequate boundary within which current and future land owners must be notified of the sites historical use as a practice bombing range. The DDESB notification is as follows:

> Some of the practice bombs at Mather [Field] contained a small amount of black powder explosive spotting charge and while there is no evidence to indicate that live demolition bombs were ever used at Mather Field, there is still the possibility that munitions with this spotting charge could be discovered at the Property. In the event that any metal object resembling military munitions, or a fragment thereof, is found, the item should not be touched or disturbed further and the local police or fire department should be contacted to report the finding.

~~Plate HM -3: Site RW-016~~

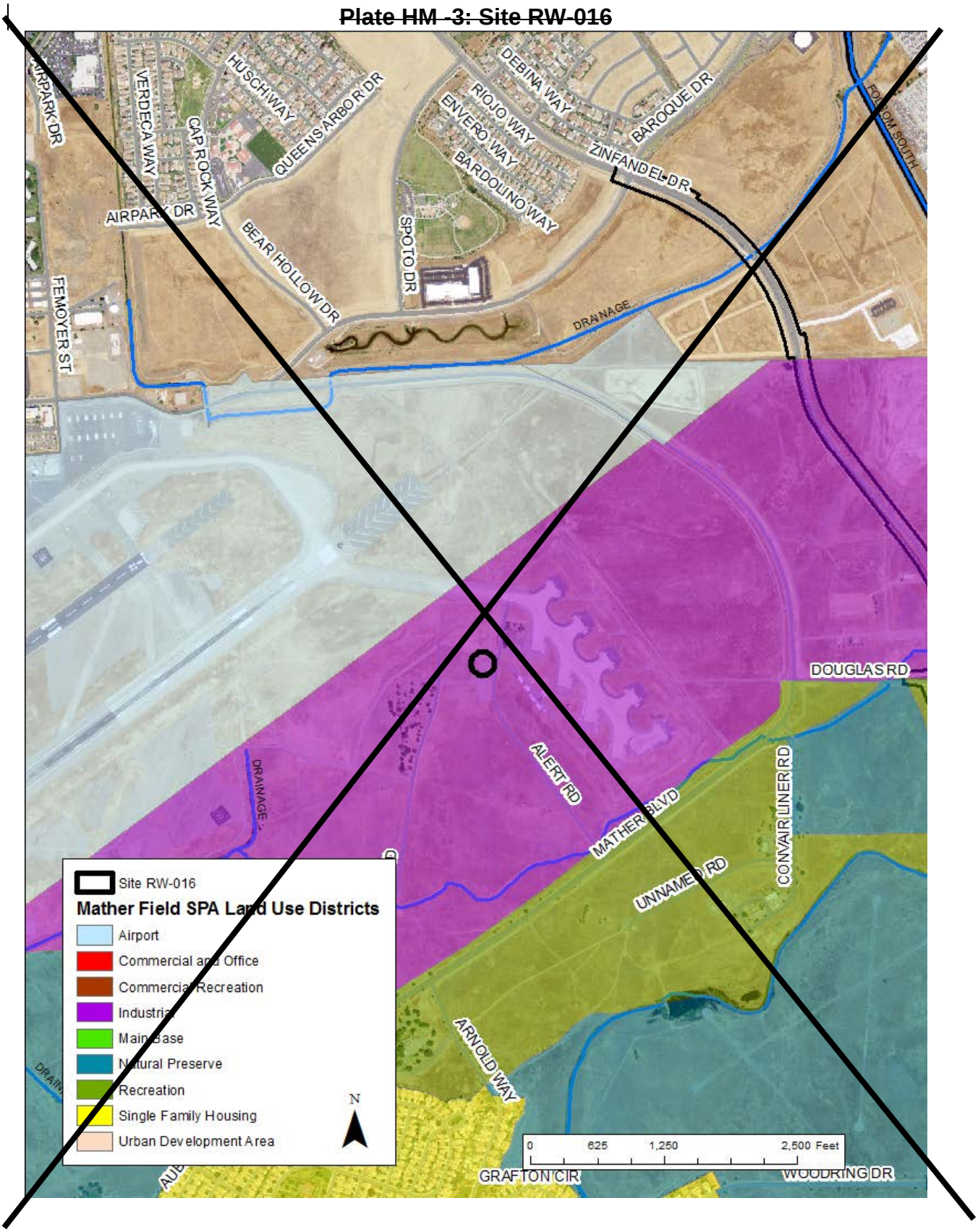
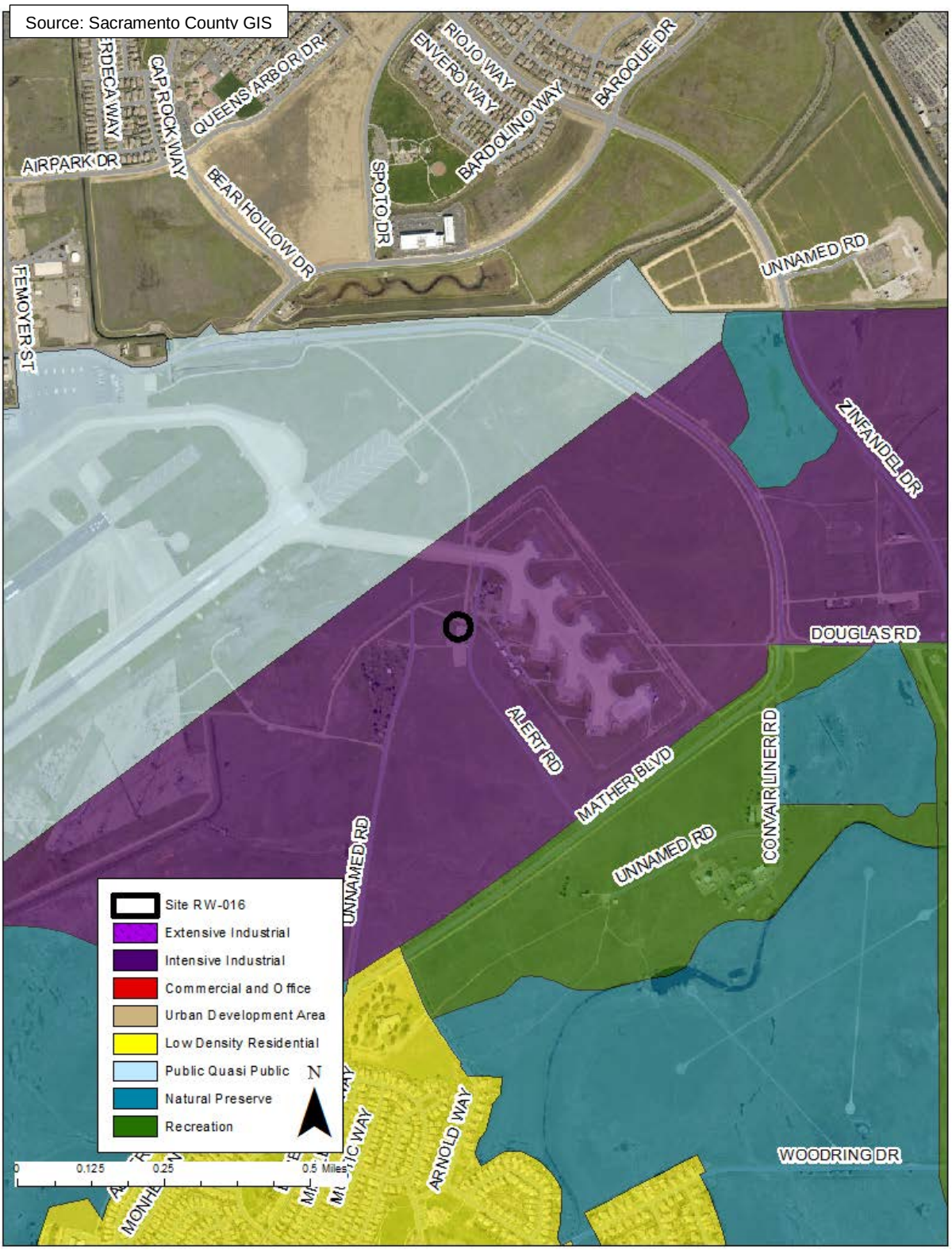


Plate HM -4: Site RW-016 (Revised)



The 3,000 foot safety zone radius overlaps a narrow portion of the proposed Industrial District (refer to Plate HM -4) as well as a stretch of a potential alignment of a future extension of Douglas Road (not a part of this project). There is a potential that a practice bomb or portion of a practice bomb may be encountered during construction activities. With Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants or other hazardous materials that may be encountered during project development or in the event that contaminants are encountered, impacts are ***less than significant***.

SITE OT-69/XE-404

According to the *Report of Findings Soil Study and Background Research, Mather South Property* (pg.16) prepared by Wallace- Kuhl and Associates in 2014, there is a potential to encounter unexploded ordnance during construction activities at a former detonation area located at the southeast corner of the project site. This site, according to the Finding of Suitability for Early Transfer (FOSET) dated December 1998 prepared by the Air Force Real Property Agency this area is labeled as the Open Burn/ Open Detonation area Site OT-69. The Memorandum for Record regarding the Closure of Military Munitions Response Program notes this site as Site XE-404. Plate HM -5 shows the approximate area of Site OT-69/ XE-404.

The *Revised Final Explanation of Significant Differences for the Record of Decision for Soil Operable Unit Sites and Groundwater Operable Unit Plumes* (Final Explanation) (pg. 25) prepared by the Air Force Base Conservation Agency dated February, 2010 indicates that the USAF has imposed institutional controls (ICs) for Site OT-69 that limits the types of land uses that can be developed there. The ICs are intended to protect human health and prohibit residential development, hospitals for human care, public or private schools for persons under 18 years of age, nursery schools and day care centers. Additionally, the ICs prohibit any surface or shallow soil disturbance activities without first obtaining written approval from the Air Force, U.S. EPA, and the State.

OT-69/XE-404 is located within the proposed Commercial Recreation District. Future construction activities could result in the exposure of construction workers and the general public to unexploded ordnance that could be hazardous. However, Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants or other hazardous materials that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Plate HM -5:Site XU-403

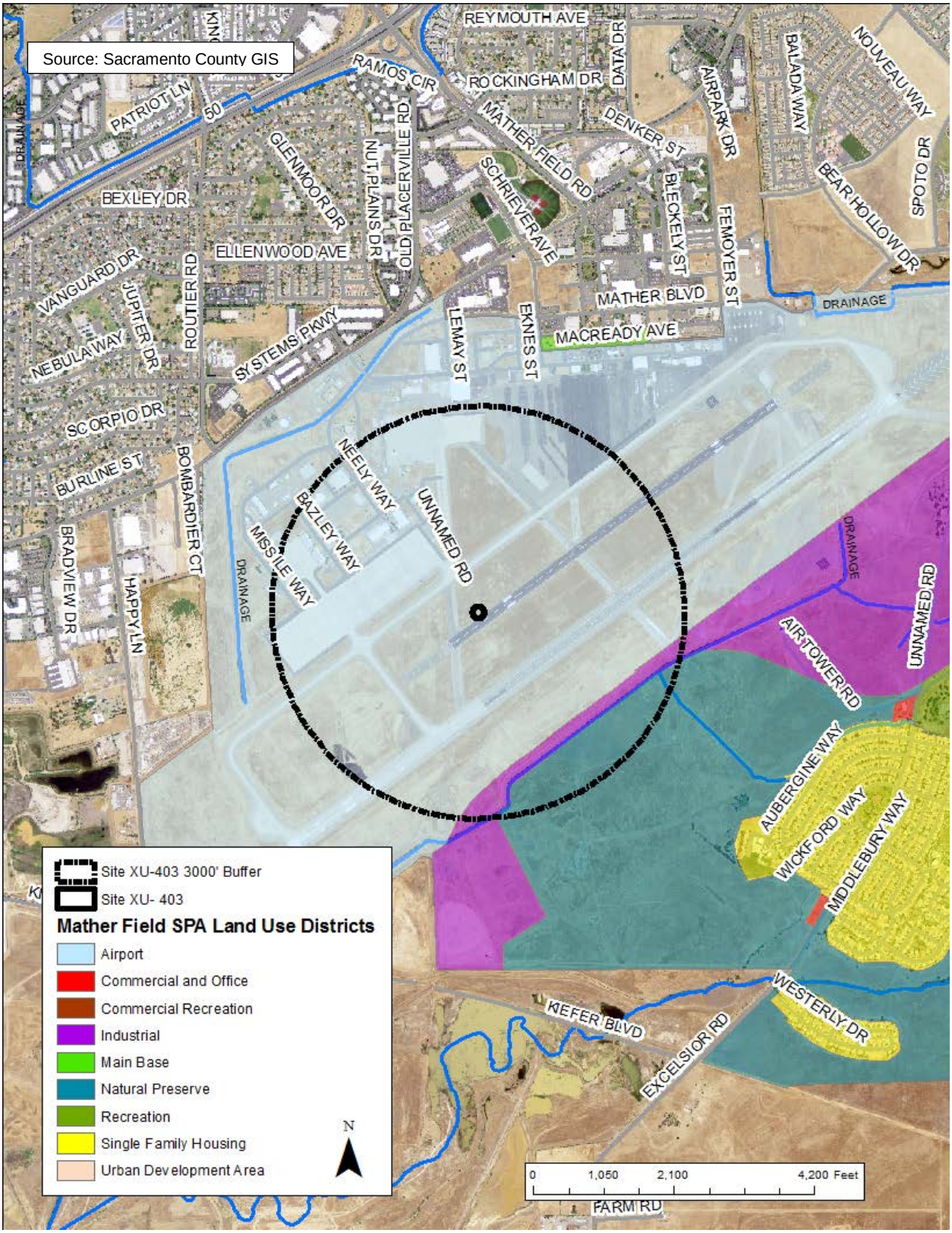
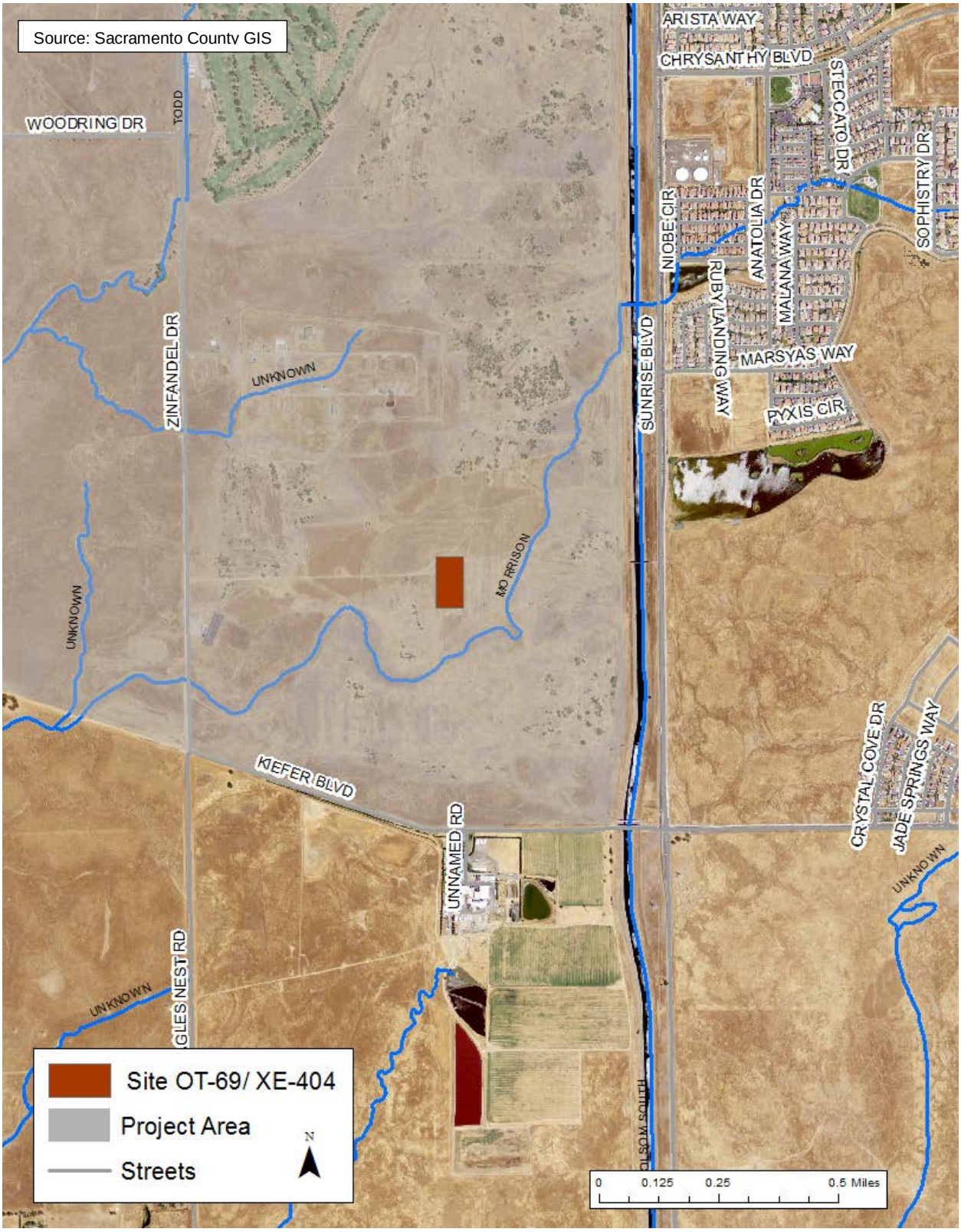


Plate HM -6: Site OT-69/ XE-404



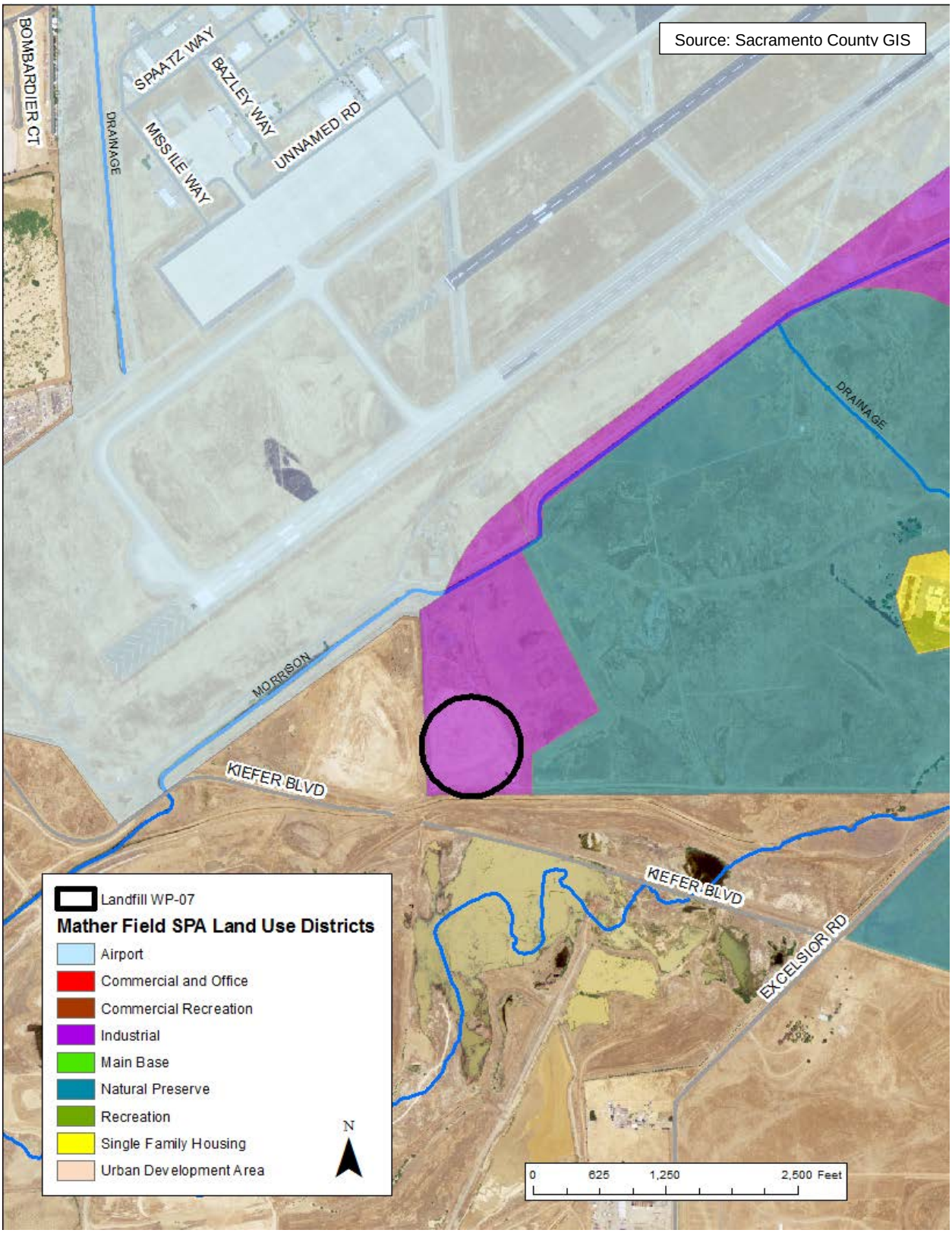
LANDFILL WP-07

According to the Final Explanation, an area that was once used for the disposal of construction rubble as well as petroleum, oil and lubricant wastes from 1953 to 1966 is located at the southwest corner of Mather Field (refer to Plate HM -6). Also, this area was later used to dispose of soil excavated from IRP sites within Mather Field and treated as necessary to meet municipal landfill criteria and later capped in accordance with landfill closure requirements. The contaminants of concern for this area include diesel and gasoline. The remediation strategy used for this area include installing and operating a soil vapor extraction system to remove the more volatile constituents and to evaluate extracted vapor to determine if residual contamination may still be contributing to the groundwater contamination plume beneath the site. The ICs for this landfill area can be found on pages 22-24 of the Final Explanation and generally include restrictions against:

- Damaging the landfill cap.
- Disturbing the remedial system components.
- Impeding remediation activities.
- Development associated with residential purposes, hospitals for human care, public or private schools for persons under 18, nursery schools or day care centers.
- Construction, grading, removal, trenching, filling, earth movement, mining or planning that will disturb the soil or landfill cover.
- Activities that would change the land use that has been established for landfill WP-07.
- Construction of homes, schools, day care facilities, or hospitals within 1,000 feet of WP-07 unless special construction techniques are utilized to prevent gas migration into the building.

This area will be designated for industrial uses with a surface mining overlay (refer to Land Use section for more detail on proposed land uses). The intent of adding the surface mining designation to the site is to identify this area for future planning efforts related to aggregate resource extraction, and to ensure that future development would not preclude the timely extraction of aggregate resources. It should be noted that the aggregate resource combining designation only preserves the area for mining activities and does not permit the actual use of the site for mining operations. Future mining proposals for the site swill need to undergo further permitting and environmental review processes. At that time issues associated with the use of the site will be evaluated and any appropriate mitigation measures will be identified to meet the specific needs of the proposal. The proposed project will not result in damage to the landfill or remediation systems or result in any uses inconsistent with ICs applicable to Landfill WP-07. Impacts related to Landfill WP-07 are ***less than significant.***

Plate HM -7: Landfill WP-07



Landfill LF-03 and LF-04 and Northeast Plume

The Final Explanation identifies two additional landfills within Mather Field that are in areas where land use designation changes are proposed. These landfills are located at the northeast corner of Mather Field and are noted to be landfills LF-03 and LF-04. These landfills and related Northeast Plume are subject to land use restrictions as part of the North East Plume remedy. The remedy for the North East Plume includes ICs for an area that comprises the footprint of the plume where concentrations of contaminants exceed their respective cleanup levels and the footprints of both landfill sites (refer to Plate HM -7). The ICs for this landfill area can be found on pages 25-26 of the Final Explanation and generally include restrictions against:

- Any surface activities that introduce or allow infiltration of water/other fluids into the groundwater.
- The installation of wells or the extraction of water for any purpose other than for remediation or monitoring.
- Disturbing the remedial system components.

Landfills LF-03 and LF-04 are located within the proposed Industrial District and there is a potential for future construction activities to be located within the Northeast Plume area that may be in conflict with the ICs for the area. Additionally, there is the potential for ground disturbing activities to encounter unforeseen contaminants.

Future construction activities could result in the exposure of construction workers and the general public to hazardous materials and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public; however, mitigation measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Asbestos

The renovation or demolition of existing structures constructed prior to 1989 can pose an exposure risk to workers from asbestos-containing material if the material is chipped away and then accidentally ingested, or if it becomes airborne and is inhaled. When an individual applies for a demolition or renovation permit through the County Building Permits and Inspection Division, the applicant will be required to get a permit from the Sacramento Municipal Air Quality Management District. As part of the permit process, the applicant will need to show compliance with federal regulations and Air District Rule 902, which requires a survey for asbestos prior to demolition. Any asbestos found would require abatement. Given that there is already a process requiring the applicant to survey for and abate any asbestos, impacts related to asbestos exposure are ***less than significant.***

~~Plate HM -8: Landfills LF-03, LF-04 and Northeast Plume IC Area~~

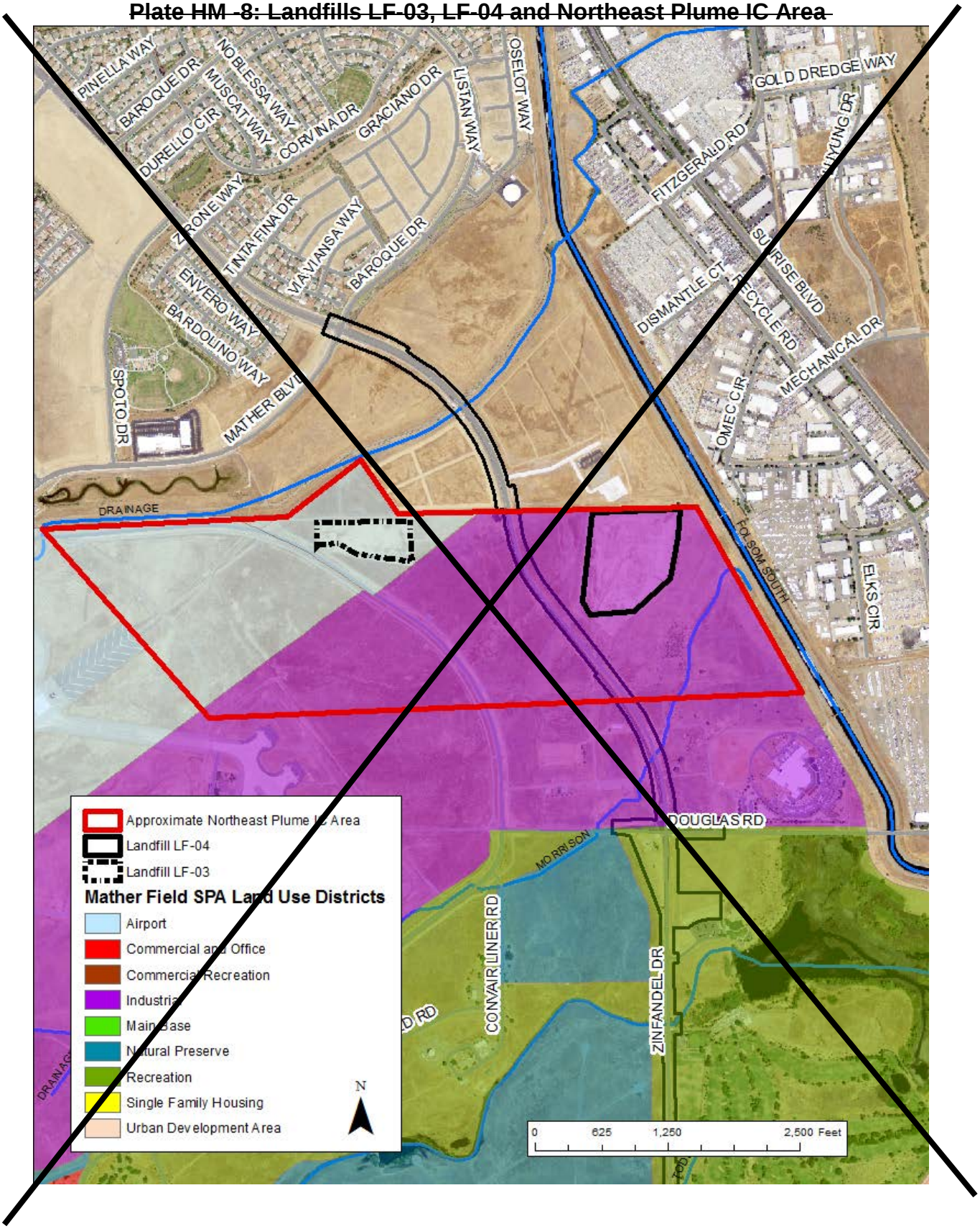
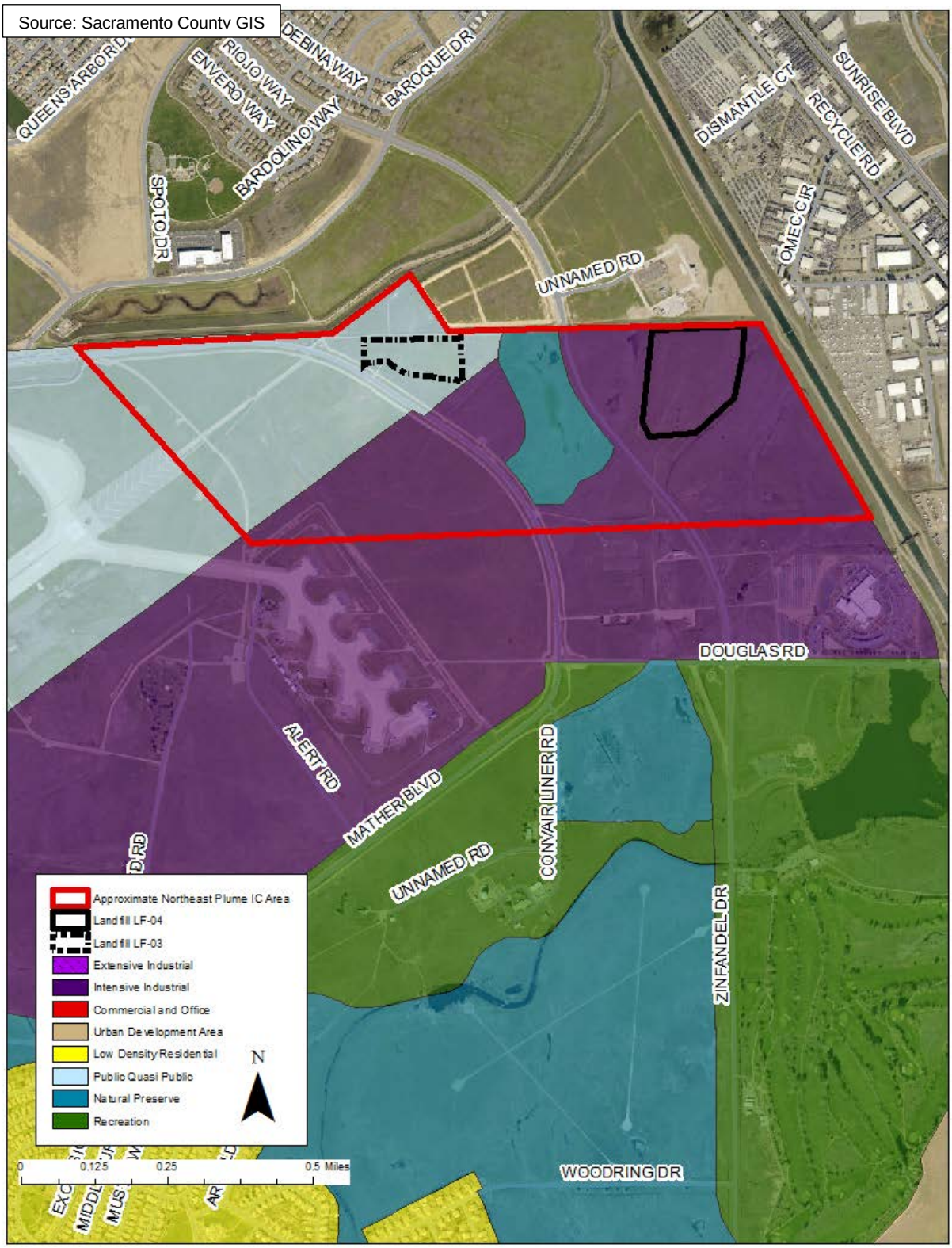


Plate HM -9: Landfills LF-03, LF-04 and Northeast Plume IC Area (Revised)



Lead Based Paint

The renovation or demolition of existing structures constructed prior to 1978 can pose an exposure risk of workers to lead-based paint if the paint were chipped away and then accidentally ingested, or if the paint became an airborne dust and was inhaled. Also, lead can deposit on exposed soil, which can then be tracked into the home, ingested by children and adults. As with asbestos in older homes, there are existing rules and regulations to ensure that workers are apprised of the risk of lead exposure before renovation or demolition can begin, and are given protocols to avoid exposure. Environmental impacts resulting from lead exposure from lead based paint are ***less than significant*** with the adherence to existing regulations and laws.

Monitoring, Injection and Extraction Wells

More than 600 wells are in use at Mather Field which are utilized as part of the groundwater cleanup effort currently underway related to on site contamination. Thirty four of these wells extract water from the ground and direct contaminated water to treatment plants for remediation, eight of the wells are injection wells that are used to return clean water back into the ground and the rest are monitoring wells, used to track and measure contamination. In addition to the groundwater wells, there are many extraction, monitoring and migration wells and vents associated with soil contamination remediation efforts throughout much of Mather Field including where project related land use designation changes are proposed.

The wells are integral to the continuing remediation efforts underway at Mather Field and damaging, disturbing or otherwise affecting these wells would potentially disrupt cleanup activities. Mitigation has been included so that monitoring, injection, extraction and migration wells are appropriately relocated or preserved. With Mitigation Measure HM-2 impacts to wells are ***less than significant***.

Project Level Impacts Related to Hazardous Materials

The proposed Zinfandel Drive/ trunk sewer improvements are generally located at the northeastern portion of Mather Field. The proposed Zinfandel Drive extension improvements include a two-lane roadway from approximately 900 feet south of Douglas Road (the existing southern terminus of the recently extended Zinfandel Drive) to approximately 2,100 feet south of Woodring Drive. The proposed sewer line improvements will be located in the existing or proposed right of way of Zinfandel Drive from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive. The proposed improvements will cross drainages noted to be IRP sites and will be located between two closed landfills.

Contaminated Soils and Groundwater

The Zinfandel Drive and trunk sewer improvements will be located over areas that have been identified as IRP sites. Although a majority of IRP sites at Mather Field have been cleaned up and are no longer under remediation, excavation and construction activities at or near these areas could potentially expose construction workers and the general public to previously unidentified soil and/or groundwater contamination. Additionally,

project related construction activities have the potential to encounter previously unidentified surficial and sub-surface residual contaminants due to past uses of the northeast corner of Mather Field.

Future construction activities could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, lead, contaminated debris, and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public; however, Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Landfills and Northeast Plume

Zinfandel Drive currently lies between two closed landfills; LF-03 and LF-04. Trunk sewer improvements are proposed along the east side of the existing alignment of Zinfandel Drive adjacent to landfill LF-04 which is located at the northeast corner of Mather Field. Although construction activities related to the sewer extension will be located outside of the boundaries of LF-04 they will be directly over the Northeast Plume associated with the landfill and within the Northeast Plume IC area (refer to Plate HM -7). As noted above, ICs have been developed for the Northeast Plume in order to protect human health and the environment and includes restrictions against:

- Any surface activities that introduce or allow infiltration of water/other fluids into the groundwater.
- The installation of wells or the extraction of water for any purpose other than for remediation or monitoring.
- Disturbing the remedial system components.

The Zinfandel Drive/ trunk sewer proposal was reviewed by EMD staff (C.Hawkins and D. VonAspern, personal communication, Dec. 12, 2013). EMD staff indicated that DTSC should be contacted to evaluate potential construction related impacts associated the landfills. DTSC staff (T.Miles, personal communication, Dec. 17, 2013) indicated that DTSC has no comment on the current proposal.

The sewer improvements will require trenching to approximately 35 feet below the surface in order to install the sewer line. The trench is expected to be open for only a short time during the dry season and is not expected to allow water infiltration into the ground water. However, there are several groundwater monitoring wells in close proximity to the proposed work area that may be affected by the proposed project. Disturbing the remedial system may impair the ability of the remediation effort associated with the Northeast Plume. Information related to monitoring wells is located in the Monitoring Wells section below. The depth to the groundwater associated with the Northeast Plume is approximately 130 feet below the surface and is well below the

35 foot depth required for the installation of the sewer line. Although the Zinfandel Drive/ sewer extension is located outside of the landfill boundaries there is a potential for unforeseen contaminants to be encountered during project construction. However, Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Asbestos

No structures with asbestos containing materials are expected to be altered, demolished or removed as a result of the construction activities related to the proposed extension of Zinfandel Drive and trunk sewer. Impacts related to asbestos associated with the Zinfandel Drive and trunk sewer extension are ***less than significant***.

Lead Based Paint

No structures containing lead based paint are expected to be altered, demolished or removed as a result of the construction activities related to the proposed extension of Zinfandel Drive and trunk sewer. Impacts related to lead based paint associated with the Zinfandel Drive and trunk sewer extension are ***less than significant***.

Monitoring Wells

Several monitoring wells are located in close proximity to the existing alignment of Zinfandel Drive that may be impacted as a result of construction activities associated with the proposed Zinfandel Drive/ trunk sewer extension.

The wells are integral to the continuing remediation efforts underway at Mather Field and damaging, disturbing or otherwise affecting these wells would potentially disrupt cleanup activities. Mitigation has been included so that monitoring, injection, extraction and migration wells are appropriately relocated or preserved. With Mitigation Measure HM-2 impacts to wells are ***less than significant***.

Mitigation Measures

HM-1: Hazardous Materials Contingency Plan

All public and private development proposals within Mather Field shall include a detailed Hazardous Materials Contingency plan to address contaminants or other hazardous materials that may be encountered during construction activities and in the event that construction activities (including redevelopment proposals) uncover unforeseen contamination or hazardous materials including radioactive waste at Site RW-016, munitions within the 3,000 foot safety zone of Site XU-403, unexploded ordinance at Site OT-69/XE-404 and contaminants related to landfills. The plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize and remediate any contamination. In addition, all

performance standards included in the Mather Feld Special Planning Area Ordinance related to hazardous materials shall be incorporated into the Hazardous Materials Plan.

HM-2: REMEDIATION SYSTEMS

Prior to any public or private development or ground disturbing activities within Mather Field, project proponents shall coordinate with the U.S. Air Force, the U.S. EPA, the California EPA, and other involved agencies, as appropriate, to assure that construction activities do not disturb the remedial system components in place including groundwater monitoring, extraction, and injection wells, and soil vapor extraction and bioventing facilities.

10 HYDROLOGY AND WATER QUALITY

INTRODUCTION

The purpose of the Hydrology and Water Quality chapter of the EIR is to assess the effects of potential development consistent with the proposed land use designations and the Zinfandel Drive and trunk sewer extension to the hydrologic characteristics of the project area and to evaluate the potential for flood and water quality impacts resulting from the project.

Effects to hydrology and water quality associated with the implementation of the Mather Field land use designation changes are discussed in a programmatic manner since specific site development strategies are unknown at this time. However, effects to hydrology and water quality associated with the Zinfandel Drive and trunk sewer extension have been analyzed in a drainage study and are discussed in greater detail below. It should be noted that impacts to waters of the U.S. and sensitive habitat are addressed in the Biological Resources chapter of this EIR.

Wood Rodgers, in coordination with the Sacramento County Department of Water Resources, prepared a drainage study entitled ***Zinfandel Drive Extension South Drainage Study*** dated March 31, 2015, to address localized drainage, flood control and water quality issues related to the construction of the proposed Zinfandel Drive extension. The report can be reviewed at the Planning and Environmental Review Division, 827 7th Street, Room 225, Sacramento, CA 95814. The following setting and analysis is based on this study and contains portions thereof.

SETTING

The project site is located within the Morrison Creek, Mayhew Slough and Frye Creek watersheds. Surface flows from these sheds generally travel from the northeast to the southwest and are conveyed off site via several creeks, tributaries and drainages. The primary waterways within the project area are Morrison Creek, Tracy Ravine, Todd Creek (refer to Plate HY -1).

The Mather Field SPA contains FEMA Flood Zone X, shaded Zone X and Zone AE. Zone X, the largest zone on the site, is the flood insurance rate zone that corresponds to areas determined to be outside the 500-year floodplain. The second largest flood zone is shaded Zone X which is an area determined to be subject to 500-year floods, areas subject to 100-year floods with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas that are protected by levees from the 100-year flood. Zone AE corresponds with the area subject to 100-year floods with known base flood elevations, in this case from approximately 71 feet to 158 feet.

The AE zone within the project area is associated with creeks, tributaries and drainages that traverse the site and is generally confined to long narrow paths along the drainage ways. Approximately 4.1 percent of the project site is within the FEMA Flood Zone AE (refer to Plate HY -2).

Mather Lake is formed on the eastern edge of Mather Field by an earth and fill dam on Morrison Creek. The dam was constructed in 1956 and contains five (5) 36-inch corrugated metal pipe culverts and two (2) 30-inch plastic pipe culverts on its western end with a concrete weir for overflow during high storm events. There are no records of the lake cresting the dam even during heavy rainfall years. During periods of heavy rainfall, when the culverts are releasing at full capacity, the lake backs up to its northern edge along Douglas Road and to its southwest perimeter behind Mather Golf Course. Some street and golf course flooding occurs but localized flooding events are usually of short duration. These types of occurrences are very infrequent and typically have lasted only several hours (Mather Field General Plan Amendment DEIR, April 1, 1994).

REGULATORY FRAMEWORK

WATER QUALITY LEGISLATION

Government agencies regulate potential impacts to water quality in order to comply with legislative acts such as: the Clean Water Act (CWA), the Porter-Cologne Water Quality Act (Porter-Cologne), the Rivers and Harbors Act, and the California Environmental Quality Act (CEQA). The Clean Water Act contributes to the dramatic improvement of surface water bodies in the United States. The Rivers and Harbors Act prevents obstructions to navigation, including dumping of trash and sewage. CEQA prevents avoidable damage to water quality by requiring changes in projects through the use of alternatives or mitigation measures [15002(a)(3)]. Coordinated efforts by the following agencies protect water supplies from degradation:

- County of Sacramento
- Sacramento Area Flood Control Agency (SAFCA)
- California Department of Fish and Wildlife (CDFW)
- State Water Resources Control Board (State Water Board)
- Regional Water Quality Control Board (Regional Water Board)
- State Lands Commission
- U.S. Coast Guard (Coast Guard)
- National Park Service (NPS)
- State Department of Water Resources Reclamation Board
- U.S. Army Corps of Engineers (Army Corps)

Plate HY -1: Watersheds and Waterways

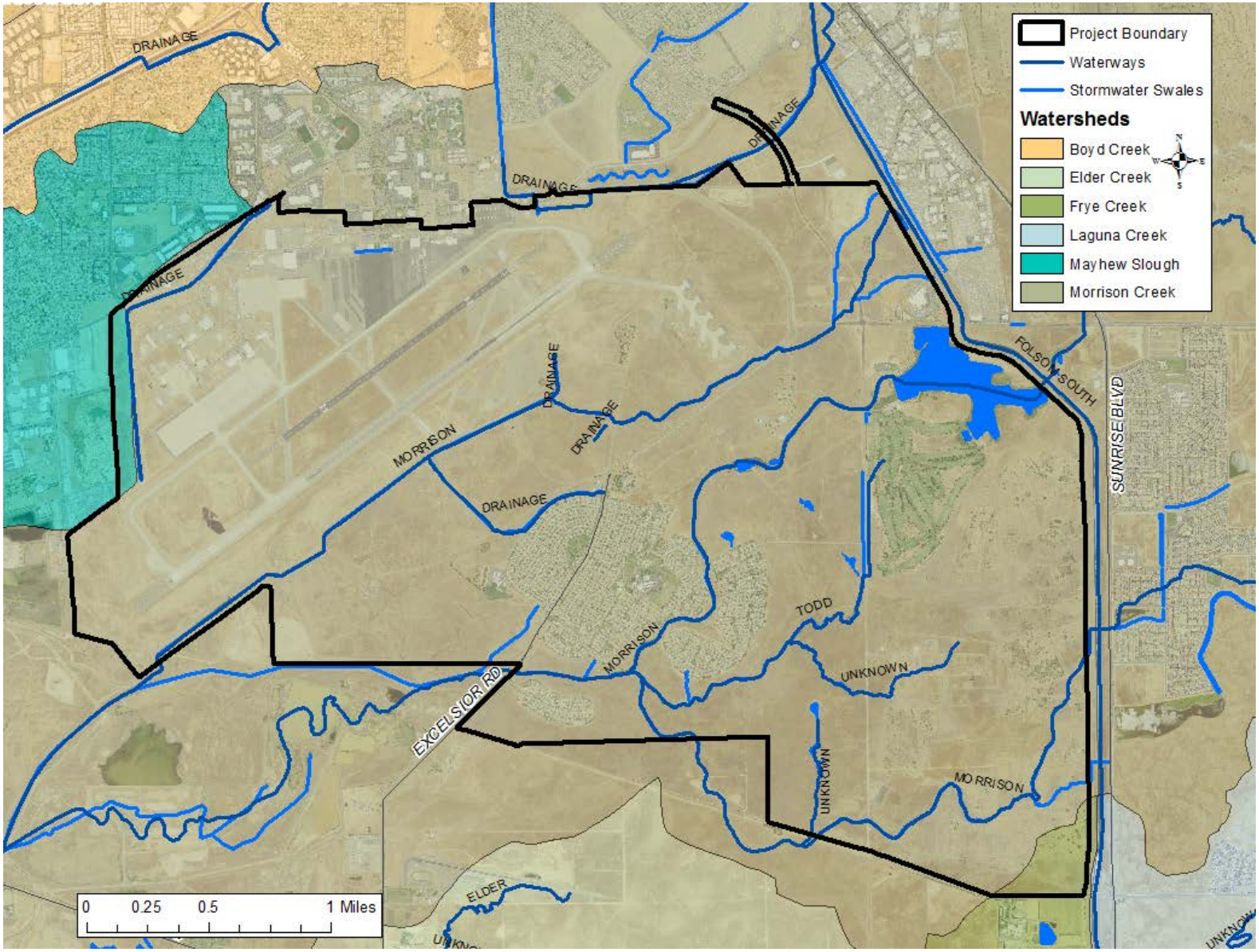
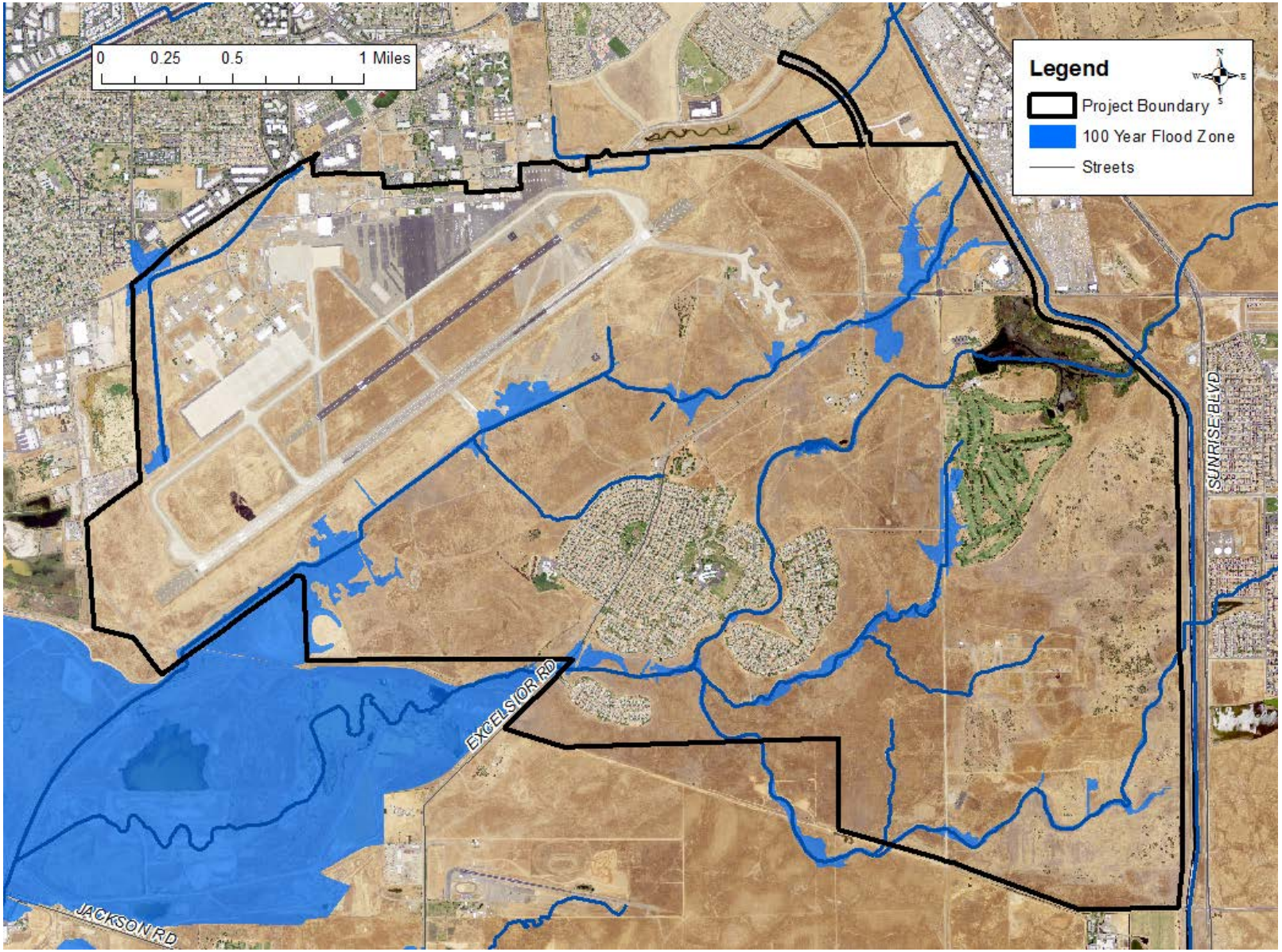


Plate HY -2: Mather Field FEMA 100 Year AE Flood Zone



FEDERAL REGULATIONS

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA maintains and updates the National Flood Insurance Program maps, called the Federal Insurance Rate Maps (FIRM), that define areas of federal flood hazard. In Sacramento County and elsewhere the floodplains are identified based on U.S. Army Corps of Engineers (Army Corps) studies. FIRM maps denote the location of the federal 100-year flood area, 500-year flood area, and the Base Flood Elevation. In a 100-year floodplain, there is a 1% chance of flooding in a given year, and in a 500-year floodplain, there is a 0.2% chance of flooding in a given year. If an area is within a 100-year floodplain, flood insurance is required by most mortgage companies. FEMA is also responsible for the accreditation of levee systems (certification is by the Army Corps).

CLEAN WATER ACT

The Clean Water Act (CWA) is the federal regulation covering surface water quality – it does not address either groundwater or water quantity. Surface waters protected by the CWA must either be navigable or hydrologically connected to a navigable water. The provisions of the CWA are administered and regulated primarily by the Environmental Protection Agency (EPA), the California EPA (Cal EPA), the Army Corps, and the State and Regional Water Boards. Under the "umbrella" of Cal EPA, the State and Regional Water Boards are responsible for administration of the National Pollutant Discharge Elimination System program, which deals with stormwater pollution from construction, industrial areas, and municipal areas. The Army Corps is responsible for issuance of the CWA Section 404 permit, which deals with the discharge of dredged or fill material in a surface water, and the State and Regional Water Boards are responsible for issuance of the CWA Section 401 permit, which covers the same activity. Section 303(d) of the Clean Water Act (CWA) also requires States to identify waters that do not meet water quality standards, and to develop plans to address polluted water bodies on the 303(d) list (called Total Maximum Daily Load plans, or TMDLs).

STATE REGULATIONS

STREAMBED ALTERATION

Section 1603 of the Fish and Game Code requires applicants to notify CDFW before beginning a project if the project will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed. Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. The recommendations of CDFW may include steps to protect water quality.

PORTER-COLOGNE WATER QUALITY ACT

Porter-Cologne is enacted as part of the California Water Code, and is intended to protect the quality of waters within the State. Porter-Cologne covers many of the same issues as the Federal Clean Water Act (see below), but is specific to the needs and objectives of the State. Waters protected by the Clean Water Act must be navigable or

hydrologically connected to navigable waters, whereas Porter-Cologne protects non-navigable, or "isolated", waters. The State Water Resources Control Board (Water Board) and the Regional Water Quality Control Boards (Regional Water Board) are responsible for the coordination and control of water quality protection efforts related to Porter-Cologne.

LOCAL REGULATIONS

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES

Though not mapped by FEMA, many local 100-year floodplains have been identified by the Sacramento County Department of Water Resources (County DWR). Local floodplains in the County are typically mapped either in response to an area having flooding problems, or in response to a request by a property owner to make modifications to their parcel. In such circumstances, County DWR staff investigates the property and either decides if there is sufficient existing information to determine the floodplain elevation on the property or that a drainage study is required before a determination can be made. Floodplains, whether local or FEMA, are regulated by the provisions of the Sacramento County Floodplain Management Ordinance, Improvement Standards, and Local Floodplain Management Plan.

SACRAMENTO COUNTY LAND GRADING AND EROSION CONTROL ORDINANCE

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program to prohibit the unauthorized discharge of pollutants from a point source to U.S. waters. The County of Sacramento has obtained a Municipal Stormwater NPDES permit from the Central Valley Regional Water Quality Control Board under the requirements of the Clean Water Act, to reduce pollutants found in urban stormwater runoff to the maximum extent practicable. The County complies with this permit by developing and enforcing ordinances and requirements to reduce the discharge of sediments and other pollutants in runoff from areas within the County.

Sacramento County must verify compliance with permit requirements by monitoring effluent, maintaining records, and filing periodic reports. A provision of the NPDES permit is the requirement that Sacramento County develop a Construction Site Management Program. The Construction Site Management Program is intended to help protect the water quality of surface waters by minimizing the amount of sediment runoff from a construction site. This is accomplished by enforcement of the existing County Land Grading and Erosion Control Ordinance.

The County has established a Stormwater Ordinance (Sacramento County Code 15.12). The Stormwater Ordinance prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type. In addition, Sacramento County Code 16.44 (Land Grading and Erosion Control) requires private construction sites disturbing one or more acres or moving 350 cubic yards or

more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control (ESC) Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters. Construction projects not subject to SCC 16.44 are subject to the Stormwater Ordinance (SCC 15.12) described above.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities. The Construction General Permit is issued by the State Water Resources Control Board (http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml) and enforced by the Regional Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times during construction for review.

Applicable projects applying for a County grading permit must show proof that a NOI has been filed and must submit a copy of the SWPPP. Although the County has no enforcement authority related to the Construction General Permit, the County is required by its Municipal Stormwater Permit (Order Number R5-2008-0142) to verify that the SWPPP program includes six minimum components (public education and outreach on storm water impacts, public involvement participation, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management in new development and redevelopment, and pollution prevention/good housekeeping for municipal operations).

In addition to the above construction controls, new development is required to include treatment of urban runoff using the BMPs required by the current standard defined in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2007 (Stormwater Manual)*. The BMPs include a number of options for treatment including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. Updates and background on the County's requirements for post-construction stormwater quality treatment controls, along with several downloadable publications, can be found at the following websites:

http://www.msa.saccounty.net/sactostormwater/SSQP/development.asp

http://www.sactostormwater.org/newdevelopment.asp

Sacramento County General Plan

The General Plan includes multiple Elements containing policies relevant to flooding and water quality: the Agriculture Element, Circulation Element, Conservation Element, and Safety Element. There are many policies within each Element, but the policies of greatest relevance to the Project are included below.

AG-29. The County shall minimize flood risks to agricultural lands resulting from new urban developments by:

- Requiring that such developments incorporate adequate runoff control structures and/or
- Assisting implementing comprehensive drainage management plans to mitigate increased risks of farmland flooding resulting from such developments.

CI-65. Incorporate Low Impact Design (LID) techniques to the greatest extent feasible to improve water quality runoff and erosion control, infiltration, groundwater recharge, visual aesthetics, etc. LID techniques may include but are not limited to:

- Bioretention techniques, such as filtration strips, swales, and tree box filters
- Permeable Hardscape
- Green roofs
- Erosion and sediment controls
- Reduced street and lane widths where appropriate

CO-24. Comply with the Sacramento Areawide National Pollutant Discharge Elimination System Municipal Stormwater Permit (NPDES Municipal Permit) or subsequent permits, issued by the Central Valley Regional Water Quality Control Board (Regional Board) to the County, and the Cities of Sacramento, Elk Grove, Citrus Heights, Folsom, Rancho Cordova, and Galt (collectively known as the Sacramento Stormwater Quality Partnership [SSQP]).

CO-26. Protect areas susceptible to erosion, natural water bodies, and natural drainage systems.

CO-28. Comply with other water quality regulations and NPDES permits as they apply to County projects or activities, such as the State's Construction General Permit and Aquatic Pesticides Permit.

CO-30. Require development projects to comply with the County's stormwater development/design standards, including hydromodification management and low impact development standards, established pursuant to the NPDES Municipal Permit.

CO-31. Require property owners to maintain all required stormwater measures to ensure proper performance for the life of the project.

CO-93. Discourage fill in the 100-year floodplain (Please also refer to CO-117).

CO-94. Development within the 100-year floodplain and designated floodway of Sacramento streams, sloughs, creeks or rivers shall be:

- Consistent with policies to protect wetlands and riparian areas; and
- Limited to land uses that can support seasonal inundation.

CO-107. Maintain and protect natural function of channels in developed, newly developing, and rural areas.

CO-114. Protect stream corridors to enhance water quality, provide public amenities, maintain flood control objectives, preserve and enhance habitat, and offer recreational and educational opportunities.

CO-117. Public roads, parking, and associated fill slopes shall be located outside of the stream corridor, except at stream crossings and for purposes of extending or setting back levees. The construction of public roads and parking should utilize structural materials to facilitate permeability. Crossings shall be minimized and be aesthetically compatible with naturalistic values of the stream channel.

CO-118. Development adjacent to waterways should protect the water conveyance of the system, while preserving and enhancing the riparian habitat and its function.

CO-126. Prohibit obstruction or underground diversion of natural waterways.

SA-5. A comprehensive drainage plan for major planning efforts shall be prepared for streams and their tributaries prior to any development within the 100-year floodplain defined by full watershed development without channel modifications. The plan shall:

a. Determine the future 100-year flood elevations associated with planned and full development of the watershed;

b. Determine the future 100-year floodplain boundaries for both flood elevations (planned and full development) based on minimum 2-foot contour intervals;

c. Assess the feasibility of gravity drainage into the existing flowline of the stream;

d. Assess the feasibility of alternative means of drainage into the stream;

e. Identify potential locations for sedimentation ponds and other stormwater treatment facilities;

f. Determine practical channel improvements and/or detention basins to provide the flood control needs of the proposed development;

g. Determine the location and extent of marsh, vernal pool and riparian habitat;

h. Develop measures for protecting and mitigating natural habitat;

i. Develop measures for protecting and mitigating for federal and state listed endangered species;

j. Develop and ensure implementation of measures that would reduce vector larvae;

k. Identify appropriate plant species to be included as part of the natural features of the comprehensive drainage plan.

SA-14. The County shall require, when deemed to be physically or ecologically necessary, all new urban development and redevelopment projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing Comprehensive Drainage Plans.

SA-16. Deny creation of parcels that do not have buildable areas outside the 100-year floodplain unless otherwise allowed in the Floodplain Management Ordinance.

SA-17. For residential zoning, the area outside the 100-year floodplain must be contiguous or reasonably situated to provide buildable area for a residence and associated structures. Examples of structures include swimming pools, sheds, barns, detached garages, and other outbuildings that are normally associated with residential development. There may be exceptions (such as the Delta area) as allowed in the Floodplain Management Ordinance.

SA-18. Vehicular access to the buildable area of newly created parcels must be at or above the 10-year flood elevation. Exceptions may be made when the existing public street from which access is obtained is below the 10-year flood elevation. There may be exceptions (such as the Delta area) as allowed in the Floodplain Management Ordinance.

SA-22. Areas within a 100-year floodplain shall not be upzoned to a more intensive use unless and until a Master Drainage Plan is prepared that identifies areas of the floodplain that may be developed.

Mather Field Special Planning Area Ordinance

Section 603-19 of the Mather Field Special Planning Area Ordinance (SPA Ordinance) includes performance standards that must be met by all public and private development projects and leases and/or sales of existing buildings, facilities and/or property within the Mather Field SPA. The following performance standards are included in the SPA Ordinance relate to hydrology.

> Prior to the approval of tentative maps, the issuance of building permits for new development or the approval of improvement plans, the Sacramento County Public Works Agency shall prepare a drainage master plan for the Mather Field Specific Plan area. The master plan shall identify the

approximate size and location of new drainage facilities and upgrades to existing drainage facilities necessary to serve proposed Specific Plan development. Areas not affected by the implementation of the drainage master plan can proceed on a case-by-case basis as determined by the Water Resources Division of the Public Works Agency. Drainage facilities could include, but would not be limited to:

- The expansion or modification of existing storm drain facilities;
- Establishment of sub-regional or regional detention basins; and/or
- The preservation of natural drainage areas.

Individual development proposals within the Specific Plan area shall be required to implement all drainage improvements identified by the detailed drainage master plan as being necessary to accommodate the increased runoff of the development proposal and to provide an adequate level of flood protection to the development proposal, to the satisfaction of the Water Resources Division. Individual development proposals within the Specific Plan area may modify the proposed facilities shown in the master plan so long as the intent of the master plan is upheld, and subject to the approval of the Water Resources Division.

Prior to the approval of tentative maps, the issuance of building permits for new development or the approval of improvement plans, the Sacramento County Public Works Agency shall delineate the existing and ultimate 100-year floodplain for the Mather Field Specific Plan area. Areas determined to be outside of the 100-year floodplain may proceed on a case-by-case basis as determined by the Water Resources Division of the Public Works Agency. Limited improvements that would otherwise be permitted within the 100-year floodplain and would not create constraints to future floodplain management could also be permitted on a case-by-case basis as determined by the Water Resources Division of the Public Works Agency. No development shall occur within the delineated 100-year floodplain, unless it is consistent with the requirements and provisions of the Sacramento County Floodplain Management Ordinance. The existing 100-year floodplain delineation for the entire Mather Field Specific Plan area will be submitted to FEMA for approval of a revision to the Flood Insurance Rate Map for Sacramento County.

Sacramento County shall ensure that the extent of the area of impact from a failure of Mather Dam is determined. Sacramento County shall also ensure that Mather Dam has been inspected for structural integrity and brought into compliance with all state dam safety regulations. Prior to the dam being brought into compliance with applicable state safety regulations, no projects (tentative maps, building permits, improvement plans or occupancy or use permit) that could be negatively impacted from dam failure, as determined by the Public Works Agency, may be permitted within the "area of impact from dam failure".

Comply with the County Land Grading and Erosion Control Ordinance.

Prior to the approval of improvement plans or the issuance of building permits for individual development proposals within the Specific Plan area, the final design of all proposed stormwater quality source and treatment control measures for the development proposal shall be approved by the County Water Resources Division, consistent with Volume 5 of the Draft City/County Drainage Manual.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed an Initial Study Checklist that identifies a range of potential significant effects by topical area. This section supplements the hydrology and water quality section of the Initial Study Checklist by analyzing if the proposed project would:

1. Result in a substantial alteration to the existing drainage pattern of the project area and/or increase the rate or amount of runoff in a manner that would result in flooding on- or off- site.

2. Result development within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area.

3. Result in the placement of structures that would impede or redirect flood flows within a 100-year floodplain.

4. Result in the exposure of people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

5. Result in the creation or contribution of runoff that would exceed the capacity of existing or planned stormwater drainage systems.

6. Result in the creation of substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality.

IMPACT ANALYSIS

PROGRAMMATIC LEVEL IMPACTS TO DRAINAGE AND FLOODING

Future development consistent with the proposed land use amendments has the potential to impact on and offsite drainage facilities and increase on and offsite flooding.

Additionally, portions of the project site, where future development could occur, contain areas within designated 100-year floodplains.

Build-out of the project area, consistent with the proposed land use amendments, will require site improvements such as grading that will alter the existing topographic and drainage features on site. Development of the project area would also require the construction of structures, sidewalks, roadways, parking areas and other impervious surfaces that will increase runoff from the project area. These improvements have the potential to produce considerable changes in downstream hydrology and increased flooding onsite and downstream. Additionally, FEMA designated 100-year floodplains are located where industrial, mining, commercial and recreation uses may be proposed in the future. However, it will be necessary for future development within the project to meet existing standards and regulations designed to minimize drainage and flooding impacts.

Future development will be required to adhere to the performance standards of the SPA Ordinance and future development will need to be coordinated with County DWR to meet the specifications of the Sacramento County Improvement Standards and the Sacramento County Floodplain Management Ordinance. With conformance with applicable standards, future development associated with the Project will not substantially increase the rate, amount or location of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity or result in the placement of fill or structures within a designated floodplain. Project impacts related to drainage and flooding are expected to be ***less than significant.***

MATHER DAM

In 1996 the US Army Corps of Engineers prepared a breach study to analyze the potential impacts of a dam failure at Mather Lake entitled *Mather Lake Dam Breach Study: Morrison Creek Basin, California.* The study concluded that the maximum outflow of a breach at Mather Lake would be approximately 2,000 cubic feet per second with a failure time of four (4) hours. The “dam breach” scenario in the study shows that Zinfandel Drive would be overtopped and the flows from the breach were shown to generally follow the existing path of Morrison Creek to the southwest toward and through the existing Independence at Mather subdivision. The study concluded that approximately 15 houses within the subdivision, primarily along Woodring Drive, would be located within the floodplain and that the homes would be flooded for a short duration to a depth of between 0.5 feet to 2.0 feet. The only other structures identified in the study that would be affected by a dam breach at Mather Lake are Zinfandel Drive and the roadways within the subdivision.

Although flooding would occur in the area in the event of a dam breach at Mather Lake, the proposed project does not include land use amendments that would result in additional homes or other structures within the area shown to be flooded and would not result in the exposure of people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam. Impacts associated with flooding resulting from the failure of a levee or dam are ***less than significant.***

PROGRAMMATIC LEVEL IMPACTS TO WATER QUALITY

Future development consistent with the proposed project has the potential to result in construction and operational impacts to water quality.

CONSTRUCTION IMPACTS

Construction activities would involve the use of heavy equipment, such as bulldozers, graders, earth movers and other machinery for grading, trenching, utility installation, and the construction of roads buildings and other facilities. The use of these types of machinery could result in the release of water quality pollutants. Potential chemicals associated with machinery could include, but may not be limited to, fuels, oil, lubricants, antifreeze, hydraulic fluid, and cleaning solvents. The use of heavy machinery would also disturb surface soils. During storm events, stormwater could mobilize disturbed soils and/or release residual chemicals that could become entrained in stormwater runoff, and be transported into waterways on site, including Morrison Creek and other waterways downstream or offsite. As a result, water quality could be adversely affected in Morrison Creek and other waterways. However, the current Sacramento County Stormwater Ordinance (Sacramento County Code Section 15.12) prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks.

Non-stormwater refers to the discharge of paint, oils, wash-water or other such materials into the stormwater system. The Stormwater Ordinance applies to all private and public projects in the County, regardless of size or land use type. In addition, the Land Grading and Erosion Control Ordinance (Sacramento County Code Section 16.44) requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters.

In addition to complying with the County's ordinances and requirements, construction sites disturbing more than one acre, as a condition of construction permitting, would be required to comply with a National Pollutant Discharge Elimination System (NPDES) General Construction Permit for Discharges of Stormwater Associated with Construction Activities (NPDES General Stormwater Permit), from the Central Valley Regional Water Quality Control Board (CVRWQCB). Permit requirements would include:

- Preparation of hazardous materials spill control and countermeasure programs;
- Stormwater quality sampling, monitoring, and compliance reporting;
- Development and adherence to a Rain Event Action Plan;
- Adherence to numeric action levels and effluent limits for pH and turbidity;
- Monitoring of soil characteristics on site;
- Mandatory training under a specific curriculum; and
- Mandatory implementation of Best Management Practices (BMP), which may include, but would not be limited to:

- Physical barriers to prevent erosion and sedimentation including setbacks and buffers, rooftop and impervious surface disconnection, rain gardens and cisterns, and other installations;
- Construction and maintenance of sedimentation basins;
- Limitations on construction work during storm events;
- Use of swales, mechanical, or chemical means of stormwater treatment during construction, including vegetated swales, bioretention cells, chemical treatments, and mechanical stormwater filters; and
- Implementation of spill control, sediment control, and pollution control plans and training.

The specific BMPs to be implemented would be determined prior to issuance of the NPDES General Permit, in coordination with the CVRWQCB. Adherence to these BMPs would be required as a condition of the permit, and would substantially reduce or prevent soil or chemicals from entering waters. Additionally, all construction and development would be required to adhere to the stormwater quality management design standards set forth in the Stormwater Manual. Implementation of these mandatory measures are expected to be adequate to ensure that stormwater quality is not degraded and; therefore, impacts would be ***less than significant***.

OPERATIONAL IMPACTS

Morrison Creek is on the Clean Water Act Section 303(d) list of waterways that are "impaired". Impaired waters do not meet water quality standards that states have set for them. The pollutants for which Morrison Creek is listed include diazinon, pentachlorophenol, pyrethroids, and sediment toxicity.

Development and redevelopment related to the project may result in an increase of use of substances that could pollute waterways if not regulated. Increased densities can lead to more heavy metals, oils, and other substances from automobiles to be deposited onto roadways and parking lots as well as the increased use of pesticides and fertilizers used for landscape and park maintenance which can be introduced into the drainage system. Water can carry these and other pollutants into storm drains, where the water often flows without treatment directly into the streams that provide drinking water, recreation, and wildlife habitat.

This runoff could increase pollutant loads in waterways to such an extent that the waterways become impaired or that impaired conditions are exacerbated and can increase water temperatures, which has the ability to affect the health of many organisms that may live in the creeks. Even the nutrients in fertilizers can cause water quality problems through promoting algae blooms.

In addition to pollutants, intensified densities can increase discharge amounts and/or runoff velocities which, in turn, can greatly accelerate downstream erosion and impair stream habitat in natural drainage systems. These impacts must be mitigated by requiring appropriate runoff reduction and pollution prevention controls to minimize runoff and keep runoff clean for the life of the project.

The use of Best Management Practices (BMPs) can be highly effective in controlling pollution at its source before it enters the storm drain system and local streams. BMPs have been demonstrated to effectively protect surface waters and meet the requirements of the Clean Water Act and Porter-Cologne Water Quality Act. In order to reduce the amount of polluted water that enters storm drains, local streams and rivers, the County has several requirements that are triggered during the development process.

New development and redevelopment projects are required to incorporate stormwater quality measures in conformance with applicable County ordinances & standards, and state and federal law (discussed above in the "Regulatory Setting" discussion). Future proposed projects within the Mather Field SPA will implement applicable stormwater quality measures pursuant to and consistent with the Stormwater Manual. The following are some of the current stormwater quality requirements applicable to specific development types:

Commercial and multi-family residential:

If the total area of the developed or redeveloped impervious surfaces (building rooftop, flat work, and parking areas) equals or exceeds the threshold specified in the County's NPDES permit, proposed projects are required to incorporate permanent stormwater quality treatment measures in conformance with applicable County ordinances & standards, and state and federal law.

Gas Stations:

On-site source control measures shall be required for these projects in accordance with the latest version of the *Stormwater Quality Design Manual for the Sacramento & South Placer Regions.* Treatment control measures may also be required if applicable.

All on-site and public right of way drainage inlets: Provide a permanent concrete stamp, or other permanently applied message to the satisfaction of DWR not including paint, which reads "No Dumping-Flows to Creek" or other approved message at each storm drain inlet.

BMPs in the Stormwater Manual include a number of options for treatment, including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. There are sometimes site constraints that dictate the type of treatment that is most appropriate. The stormwater designs in the manual reflect the Low Impact Development philosophy, which the manual defines as "a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings". Early in the design phase, it is recommended that the engineers work with the Department of Water Resources Water Quality Division to identify the requirements and options for treatment. LID elements that could be incorporated include:

Bio-retention planters which typically consist of grass buffers, sand beds, a ponding area for excess runoff storage, organic layers, planting soil and vegetation. Bio-retention areas may include so-called rain gardens with hydrologically appropriate landscaping, tolerant of the captured pollutants.

Vegetated swales which function as stormwater quality treatment measures, and may even eliminate the need for some of the traditional on-site storm drain pipes. These swales can be incorporated into the on-site landscaping scheme. They use grasses or other vegetation to reduce runoff velocity and allow filtration, while high volume flows are channeled away safely to a management facility or a drainage system capable of handling larger flows. The effectiveness is related to velocity and length, allowing the appropriate contact time for the stormwater to be filtered by the vegetation. Features like plantings and check-dams may be incorporated to further reduce water velocity and encourage filtration.

Disconnected impervious areas which direct water flows collected from structures, driveways, or street sections, into separate localized landscaped cells instead of combining it in drainpipes with other runoff. Disconnecting the flow limits the velocity and overall amount of conveyed water that must be handled by on-site or end-of-pipe water quality and quantity facilities.

Cistern collection systems which can be designed to store rainwater for dry-period irrigation, rather than channeling it to streams. Smaller tanks that collect residential roof drainage are often called "rain barrels" and may be installed by individual homeowners. Some collection systems are designed to be installed directly under permeable pavement areas, allowing maximum water storage capacity while eliminating the need for gravel beds.

Permeable surfaces which can be used as LID measures and may include a subdrain to carry the water to one of the approved treatment measures. Such pavement surfaces are often considered for automobile parking areas to capture the vehicle drips.

Proprietary devices which might be installed as stand-alone treatment facilities. There are various devices available in the market place, not all of which are allowed by the County, but could on a case-by-case basis be considered for pilot study purposes.

New development will be required to treat urban runoff using the BMPs required by the current standards defined in the 2007 Stormwater Manual and subsequent editions in the years to come that meet or exceed requirements established by the CVRWQCB. Conformance with applicable standards and regulations will ensure impacts from future development/redevelopment projects associated with stormwater quality will be ***less than significant.***

Project Level Impacts to Drainage and Flooding

The Zinfandel Drive/ trunk sewer extension will extend from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive. The sewer extension is proposed to extend the entire length of the work area while improvements related to Zinfandel Drive will begin at the existing southern terminus of the recent extension of Zinfandel Drive; approximately 900 feet south of Douglas Road. The work area identified to allow for the installation of the proposed roadway and sewer extensions is crossed by several drainage features and their associated FEMA floodplain areas (refer to Plate HY -3).

North of Douglas Road no changes to the drainage pattern or the existing drainage facilities are currently proposed. However, the installation of the proposed sewer pipe will require that construction activities be conducted within drainage features and related floodplains. According to Sacramento County Office of Economic Development and Marketing staff (K.Craney, E-mail, March 12, 2014) two methods will likely be utilized at the waterway crossings to install sewer facilities; boring and jacking or trenching.

The northern most crossing is located approximately 1,400 feet south of North Mather Boulevard. At this location, through boring and jacking or directional drilling beneath the drainage, the sewer line will be placed under the drainage feature without disrupting drainage patterns in the area. The remaining drainage features north of Douglas Road are smaller and trenching is proposed in order to allow for the pipeline installation at these sites.

Where trenching is proposed, trench shoring techniques will be utilized in order to minimize ground disturbing activities. It is estimated that the trench width will be limited to between five (5) and ten feet. Trenching activities would result in ground disturbing activities within the ordinary high water mark of drainages and will disturb channels with the project work area as well as flood zone areas. Impacts to drainage features north of Douglas Road are temporary and drainage patterns and flows will be returned to the pre-project condition once construction activities related to the installation of the proposed sewer line extension are complete.

South of Douglas Road, roadway improvements and sewer pipeline will be installed that will impact drainage ways and flood zone areas. Zinfandel Drive will be widened to accommodate two (2) 12 foot wide travel lanes with two (2) six (6) foot wide paved shoulders. Additionally, just north of Woodring Drive Zinfandel Drive will begin to shift east away from its current alignment to allow, in part, for the establishment of a preserve area to the west. As part of the roadway extension project new drainage facilities will be installed including culverts beneath Zinfandel Drive, roadside ditches and stormwater quality facilities.

Plate HY -3: Zinfandel Drive Drainage Features and Flood Zones

In order to analyze the potential impacts to local drainages and flooding of the roadway improvements and to ensure that the proposed drainage and stormwater features are adequate to reduce pollutants while maintaining surface flow volumes through the work area, Wood Rodgers prepared a drainage study for the project. County DWR staff (S. Rehman) reviewed the drainage study for adequacy and indicated that the study addresses all localized drainage and flood control issues related to the construction of the proposed Zinfandel Drive extension and provides an analysis that sufficiently establishes the existing and proposed hydrologic and hydraulic conditions for the proposed drainage crossings as well as the anticipated water quality facilities to be incorporated into the roadway design.

County DWR concluded that the project will not alter the existing drainage pattern in such a way that causes flooding or contributes to runoff that would exceed the capacity of existing or planned stormwater infrastructure. County DWR also concluded that pre-project surface water volumes would be maintained in the post-project condition and the proposed improvements to Zinfandel Drive would not alter the hydrologic regime downstream within the proposed Natural Preserve. Additionally, the project will not place housing within the 100-year floodplain; place structures in a 100-year floodplain that would cause substantial impacts as a result of impeding or redirecting flood flows; or expose people or structures to substantial loss of life, health, or property as a result of flooding. Impacts related to drainage and flooding are considered ***less than significant***.

MATHER DAM

As noted above, Zinfandel Drive is within the area identified to be subject to flooding in the event of a dam failure at Mather Lake. However, DWR staff (S. Rehman) has concluded that the improvements associated with the proposed project will not alter the path or volume of waters exiting Mather Lake during a dam breach given that Zinfandel Drive will be overtopped in both the pre- and post-project condition. The proposed project will not expose people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam. Impacts associated with flooding resulting from the failure of a levee or dam are ***less than significant.***

PROJECT LEVEL IMPACTS TO WATER QUALITY

CONSTRUCTION IMPACTS

Project related construction activities will occur within several drainage features that traverse Mather Field including creeks, tributaries and drainages. In several locations trenching will occur within these features as well as their related flood zones. It should be noted that construction activities are expected to occur during the summer months when the likelihood of encountering water and affecting water quality is decreased. However, there is the potential for surface water to be located within construction areas, especially where Mather Lake drains to Morrison Creek. In the event that surface water is encountered during construction activities, the applicant has indicated that water diversions will be utilized to maintain downstream flows.

Construction activities within and adjacent to waterways have the potential to degrade water quality. Water quality impacts could occur during construction from increased soil erosion and sedimentation due to demolition or removal of existing facilities, clearing of vegetation, alteration of drainages, and grading. Construction activities also involve the use of fuels, oil, lubricants, antifreeze, hydraulic fluid, solvents, paints, concrete, and other materials that have the potential to contact and affect runoff from construction sites.

Although construction activities have the potential to result is impacts to water quality, as noted above, project related construction activities are required to be in conformance with the County's Municipal Stormwater NPDES permit and project compliance with existing requirements and regulations, as administered by County DWR and CVRWQCB . Compliance with existing regulation **and applicable portions of Mitigation Measure BR-6** will ensure that project-related erosion and pollution impacts are ***less than significant***.

OPERATIONAL IMPACTS

The extension of Zinfandel Drive and trunk sewer facilities will include the widening of pavement, the installation of concrete culverts and will require that soils be compacted in order to support proposed facility improvements. These project components can increase the amount of runoff generated in the project area and the potential for polluted waters to enter the nearby surface waters.

BMPs are required where new development and redevelopment projects may create water quality impacts in order to meet standards of reducing pollutants in urban runoff to the maximum extent practicable. The Stormwater Manual provides locally adopted information for design and selection of three categories of stormwater quality control measures: source control, runoff reduction and treatment control. Table 3-2 of the Manual is a matrix for stormwater quality control measures for various types of projects. For projects constructing streets/roads that are not part of a new residential, commercial or industrial development, if impervious surfaces are greater than 5 acres, source and treatment controls are required, as well as applicable runoff reductions.

The Zinfandel Drive extension proposal includes stormwater treatment control measures in order to attenuate flows from the roadway as well as provide effective treatment to runoff. **These measures are illustrated in Figures 10 through 16 of the Drainage Study prepared by Wood Rodgers, which is included as Appendix HY-1.** Project designs include the installation of stormwater planters, vegetated filter strips, and vegetated swales that will receive and treat surface flow runoff from the roadway. These features were analyzed in the drainage study prepared for the project in order to show that they meet current stormwater quality standards and requirements. County DWR staff (A. Wright) reviewed the drainage study and the adequacy of the proposed stormwater quality features and indicated that the proposed stormwater quality facilities were designed adequately and that treatment objectives would be met by the proposed stormwater treatment control system.

Project development, with the stormwater controls included in the drainage study and in conformance with applicable guidelines and regulations, will not result in the creation of substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality. Project related operational impacts associated with water quality are ***less than significant.***

MITIGATION MEASURES

Compliance with existing regulation and applicable portions of Mitigation Measure BR-6 will ensure that project-related erosion and pollution impacts are less than significant. ~~None~~ **No additional mitigation measures are** recommended.

11 PUBLIC UTILITIES AND SERVICES

INTRODUCTION

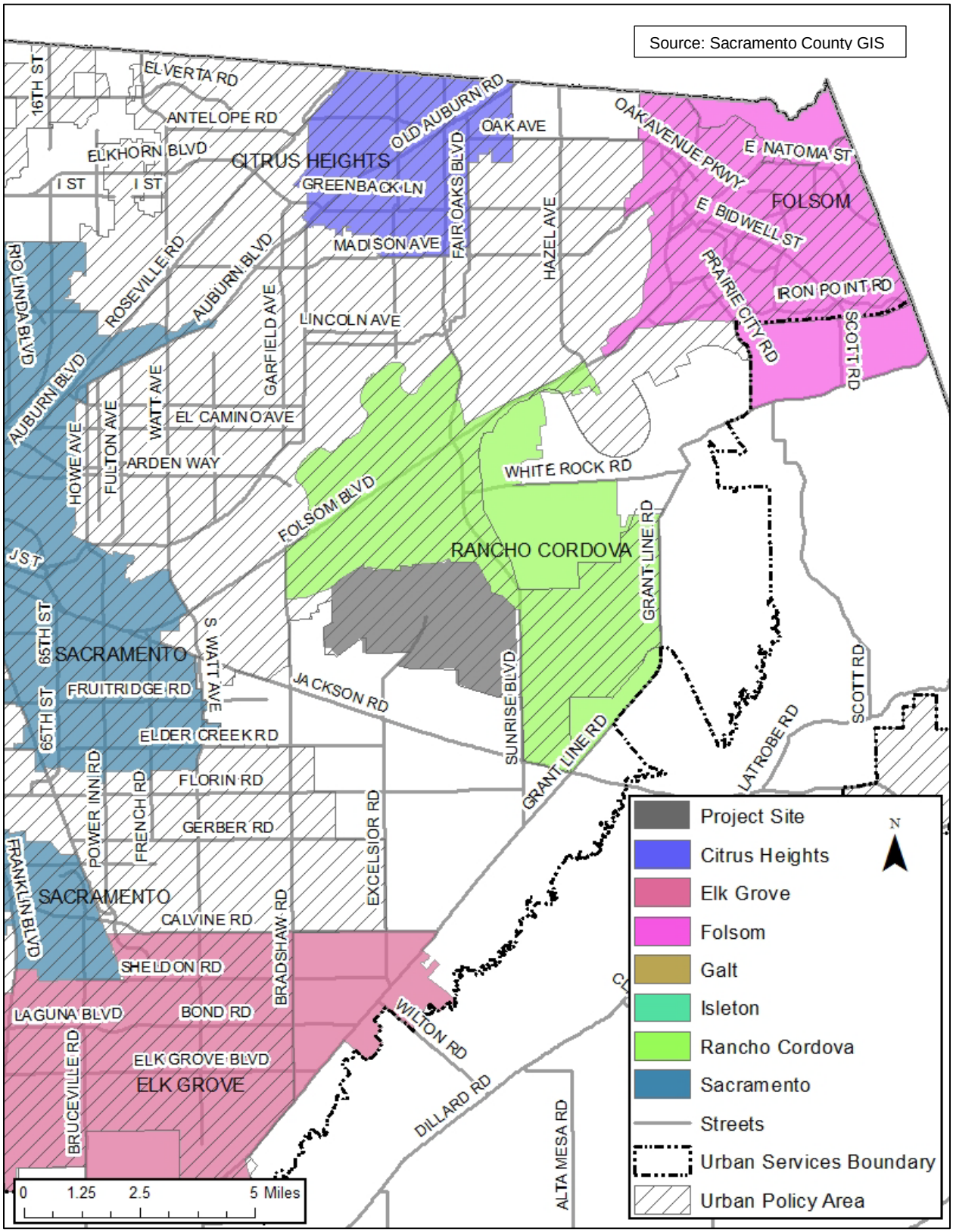
This section addresses potential impacts related to the provision of public services and to public utility infrastructure. Environmental impacts (to biological resources and air quality for example) associated with construction activities required of project related utility improvements and relocations are addressed in the relevant topical chapters.

SETTING

Mather Field is located within the Urban Services Boundary (USB), as defined in the Land Use Element of the County of Sacramento General Plan (Plate PS -1). The USB indicates the ultimate boundary of the urban area in the unincorporated County. Mather Field is also located within the Urban Policy Area (UPA). The Urban Policy Area defines the area expected to receive urban levels of public infrastructure and services within the 20-year planning period. In order to receive urban public services, a project must be within both the UPA and USB. Being within the USB and UPA, Mather Field is provided services and is within the following public utility and service districts:

Water Service:	Sacramento County Water Agency Zone 40-North Service Area
Local Sewer Service:	Sacramento Area Sewer District
Regional Sewer Service:	Sacramento Regional Sanitation District
Fire Protection Service:	Sacramento Metropolitan Fire District
Law Enforcement Service:	Sacramento County Sheriff's Department
Solid Waste Service	County Waste Management and Recycling
School Services:	Sacramento City Unified School District Elk Grove Unified School District Folsom/ Cordova Unified School District
Park and Recreation Service:	Cordova Recreation and Park District
Natural Gas Service:	West Coast Gas
Electrical Power Service:	Sacramento Municipal Utility District

Plate PS -1: Urban Services Boundary and Urban Policy Area



Although the proposed project will result in land use designation changes within Mather Field, the proposed changes will allow for the same types of land uses and densities currently allowed within the project area and the project is not expected to result in future development that would increase demands for public services over what could be developed under the existing allowances for the site. It is acknowledged, however, that future development consistent with the proposed project could potentially increase demands on public utilities and service providers over the existing condition at Mather Field given the amount of underutilized property that is located within the project boundaries. Additionally, the proposed Zinfandel Drive extension and trunk sewer improvements may require physical changes in the project area that could impact existing public utilities and services. Service providers that have reviewed the project and provided specific public service comments are noted in this section.

REGULATORY SETTING

JOINT UTILITIES COORDINATION COMMITTEE REGULATORY SETTING

As set forth in utility coordinating procedures for cities and counties, adopted on November 19, 1992 by the Joint Utilities Coordination Committee – American Public Works Association (APWA), each utility is obligated to relocate their facilities when necessary to make way for the proper governmental use of the streets. For this reason, procedures have been established to assist cities, counties, and utilities in coordinating public improvement projects. These procedures set guidelines for project engineers responsible for the development of plans and specifications for city and county projects, to coordinate with utility providers during the design and pre-construction phases of the work.

The objectives of coordination are to identify utility locations and to minimize service interruption. These objectives are met by providing affected utility providers with the necessary construction plans showing project limits, centerline, right of ways, and other pertinent information. Utilities are then able to plan and initiate possible utility relocation prior to project construction.

In addition to the procedures described above, future construction level projects of roadway improvements associated with the project are required to contact Underground Service Alert (USA) at least 2 full working days before beginning construction activity. USA will contact local utilities and inform them that construction is about to begin in their service area. This notice allows local utilities to mark the areas where their underground facilities are located near the construction site so that they may be avoided during project construction.

WATER SERVICES

STATE OF CALIFORNIA

URBAN WATER MANAGEMENT PLANNING ACT

Pursuant to California Water Code Sections 10610-10657, as last amended by Senate Bill 318 in 2004, the Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 service connections or water use of more than 3,000 AFA are required to submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources every 5 years and update the plan on or before December 31 in years ending in 5 and 0. SB 318 is the 18th amendment to the original bill requiring a UWMP, which was initially enacted in 1983. Amendments to SB 318 have focused on ensuring that the UWMP emphasizes and addresses drought contingency planning, water demand management, reclamation, and groundwater resources.

SENATE BILL 610

SB 610 became effective January 1, 2002. The purpose of SB 610 is to strengthen the process by which local agencies determine the adequacy and sufficiency of current and future water supplies to meet current and future demands. SB 610 amended the California Public Resources Code to incorporate Water Code requirements within the CEQA process for certain types of projects (described below). SB 610 also amended the water code to broaden the types of information included in a UWMP. SB 610 consists of two primary components, the UWMP and the Water Supply Assessment (WSA) (Water Code Sections 10910-10915).

WATER CODE SECTION 10910

Water Code Section 10910 et seq. defines the projects for which the preparation of a Water Supply Assessment (WSA) is required as well as the lead agency's responsibilities related to the WSA. The Water Code also clarifies the roles and responsibilities of the lead agency under CEQA and of the water supplier with respect to describing current and future supplies compared to current and future demands. A WSA is required for:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;

- A mixed use development that includes one or more of the uses described above;

- A development that would demand a volume of water equivalent to or greater than the volume of water required by a 500-dwelling unit project; and

- For lead agencies with fewer than 5,000 water service connections, any new development that would increase the number of water service connections in the service area by 10% or more.

Under Section 10910 of the Water Code, the lead agency must identify the affected water supplier and ask the supplier whether the new demands associated with the project are included in the suppliers UWMP. If the UWMP includes the demands, it may be incorporated by reference in the WSA. If there is no public water system to serve the project, the lead agency must prepare the WSA.

SENATE BILL 221

SB 221 requires a city or county to include as a condition of approval of any tentative map, parcel map, or development agreement for certain residential subdivisions a requirement that a "sufficient water supply" be available. Proof of a sufficient water supply must be based on a written verification from the public water system that would serve the development.

LOCAL

SACRAMENTO COUNTY GENERAL PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan Public Facilities Element identifies a variety of goals and policies which relate to providing adequate service for new development and identify specific policies for development projects to accommodate services within their project. The Sacramento County General Plan policies that are pertinent to water facilities are policies PF-1 through PF-5. These policies are intended to support the stated goal of the Water Facilities Section of the General Plan which is to have "water facilities developed in an environmentally sound, economically efficient, and financially equitable manner."

The policies in the Public Facilities Element that support the County's water facilities strategies and are relevant to the project are as follows:

- PF-4. Connector fees for new development shall cover the fair share of costs to acquire and distribute surface water to the urban area.

- PF-5. New treatment facilities and all facility operations shall be funded by beneficiaries

SEWER SERVICES

FEDERAL

CLEAN WATER ACT

Construction of wastewater infrastructure and facilities may have impacts (erosion and sedimentation) that would be regulated by the Clean Water Act. The 1972 amendments to the federal Clean Water Act prohibit the discharge of pollutants to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act requires NPDES permits for stormwater discharges caused by general construction activity. The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban stormwater, reducing pollution of the environment as much as possible. The NPDES program involves characterizing the quality of receiving water, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive stormwater management program. NPDES permits are issued by the Regional Water Quality Control Board.

SAFE DRINKING WATER ACT

The federal Safe Drinking Water Act established a national program to protect the quality of drinking water available from municipal and industrial water suppliers. The Act establishes a program requiring compliance with national drinking water standards for contaminants that may have an adverse effect on human health. It also establishes programs to protect potable groundwater from contamination.

STATE OF CALIFORNIA

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act requires the California State Water Resources Control Board to adopt water quality control plans and set waste discharge requirements (WDRs) for dischargers into surface and groundwaters. The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for administering and enforcing WDRs, permits, and water quality control plans.

WATER QUALITY CONTROL PLANS

NPDES permits and erosion control programs are required for the construction of infrastructure and pumping facilities. The Clean Water Act requires that water resources be protected from degradation caused by waste discharges and that identified beneficial uses be maintained. The Regional Water Board's Water Quality Control Plan for the Central Valley Region identifies the designated beneficial uses of groundwater and surface water bodies and contains water quality objectives and standards established to protect those uses.

The County of Sacramento received a municipal NPDES permit for stormwater discharges from the Central Valley Regional Water Quality Control Board. Under this permit, permittees are required to develop, administer, implement, and enforce a

Comprehensive Stormwater Management Program (CSWMP) in order to reduce pollutants in urban runoff to the maximum extent practicable. The CSWMP implemented by the city and county is a multi-faceted, dynamic program which is designed to reduce stormwater pollution to the maximum extent practicable. The CSWMP emphasizes all aspects of pollution control including but not limited to public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

The Sacramento Stormwater Management Program has developed the 2007 Stormwater Quality Design Manual for the Sacramento and South Placer Regions. The Manual provides general conditional language used to require development projects to incorporate erosion and sediment controls and on-site stormwater quality control measures. For public and quasi-public projects, mitigation requiring the project to comply with the County's Land Grading and Erosion Control Ordinance is required.

SWRCB RESOLUTION NO. 68-16

The goal of SWRCB Resolution No. 68-16 ("Statement of Policy With Respect to Maintaining High Quality Waters in California") is to maintain high quality waters where they exist in the State. State Board Resolution No. 68-16 states, in part:

- "Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

The SWRCB has interpreted Resolution No. 68-16 to incorporate the federal anti-degradation policy, which is applicable if a discharge that began after November 28, 1975 will lower existing surface water quality.

WATER RECLAMATION REGULATIONS

Wastewater reclamation in California is regulated under Title 22, Division 4, of the California Code of Regulations. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The California Department of Health Services (DHS) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The Regional Water Board is

responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).

LOCAL

SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT MASTER PLAN 2020

The purpose of the SRWTP Master Plan is to identify wastewater treatment and facility needs for a 20-year planning period, which lasts through the year 2020. The SRWTP Master Plan's goal is to provide a phased program of recommended facilities to accommodate planned growth while at the same time maintaining treatment reliability, meeting future regulatory requirements, and optimizing costs. To meet this goal, a 2020 Master Plan was prepared that integrated overall strategies for wastewater treatment, effluent management, and biosolids disposal into an effective wastewater treatment management program. The 2020 Master Plan proposed that treatment facility expansion occur in stages or phases as the sewage generated by the population increases. The capacity of the plant would increase under this plan from 181 million gallons per day (mgd) to 218 mgd (dry weather). The treatment plant is not designed to accommodate wet weather flows. During wet weather events (2-year, 10-year, and 100-year storm events), effluent must be stored (either in emergency storage basins or within the interceptors) because SRWTP cannot discharge effluent into the river. The storage basins and interceptors are designed to provide adequate capacity to accommodate wet weather flows.

The SRCSD Board of Directors approved the SWRPT Master Plan 2020 in fall of 2003. A NPDES Discharge Permit was issued to Regional San by the Central Valley Regional Water Quality Control Board (Water Board) in December 2010. In adopting the new Discharge Permit, the Water Board required SRCSD to meet significantly more restrictive treatment levels over its current levels. SRCSD believed that many of these new conditions go beyond what is reasonable and necessary to protect the environment, and appealed the permit decision to the State Water Resources Control Board (State Board). In December 2012, the State Board issued an Order that effectively upheld the Permit. As a result, SRCSD filed litigation in California Superior Court. SRCSD and the Water Board agreed to a partial settlement in October 2013 to address several issues and a final settlement on the remaining issues were heard by the Water Board in August 2014. SRCSD began the necessary activities, studies and projects to meet the permit conditions. The new treatment facilities to achieve the permit and settlement requirements must be completed by May 2021 for ammonia and nitrate and May 2023 for the pathogen requirements.

INTERCEPTOR SEQUENCING STUDY

The SRCSD Board of Directors adopted the Interceptor Sequencing Study (ISS) in February 2013. The ISS was prepared to determine SRCSD's long term needs to provide sanitary sewer service to a growing Sacramento region and provides a high level evaluation of interceptor needs and interceptor pipe sizes. The ISS modified the previous Interceptor Master Plan 2000, aids SRCSD in planning and implementing regional conveyance projects, and assists SASD in coordinating collection system

facilities. The ISS can be found on the SRCSD website at *http://www.srcsd.com/documents.php*.

SASD SEWER SYSTEM CAPACITY PLAN 2010 UPDATE

In order to effectively plan and budget for capital improvement needs, SASD continuously evaluates sewer service alternatives for future areas of expansion and the capacity performance of the existing system as part of the Sewer System Capacity Plan Update. The System Capacity Plan is a high-level and dynamic capacity plan that addresses existing, mid-range, and buildout sewer capacity needs. Existing capacity needs are based on SASD's current sewer system conditions, and predicted deficiencies are addressed through proposed relief projects. The mid-range capacity plan provides sewer service alternatives to address planned new development within SASD's service area for the next 10 years. The buildout capacity plan provides sewer service to the entire SASD service area.

A Sewer System Capacity Plan Update was prepared and approved by the SASD Board of Directors in January 2012. Planning for future SASD facilities utilizes existing and projected land use information provided by the jurisdictions within the SASD sphere of influence, since wastewater flow rates are directly related to the type of land use.

The wastewater generation estimate is generally expressed in the equivalent of single-family dwelling units (ESDs) per acre, where one ESD represents the wastewater generation equivalent of one single-family residence. Flow estimates for an ESD are 310 gallons per day. The ESDs for each of the land uses as found in Table 2-2 of the Executive Summary to the 2010 Plan Update are found below (Table PS-1).

Table PS-1: Land Use Categories, Design ESD Densities, and Flow Estimates

Description	ESDs per acre	Flow Estimates (gpd)[1]
Medium Low Density Residential	10	3,100
Medium Density Residential	15	4,650
Medium High Density Residential	22	6,820
High Density Residential	30	9,300
Corridors and Town Centers	20	6,200
Open Space (non-sewered area), including parks, detention basins, Natural Preserve, Landscape Corridors, Cemeteries, and Roads	0	0
All Other Land Uses: Residential, Commercial/Office, Industrial, Public/Quasi-Public/Schools, Mixed/Special Planning Areas/Urban Reserve	6	1,860

1. These figures were calculated and added to the table based on the SASD design flows of 310 gpd/ESD. Based on flow monitoring data, the *actual* domestic flow factors may be higher or lower than the *design* domestic flow factor; recent data collected by SASD indicates it is higher.

RELATIONSHIP BETWEEN PLANS

In summary, the relationships between the SRWTP, SRCSD, and SASD master plans are as follows:

- The purpose of the SRWTP 2020 Master Plan is to provide a phased program of recommended facilities to accommodate planned growth while maintaining treatment reliability, meeting future regulatory requirements, and optimizing costs.

- The purpose of the Interceptor Sequencing Study is to update and refine planned regional conveyance facilities identified in the Interceptor System Master Plan 2000 and identify near and long-term improvements needed for the regional wastewater conveyance system.

- The overall goal of the SASD Sewer System Capacity Plan is to plan for future needs for the trunk sewer system, including relief projects for existing areas and expansion projects to serve areas of new development.

All of these plans are incorporated by reference and can be viewed at County of Sacramento, Planning and Environmental Review Division, 827 7th Street, Room 225, Sacramento, CA 95814; and the Sacramento Regional County Sanitation District, 10545 Armstrong Avenue, Suite 101, Mather, CA 95655.

SACRAMENTO COUNTY GENERAL PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan Public Facilities Element identifies a variety of goals and policies which relate to providing adequate service for new development and identify specific policies for development projects to accommodate services within their project. The Sacramento County General Plan Policies PF-6 through PF-18 are pertinent to sewer service. These policies are intended to support the stated goal of the Wastewater Collection and Treatment Section of the General Plan which is to have a "safe, efficient, and environmentally sound public sewer system and treatment facility serving all urban development."

The policies in the Public Facilities Element that support the County's wastewater strategies and are relevant to the project are as follows:

- PF-6. Interceptor, trunk lines and flow attenuation facilities shall operate within their capacity limits without overflowing.

- PF-7. Although sewer infrastructure will be planned for full urbanization consistent with the Land Use Element, an actual commitment of additional sewer system capacity will be made only when users are ready to connect and use the system.

- PF-8. Do not permit development which would cause sewage flows into the trunk or interceptor system to exceed their capacity.

- PF-9. Design trunk and interceptor systems to accommodate flows generated by full urban development at urban densities within the ultimate service area. This could include phased construction where deferred capital costs are appropriate.

- PF-10. Development along corridors identified by the Districts in their Master Plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.

- PF-15. Support CSD-1(now SASD) and SRCSD policies to fund new trunk and interceptor capital costs through connection fees for new development.

- PF-16. Support SRCSD policy to fully fund treatment plant operation through monthly service charges to system users. Fund treatment plant expansion and upgrades, and existing trunk and interceptor replacements or improvements through connection fees or other revenue sources.

- PF-17. Support a policy requiring monthly service charges to users that reflect differences in the volume and concentration of wastewater generated by nonresidential users.

- PF-18. New development projects which require extension or modification of the trunk or interceptor sewer systems shall be consistent with sewer facility plans and shall participate in established funding mechanisms. The County will not support development projects that are not consistent with sewer master plans and that require installation of interim sewer facilities.

FIRE PROTECTION AND EMERGENCY SERVICES

STATE

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with CCR Title 8 Sections 1270, “Fire Prevention” and Section 6773 “Fire Protection and Fire Equipment”, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all fire fighting and emergency medical equipment.

EMERGENCY RESPONSE/ EVACUATION PLANS

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

FIRE CODES AND GUIDELINES

The availability of sufficient water flows and pressure are a basic requirement of the fire districts. Fire District requirements are determined for specific development projects at the design stage and are based on the Uniform Building Code (UBC). In addition to meeting minimum fire flow requirements, all development projects within the unincorporated area are required to meet other various fire protection requirements identified in the plan check and review process. The Fire District specifications require that fire sprinklers be installed in all new commercial construction that exceeds 3,600 square feet and some residential properties exceeding 2,999 square feet. Also, for structures exceeding 3,600 square feet, the district requires water pressure of at least 20 pounds per square inch residual pressure at 1,000 gallons per minute flow. The district also requires that all traffic signals installed on a site include traffic control devices that allow the Fire District to activate the light and therefore control the flow of traffic in order to maintain adequate response times.

LOCAL

FIRE DISTRICT MASTER PLANS

Fire District Master Plans provide policy guidance, objectives, and activities in an effort to improve emergency response to the districts' citizens, use existing resources more efficiently, and improve district facilities. These plans address deficiencies with existing fire stations, including age and condition issues; noncompliance with building codes; the ability to respond to emergencies following an earthquake; and lack of apparatus rooms of sufficient size to store present-day emergency-response equipment. SMFD has defined a 20-year plan to deal with new infrastructure needs and augment/replace equipment.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-54 through PF-64 are pertinent to fire protection and emergency services. These policies are intended to support the stated goal of the Fire Protection and Emergency Services Section of the General Plan which is to have "efficient and effective fire protection and emergency response serving existing and new development."

The policies in the Public Facilities Element that support the County's emergency services strategies and are relevant to the Project are as follows:

- PF-54. Require new development to install fire hydrants and associated water supply systems which meet the fire flow requirements of the appropriate fire district.

- PF-55. New development shall provide access arrangements pursuant to the requirements of the California Fire Code.

- PF-56. Infill development shall be provided adequate off-site improvements to meet on-site fire flow requirements.

- PF-57. New development, redevelopment or traffic signal replacement shall require the installation of emergency signal activation systems in all street improvements requiring signalization when requested by a fire district.

- PF-58. Traffic calming measures should be used wherever possible in a manner that does not delay emergency vehicle responses.

- PF-59. Alternative methods of fire protection and access must be instituted if access is reduced to emergency vehicles.

- PF-60. Require that structures of four stories or more in height provide on-site equipment and facilities to the satisfaction of the appropriate fire district, consistent with industry norms and standards.

- PF-61. Mitigation fees may be established by the Board of Supervisors or Fire Districts for the purpose of funding adequate fire protection and emergency medical response facilities provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district and that existing methods of financing are inadequate.

- PF-63. Mitigation fees established by County ordinance or Fire District shall, together with other reasonably assured sources of funding identified in the fire district's financing plan, be sufficient to implement the adopted financing plan.

- PF-64. No building permit for new residential or commercial construction shall be issued when there is a Board of Supervisors certified fire district financing plan for any applicable fire district, which provides for mitigation fees, until the applicant has contributed all required mitigation fees.

LAW ENFORCEMENT SERVICES

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-50 through PF-53 are pertinent to Law Enforcement services. These policies are intended to support the stated goal of the Sheriff Section of the General Plan which is to have “adequate Sheriff Services and Facilities for the Unincorporated Areas of Sacramento County.” The law enforcement policy relevant to the Project is as follows:

- PF-53. Design neighborhoods and buildings in a manner that prevents crime and provides security and safety for people and property; when feasible.

SOLID WASTE SERVICES

FEDERAL

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner (EHSO, 2009). Under RCRA, the United States Environmental Protection Agency (US EPA) has the authority to control hazardous wastes from the "cradle to grave". This includes the generation, transportation, treatment, storage and disposal of hazardous wastes (US EPA, 2009). RCRA also sets a framework for the management of non-hazardous solid wastes. In 1986, amendments to RCRA enabled the US EPA to address underground storage tanks storing petroleum and other hazardous substances.

RCRA authorizes states to develop and enforce their own waste management programs. State programs must be approved and authorized by the US EPA.

STATE

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT AND CALRECYLE (FORMERLY THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD)

Regulations for solid waste disposal in California began with the enactment of the Solid Waste Management and Resource Recovery Act of 1972. This statute created the Solid Waste Management Board, giving it authority related to solid waste handling, disposal and reclamation.

The Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, which created the California Integrated Waste Management Board (which has been renamed CalRecycle). The Integrated Waste Management Act mandated a goal of 25 percent diversion of each city's and county's waste from disposal by 1995 and 50 percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted. CalRecycle plays a central role of promoting achievement of the waste diversion as mandated by the Act (Cal EPA, 2009).

CalRecycle is the State agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. They provide grants and loans to help California cities, counties, businesses and organizations meet the State's waste reduction, reuse and recycling goals. CalRecycle promotes a sustainable environment where these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, the Board promotes the use of new technologies for the practice of diverting California's resources away from landfills (CalRecycle, 2009). The Board is responsible for ensuring that State waste management programs are primarily carried out through local enforcement agencies (LEAs). The California Water Resources Control Board and the Central Valley Regional Water Quality Control Board

also regulate waste disposal (the latter actually regulated solid waste prior to CalRecycle).

As reported in the CalRecycle 2008 Annual Report, California has exceeded the goals mandated by the Integrated Waste Management Act of 1989 by diverting 58 percent of its waste stream. This accomplishment is in part due to successful partnership between State government, local government, and the solid waste industry in California.

Senate Bill 1016, signed into law on September 26, 2008, represents a fundamental shift in the way local jurisdictions will be measured for compliance with state diversion mandates. Jurisdictions will be evaluated based on the implementation of programs that measure per capita waste disposal, rather than diversion percentage.

LOCAL

SACRAMENTO COUNTY DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING (DWMR)

The Sacramento County Department of Waste Management and Recycling (DWMR) is responsible for maintaining a waste management system for residents and businesses in the unincorporated areas of the County. The DWMR has responsibility for garbage recycling and collection services, garbage disposal and recycling facilities, and recycling programs. The DWMR oversees the waste management collection and disposal services for approximately 150,000 residential customers every week. The DWMR collects and disposes/processes 128,000 tons of trash, 75,000 tons of green waste, and 37,000 tons of recyclables each year.

SOLID WASTE ADVISORY COMMITTEE

The Solid Waste Advisory Committee (SWAC) is an advisory panel consisting of appointed representative from each jurisdiction in Sacramento County. The SWAC is the State-mandated Local Task Force (as mandated by the California Public Resources Code Section 40950), which coordinates waste management and recycling efforts throughout the County. The SWAC advises the County Board of Supervisors, the city councils of the cities within the County, and the Sacramento Regional County Solid Waste Authority (SWA) on all matters relating to the County of Sacramento Integrated Waste Management Plan and all matters relating to integrated waste management, including public education; source reduction; recycling; composting; transformation; materials recovery/resource recovery and marketing; and the collection, transfer, processing, and disposal of refuse and recycling.

SACRAMENTO COUNTY INTEGRATED WASTE MANAGEMENT PLAN

The County of Sacramento adopted the Sacramento County Integrated Waste Management Plan in March 1996, and it was approved by CalRecycle in May 1998. The plan was re-approved as part of the mandatory 5-year review process in March of 2009. This plan consists of the following:

- Siting Element (entire county: cities and unincorporated areas)
- Summary Plan (entire county: cities and unincorporated areas)
- Source Reduction & Recycling Elements (by City, County, or Regional Agency)

- Household Hazardous Waste Elements (by City, County, or Regional Agency)
- Non-disposal Facility Elements (by City, County, or Regional Agency)

These documents are the main sources and references for solid waste facility planning in Sacramento County. The Siting Element and Summary Plan are prepared and administered by the County of Sacramento, Department of Waste Management & Recycling. The remaining documents are prepared and administered by each individual jurisdiction or regional agency.

SACRAMENTO REGIONAL SOLID WASTE AUTHORITY (SWA)

The Sacramento Regional Solid Waste Authority is a joint powers authority of Sacramento County and the City of Sacramento. SWA was formed in December 1992 to assume the responsibility for solid waste, recycling, and disposal needs for businesses and apartment complexes in the Sacramento area. The SWA regulates commercial solid waste collection by franchised haulers and offers recycling services to multi-family dwelling units. SWA is governed by a Board of Directors consisting of elected officials from the City of Sacramento and the unincorporated area of Sacramento County. The following SWA recycling ordinances apply to the unincorporated areas of the County.

SWA ORDINANCES

The SWA has adopted three recycling ordinances that target three distinct waste streams: (1) The Business Recycling Ordinance, adopted in 2007 for commercial generators who subscribe to 4 cubic yards or more of refuse service per week; (2) The Certification of C&D [Construction and Demolition] Debris Sorting Facilities Ordinance, adopted in 2008, that creates a program for mixed C&D facilities that dovetails with both City and County C&D Ordinances for builders; and (3) The Multifamily Recycling Ordinance, adopted in 2009, that requires owners of multifamily properties with over 5 units to subscribe to a recycling service for their tenants.

LOCAL ENFORCEMENT AGENCY

Local enforcement agencies (LEAs) have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the state. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. The Sacramento County Environmental Management Department (EMD) is authorized as the LEA under Division 30 of the Public Resources Code and Title 14 of the California Code of Regulations (CCR).

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-20 through PF-26 are pertinent to solid waste. These policies are intended to support the stated goal of the Solid Waste Services and Facilities Section of the General Plan which is to have a “safe, efficient and environmentally sound operation of solid waste facilities in Sacramento County.”

The majority of the policies in the General Plan pertain to service providers and not to development projects. The policies in the Public Facilities Element that support the

County's Solid Waste Services strategies and are relevant to the Project relate to fees to support adequate waste facilities and are as follows:

- PF-23. Solid waste collection, handling, recycling, composting, recovery, transfer and disposal fees shall recover all capital, operating, facility closure and maintenance costs.

- PF-24. Solid waste disposal fees and rate structures shall reflect current market rates and provide incentives for recovery.

SCHOOL SERVICES

STATE

LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998

The "Leroy F. Greene School Facilities Act of 1998", also known as Senate Bill No. 50 (SB 50) established a State program to provide per-pupil funding for new construction and modernization of existing school facilities. (OPSC, 2009). The passage of Proposition 1A in 1998 allowed SB50 to be fully implemented.

SB 50 limited the power of cities and counties to require mitigation of school facilities as a condition of approving new development and authorized school districts to assess fees (at various levels) to directly offset the costs associated with increased capacity as a result of new development.

OFFICE OF PUBLIC SCHOOL CONSTRUCTION AND THE STATE ALLOCATION BOARD

The State Allocation Board (SAB) is responsible for determining the allocation of state resources used for the new construction and modernization of local public school facilities. The SAB is also responsible for the administration of the State School Facility Program, the State Relocatable Classroom Program and the Deferred Maintenance Program. The SAB is the policy-level body for the programs administered by the Office of Public School Construction (OPSC) (OPSC, 2009). The OPSC, as staff to the SAB, implements and administers the School Facility Program and other programs of the SAB. The OPSC also has the responsibility of verifying that all applicant school districts meet specific criteria based on the type of funding which is being requested. (OPSC, 2009)

There have been four Kindergarten – University Public Education Facilities Bond Acts passed by voters (Proposition 1A, 47, 44 and 1D) that allocated billions of dollars in general obligation bonds for K – 12 facilities through the School Facility Program. These funds help assist school districts with overcrowding, accommodating future enrollment growth and repairing and modernization of older facilities.

CALIFORNIA EDUCATION CODE

The California Education Code authorizes the California Department of Education to develop site selection standards for school districts. The California Department of

Education School Facilities Planning Division has prepared a School Site Selection and Approval Guide that provides criteria for location appropriate school sites in the State of California.

Site selection is determined based on a screening and ranking procedure. The criteria, in order of importance are listed below:

1. Safety
2. Location
3. Environment
4. Soils
5. Topography
6. Size and Shape
7. Accessibility
8. Public Services
9. Utilities
10. Cost
11. Availability
12. Public Acceptance

LOCAL

SACRAMENTO COUNTY OFFICE OF EDUCATION

The Sacramento County Office of Education (SCOE) is responsible for delivering quality education to more than 238,000 K – 12 public school students in Sacramento County. The SCOE provides technical assistance, curriculum and instructional support, staff development, legal and financial advice and oversight to 13 school districts. SCOE also directly educates more than 30,000 children and adults.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to public school facilities are policies PF-27 through PF-39. These policies are intended to support the stated goal of the Public School Facilities Section of the General Plan which is to have "new public schools which serve as a neighborhood focus and maintain a quality learning environment for Sacramento County's residents as the County population increases."

The General Plan policies related to public schools generally pertain to developing schools that are functionally and physically integrated within their surrounding neighborhoods; that are developed through a coordinated planning effort between school districts; and that are at levels equal to state standards for school enrolment and school site size for all Sacramento schools. School related policies in the General Plan focus on how schools will be sited and developed rather than on how development may affect schools. School facilities mitigation is covered under California Government Codes noted above. Applicable General Plan policies are:.

- PF-27. Community plans shall identify all existing and planned school sites and shall include guidelines and conceptual examples for incorporating new schools into overall neighborhood design.

- PF-28. Community and Specific Plans shall consider the needs of community colleges and address the feasibility and appropriateness of off-campus facilities, particularly in TODs.

- PF-29. Schools shall be planned as a focal point of neighborhood activity and interrelated with neighborhood retail uses, churches, neighborhood and community parks, greenways and off-street paths whenever possible.

- PF-30. New elementary schools in the urban area should be planned whenever possible so that almost all residences will be within walking distance of the school (one mile or less) and all residences are within two miles of a school.

- PF-31. Schools shall be planned adjacent to neighborhood parks whenever possible and designed to promote joint use of appropriate facilities. The interface between the school and park shall be planned with an open design and offer unobstructed views to promote safety.

- PF-32. Elementary schools shall not be located along arterials and thoroughfares. Junior high and high schools should be located near roadways with adequate capacity and should provide adequate parking to facilitate the transport of students.

- PF-34 All school site plans shall be designed to minimize traffic speed and maximize traffic flow around the school, allowing for several access points to and from the site.

- PF-35. New schools should link with planned bikeways and pedestrian paths wherever possible.

- PF-38. Land dedications or reservations for schools should meet state guidelines for school parcel size. Where more than one owner or development project is involved, there shall be appropriate assurances and conditions to assure that requisite acreage can and will be assembled to meet facility site requirements.

- PF-39. Specific Plans shall show the location of future school sites based upon adopted school district master plans and criteria in the General Plan.

PARK AND RECREATION SERVICES

STATE

CALIFORNIA GOVERNMENT CODE SECTION 66477

California Government Code Section 66477 (Quimby Act) allows local governments to exact land dedications or fees in lieu for park purposes from new subdivisions. The law prescribes a standard consistent with the circumstances of each park district based on a minimum of 3 acres and a maximum of 5 acres per 1,000 residents. Sacramento County's Planning and Environmental Review Division and Municipal Services Agency oversee these requirements in the unincorporated area.

LOCAL

TITLE 22

Title 22 of the Sacramento County Code provides direction on calculating park acreage requirements for residential developments. Depending on the jurisdiction, residential developments are required to provided dedicated land for park construction or pay in-lieu fees.

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to park facilities are policies PF-120 through PF-131. These policies are intended to support the stated goal of the Local Park Acquisition and Maintenance Section of the General Plan which is to have "adequate and well funded local park facilities for existing and new developments."

The policies in the Public Facilities Element that support the County's park services strategies and are relevant to the Project are as follows:

- PF-122. To help assure that local recreation and park district Master Plan standards for levels of service may be achieved and maintained, the County may require new development to dedicate land, pay in-lieu fees, development impact fees, or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities. For development in infill areas where land dedication may not be practical, the County in cooperation with the affected park district may explore creative alternatives for providing park and recreation facilities.

- PF-123. At a minimum, new residential developments approved by the County shall provide sites for local parks for their prospective residents consistent with the Quimby Act and the land dedication standards for each local recreation and park district adopted by Sacramento County in Chapter 22.40 of the Sacramento County Code. These requirements may be satisfied by land dedication, payment of fees in lieu of dedication, or on-site improvements per the provisions of Chapter 22.40, which will be regularly updated to reflect changing demography. These include the baseline standard of three acres of land for parks per 1,000 residents

or in cases where existing parklands within a park district exceed three acres per 1,000 population, that higher ratio shall be the standard for new developments up to a maximum of five acres of land for parks per 1,000 residents based on calculations specified in SCC Chapter 22.40.

- PF-125. The County shall promote the provision of on-site recreational amenities and gathering places that are available to the public by large scale development projects and may consider providing incentives such as density bonuses or increases in building coverage for that purpose.

- PF-127. Require new residential developments to participate in park O & M financing mechanisms where established by local park districts or the County.

- PF-128. Encourage park development adjacent to school sites and the formation of joint use agreements between school and park districts.

- OS-10. Sacramento County shall seek to attain the County Regional Park System standard of 20 acres of regional parkland per 1,000 population.

ENERGY SERVICES

FEDERAL

FEDERAL ENERGY REGULATORY COMMISSION

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sale of electricity, natural gas, and oil; licenses and inspects hydropower projects; reviews proposals to build liquefied natural gas (LNG) terminals; and oversees related environmental matters (FERC, 2009).

STATE

CALIFORNIA PUBLIC UTILITIES COMMISSION

The California Public Utilities Commission (CPUC) regulates the design, installation, and management of California's public utilities, including electric, natural gas, water, transportation, and telecommunications. The CPUC also provides consumer programs and information, such as energy efficiency, low income programs, demand response, and California solar initiative for California's energy consumers.

CALIFORNIA CODE OF REGULATIONS

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, California Building Standards Code. Part 6 of Title 24 contains California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These regulations were established in 1978 in response to legislative mandate to reduce California's energy consumption. The standards are updated periodically to incorporate new energy efficiency technologies and methods (CEC, 2009).

WARREN-ALQUIST STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT ACT

The Warren-Alquist Act of the Public Resources Code gives statutory authority to the California Energy Commission. Under the Warren-Alquist Act, there will be state policies for responsibility for energy resources, reduction in uses of energy, conservation of energy, and establishment of statewide goals for energy conservation. (Warren-Alquist Energy Resources Conservation and Development Act, Government Code Section 25000 *et seq*.).

LOCAL

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

The Sacramento County General Plan policies that are pertinent to energy services, related to Electric distribution, are primarily policies PF-83 through PF-112. Policies pertinent to Natural Gas distribution are policies PF-114 through PF-116. These policies are intended to support the stated goal of the Energy Facilities Section of the General Plan which is to have, "Appropriately sited energy facilities that efficiently and safely produce and distribute energy to Sacramento County residents without compromising environmental quality or human health."

Among other things, the General Plan Energy Facilities policies are related to the location of facilities to minimize visual intrusion, biological impacts, and land use incompatibilities for cogeneration and solar facilities as well as conventional electric facilities.

SIGNIFICANCE CRITERIA

The criteria used to evaluate the significance of public services impacts resulting from the proposed Project were developed based on CEQA Guidelines and on professional standards. Impacts of the proposed Project on public services were considered significant if implementing the Project would:

1. Result in substantial adverse physical impacts associated with the provision of emergency services;
2. Result in substantial adverse physical impacts associated with the provision of law enforcement services;
3. Result in service by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs;
4. Result in non-compliance with federal, state, and local statutes and regulations related to solid waste.
5. Result in substantial adverse physical impacts associated with the provision of public school services;

6. Result in substantial adverse physical impacts associated with the provision of park and recreation services, or result in substantial physical deterioration of an existing facility due to increased use;
7. Result in substantial adverse physical impacts associated with the provision of library services.
8. Result in a service demand that cannot be met by existing or reasonably foreseeable future service capacity.

IMPACTS AND ANALYSIS

RELOCATED UTILITIES AND DISRUPTION OF SERVICE

Construction related activities associated with the proposed Zinfandel Drive extension and trunk sewer improvements will require relocation of several joint utility poles near the Mather Golf Course east of Zinfandel Drive and at the west side of the intersection of Zinfandel Drive and Woodring Drive. An additional utility pole east of Zinfandel Drive approximately 900 feet north of Douglas Road has also been identified within the proposed work area associated with the Zinfandel Drive/ trunk sewer improvements and will need to be relocated.

The utility poles are currently located within the existing public right of way and will be located within the public utility/public facilities easement along Zinfandel Drive and Woodring Drive in the post project condition and the poles' alignments will only be shifted by a matter of feet.

Additional modifications to existing utilities required of the proposed improvements relate to sewer connections. Although not being relocated, the existing sewer lateral from Mather Golf Course that connects with the sewer system in the area will need to be modified. Currently the sewer line extends from the golf course and connects with a booster station west of Zinfandel Drive across from the golf course driveway. The booster pump then connects with a force main to the Bradshaw Interceptor. This connection will be terminated and a new connection will be made to the proposed trunk sewer line within the right of way of Zinfandel Drive just west of the golf course property. The proposed trunk sewer line will extend north along Zinfandel Drive to North Mather Boulevard and will connect with Bradshaw Interceptor.

Service providers were given the opportunity to review and comment on the proposed project. The following service provider responded with comments related to relocating utilities:

- Sacramento Municipal Utility District (SMUD)
- Sacramento Area Sewer District (SASD)

SMUD staff (R. Ferrera) reviewed the project and provided comments on August 29, 2013. In the comments provided regarding the physical siting of power lines, SMUD

indicated that proposed line routing be acknowledged and discussed and that any impacts related to the proposed routing be disclosed.

SASD staff (A. Singh) reviewed the project and provided comments on April 26, 2013. In the comments provided regarding physical connections to the sewer system, SASD indicated that all future connections shall be done to satisfaction of SASD.

As set forth in utility coordinating procedures for cities and counties, adopted on November 19, 1992 by the Joint Utilities Coordination Committee – American Public Works Association (APWA), each utility is obligated to relocate their facilities when necessary to make way for the proper governmental use of the streets. For this reason, procedures have been established to assist cities, counties, and utilities in coordinating public improvement projects. These procedures set guidelines for project engineers responsible for the development of plans and specifications for city and county projects, to coordinate with utility providers during the design and pre-construction phases of the work.

The objectives of coordination are to identify utility locations and to minimize service interruption. These objectives are met by providing affected utility providers with the necessary construction plans showing project limits, centerlines, right of ways, and other pertinent information. Utilities are then able to plan and initiate possible utility relocation prior to project construction.

Standard practices for locating, working around and relocating public utility lines, including coordination with affected agencies, will ensure that impacts related to utilities and interruptions in service will be ***less than significant***.

CONSTRUCTION OF NEW FACILITIES

The funding of new facilities and services, as well as the ability of service providers to serve Mather Field and other issues are discussed within the impact sections to follow, which are specific to the type of facility (schools, parks, etc). This section discusses the overall impacts that can be expected to result from constructing new facilities, which can inclcude include schools, libraries, Sheriff's facilities, fire stations, energy transmission lines, energy transfer stations, and parks. The locations of these facilities is determined based on land use densities and usage types within specific areas – details that are not available at the programmatic level. Locations are determined at a time when a Master Plan or similar plan is developed. Until these later plans are developed and specific locations for facilities can be determined, this analysis cannot examine site-specific impacts for each facility type. These site-specific impacts will be identified and appropriately mitigated pursuant to General Plan policies and other regulations as part of the subsequent CEQA document that will be required for each new facility project. This analysis discloses the general impacts that can be expected.

Depending on the location and type of facility, the construction and operation of new facilities could result in the following impacts typical of new construction: air quality (related both to construction and operation), biological resources, traffic and circulation, erosion and grading, water quality, drainage, noise (sirens and traffic) and public utility

services demand (electric, water, and wastewater). Less typical, but still possible, are impacts related to cultural resources, and hazardous materials.

These construction activities will take place within the identified Districts within Mather Field, and it has already been assumed that development could take place anywhere within these Districts. The relevant topical chapters of this EIR have already disclosed the impacts of full development within the areas where proposed land use changes are proposed and provided mitigation as appropriate. The development of public service facilities will not result in any additional environmental impacts that have not already been disclosed within the relevant topical chapters of this EIR. Therefore, construction will not result in any additional substantial impacts specific to public services; additional impacts specific to public facility construction are ***less than significant***.

POTABLE WATER SERVICE

SUPPLY

The project site is located entirely in Sacramento County Water Agency's (SCWA's) Zone 40 within the North Service Area (NSA). The NSA includes Mather, the Sunrise Corridor, the Sunrise Douglas Community Plan Area and the Rio del Oro Specific Plan Area. Zone 40 is a benefit zone with the purpose of "the acquisition, construction, maintenance and operation of facilities for the production, conservation, transmittal, distribution and sale of ground or surface water or both for the present and future beneficial use of the lands or inhabitants within the zone" (SCWA, 2005). Once water service begins, Zone 41 is the retail water supplier which is designated to provide potable water to developments in Zone 40. Zone 41 revenues are collected through utility charges, connection permit fees, construction water permits, and grants. These revenues are expected to fund water supply capital facilities replacement design and construction and water supply facilities operations, maintenance and administration.

The Urban Water Management Planning Act (Act) (California Water Code Division 6, Part 2.6, Sections 10610 through 10657) requires that water purveyors prepare Urban Water Management Plans (UWMP). The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (ac-ft) of water annually to adopt and submit an urban water management plan every five years to the California Department of Water Resources (DWR).

SCWA developed the 2010 Zone 41 Urban Water Management Plan in accordance with the Act which addresses the SCWA's water systems and includes a description of the water supply sources, magnitudes of historical and projected water use, and a comparison of water supply water demands during normal, single-dry, and multiple-dry years. Also described is SCWA's conservation program.

The UWMP estimates the SCWA's Zone 40 water demands and supplies in normal, single dry, and multiple dry years in 5-year increments for a 25 year projection. A summary of the pertinent data related to water demands is shown in Table PS-2 below

and the information presented in the UWMP that related to water supplies is shown in Table PS-3. The volumes shown are in acre feet per year (AF/year).

Table PS-2: SCWA Zone 40 Water Demands in Five-Year increments (AF/year)

Water Year	2010	2015	2020	2025	2030	2035
Normal Year	34,511	44,425	50,662	57,583	67,565	77,712
Single Dry Year	34,511	44,425	50,662	57,583	67,565	77,712
Multiple Dry Year (1st year)	34,511	44,425	50,662	57,583	67,565	77,712
Multiple Dry Year (2nd year)	34,511	44,425	50,662	57,583	67,565	77,712
Multiple Dry Year (3rd year)	34,511	44,425	50,662	57,583	67,565	77,712

Table PS-3: SCWA Zone 40 Water Supplies in Five-Year increments (AF/year)

Water Year	2010	2015	2020	2025	2030	2035
Normal Year	48,320	58,000	64,400	79,400	103,700	109,500
Single Dry Year	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (1st year)	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (2nd year)	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (3rd year)	48,320	58,000	64,400	79,400	103,700	109,500

As shown in the tables above, that have been derived from the SCWA's UWMP (Tables 7-1, 7-2, 7-3), water supplies are projected to be more than sufficient to serve projected demands in SWCA's service areas.

The water demands associated with the future development of Mather Field have been included and addressed in the latest Zone 41 Urban Water Management Plan (UWMP) and in the development of the Zone 40 "conjunctive use" program as described in the Zone 40 Water Supply Master Plan (WSMP). The Master Plan analysis of water supply for growth areas is based on more than 80 years of hydrologic data. This 80 year record includes data from past droughts and is the most dependable predictor of what available water supplies will look like in the future. Looking ahead, drought conditions are factored into the long term analysis of the ability to provide water to the service area as it builds out.

Even though the region is currently experiencing drought conditions, according to SCWA staff (D. Eck, personal communication, October 20, 2014); because project demands related to Mather Field are included in the UWMP and WSMP, adequate water supplies are available to support the future development of Mather Field.

QUALITY

Although water supplies are expected to be adequate to serve future development at Mather Field, future development at Mather will require additional pumping at the

existing water wells at Mather Field. In some instances, increases in water pumping activities have the potential to result in the intrusion of subsurface contaminants and polluted groundwater when located adjacent to active well fields. As detailed in the Hazardous Materials chapter of this EIR, Mather Field contains known areas of contamination; however, the conditions at Mather Field are well known and, according to SCWA staff (K. Schmitz), as part of the groundwater modeling utilized to design the remediation systems at Mather Field, it was assumed that pumping at Mather was at its maximum capacity in order to assess a worst case scenario. The modeling assumed that the pumps at Mather were pumping six millions gallons per day rather than the one million gallons per day that is actually does pump. Increasing the amount of water being pumped at the wells located at Mather Field will not result in the contamination of potable water supplies.

Potable Water Service Conclusion

Development at Mather Field will result in the need for potable water service. Future development consistent with proposed project is included in the demand calculations utilized to assess SCWA's ability to adequately provide water to the North Service Area. SCWA has concluded that projected supplies are sufficient to meet projected demands. Additionally, according to SCWA staff, additional pumping at Mather Field will not result in impacts related to water quality in regard to the known contamination at Mather Field. Impacts related to water supplies and service are *less than significant*.

Sewer Service

Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) currently serve the project site. SRCSD is responsible for major conveyance (such as interceptors), wastewater treatment and wastewater disposal for SASD and the cities of Sacramento, West Sacramento and Folsom. SASD is a local sewer utility which owns and operates lower lateral pipes, main line pipes and pumping stations. SASD provides service to the following areas: unincorporated areas of Sacramento County; the cities of Citrus Heights, Rancho Cordova, and Elk Grove; and portions of the cities of Folsom and Sacramento.

Sewer service within Mather Field is provided by Sacramento Regional County Sanitation District (SRCSD), which builds and operates the interceptor lines and regional wastewater treatment plant, and Sacramento Area Sewer District (SASD), which builds and maintains trunk lines. SRCSD was formed to provide a regional wastewater conveyance, treatment, and disposal system for the entire urbanized area of the County of Sacramento. SASD is responsible for day-to-day operations and maintenance of the lower lateral and mainline pumps within its district. SRCSD and SASD are governed by a Board of Directors, whose members include the County of Sacramento Board of Supervisors and the mayors or designees of the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Rancho Cordova, West Sacramento (SRCSD only) and Yolo County (SRCSD only). SRCSD provides wastewater treatment for more than one million residents in a 435-square mile area within Sacramento and Yolo Counties, while SASD is responsible for the local collection system and

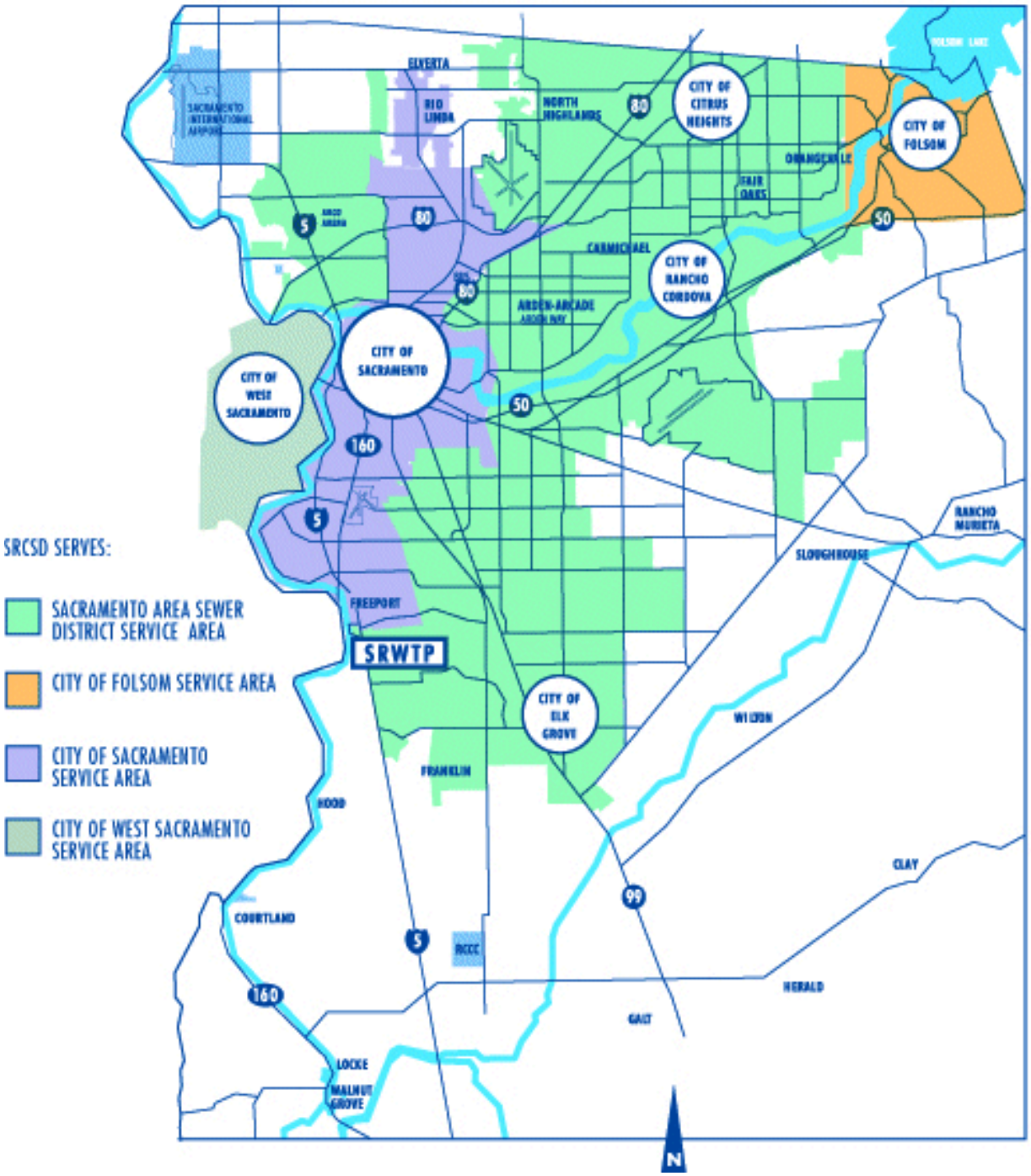
maintenance in unincorporated Sacramento County as well as many of the incorporated cities (Plate PS-2).

SRCSD's and SASD's approved Sphere of Influence (SOI) in Sacramento County is the area officially designated for its future service planning effort. This area corresponds to the General Plan's Urban Services Boundary (USB), with the exception of the areas served by the Cities of Sacramento (portions), the Folsom sewer system and Rancho Murieta, Rio Cosumnes Correctional Center, the City of West Sacramento, and the Delta communities of Courtland and Walnut Grove.

Sewage is routed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) by the collections systems owned by SRCSD, the City of Sacramento, and the City of Folsom. The SRWTP is a high-purity oxygen-activated sludge facility. Incoming wastewater is screened to allow most of the heavy organic solids to settle to the bottom of tanks and be delivered to digesters. Next, oxygen is added to the wastewater to grow naturally-occurring microscopic organisms, which consume the lighter organic particles in the wastewater and then settle on the bottom of the secondary clarifiers. Clean water decants off the top of the clarifiers and is then chlorinated to remove any pathogens or other harmful organisms. Chlorine contact time occurs while the wastewater travels through a two-mile outfall pipeline to the Sacramento River, near the town of Freeport. Sulfur dioxide is added to neutralize the chlorine before the water discharges to the river. The solids are anaerobically digested and are suitable for recycling (biosolids).[1] After secondary treatment and disinfection, a portion of the effluent from the plant is further treated in SRCSD's Water Reclamation Facility and then used for non-potable purposes, such as landscape irrigation within select areas of Elk Grove and the SRWTP.

[1] http://www.regionalsan.com/post/wastewater-treatment-process

Plate PS -2: SRCSD Service Area



The main SASD collection system includes over 2,800 miles of sewer pipelines ranging in size from four to 75 inches in diameter that deliver sewage to the interceptor system operated and maintained by SRCSD. SRCSD interceptors are a very large system of pipes (up to 12 feet in diameter), which carry wastewater directly to the SRWTP. At times of peak use, the interceptor system carries as much as 400 million gallons of wastewater per day. SRCSD currently has 172 miles of interceptor pipe including 30 miles of force mains and 11 major pumping stations. This does not include proposed interceptors or interceptors currently in construction. Previously, the wastewater flow at the SRWTP was about 150 mgd average dry weather flow, but appears to have been reduced due to water conservation efforts, dry weather and other factors. The SRWTP has a permitted average dry weather flow design capacity of 181 mgd. Currently dry weather flows are approximately 140 mgd (R. Seyfried, personal communication, October 21, 2014).

The SASD 2010 System Capacity Plan (Capacity Plan) includes an expansion plan for sewer facilities along Zinfandel Drive and identifies the proposed sewer extension as a needed facility to be developed by 2020. Figure A.8-3 of the 2010 Capacity Plan shows that needed facilities along Zinfandel Drive include a gravity main from just north of Kiefer Boulevard to North Mather Boulevard in the City of Rancho Cordova. The project includes sewer infrastructure improvements consistent within the identified improvements of the SASD Capacity Plan.

Programmatic Level Impacts to Sewer Service

The SRWTP has a permitted dry weather flow design capacity of 181 mgd and has sufficient capacity to serve the development of Mather Field based on the proposed land use designations. However, although sewer service is provided to Mather Field, much of the project area is vacant and does not currently contain sewer infrastructure to support future development consistent with the land use designations of the proposed project. Future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. With Mitigation Measure PS-1, requiring coordination with SASD prior to project development potential impacts related to sewer service are ***less than significant***.

Project Level Impacts To Sewer Service

A sewer study dated January, 2010 and entitled *Master Sewer Study for South Mather Development & Zinfandel Dr. Extension* (Sewer Study) was prepared for this project to demonstrate that the trunk sewer infrastructure proposed to be installed as part of this project is adequate to support future development in the shed area at full build out. In September of 2013 Amendment #1 was prepared for the Sewer Study to refine the details included in the Sewer Study and amend the projected developable area to more accurately reflect likely development areas within the shed area. The shed area includes, generally, the southeast portion of Mather Field north of Kiefer Boulevard, east of the proposed alignment of Zinfandel Drive, south of the Mather Airport runway and

the existing capped landfill at the north east corner of the project area and west of the Folsom South Canal. The shed area totals approximately 1,636 acres and is largely undeveloped.

The Sewer Study (with Amendment #1) found that the shed area will generate a sewer demand of approximately 15,799 equivalent single family dwelling units (ESD) with a peak wet weather flow of 10.0 million gallons per day at full build out.

The Sewer Study concluded that the proposed trunk sewer infrastructure and the Bradshaw Interceptor, that will collect flows from the proposed sewer line, are capable of serving the shed area under the ultimate build out condition. SRCSD staff (G. Darting) reviewed the Sewer Study and indicated that it is considered adequate for the submittal of improvement plans for the proposed trunk sewer facilities. Additionally, the project proposes sewer infrastructure that has been identified as a needed facility by the year 2020 and is consistent with and supports the SASD Capacity Plan. Impacts related to sewer service are expected to be ***less than significant***.

FIRE PROTECTION SERVICE

PROGRAMMATIC LEVEL IMPACTS TO PROVISION OF EMERGENCY SERVICES

The Sacramento Metropolitan Fire District (SMFD) provides fire protection, fire suppression, inspection, plan checking, emergency transportation and medical services, advanced life support, and rescue services to the project site. SMFD currently operates 39 career-staffed stations, two volunteer-staffed stations and one helicopter station and provides service to over 640,000 people (SMFD, 2012). The nearest stations which would serve the project site include 1) Station 62 at 3646 Bradshaw Road in Sacramento, west of the project site, 2) Station 66 at 3180 Kilgore Road in Rancho Cordova, north of the project site and 3) Station 68 at 4381 Anatolia Drive in Rancho Cordova.

SMFD would provide fire protection and emergency medical services to the project site. Future development of the site consistent with the proposed land uses would result in a need for additional fire protection staff and/or facilities to maintain the SMFD response time goal of five minutes or less, 80 percent of the time.

The General Plan contains policies that allow the Board of Supervisors to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district. The fire districts that receive such funds must maintain Insurance Service Office (ISO) ratings of 3 for hydrant areas and 8 for non-hydrant areas and a response time of five minutes for emergency calls, where staffing levels are adequate. Furthermore, building permits for new developments will not be issued until an applicant has contributed all required mitigation fees when there is a Board of Supervisors-certified fire district financing plan for any applicable fire district. Additionally, the policies contained in the General Plan require that new

buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate.

Thes~~e~~ policies will ensure that impacts associated with growth and funding for adequate fire protection will be ***less than significant.***

Project Level Impacts to Provision of Emergency Services

During construction related activities associated with the extension of Zinfandel Drive and trunk sewer, access to the east side of the Independence at Mather subdivision via Wooding Road will be temporarily discontinued. This would reduce the number off access points into the subdivision to four. Access will continue to be provided from the south via Excelsior Road and Woodring Road and from the north via Excelsior Road and Arnold Way.

Restricting access to Independence at Mather will require that emergency service providers and residents not use Woodring Road and use one of the other four access routes into the subdivision. However, project proponents responsible for roadway infrastructure improvements are required to coordinate with emergency service providers to ensure that there are no impediments to the provision of emergency services during and after project related construction activities. Although access is expected to be adequate during construction related activities associated with the Zinfandel Drive/trunk sewer extension, out of an abundance of caution, mitigation is recommended to require notification, coordination and adequate access during construction related activities associated with the Zinfandel Drive/ trunk sewer extension.

Mitigation Measure PS-2 will ensure that impacts related to the provision of adequate emergency services and access during construction will be *less than significant.*

Law Enforcement Service

Sacramento County Sheriff's Department (SCSD) services the project site. Local police services include: response to calls and trouble spots, investigations, surveillance, and routine patrolling. Specialized law enforcement services include: providing court security services, operating a system of jails for pre-trial and sentenced inmates, and operating a training complex (Sacramento County, 2009).

The Sacramento County Sheriff's Department would provide primary law enforcement services to the project site. Although the proposed project will not directly relate to an increase in housing units, the proposed UDA District will allow for future planning efforts that may result in additional housing units at Mather Field.

Using the County's goal of one officer to 1,000 residents (Sacramento County, 2010), to maintain adequate levels of service, additional officers, facilities, and equipment would be required to serve potential future development consistent with the proposed project. The Sheriff's Department is funded through Sacramento County's General Fund and sometimes supplemented by grant money. Future development within Mather Field

would contribute to the General Fund and funding of law enforcement services through increased property tax and sales tax collection. Thus, the impacts to law enforcement services are expected to ***be less than significant***.

SOLID WASTE SERVICE

The Sacramento County Department of Waste Management and Recycling provides solid waste services to the unincorporated portions of Sacramento County including Mather Field. Sacramento County owns and operates the Kiefer Landfill, located at Kiefer Boulevard and Grant Line Road. Kiefer Landfill is a total of 1,084 acres in size, with a permitted disposal area of 660 acres. Kiefer Landfill is the primary solid waste disposal facility in the County. Kiefer Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, green materials, agricultural debris, dead animals, and other designated debris. The Kiefer Landfill receives over 700,000 tons of waste per year. The estimated life expectancy of the landfill is 2035; however, at current usage rates the landfill is anticipated to last until 2064 (CalRecycle).

Future development consistent with the proposed land use designations at Mather Field has the potential generate solid waste similar to the volume that would be expected if Mather Field were developed under existing allowances and would increase commercial, industrial and residential waste generation from the site.

The County has met AB 939's requirement with a 58% diversion rate and is in compliance with Senate Bill 610's per capita disposal maximum of 7.7 pounds per person per day by disposing only 5.9 pounds per person per day. The County is expected to continue waste diversion through General Plan policy PF-19 (implementation and support of recycling programs), the SWA and County recycling program, and through the County Integrated Waste Management Plan. With the increases in recycling efforts, Kiefer Landfill has the capacity to meet demand until 2035 or later. The proposed project will not result in significant environmental impacts to solid waste facilities; impacts are considered ***less than significant***.

SCHOOL SERVICES

The project site spans the Sacramento City Unified, Elk Grove Unified and Folsom/Cordova Unified school districts. The only portion of the project site within the Sacramento City Unified school district is the airport which does not include housing. Independence at Mather as well as most of the project site is located within the Folsom/Cordova Unified District. A strip of land on the eastern portion of the project site is located within the Elk Grove Unified School District.

Although the proposed land use designations will not directly relate to increased residential development at Mather Field, the proposed UDA District will allow for future planning efforts that may increase residential densities at the site.

The General Plan includes policies to accommodate for growth and increased service demands. For instance, there are policies that require land dedications or reservations for new schools, and Specific Plans (such as those plans required for the UDA District) must show locations of future school sites. These policies, in addition to developer fees under SB 50 and school facilities mitigation under the California Government Code, would serve as complete CEQA mitigation for the impacts of increased development on the ability of school districts to provide adequate services. Therefore, this impact is considered ***less than significant***.

PARK AND RECREATION SERVICES

The project site is located within the Cordova Recreation and Park District (CRPD) which encompasses 75 square miles. Regional park facilities within the project site include Mather Regional Park, which includes Mather Golf Course and Mather Lake. Allowed activities include golfing, picnicking and fishing.

Although no development is currently proposed that would increase demand for park services or would be required to pay for or develop park sites, the proposed UDA District will allow the planning of future residential uses that would require park services.

As required by the Quimby Act and General Plan policies, park land dedication and/or in-lieu fees are required in order to develop and maintain parks when the UDA District is developed. General Plan policy PF-124 requires new subdivisions to provide sufficient acreage of parks to meet the long-range needs of the community. As development plans are proposed for the UDA District, parks will be developed as part of those plans. Additionally, the current project includes proposals to have a Recreation and Commercial Recreation Districts that will allow recreational opportunities to be provided within Mather Field.

General Plan policies, mitigation, and the Quimby Act ensure that impacts associated with the provision of park services would be ***less than significant.***

ENERGY SERVICES

Electrical service is currently provided to Mather by the Sacramento Municipal Utility District (SMUD). SMUD generates, transmits and distributes electric power to a 900-square mile service area including Sacramento County and a portion of Placer County. SMUD gets its electricity from diverse resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market (Sacramento County, 2009). Natural gas service is provided by West Coast Gas.

Future development consistent with the proposed land use designations would require additional energy production and distribution facilities (such as transmission corridors) to provide delivery of electricity and natural gas to new development. The General Plan contains policies regarding the siting of energy facilities that attempt to minimize impacts associated with land use conflicts, visual and aesthetic resources, historic or cultural resources, and biological resources.

Any new required facilities would be constructed within the proposed Zinfandel Drive/ trunk sewer work area or in the proposed Districts associated with the project, and would not result in any additional environmental impacts that will not already be caused by general development of the site consistent with the proposed land use designations as discussed and mitigated (as appropriate) in the relevant topical chapters of this EIR. With the policies contained in the General Plan, impacts will be minimized and/or mitigated; impacts are considered ***less than significant***.

MITIGATION MEASURES

PS-1: PROGRAMMATIC LEVEL IMPACTS TO SEWER SERVICE

Prior to development within Mather Field project proponents shall coordinate with SASD in order to determine appropriate sewer planning and infrastructure needs to ensure that existing and/or proposed conveyance facilities have adequate capacity.

PS-2: PROJECT LEVEL IMPACTS TO PROVISION OF EMERGENCY SERVICES

The project applicant shall notify local emergency response agencies of the proposed construction routes and timing of construction prior to the initiation of construction activities related to the proposed Zinfandel Drive/ trunk sewer improvements. Additionally, prior to project related construction activities, a plan detailing how adequate access will be provided during construction shall be provided by the project proponent to law enforcement, fire protection and other emergency service providers for review and approval before beginning construction.

12 TRAFFIC AND CIRCULATION

This chapter describes the transportation system serving Mather Field, including the existing transit service and bicycle and pedestrian network, and discusses potential impacts of the proposed land use changes. Environmental impacts (to biological resources and air quality for example) associated with construction activities required of project related roadway improvements are addressed in the relevant topical chapters.

SETTING

BACKGROUND

Earlier environmental studies and transportation analyses for the conversion of Mather Air Force Base into civilian uses include the Mather Field General Plan Amendment EIR (County Control Number: 93-0666), the Mather Air Force Base Redevelopment Plan Subsequent EIR, and the Mather Field Specific Plan Subsequent EIR (County Control Number: 95-0669). Each of these EIRs is incorporated by reference and can be viewed at County of Sacramento, Planning and Environmental Review Division, 827 7th Street, Room 225, Sacramento, CA 95814.

EXISTING ROADWAY SYSTEM

REGIONAL ACCESS

Regional automobile access to the site is provided by the freeway system and by State Route 16.

U.S. Highway 50 (U.S. 50) is an east-west freeway that extends from the Interstate 80 (I-80) junction in West Sacramento to Canal Street in the City of Placerville, where it continues as a highway across the Sierra Nevada to South Lake Tahoe and Nevada. Primary access to U.S. 50 is via a series of interchanges, including (from west to east) Howe Avenue, Watt Avenue, Bradshaw Road, Mather Field Road, and Sunrise Boulevard. To the west, U.S. 50 provides access to Central City Sacramento, SR 99, I-5, and I-80. To the east, U.S. 50 provides access to eastern Sacramento County, the cities of Rancho Cordova and Folsom, and El Dorado County.

State Route 16 (SR 16) is a Caltrans facility. In the vicinity of the site, SR 16 is located on Jackson Road, which is south of the Mather Field project site. The roadway generally travels from west-northwest to east-southeast from Folsom Boulevard to the west into Amador County to the east. It is generally a two-lane roadway with some widening at intersections. To the west, SR 16 continues to U.S. 50 via Folsom Boulevard and Howe Avenue in the City of Sacramento.

Local Access

Direct access to the site is provided primarily via Mather Field Road and Zinfandel Drive on the north and Douglas Road on the east. Surrounding roadways include Sunrise Boulevard to the east, Kiefer Boulevard and Eagles Nest Road to the southeast, Excelsior Road to the south, Happy Lane to the west, and Routier Road and Old Placerville Road to the northwest.

Mather Field Road is a four- to six-lane divided arterial providing access from Folsom Boulevard and U.S. 50 to Mather Field.

Zinfandel Drive is a north-south roadway. In the southeast portion of the project site south of Douglas Road, the roadway is in poor condition and generally not utilized for through traffic. To the north of Douglas Road, the roadway continues through the City of Rancho Cordova, providing direct access to U.S. 50. The roadway extends to Sunrise Boulevard. Zinfandel Drive accommodates two to seven through lanes.

Douglas Road is a two-lane east-west road that exits the east boundary of Mather Field. It continues to the east across Sunrise Boulevard to Grant Line Road. East of Sunrise Boulevard, Douglas Road accommodates two to five through lanes.

Kiefer Boulevard is an east-west roadway that is the southern boundary of the Mather Field project site. The roadway consists of two segments, divided by Mather Field. The western segment extends from Florin-Perkins Road in the City of Sacramento through the Rosemont community to Happy Lane. This segment has two to four through lanes. East of Mather Field, the roadway begins at Eagles Nest Road and continues easterly to Jackson Road as a two-lane roadway.

Existing Transit System

The Sacramento Regional Transit District (RT) operates 67 bus routes and 38.6 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 182 buses (with an additional 30 buses in reserve) powered by compressed natural gas (CNG) and 11 shuttle vans. Buses operate daily from 5 a.m. to 11 p.m. every 12 to 75 minutes, depending on the route. Light rail trains begin operation at 4 a.m. with service every 15 minutes during the day and every 30 minutes in the evening and on weekends. Blue Line and Gold Line trains operate until 12:30 a.m. and the Gold Line to Folsom operates until 7 p.m. Green Line trains operate every 30 minutes Monday through Friday.

Passenger amenities include 50 light rail stops or stations, 31 bus and light rail transfer centers and 18 park-and-ride lots. RT also serves over 3,300 bus stops throughout Sacramento County.[1]

[1] http://www.sacrt.com/rtataglance.stm Accessed February 14, 2014.

RT service near the Mather Field project site includes Gold Line light rail service from downtown Sacramento to the City of Folsom, Bus Route 72 (Rosemont – Lincoln Village), Bus Route 74 (International), Bus Route 75 (Mather Field Loop) and Bus Route 76 (Anatolia Shuttle). The RT Gold Line light rail service is located parallel to Folsom Boulevard north of U.S. 50 and the Mather Field project site. Nearby stations include (from west to east) Watt / Manlove, Starfire, Tiber, Butterfield, Mather Field / Mills, Zinfandel, Cordova Town Center, and Sunrise.

EXISTING BICYCLE AND PEDESTRIAN SYSTEM

BICYCLE SYSTEM

CLASS I BICYCLE PATHS

Within the Mather Field project area, over three miles of Class I bicycle path are paid for and maintained by Sacramento County. Connectivity exists to the Folsom South Canal Bicycle Trail and the Villages at Zinfandel Bicycle Path Network.

CLASS II BICYCLE PATHS

Throughout the Mather Commerce Center, Class II bicycle lanes exist and are maintained by Sacramento County. All main Commerce Center roadways (Mather Boulevard, Peter A. McCuen Boulevard, Von Karman Street, Whitehead Street, Macready Avenue, plus some secondary streets) are striped for Class II facilities and connect to the Mather Class I Bicycle Path and the Villages at Zinfandel Bicycle Path Network.

The network of Class I and Class II bicycle paths on the project site provides connectivity to offsite bicycle paths, including the American River Bike Trail in the American River Parkway. The 32-mile American River Bike Trail is a major recreational trail as well as an important route for bicycle commuters, running from Discovery Park in the City of Sacramento to Beals Point in the Folsom State Recreation Area.

PEDESTRIAN SYSTEM

Oversized sidewalks exist on Von Karman Street, Whitehead Street, Mather Boulevard, and Peter A. McCuen Boulevard. Standard sidewalks exist on several secondary streets adjacent to existing development within the Mather Commerce Center. In the existing Independence at Mather single family residential area, there are sidewalks on both sides of the existing residential streets.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Appendix G of the California Environmental Quality Act (CEQA) provides guidance for assessing the significance of potential environmental impacts. Based on this guidance, Sacramento County has developed an Initial Study Checklist that identifies a range of potential significant effects by topical area. This section supplements the traffic and circulation section of the Initial Study Checklist by analyzing if the proposed project would:

- Result in a substantial adverse impact to access and/or circulation; or
- Result in a substantial adverse impact to public safety on area roadways; or
- Result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County; or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

According to the Sacramento County Traffic Impact Analysis Guidelines (July 2004), the following thresholds of significance shall be used to determine if an impact is significant and requires mitigation:

Roadways/Signalized Intersections: A project is considered to have a significant effect if it would:

- result in a roadway or a signalized intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS; or
- increase the V/C ratio by more than 0.05 at a roadway or at a signalized intersection that is operating at an unacceptable LOS without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

- result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also cause the intersection to meet a traffic signal warrant; or
- for an unsignalized intersection that meets a signal warrant, increase the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.

Freeway Ramps: A project is considered to have a significant effect if it would:

- result in a facility operating at an acceptable LOS to deteriorate to an unacceptable LOS, according to the LOS threshold defined by Caltrans.

Freeway Segments: A project is considered to have a significant effect if it would:

- result in a facility operating at an acceptable LOS to deteriorate to an unacceptable LOS, according to the LOS threshold defined in the Caltrans Route Concept Report for that facility.

Residential Streets: A project is considered to have a significant effect if it would:

- result in a residential street operating at an acceptable LOS to deteriorate to an unacceptable LOS; or

- increase the V/C ratio by more than 0.05 at a residential street that is operating at an unacceptable LOS without the project.

METHODOLOGY

Sacramento County Traffic Impact Analysis Guidelines (July 2004) state that a traffic impact study is typically required if any of the following are true:

1. The project will generate 100 or more new a.m. or p.m. peak hour vehicle trip-ends.
2. The project will generate 1,000 or more daily vehicle trip-ends.
3. New project traffic will substantially affect an intersection or a roadway segment already identified as operating at an unacceptable level of service.
4. The project may create a hazard to public safety.
5. The project will substantially change the off-site transportation system or connections to it.

IMPACT ANALYSIS

As described in the Project Description chapter, the proposed project consists of five parts. The following analysis is organized according to the requested entitlements.

1. A **General Plan Amendment** to amend the Land Use Diagram from Intensive Industrial (247.5± acres), Low Density Residential (391.8± acres), Public Quasi-Public (2,266± acres), Commercial and Office (3.9± acres) and Recreation (2,468.5± acres) to Extensive Industrial-Aggregate Resources (67.9± acres), Intensive Industrial (693.4± acres), Low Density Residential (392.5± acres), Natural Preserve-Resource Conservation-Protected (1,272± acres), Public Quasi-Public (1,780.2 ± acres), Recreation (656.1± acres), Commercial and Office (3.9± acres) and Urban Development Area (511.6± acres) for approximately 5,377.6 acres. Note: the Land

Use Diagram changes in the Mather Airport and Commercial and Office areas of the project site and the Independence at Mather housing development area result in only minor modifications to the existing designations, and no change to the allowed uses, in those areas.

Table TC-1 below summarizes the proposed General Plan land use changes.

Table TC-1: Mather Field General Plan Land Use Designation Changes

Designation	Existing (ac)	Proposed (ac)	Change (ac)
Extensive Industrial (Aggregate Resources)	0	67.9	+67.9
Intensive Industrial	247.5	~~693.4~~ **667.3**	~~+445.9~~ **419.8**
Commercial and Office	3.9	3.9	0
Urban Development Area	0.0	~~511.6~~ **773.8**	~~+511.6~~ **773.8**
Low Density Residential	391.8	392.5	+.7
Public/Quasi-Public	2,266	~~1,780.2~~ **1,605.2**	~~-485.8~~ **660.8**
Natural Preserve	0.0	~~1,272~~ **1,383.2**	~~+1,272~~ **1,383.2**
Recreation	2,468.5	~~656.1~~ **483.8**	~~-1.812.4~~ **1,984.7**
Totals	5,377.6	5,377.6	

In the post project condition, the majority of the land will contain the same General Plan Land Use Designations as in the existing condition. Approximately 3,500 acres will maintain the Industrial Intensive, Commercial and Office, Low Density Residential, Public-Quasi Public and Recreation land use designations. Approximately 1,800 acres of the project site will contain new land use designations. The new land use designations are Industrial Extensive (with the Aggregate Resource Combining Land Use Designation), Urban Development Area, and Natural Preserve (with a Resource Conservation Combining Land Use Designation). Although several land use designation modifications are proposed, the designation changes will not result in land uses not already allowed within the site.

~~It should be noted that the aggregate resource combining designation only preserves the area for mining activities and any future mining activities will need to undergo further permitting and environmental review processes.~~ No mining activities are proposed with this project. **In Sacramento County, the Aggregate Resource Area combining designation is the land use planning tool used to comply with State regulations. The Aggregate Resource Area combining designation does not permit mining activities outright. A separate Use Permit process, including environmental review and coordination with the State Office of Mining and Reclamation, is required before mining activity can occur.**

The project would designate ~~511.6~~ **773.8** acres as Urban Development Area. This area is on the east side of the project south of the Mather Golf Course. The intent of this designation is to proactively identify where the County desires to have appropriately

planned future urban uses. The UDA designation does not permit any additional development beyond the existing uses; it acts as a "holding" designation that only identifies where future development may occur. Any future master planning efforts within the UDA will require further permitting and environmental review**, including a detailed traffic analysis of proposed land uses**.

The project would designate an additional ~~445.9~~ **419.8** acres of Intensive Industrial and reduce the Public/Quasi-Public acreage by ~~485.8~~ **660.8** acres. According to the Zoning Consistency Matrix of the General Plan Land Use Element, the Public/Quasi-Public designation allows for the widest array of uses of all the General Plan land use designations. In comparison to the Intensive Industrial land uses, the traffic-generating potential of Public/Quasi-Public uses is higher. The net result of this change is a potential reduction in traffic-generating uses.

The Natural Preserve designation would be established on ~~1,272~~ **1,383.2** acres. This land use designation does not have the potential to generate trips. All of the acreage proposed for Natural Preserve comes from a reduction of the existing acreage designated for Recreation land uses, which has a higher traffic generation potential.

No specific land use development proposals are included with this project. Future development would occur consistent with the existing land use designations previously analyzed, as modified by this project. The analyses contained in the prior FEIRs for the Mather Field General Plan Amendment and Mather Field Specific Plan included the extension of Douglas Road as an ultimate four-lane arterial roadway to the west around the existing Independence at Mather community. The prior FEIRs concluded that recommended mitigation would reduce the magnitude of the traffic impacts, but not to a less-than-significant level. Many of the roadways in the vicinity of Mather Field were already assumed to be built to the maximum County standard of six lanes. Substantial improvements to the roadway system, beyond the improvements already assumed to be in place under cumulative conditions, are not feasible. As stated in the previous FEIRs, impacts would remain significant and unavoidable.

The land use changes proposed with this project would not result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County. Impacts associated with the proposed land use changes are ***less than significant.***

When approving the previous Mather Field General Plan Amendment project, the Board of Supervisors adopted the following mitigation measure:

> "In accordance with General Plan Policies CI-18 and CI-21, transportation demand management programs shall be developed for Mather Field designed to induce more efficient use of transportation facilities. These programs should include development of a Transportation Management Association for Mather Field, with appropriate incentives and disincentives to facilitate carpool, vanpool and transit use. Other programs, such as telecommuting and altered work

> schedules, should also be considered. These programs shall be coordinated with transit providers, such as Sacramento Regional Transit. In consideration of the distribution of trip origins and destinations, it may be appropriate to provide direct transit services to Mather Field from Rancho Cordova and new County growth areas, such as Sunrise-Douglas, Vineyard and East Elk Grove."

Approval of the Mather Field Specific Plan project included the adoption of the following mitigation measure:

> "The Mather Field Specific Plan area shall be included within a Transportation Management Association, and shall implement a comprehensive Transportation Systems Management (TSM) Program designed to reduce automobile dependence and improve air quality. The County, private property owners, and tenants of either the County or private property owners may meet this requirement by joining the existing Folsom/Cordova/El Dorado Hills Transportation Management Agency (TMA) [now the 50 Corridor TMA]."

County facilities as well as private facilities at Mather Field currently provide measures aimed at reducing automobile dependence, including transit subsidies, bicycle lockers/racks at 24 locations and shower facilities for employees at 11 buildings. Currently, a total of six Regional Transit bus routes intersect with the Mather Field/Mills light rail station. Four of these routes directly serve the Mather Field campus and its immediate vicinity. Carpool/vanpool parking is provided at four locations. Updated fiber optic and T1 wiring and connections exist throughout the Mather Commerce Center to facilitate telecommuting. The Sacramento County Department of Airports is a paying member of the Highway 50 Corridor TMA.

The Sacramento County Environmental Management Department participates in the County of Sacramento Employee Transportation Program. Benefits include the following:

- Subsidized transit passes,
- Rideshare services and benefits,
- A Guaranteed Ride Home program,
- Alternative work schedules, and
- Flex time.

Sutter Health offers its employees the following:

- Subsidized Transit passes
- Telecommuting
- Carpool matching and preferred parking
- Carpool employee rewards program

Bloodsource and the Veterans Administration Hospital offers employees subsidized transit passes and fully paid transit passes, respectively.

The program described above is designed to reduce vehicle trips and support alternative transportation. The proposed project would continue to implement the existing program. Therefore, the project does not conflict with adopted policies, plans, or programs supporting alternative transportation. Impacts are ***less than significant***.

2. An **Amendment to the General Plan Transportation Diagram** to reflect a proposed realignment of Zinfandel Drive.

The proposed realignment of Zinfandel Drive would allow for the proposed natural preserve area to have a larger contiguous footprint and would result in the preservation of more vernal pool habitat than if the alignment remained in its current location. The Transportation Diagram amendment would reflect the proposed realignment of Zinfandel Drive from just south of Woodring Road to approximately ~~650~~ **550**feet north of Kiefer Boulevard where the alignment would come back to the west and connect with Kiefer Boulevard in its current location. **Although the Alternatives chapter describes several alternative roadway alignments, the Mather Stakeholder Group and County staff have determined that the Preferred Alignment best meets the collective goals of preserving additional vernal pool habitat while maintaining a north-south connection as identified in the General Plan and Mather Field Specific Plan.** ~~This~~ **The Preferred Alignment of this** portion of Zinfandel Drive would be realigned to the east to a maximum distance of approximately ~~850~~ **1,600** feet **in order to allow for preservation of vernal pool feature E52 (spadefoot pool) and its watershed as well as other vernal pool features in the immediate vicinity**. Zinfandel Drive would remain designated as a four-lane arterial with pedestrian amenities. The realigned roadway will comply with County engineering standards regarding traffic safety. **Department of Transportation staff (D. Blank) has reviewed the Preferred Alignment to ensure that the proposed design elements such as intersection roundabouts, curve radii and intersection skew will not result in a safety hazard to motorists traveling on the roadway.** The realigned roadway would still provide mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise. During construction, a detour is proposed to route traffic from the Independence at Mather subdivision from Woodring Road to Excelsior Road. This detour will limit access to and from the subdivision to four access points and will temporarily disrupt the use of Woodring Road. However, project proponents for roadway and infrastructure improvements are required to maintain appropriate levels of service and access to those utilizing the site including emergency service providers. Project proponents are required to coordinate with emergency service providers to ensure that there are no impediments to the provision of emergency services during and after project related construction activities. As described in the Public Services and Utilities chapter, Mitigation Measure PS-2 is recommended to require coordination with emergency service providers.

Impacts are ***less than significant***.

3. A **General Plan Amendment** to amend language contained in the Land Use Element defining the Urban Development Area (UDA) Land Use Designation.

As described in the Land Use chapter, the added language is intended to refine the definition of UDA by clarifying that the County will accept Master Plan applications for areas within UDAs. The proposed amendment to the UDA land use designation does not result in any changes that would allow additional development to occur on the project site. No additional traffic-generating uses are proposed. Impacts are ***less than significant***.

4. A **Specific Plan Amendment** to amend the Mather Field Specific Plan, including addition of Natural Resources-Protected, and Urban Development Area Land Use Designations and to remove areas within the City of Rancho Cordova from the Specific Plan.

5. A **Zoning Ordinance Amendment** of the Mather Field Special Planning Area (SPA) (SZC 97-0021, Section 603) encompassing a number of changes to the SPA text and exhibits to accommodate new Natural Preserve and Urban Development Area Land Use Districts, to clarify allowed uses in the Commercial Recreation District and to remove areas within the City of Rancho Cordova from the Special Planning Area ordinance. Note: the SPA changes in the existing Mather Airport District, and Single Family Residential District (Independence at Mather) result in only minor modifications to, and no change to the allowed uses in, those areas.

As previously stated, the Natural Preserve designation does not have the potential to generate trips. The Urban Development Area designation does not result in any changes that would allow additional development to occur on the project site, and no additional traffic-generating uses are proposed. In summary, traffic and circulation impacts related to the proposed project are expected to be similar to those that would be generated if Mather Field were built out under the existing Specific Plan. Impacts are ***less than significant***.

MITIGATION MEASURES

None recommended.

13 CLIMATE CHANGE

INTRODUCTION

This section includes a discussion regarding greenhouse gasses (GHGs) that have been linked to global climate change as well as details related to localized GHG emissions and sources. Furthermore, this section describes federal and state regulations related GHG emissions and the potential impacts the proposed project may have on climate change.

CLIMATE CHANGE SETTING

The principal greenhouse gases (GHGs) that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. From 1750 to 2004, concentrations of CO_2, CH_4, and N_2O have increased globally by 35, 143, and 18 percent, respectively. Other greenhouse gases, such as fluorinated gases, are created and emitted solely through human activities. (EPA 2012) Carbon dioxide is the gas that is most commonly referenced when discussing climate change because it is the most commonly emitted gas. While some of the less common gases do make up less of the total greenhouse gases emitted to the atmosphere, some have a greater climate-forcing effect per molecule and/or are more toxic than carbon dioxide.

Carbon Dioxide emissions are mainly associated with combustion of carbon-bearing fossil fuels such as gasoline, diesel, and natural gas used in mobile sources and energy-generation-related activities. The U.S. EPA estimates that CO_2 emissions accounted for 84.6% of greenhouse gas emissions in the United States in 2004 (EPA 2012). The California Energy Commission (CEC) estimates that CO_2 emissions account for 84% of California's anthropogenic (manmade) greenhouse gas emissions, nearly all of which is associated with fossil fuel combustion (CEC 2005). Total CO_2 emissions in the United States increased by 20% from 1990 to 2004 (EPA 2012).

Methane (CH_4) has both natural and anthropogenic sources. Landfills, natural gas distribution systems, agricultural activities, fireplaces and wood stoves, stationary and mobile fuel combustion, and gas and oil production fields categories are the major sources of these emissions. The U.S. EPA estimates that CH_4 emissions accounted for 7.9% of total greenhouse gas emissions in the United States in 2004. (EPA 2012) The CEC estimates that CH_4 emissions from various sources represent 6.2% of California's total greenhouse gas emissions (CEC 2005). Total CH_4 emissions in the United States decreased by 10% from 1990 to 2004 (EPA 2012).

Nitrous Oxide (N_2O) is produced by microbial processes in soil and water, including those reactions which occur in fertilizers that contain nitrogen. Global concentration for N_2O in 1998 was 314 ppb, and in addition to agricultural sources for the gas, some

industrial processes (fossil fuel fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. (EPA 2012)

The U.S. EPA estimates that N_2O emissions accounted for 5.5% of total greenhouse gas emissions in the United States in 2004 (EPA 2012). The CEC estimates that nitrous oxide emissions from various sources represent 6.6% of California's total greenhouse gas emissions (CEC 2005). Total N_2O emissions in the United States decreased by 2% from 1990 to 2004 (EPA 2012).

Fluorinated Gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6), are powerful greenhouse gases that are emitted from a variety of industrial processes. The primary sources of fluorinated gas emissions in the United States include the production of HCFC-22, electrical transmission and distribution systems, semiconductor manufacturing, aluminum production, magnesium production and processing, and substitution for ozone-depleting substances. The U.S. EPA estimates that fluorinated gas (HFC, PFC, and SF_6) emissions accounted for 2.0% of total greenhouse gas emissions in the United States in 2004. (EPA 2012) The CEC estimates that fluorinated gas emissions from various sources represent 3.4% of California's total greenhouse gas emissions (CEC 2005). Total fluorinated gas emissions in the United States increased by 58% from 1990 to 2004 (EPA 2012).

EXISTING SACRAMENTO COUNTY GHG CONDITIONS

The ICLEI (Local Governments for Sustainability) Clean Air and Climate Protection Model (CACP) was used to estimate unincorporated Sacramento County emissions, along with the emissions of all of the incorporated cities in the County. This complete inventory was done to provide a regional picture, but the County does not have control over incorporated city emissions. The baseline year 2005 was chosen based on availability of information. In cases where 2005 data was unavailable, 2006 or other recent-year data was substituted. These data represent the best available information at the time the Sacramento County emissions inventory was prepared. The software inventories community GHG emissions for all operations, with a separate government analysis tab that determines GHG emissions of local government operations as a subset of the community analysis. The community analysis divides GHG emissions among residential (energy usage), commercial and industrial (energy usage), transportation (exhaust emissions), off-road vehicle use (exhaust emissions), waste (landfill emissions), wastewater treatment (energy usage), agriculture (fertilizers, enteric fermentation, etc), High GWP (high global warming potential, such are refrigerants), and airport (emissions from County buildings and fleets – does not include fleet owned by airlines) sectors. The government analysis divides emissions among buildings, vehicle fleet, employee commute, streetlights, water/sewage, and waste sectors.

For the community analysis, energy use was obtained for the Sacramento Municipal Utility District (SMUD) and the Pacific Gas and Electric Company (PG&E). Community waste generation for Sacramento County was collected through the California Integrated Waste Management Board (CIWMB) web site and through consultation with

staff of Sacramento County Municipal Services Agency. The SMUD reported its 2005 GHG emissions and an emissions factor for all electricity sold to customers that was verified and certified by the California Climate Action Registry. This emissions factor was input into the model as a replacement for the statewide emissions factor for electricity consumption to generate more accurate GHG emissions estimates for Sacramento County electricity consumption. The analysis also uses localized vehicle miles traveled information using the outputs from the Sacramento Regional Travel Demand Model (SACMET) and the emissions factors from the Emission Factors Model 2007 (EMFAC 2007). The software default emissions factors for other GHGs, which are based on statewide averages, were used in all other instances.

As shown in Table CC-1, the County 2005 emission baseline is approximately 5.2 Million Metric Tons (MMT) per year, with the transportation sector as the largest contributor at 40% of the total. The emissions per sector drop precipitously from there, with the residential sector emitting only half of the transportation sector total. However, the residential and commercial sectors can be combined to give a more overarching view, because though these sectors operate differently, the source of emissions are the same: private building and interior equipment energy usage. Combining these sectors, transportation accounts for 40% of emissions, and operation of residential, commercial, and industrial buildings accounts for 35% of emissions. The off-road vehicle, waste, wastewater, agriculture, and high global warming potential greenhouse gases (High GWP GHG) sectors combined are responsible for only 21% of the County emissions, with the airport as an additional 4%.

Table CC-1: 2005 Community Emissions by Sector

Sector	CO_2e (metric tons)	Percent
Residential	1,033,142	19.9
Commercial and Industrial	772,129	14.8
Transportation	2,046,617	39.3
Off-Road Vehicle Use	236,466	4.5
Waste	435,348	8.3
Wastewater Treatment	70,662	1.4
Agriculture	197,132	3.8
High GWP GHGs	203,528	3.9
Airport	200,404	3.9
Total	**5,201,313**	**100**

REGULATORY SETTING

STATE

EXECUTIVE ORDER S-3-05

Executive Order S-3-05 was the precursor to Assembly Bill 32 (AB 32 is described in the next section) and was signed by Governor Schwarzenegger in June 2005. This Executive Order was significant because of its clear declarative statements that climate change poses a threat to the State of California. The Executive Order states that California is "particularly vulnerable" to the impacts of climate change, and that climate change has the potential to reduce Sierra snowpack (a primary source of drinking water), exacerbate existing air quality problems, adversely impact human health, threaten coastal real estate and habitat by causing sea level rise, and impact crop production. The Executive Order also states that "mitigation efforts will be necessary to reduce greenhouse gas emissions". To address the issues described above, the Executive Order established emission reduction targets for the state: reduce GHG emissions to 2000 levels by 2010, to 1990 levels by 2020 and to 80% below 1990 levels by 2050. Currently only the 2020 target has been adopted by the state through legislation (see Assembly Bill 32, below). As a result, all of the impact discussions, mitigation, and strategies are based on meeting the 2020 target, not the longer-term 2050 target.

ASSEMBLY BILL 32

In September 2006, Assembly Bill (AB) 32 was signed by Governor Schwarzenegger of California. AB 32 requires that California GHG emissions be reduced to 1990 levels by the year 2020, just like Executive Order S-3-05. However, AB 32 is a comprehensive bill that requires ARB to adopt regulations requiring the reporting and verification of statewide greenhouse gas emissions, and it establishes a schedule of action measures. AB 32 also requires that a list of emission reduction strategies be published to achieve emissions reduction goals.

SENATE BILL 375

On September 30, 2008, Senate Bill (SB) 375 was signed by Governor Schwarzenegger of California. SB 375 combines regional transportation planning with sustainability strategies in order to reduce greenhouse gas emissions in California's urbanized areas. Existing law requires each regional transportation planning agency, which in Sacramento County's case is the Sacramento Area Council of Governments (SACOG), to adopt a Metropolitan Transportation Plan. SB 375 required the California Air Resources Board (CARB) to set performance targets for reduction of passenger vehicle emissions per capita in each of 16 Metropolitan Planning Organizations (MPOs) in the state for 2020 and 2035. For the SACOG MPO, these targets were set at 7% below 2005 per capita emissions for 2020 and 16% below 2005 per capita emissions for 2035. MPOs are not required to meet the greenhouse gas emission targets established by ARB, but if they conclude it is not feasible to do so, they must prepare an Alternative Planning Scenario to demonstrate what further land use and/or transportation actions would be required to meet the targets. SB 375 also requires that the Metropolitan

Transportation Plan for each MPO include a Sustainable Communities Strategy (SCS) that integrates the land use and transportation components, and amends CEQA to provide incentives for housing and mixed use projects that help to implement an MTP/SCS that meets the ARB targets.

SENATE BILL 97 CHAPTER 185, STATUTES OF 2007

Senate Bill 97 (SB 97) requires that the Office of Planning and Research (OPR) prepare guidelines to submit to the California Resources Agency regarding feasible mitigation of greenhouse gas emissions or the effects of GHG emissions as required by CEQA. The California Resources Agency is required to certify and adopt these revisions to the State CEQA Guidelines by January 1, 2010. The Natural Resources Agency adopted the amendments on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

CALIFORNIA CLIMATE ADAPTATION STRATEGY

In December 2009, the California Resources Agency, in coordination and partnership with multiple other state agencies, released their California Climate Adaptation Strategy. This document summarizes the best known science on climate change impacts in seven specific sectors, including: public health, biodiversity-habitat, ocean & coastal resources, water management, agriculture, forestry, and transportation and energy infrastructure. The strategy provides recommendations on how to manage against threats to these sectors. The strategy is in direct response to Gov. Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events.

SACRAMENTO COUNTY REDUCTION STRATEGIES

CLIMATE ACTION PLAN

In May of 2009 Sacramento County published a Phase I Draft Climate Action Plan (Phase I CAP). The Phase I CAP provides a framework and overall policy strategy for reducing greenhouse gas emissions and managing our resources in order to comply with AB 32. It also highlights actions already taken to become more efficient, and targets future mitigation and adaptation strategies. This document is available at http://www.green.saccounty.net/Documents/sac_030843.pdf. The draft Phase I CAP contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on agriculture focus on promoting the consumption of locally-grown produce, protection of local farmlands, educating the community about the intersection of agriculture and climate change, educating the community about the importance of open space, pursuing sequestration opportunities, and promoting water conservation in agriculture. Actions related to these goals cover topics related to urban forest

management, water conservation programs, open space planning, and sustainable agriculture programs.

Goals in the section on energy focus on increasing energy efficiency and increasing the usage of renewable sources. Actions include implementing green building ordinances and programs, community outreach, renewable energy policies, and partnerships with local energy producers.

Goals in the section on transportation/land use cover a wide range of topics but are principally related to reductions in vehicle miles traveled, usage of alternative fuel types, and increases in vehicle efficiency. Actions include programs to increase the efficiency of the County vehicle fleet, and an emphasis on mixed use and higher density development, implementation of technologies and planning strategies that improve non-vehicular mobility.

Goals in the section on waste include reductions in waste generation, maximizing waste diversion, and reducing methane emissions at Kiefer Landfill. Actions include solid waste reduction and recycling programs, a regional composting facility, changes in the waste vehicle fleet to use non-petroleum fuels, carbon sequestration at the landfill, and methane capture at the landfill.

Goals in the section on water include reducing water consumption, emphasizing water efficiency, reducing uncertainties in water supply by increasing the flexibility of the water allocation/distribution system, and emphasizing the importance of floodplain and open space protection as a means of providing groundwater recharge. Actions include metering, water recycling programs, water use efficiency policy, water efficiency audits, greywater programs/policies, river-friendly landscape demonstration gardens, participation in the water forum, and many other related measures.

Publication of a Phase II CAP is anticipated to occur within five years of the adoption of the 2030 Sacramento County General Plan (the General Plan was adopted in November 2011). This Phase II CAP is intended to flesh out the strategies involved in the Phase I CAP, and will include economic analysis, intensive vetting with all internal departments, community outreach/information sharing, timelines, and detailed performance measures.

SACRAMENTO COUNTY GENERAL PLAN

Though there are a multitude of policies within the General Plan which support the reduction of greenhouse gas emissions by promotion of transit, mixed use, and other land use designs, there are two policies which specifically address reduction of greenhouse gases:

AQ-22. Reduce greenhouse gas emissions from County operations as well as private development.

LU-115. It is the goal of the County to reduce greenhouse gas emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action.

SIGNIFICANCE CRITERIA

CEQA Guidelines section 15064.4 states that an agency should make a "good faith effort to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project". It is left to the lead agency's discretion to use a quantitative or qualitative approach. Factors that should be considered when determining significance are:

1. The extent to which the project may increase or decrease greenhouse gas emissions compared to the baseline;

2. whether the project exceeds any applicable significance threshold; and

3. the extent to which the project complied with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The guidelines do not include a numeric significance threshold, but instead defer to the lead agency to determine whether there are thresholds which apply to the project. With regard to the third item, statewide plans include AB 32 and SB 375, as described in the Regulatory setting. The underlying strategy and assumptions of the AB 32 Scoping Plan were used to develop County thresholds. AB 32 requires emissions be reduced to 1990 levels by the year 2020, which is estimated in the AB 32 Scoping Plan to be 15% below *existing (2005) emissions*. The text is emphasized to note that the goal is not 15% below what is known as "business-as-usual" conditions or unmitigated project emissions; it is 15% below the emissions which were existing in California in the year 2005.

As previously discussed, Sacramento County prepared a GHG emissions inventory for the County, and as an offshoot of that process has published a Draft Climate Action Plan. Thresholds have been developed based on the County inventory (see Table CC-2). As shown below, separate thresholds have been included for each sector. The purpose of this division is to provide additional information about the source of emissions. When making a final determination of significance, these thresholds can be combined to generate a total emissions threshold; it is this total threshold that will ultimately determine whether impacts are found to be significant.

Also note that the transportation sector is expressed in per capita, which is not applicable to non-residential projects. The determination was made that, in general, non-residential projects redistribute existing trips made by passenger vehicles – they do not generate new trips. The majority of trips to and from a commercial project are generated by residential uses. Residential projects are already being required to

account for transportation emissions, so including them for commercial projects as well would result in double-counting. Therefore, only the truck-trips generated by a commercial project itself will be subject to analysis. An exception to this rule is any commercial project which is a regional draw or unique draw, and thus may cause the redistribution of existing trips in a manner that will increase total existing VMT.

Table CC-2: Greenhouse Gas Significance Thresholds (Annual Metric Tons CO_2e)

Sector	2005 Baseline	2020 Target	Thresholds
Residential Energy	1,033,142	878,275	1.33 per capita
Commercial & Industrial Energy	772,129	656,914	7.87 per Kft^2
Transportation	2,066,970	1,757,236	2.67 per capita
Trucks	*488,806*	*414,470*	*0.10 per 100 VMT*

METHODOLOGY

The proposed project includes requests for several land use designation changes; however, this project does not include any specific development proposals and preparing a quantitative analysis measuring specific project emissions is not a suitable approach for this project. Accordingly, the climate change analysis for the land use designation amendments includes a programmatic level qualitative approach which compares the proposed project with the existing condition of the project site which is largely vacant.

IMPACTS AND ANALYSIS

CLIMATE CHANGE

As shown in Table CC-1, the primary sources of community generated GHG emissions in Sacramento County comes from the Residential (energy use), Commercial and Industrial (energy use) and Transportation (exhaust emissions) Sectors.

RESIDENTIAL ENERGY USE

The precise emissions associated with residential energy use cannot be fully quantified or even modeled at this point due to the fact that energy use of new development in the Mather Field project area, over a long-term planning horizon, may vary dramatically. For the purposes of analysis and in order to provide meaningful mitigation, it is assumed that the residential energy use for future residential units associated with the project will be consistent with, or at least equivalent to, the average residential energy emissions

quantified for the County. Based on the County average, formulated from the 2005 County Emission Inventory, it is assumed that 1.84 MT of CO_2 will be emitted per capita for the residential energy use sector. According to the 2006 U.S. Census, the average household size in Sacramento County is 2.7 people per home. Thus, 4.97 MT (1.84 MT/per capita x 2.7 people per home) of CO_2 will be emitted from residential energy use per household. The thresholds stated above in Table CC-2 allow for up to 1.33 MT per capita or 3.59 MT per household to be emitted in order to be under thresholds. Future applicants for residential projects in the project area would be required to mitigate CO_2 emissions associated with residential energy use so that the per capita is at or below the 1.33 MT per capita or 3.59 MT per household (based on 2.7 people per home). This should be easily achievable since Title 24 (energy code) is becoming much more stringent compared to the older housing stock energy usage reported in the inventory.

It is recognized that the above analysis is a conservative one due to the fact that residential energy use in new residential developments will likely be less than existing County residential stock. Discounts in emissions for future residential projects will be realized due to new, more efficient building materials and technologies that will likely become the standardized methods of construction in the building industry over the planning horizon. Mitigation, included below, requires a reduction in per capita emissions from the County average to the threshold of 1.33 MT per capita or below. A stipulation is added that a future project applicant can provide a "project specific" analysis that demonstrates a reduction in residential energy use over the County average, thereby possibly reducing the mitigation obligation compared to utilizing the County average per capita.

To mitigate CO_2 emissions, there are a number of quantifiable measures that have been developed that can be feasibly implemented by future project applicants. Table CC-3 outlines the quantifiable measures for reduction in CO_2. It should be noted that the measures listed in Table CC-3 represent those measures that are available at this time and additional quantifiable measures are expected in the near future as technological improvements continue. Project proponents may implement other quantifiable measures as long as an appropriate description and quantifiable data accompanies such a request.

Additionally, there are a number of other measures that are currently un-quantifiable or qualitative that would result in reduction of CO_2 emissions. Table CC-4 provides a list of un-quantifiable/qualitative measures (or currently un-quantifiable), of which a certain percentage reduction could be negotiated depending on specific details associated with how they are implemented into the site design.

Table CC-3: Quantifiable CO_2 Emissions Reductions

Energy-Saving Item	Without* (lbs CO_2 equivalent/year)	With (lbs CO_2 equivalent/year)
Replacement of standard bulbs with CFLs (15/home)	15,882.1	3,021.7
Solar panels (per 1 kW)	5,965.3	4,850.0
Tankless natural gas water heater	1,724.6	1,465.9

Energy-Saving Item	Without* (lbs CO_2 equivalent/year)	With (lbs CO_2 equivalent/year)
Cool roof	5,135.3	3,420.3
Energy Star double-glazed window, low-e, vinyl frame		
Energy Star HVAC	669.6	522.2
Energy Star clothes washer (electric)	717.2	478.5
Energy Star clothes washer (natural gas)	468.1	313.4
Energy Star dishwasher	382.0	270.5
Energy Star refrigerator	428.7	364.2
Solar Water Heating System		
Drought-tolerant landscaping	343.0	223.0
Low-flow toilets (3.61 gal/flush to 1.25 gal/flush)	79.9	27.7

Source: Research information provided by JSA Associates, and available for review at 827 7th Street, Room 225, Sacramento, CA.

*Instead of the high-efficiency option, the home will have the item or equipment typical of an older home (e.g. single-glazed windows, 7-year old water heater, etc).

Table CC-4: Qualitative (or Currently Un-Quantified) CO_2 Emissions Reductions

Energy Saving Item	Notes
Parking lot shading beyond code	
Smart lights	Off-street
LEED Certification or elements of LEED design	Non-residential
Build It Green (BIG)	Residential
Solar water heating	
Construction waste recycling	50% or more
Tree planting	At least one on each lot (2 where feasible). One must be placed in the front yard and oriented to shade the sidewalk. The second may be placed anywhere on the lot to shade the home from afternoon sun.
Purple pipe	
Solar for pools	
Exceed Title 24	
Low Impact Development Irrigation/Storm Water	Examples of Low Impact Development: Increase pervious surface Preserving or creating vegetated areas Divert flows from impervious surfaces away from drains and into vegetation Intercepting rain using trees Bio-retention or stormwater planter www.lowimpactdevelopment.org/

Energy Saving Item	Notes
State of the art wiring technologies	Fiber optic, or conduit for fiber installed to facilitate telecommuting or prewiring for T-1 service
Natural Gas lines or electrical outlets to back yards for BBQ, electric landscaping equipment	
Bicycle storage	At apartments and other commercial sites (beyond Zoning Code)
Low nitrogen oxide (NOx) emitting and/or high efficiency furnaces	With an energy factor of at least 0.80
Ozone destruction catalyst installed	On residential or non-residential air conditioners to reduce the amount of ozone released into the air.
Complimentary bicycle	For each home
Community biodiesel fueling stations	
Low flow showerheads	2.5 gallons per minute maximum
Upgrade attic insulation	R-19 or less increase to R-38
Prioritized parking for hybrid vehicles	
Reduce parking lots area	Parking may be within the building's foot print (e.g. underground, 1st floor, or roof parking within the building). The reduced parking area could be used for landscaping and retaining trees for carbon retention, or for higher densities of buildings reducing sprawl.

COMMERCIAL AND INDUSTRIAL ENERGY USE

This analysis uses historic energy usage data, because Project-specific energy usage data were unavailable. Commercial and industrial buildings in unincorporated Sacramento County used an annual average of 28.62[1] kilowatt hours per square foot (kWh/ft^2). This usage rate is typically multiplied by the Project square footage, and then the SMUD electricity portfolio emission factor of 0.16[2] metric tons per megawatt hour (MWh) is applied. For natural gas, commercial and industrial buildings in Sacramento County used an annual average of 0.57[3] therms/ft^2. This usage rate is multiplied by the

[1] June 2009 Sacramento County Greenhouse Gases Inventory, Table B-5 electricity usage data divided by SACOG estimates of commercial and industrial building square footage in unincorporated Sacramento County for the year 2005.

[2]Greenhouse gases calculator ("GHG Calculator Version 3c") prepared by the firm Energy and Environmental Economics, Inc (E3) at the behest of the California Public Utility Commission http://www.ethree.com/public_projects/cpuc2.php. Cells AK-35 through AK-44 of the "CO_2 Allocations" tab.

[3] June 2009 Sacramento County Greenhouse Gases Inventory, Table B-5 natural gas usage data divided by SACOG estimates of commercial and industrial building square footage in unincorporated Sacramento County for the year 2005.

Project square footage, and then an emission factor from Pacific Gas and Electric is applied (11.7 pounds of CO_2 per therm)[4].

Since the project does not include specific development proposals including square footage of commercial and industrial uses, an accurate calculation of predicted energy use is not feasible. The thresholds in Table CC-2 above allow for up to 7.87 MT per Kft2 to be emitted in order to be under thresholds. Future applicants for new commercial or industrial projects in the Mather Field project area would be required to mitigate CO_2 emissions associated with commercial energy use so that project emissions are at or below the 7.87 MT per Kft2 threshold. Similar quantifiable and qualitative CO_2 emissions reductions as presented in Table CC-3 and Table CC-4 may be available for commercial and industrial projects as well.

The project includes land use amendments related to industrial, public/ quasi-public, and UDA type land use designations. Development consistent with the proposed project has the potential to result in various long term emissions from residential, commercial and industrial and transportation related uses and activities. Although the exact amounts of GHG emissions are unknown, it is reasonable to conclude that, at build out, the GHG emissions related to these land uses will be considerably greater than the existing GHG emissions at Mather Field. However, the proposed land use designation amendments do not directly result in GHG emissions. Future development projects within Mather Field consistent with the proposed land uses will be required to demonstrate adequate GHG emissions reductions quantitatively, and include appropriate and reasonable GHG emissions reductions mitigation where applicable.

The Project does not include any development and will not directly result in increases of long term GHG emissions over the existing condition. Impacts related to climate change are ***less than significant.***

MITIGATION MEASURES

CC-1: RESIDENTIAL ENERGY SECTOR EMISSION REDUCTIONS

Add a policy to the Mather Field SPA requiring that future applicants for residential projects reduce residential GHG emissions to below the significance threshold of 1.33 MT per capita. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per capita, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose

[4] http://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf, page 4.

to submit revised, project-specific, residential energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor.

CC-2: COMMERCIAL ENERGY SECTOR EMISSION REDUCTIONS

Add a policy to the Mather Field SPA requiring that future applicants for commercial and industrial projects reduce commercial emissions to below the significance threshold of 7.87 MT CO_2 per Kft^2. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per Kft2, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose to submit revised, project-specific, commercial energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor.

SACRAMENTO COUNTY
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14 INITIAL STUDY CHECKLIST FOR: MATHER FIELD

CONTROL NUMBER: PLNP2013-00044

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. The words "significant" and "significance" used throughout the following checklist are related to impacts as defined by the California Environmental Quality Act.

INITIAL STUDY CHECKLIST

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
1. **LAND USE** - Would the project:				
a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	The project is consistent with environmental policies of the Sacramento County General Plan, Mather Field Specific Plan, and Sacramento County Zoning Code.
b. Physically disrupt or divide an established community?			X	The project will not create physical barriers that substantially limit movement within or through the community.
2. **POPULATION/HOUSING -** Would the project:				
a. Induce substantial unplanned population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of infrastructure)?			X	The proposed Zinfandel Drive improvements and trunk sewer extension is intended to service existing or planned development and will not induce substantial unplanned population growth.
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?			X	The project will not result in the removal of existing housing, and thus will not displace substantial amounts of existing housing.
3. **AGRICULTURAL RESOURCES** - Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance or areas containing prime soils to uses not conducive to agricultural production?			X	The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the current Sacramento County Important Farmland Map published by the California Department of Conservation. The site does not contain prime soils.
b. Conflict with any existing Williamson Act contract?			X	No Williamson Act contracts apply to the project site.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
c. Introduce incompatible uses in the vicinity of existing agricultural uses?			X	The project does not occur in an area of agricultural production.
4. **AESTHETICS -** Would the project:				
a. Substantially alter existing viewsheds such as scenic highways, corridors or vistas?			X	The project does not occur in the vicinity of any scenic highways, corridors, or vistas.
b. Substantially degrade the existing visual character or quality of the site and its surroundings?			X	Construction will not substantially degrade the visual character or quality of the project site.
c. Create a new source of substantial light, glare, or shadow that would result in safety hazards or adversely affect day or nighttime views in the area?			X	The project will not result in a new source of substantial light, glare or shadow that would result in safety hazards or adversely affect day or nighttime views in the area.
5. **AIRPORTS -** Would the project:				
a. Result in a safety hazard for people residing or working in the vicinity of an airport/airstrip?		X		The project is located within the safety zone of Mather Airport. Refer to the Airport Compatibility Chapter.
b. Expose people residing or working in the project area to aircraft noise levels in excess of applicable standards?		X		The project is located in the vicinity of Mather Airport and is within the noise contours. Refer to the Airport Compatibility Chapter.
c. Result in a substantial adverse effect upon the safe and efficient use of navigable airspace by aircraft?		X		The project is located within height restriction zones of Mather Field. Refer to the Airport Compatibility Chapter.
d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	The project does not involve or affect air traffic movement.
6. **PUBLIC SERVICES -** Would the project:				
a. Have an adequate water supply for full buildout of the project?			X	The project will not result in increased demand for water supply.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
b. Have adequate wastewater treatment and disposal facilities for full buildout of the project?		X		Future development at Mather Field will require infrastructure improvements and connections to existing sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with SASD would be necessary and connection to the SASD sewer system would be required. Refer to the Public Utilities and Services Chapter.
c. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	The Kiefer Landfill has capacity to accommodate solid waste until the year 2030.
d. Result in substantial adverse physical impacts associated with the construction of new water supply or wastewater treatment and disposal facilities or expansion of existing facilities?		X		The project includes the construction of sewer facilities along Zinfandel Drive. Construction related impacts are addressed in the relevant topical chapters.
e. Result in substantial adverse physical impacts associated with the provision of storm water drainage facilities?		X		Project construction would require the addition of new stormwater drainage facilities along Zinfandel drive as well as culverts beneath Zinfandel Drive. Refer to the Hydrology and Water Quality Chapter and the relevant topical chapters.
f. Result in substantial adverse physical impacts associated with the provision of electric or natural gas service?		X		The project includes the relocation of existing utilities along Zinfandel Drive. Refer to the Public Utilities and Services Chapter and relevant topical chapters.
g. Result in substantial adverse physical impacts associated with the provision of emergency services?			X	The project would incrementally increase demand for emergency services, but would not cause substantial adverse physical impacts as a result of providing adequate service.
h. Result in substantial adverse physical impacts associated with the provision of public school services?			X	Future development consistent with the proposed project will require the use of public school services. However, the project will not directly increase the need for school services. Refer to the Public Utilities and Services chapter.
i. Result in substantial adverse physical impacts associated with the provision of park and recreation services?			X	Future development consistent with the proposed project will require the use of park services. However, the project will not directly increase the need for park services. Refer to the Public Utilities and Services chapter.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
7. **TRANSPORTATION/TRAFFIC** - Would the project:				
a. Result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County?			X	The project will not increase vehicle trips.
b. Result in a substantial adverse impact to access and/or circulation?			X	The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
c. Result in a substantial adverse impact to public safety on area roadways?			X	The project will be required to comply with applicable access and circulation requirements of the County Improvement Standards and the Uniform Fire Code. Upon compliance, impacts are less than significant.
d. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	The project does not conflict with alternative transportation policies of the Sacramento County General Plan, with the Sacramento Regional Transit Master Plan, or other adopted policies, plans or programs supporting alternative transportation.
8. **AIR QUALITY** - Would the project:				
a. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	X			At the programmatic level, the proposed project is expected to exceed construction and operational emission thresholds. At the project level, construction emissions are expected to be in excess of emissions thresholds. Refer to the Air Quality chapter.
b. Expose sensitive receptors to pollutant concentrations in excess of standards?		X		See Response 8.a.
c. Create objectionable odors affecting a substantial number of people?			X	The project will not generate objectionable odors.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
9. **NOISE -** Would the project:				
a. Result in exposure of persons to, or generation of, noise levels in excess of standards established by the local general plan, noise ordinance or applicable standards of other agencies?		X		The project is in the vicinity of Mather Field and the entire project site is subject to noise generated from airport operations. The proposed project may result in land uses that are incompatible with noise levels in the project area. Refer to the Airport Compatibility chapter.
b. Result in a substantial temporary increase in ambient noise levels in the project vicinity?			X	Project construction will result in a temporary increase in ambient noise levels in the project vicinity. This impact is less than significant due to the temporary nature of the these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance (Chapter 6.68 of the County Code).
10. **HYDROLOGY AND WATER QUALITY** - Would the project:				
a. Substantially deplete groundwater supplies or substantially interfere with groundwater recharge?			X	The project will not substantially increase water demand over the existing use.
b. Substantially alter the existing drainage pattern of the project area and/or increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X	Compliance with applicable requirements of the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards will ensure that impacts are less than significant.
c. Develop within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map or within a local flood hazard area?			X	Areas of the project site along stream channels are within a 100-year floodplain as mapped on a federal Flood Insurance Rate Map (Flood Zone AE). The Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards require that the project be located outside or above the floodplain, and will ensure that impacts are less than significant. Refer to the Hydrology and Water Quality chapter.
d. Place structures that would impede or redirect flood flows within a 100-year floodplain?			X	Although portions of the project site are within a 100-year floodplain, compliance with the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, and Sacramento County Improvement Standards will ensure that impacts are less than significant.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
e. Expose people or structures to a substantial risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	The project will not expose people or structures to a substantial risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Refer to the Hydrology and Water Quality chapter.
f. Create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems?			X	Adequate on- and/or off-site drainage improvements will be required pursuant to the Sacramento County Floodplain Management Ordinance and Improvement Standards.
g. Create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality?			X	Compliance with the Stormwater Ordinance and Land Grading and Erosion Control Ordinance (Chapters 15.12 and 14.44 of the County Code respectively) will ensure that the project will not create substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality.
11. **GEOLOGY AND SOILS** - Would the project:				
a. Expose people or structures to substantial risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	Sacramento County is not within an Alquist-Priolo Earthquake Fault Zone. Although there are no known active earthquake faults in the project area, the site could be subject to some ground shaking from regional faults. The Uniform Building Code contains applicable construction regulations for earthquake safety that will ensure less than significant impacts.
b. Result in substantial soil erosion, siltation or loss of topsoil?			X	Compliance with the County's Land Grading and Erosion Control Ordinance will reduce the amount of construction site erosion and minimize water quality degradation by providing stabilization and protection of disturbed areas, and by controlling the runoff of sediment and other pollutants during the course of construction.
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, soil expansion, liquefaction or collapse?			X	Pursuant to Title 16 of the Sacramento County Code and the Uniform Building Code, a soils report will be required prior to building construction. If the soils report indicates than soils may be unstable for building construction then site-specific measures (e.g., special engineering design or soil replacement) must be incorporated to ensure that soil conditions will be satisfactory for the proposed construction.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
d. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available?			X	Septic tanks or other alternative wastewater disposal systems will not be used.
e. Result in a substantial loss of an important mineral resource?			X	A portion of the project area is located over an area that is known to contain aggregate resources. The proposed project will result in an aggregate resources combining land use zone for this area.
f. Directly or indirectly destroy a unique paleontological resource or site?			X	No known paleontological resources (e.g. fossil remains) or sites are known to occur at the project location.
12. **BIOLOGICAL RESOURCES** - Would the project:				
a. Have a substantial adverse effect on any special status species, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community?	X			The project site contains suitable habitat for vernal species, valley elderberry longhorn beetle, Swainson's hawk and other raptors. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources Chapter.
b. Have a substantial adverse effect on riparian habitat or other sensitive natural communities?		X		The project site contains riparian habitat along stream corridors. Mitigation is included to reduce impacts to less than significant levels. Refer to the Biological Resources chapter.
c. Have a substantial adverse effect on streams, wetlands, or other surface waters that are protected by federal, state, or local regulations and policies?		X		Tracy Ravine, Mather Lake tributary, Todd Creek and Morrison Creek as well as several tributaries to these features cross the project site. Construction activities will occur within these features to allow for the installation of improvements related to Zinfandel Drive and sewer infrastructure. The project will also result in the loss of several wetland features. Refer to the Biological Resources Chapter.
d. Have a substantial adverse effect on the movement of any native resident or migratory fish or wildlife species?		X		Resident and/or migratory wildlife may be displaced by project construction; however, impacts are not anticipated to result in significant, long-term effects upon the movement of resident or migratory fish or wildlife species, and no major wildlife corridors would be affected.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
e. Adversely affect or result in the removal of native or landmark trees?		X		Native and trees occur on the project site and/or may be affected by off-site construction. Mitigation is included to ensure impacts are less than significant. Refer to the Biological Resources chapter.
f. Conflict with any local policies or ordinances protecting biological resources?		X		The project is consistent with local policies/ordinances protecting biological resources.
g. Conflict with the provisions of an adopted Habitat Conservation Plan or other approved local, regional, state or federal plan for the conservation of habitat?		X		The project site is located within the Mather Core Recovery Area. Refer to the Biological Resources chapter.
13. **CULTURAL RESOURCES -** Would the project:				
a. Cause a substantial adverse change in the significance of an historical resource?			X	A Cultural Resources Inventory and Evaluation report was prepared for the project. No historic architectural resources were identified within or adjacent to the project area that would be affected by the proposed project.
b. Have a substantial adverse effect on an archaeological resource?		X		An archaeological survey was conducted on the project site. There is potential for unknown archeological resources to be encountered. Refer to the Cultural Resources chapter.
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		No known human remains exist on the project site. Nonetheless, mitigation has been recommended to ensure appropriate treatment should human remains be uncovered during project implementation.
14. **HAZARDS AND HAZARDOUS MATERIALS** - Would the project:				
a. Create a substantial hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	The project does not involve the transport, use, and/or disposal of hazardous material.
b. Expose the public or the environment to a substantial hazard through reasonably foreseeable upset conditions involving the release of hazardous materials?			X	The project does not involve the transport, use, and/or disposal of hazardous material.

	Potentially Significant[i]	Less Than Significant with Mitigation[ii]	Less Than Significant or No Impact[iii]	Comments
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?			X	The project does not involve the use or handling of hazardous material.
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, resulting in a substantial hazard to the public or the environment?		X		The project site is located is located in an area that has been known to contain hazardous materials and is located adjacent to closed landfills.
e. Impair implementation of or physically interfere with an adopted emergency response or emergency evacuation plan?			X	The project would not interfere with any known emergency response or evacuation plan.

SUPPLEMENTAL INFORMATION

LAND USE CONSISTENCY	Current Land Use Designation	Consistent	Not Consistent	Comments
General Plan	Intensive Industrial, LDR, PQP, Recreation	X		Consistent with approval of proposed and use designation changes.
Community Plan	SPA	X		
Land Use Zone	SPA	X		

[i] **Potentially Significant** indicates there is substantial evidence that an effect MAY be significant. If there are one or more "Potentially Significant" entries an Environmental Impact Report (EIR) is required. Further research of a potentially significant impact may reveal that the impact is actually less than significant or less than significant with mitigation.

[ii] **Less than Significant with Mitigation** applies where an impact could be significant but specific mitigation has been identified that reduces the impact to a less than significant level.

[iii] **Less than Significant or No Impact** indicates that either a project will have an impact but the impact is considered minor or that a project does not impact the particular resource.

15 SUMMARY OF IMPACTS AND THEIR DISPOSITION

SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

AIR QUALITY

PROGRAMMATIC LEVEL CONSTRUCTION RELATED EMISSIONS

IMPACTS TO AIR QUALITY RESULTING FROM FUGITIVE DUST DURING CONSTRUCTION ACTIVITIES

Dust abatement practices are required pursuant to SMAQMD Rule 403 and California Code of Regulations, Title 13, sections 2449(d)(3) and 2485; the SMAQMD Guide simply lays out the basic practices needed to comply. Since these are already required by existing rules and regulations, it is not necessary to include them as mitigation. These practices also constitute all feasible measures available to reduce the impact. Limiting future projects to no more than 15 acres of active grading has been considered, but is infeasible for a variety of reasons. Firstly, subsequent development under the SPA will likely be constructed by separate developers, each with their own schedules, so such a measure would require coordinating among all developers to set schedules which would not result in cumulative exceedance of the 15-acre limitation. The likely result of this would be to prevent certain development projects from progressing until a later construction season. In addition, it would require constant on-site monitoring by County staff to ensure that the measure was being carried out. The measure is impracticable, and is furthermore not recommended by SMAQMD. Despite the application of feasible measures though existing rules and regulations, the Project will result in a ***significant and unavoidable*** impact related to PM_{10} and $PM_{2.5}$ emissions generated by construction.

PROGRAMMATIC LEVEL OPERATIONAL EMISSIONS

Development consistent with the proposed project will generate long term emissions (ROG and NOx), particulate matter (PM_{10}) and carbon monoxide (CO). These long term impacts are often referred to as operational impacts. The proposed land use designation amendments do not directly result in air quality emissions. However, development consistent with the proposed project has the potential to result in various long term operation emissions from commercial, industrial, mining and recreational uses. Although the exact amounts of operational emissions are unknown, it is reasonable to conclude that, at buildout, the operational emissions related to the project will be considerably greater than the existing operational emissions at Mather Field.

Although the property owners and tenants within Mather Field are required to participate in a TMA and development within the project area is required to obtain a 15 percent reduction in operational emissions through the implementation of specific measures included in the Mather Field Air Quality Plan, operational emissions are expected to

exceed the ROG and NOx thresholds of 65 lbs/day and result in operational air quality impacts that are ***significant and unavoidable.***

Although operational impacts are significant and unavoidable, mitigation measures are recommended in order to reduce impacts. Mitigation is recommended to require that Mather Field continue to be a part of the 50 Corridor Transportation Management Association or other similar TMA and that all development within Mather Field comply with the Mather Field Transportation System Management Program as well as the Mather Field Air Quality Plan or other similar TSM Program or Air Quality Plan endorsed by SMAQMD.

SIGNIFICANT EFFECTS WHICH COULD BE AVOIDED WITH IMPLEMENTATION OF MITIGATION MEASURES

AIRPORT COMPATIBILITY

NOISE

The Light Industrial and Office Park Land Use Zones permit several uses that are incompatible with the noise levels that encompass the proposed Industrial District or require measures to achieve appropriate interior noise levels. Examples of incompatible uses include computer programming and software design, child care centers, churches and various office type uses. The northern boundary of the proposed Industrial District is nearer to the runway than the existing South Airport Industrial Subarea and the allowed uses have the potential to be located nearer to the airport runways and within an area subject to greater noise levels resulting from airport operations.

In order to ensure that the permitted uses of the proposed Industrial District are compatible with the noise levels associated with the project site mitigation is recommended. With mitigation, impacts related to airport noise levels will be ***less than significant.***

NAVIGABLE AIRSPACE

The Mather Field SPA Development Standards discuss requirements for building heights within the proposed Industrial District and refers to the Sacramento County Zoning Code height allowances for buildings within industrial zones. According to Zoning Code Sections 301-20 through 301-25 and Section 325-04 the maximum building height within the Industrial zone is 150 feet.

Building heights allowed by the Mather Field SPA Development Standards have the potential to be greater than those that would be compatible with the height restriction zones related to Mather Airport and could affect navigable airspace. Mitigation is recommended in order to ensure that building heights are in compliance with the height standards established by the FAA. With mitigation the project is not expected to result in a substantial adverse effect upon the safe and efficient use of navigable airspace by

aircraft and project related impacts to navigable airspace are expected to be ***less than significant***.

Approach/Departure Safety Zone

Based on the uses allowed within the proposed Industrial area there is a potential for office uses and other uses that may result in concentrations of people over those concentrations seen as compatible with the Approach/ Departure Zone. To ensure that the project is compatible with the allowed uses within the Approach/ Departure Zone mitigation is recommended to restrict allowed uses within the zone to be consistent with the "Land Use Compatibility for Airport Safety" table. With mitigation project related impacts to compatibility with the Approach/Departure Zone are ***less than significant***.

Overflight Safety Zone

According to the proposed Mather Field SPA, uses allowed in the Industrial District include rubber and plastics manufacturing, chemical manufacturing and petroleum processing. These uses are incompatible with the Overflight Zone.

To ensure that the project is compatible with the allowed uses within the Overflight Zone mitigation is recommended to restrict allowed uses within the zone to be consistent with the "Land Use Compatibility for Airport Safety" table. With mitigation project related impacts to compatibility with the Overflight Zone are ***less than significant***.

Air Quality

Programmatic Level Construction Related Emissions

Impacts to Air Quality Resulting from Ozone Precursor Emissions and Diesel Particulate Caused by Construction Activities

Implementation of the proposed project could include construction activities on numerous sites on any given day. Therefore, calculating the daily emissions is not possible. However, given the size of the project area, exceedance of SMAQMD standards is possible. As a result, ozone precursor emissions and diesel particulate matter emissions associated with implementation of the proposed project would have a potentially significant impact on air quality. Mitigation measures are recommended in order to reduce impacts associated with construction emissions of ozone precursors and diesel particulate matter to a ***less than significant*** level.

Project Level Construction-Related Emissions

Impacts to Air Quality Resulting from Ozone Precursor Emissions and Diesel Particulate Caused by Roadway and Sewer Construction Activities

Emissions of ROG and NOx associated with the construction of the proposed Zinfandel Drive/trunk sewer improvements were estimated by running the *Road Construction Emissions Model* with general information related to the construction start year, project construction time, project length and area, and the maximum area to be disturbed per

day. The maximum emissions of ROG and NOx during construction are 12.6 and 119.7 lbs/day, respectively. The SMAQMD has a significant threshold for the construction phase of 85 lbs/day for NOx and no threshold level for ROG. The proposed Zinfandel Drive/ trunk sewer improvements will exceed the short term emissions thresholds by 34.7 lbs/day.

For projects that exceed the threshold, SMAQMD recommends implementation of a standard construction mitigation measure that will reduce heavy-duty off-road diesel powered equipment emissions by 20 percent for NO_x and 45 percent for particulates, as compared with the most recent CARB fleet average. A 20 percent reduction in daily NO_x emissions would result in daily NO_x emissions of 95.76 lbs/day; this is 10.76 lbs/day above the 85 lbs/day NO_x threshold.

For projects with NO_x emissions that remain significant even after the 20 percent reduction afforded by the standard construction mitigation measure, SMAQMD recommends payment of an off-site air quality mitigation fee to further reduce NO_x emissions to a less than significant level. With the application of mitigation, air quality impacts are ***less than significant***.

BIOLOGICAL RESOURCES

Implementation of the proposed project has the potential to impact Waters of the U.S., special status species habitat and special status species.

Development consistent with the proposed project has the potential to result in impacts to jurisdictional waters, native and non-native trees, vernal pool habitat and related species, habitat for the valley elderberry longhorn beetle, western spadefoot toad, western pond turtle, tricolored blackbird, nesting and foraging habitat for birds of prey, nesting migratory birds, badgers, special status plants, critical habitat for vernal pool tadpole and fairy shrimp, and habitat within the Mather Core Recovery Area.

Several mitigation measures are recommended that would require the preservation, creation or restoration of onsite and offsite habitat to account for impacts to habitat as well as preconstruction surveys for special status animals and plants. With mitigation impacts are ***less than significant***.

PROJECT LEVEL RIPARIAN HABITAT

Approximately 0.608 acres of riparian habitat will be removed in order to allow for the proposed improvements associated with the Zinfandel Drive/ trunk sewer improvements. Mitigation is recommended to protect riparian habitat to the maximum extent feasible and to require habitat compensation consistent with General Plan Policy and/or federal permitting requirements. With mitigation, impacts to riparian habitat are ***less than significant.***

CULTURAL RESOURCES

POTENTIAL DESTRUCTION OR DISTURBANCE OF BURIED ARCHEOLOGICAL RESOURCES AND HUMAN REMAINS

No archaeological resources were identified as a result of studies conducted in the Mather Field and Zinfandel Drive APEs, but it is still possible that significant buried archaeological materials may be found within the APEs. Disturbance or destruction of these resources may result from ground-disturbing activities associated with construction activities within the APEs.

Additionally, no human remains are known to be present within the Mather Field or Zinfandel Drive/ trunk sewer APEs. However, it is possible that buried human remains could be located within the area that have not been identified due to a lack of surficial evidence and it is possible that human remains, particularly those outside a designated cemetery, may be encountered during ground-disturbing construction activities related to the proposed extension of Zinfandel Drive and the trunk sewer line.

These impacts would be significant, but with implementation of mitigation measures impacts would be reduced to ***less than significant*** levels.

HAZARDOUS MATERIALS

CONTAMINATED SOILS AND GROUNDWATER

Future construction activities could result in the exposure of construction workers and the general public to hazardous materials, including petroleum hydrocarbons, lead, contaminated debris, and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public. However, mitigation requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

SITE RW-016

Radioactive waste is potentially present within the proposed Industrial District southeast of the southern airport runway. The radioactive waste site is known as RW-016 and is thought to contain approximately 60 low-level radioactive electron tubes placed in one gallon containers, encased in concrete and buried in 15 foot deep auger holes. Mitigation is recommended to require the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered; impacts related to Site RW-016 are ***less than significant***.

SITE XU-403

Mather Field was used for aerial gunnery and practice bombing activities at various times from 1918 to 1940. The practice bombing site has been identified as Site XU-403.

Site XU-403 has been subject to extensive historical records search to assess the potential safety risk and a No Further Action (NFA) Explosive Safety Submission (ESS) was submitted to the Air Force Safety Center and in 2009 the Department of Defense Explosives Safety Board (DDESB) approved the NFA ESS and no land use restrictions apply to the site. However, the DDESB required the creation of a 3,000 foot safety zone for Site XU-403.

The 3,000 foot safety zone radius overlaps a narrow portion of the proposed Industrial District as well as a stretch of a potential alignment of a future extension of Douglas Road (not a part of this project). There is a potential that a practice bomb or portion of a practice bomb may be encountered during construction activities. Mitigation is recommended to require the development of a hazardous materials plan designed to address contaminants or other hazardous materials that may be encountered during project development or in the event that contaminants are encountered; impacts are ***less than significant***.

Site OT-69/XE-404

There is a potential to encounter unexploded ordnance during construction activities at a former detonation area located at the southeast corner of the project site. This site, according to the Finding of Suitability for Early Transfer (FOSET) dated December 1998 prepared by the Air Force Real Property Agency this area is labeled as the Open Burn/ Open Detonation area Site OT-69. The Memorandum for Record regarding the Closure of Military Munitions Response Program notes this site as Site XE-404.

Site OT-69/XE-404 is located within the proposed Commercial Recreation District. Future construction activities could result in the exposure of construction workers and the general public to unexploded ordnance that could be hazardous. However, Mitigation Measure HM-1 requiring the development of a hazardous materials plan designed to address contaminants or other hazardous materials that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Landfill LF-03 and LF-04 and Northeast Plume

These landfills are located at the northeast corner of Mather Field and are noted to be landfills LF-03 and LF-04. These landfills and related Northeast Plume are subject to land use restrictions as part of the North East Plume remedy. The remedy for the North East Plume includes ICs for an area that comprises the footprint of the plume where concentrations of contaminants exceed their respective cleanup levels and the footprints of both landfill sites. The ICs for this landfill area can be found on pages 25-26 of the Final Explanation and generally include restrictions against:

- Any surface activities that introduce or allow infiltration of water/other fluids into the groundwater.

- The installation of wells or the extraction of water for any purpose other than for remediation or monitoring.

- Disturbing the remedial system components.

Landfills LF-03 and LF-04 are located within the proposed Industrial District and there is a potential for future construction activities to be located within the North East Plume area that may be in conflict with the ICs for the area. Additionally, there is the potential for ground disturbing activities to encounter unforeseen contaminants.

Future construction activities could result in the exposure of construction workers and the general public to hazardous materials and/or elevated levels of chemicals that could be hazardous. Any exposure to hazardous materials could pose a health risk to construction workers and the general public; however, mitigation requiring the development of a hazardous materials plan designed to address contaminants that may be encountered during project development or in the event that contaminants are encountered will reduce impacts to a ***less than significant*** level.

Monitoring, Injection and Extraction Wells

More than 600 wells are in use at Mather Field as part of the groundwater cleanup effort currently underway related to onsite contamination. Thirty-four of these wells extract water from the ground and direct contaminated water to treatment plants for remediation, eight of the wells are injection wells that are used to return clean water back into the ground and the rest are monitoring wells, used to track and measure contamination. In addition to the groundwater wells, there are many extraction, monitoring and migration wells and vents associated with soil contamination remediation efforts throughout much of Mather Field including where project related land use designation changes are proposed.

The wells are integral to the continuing remediation efforts underway at Mather Field and damaging, disturbing or otherwise affecting these wells would potentially disrupt cleanup activities. Mitigation has been included so that monitoring, injection, extraction and migration wells are appropriately relocated or preserved. With mitigation impacts to wells are ***less than significant***.

Public Utilities and Services

Programmatic Level Impacts to Sewer Service

The SRWTP has a permitted dry weather flow design capacity of 181 mgd and has sufficient capacity to serve the development of Mather Field based on the proposed land use designations. However, although sewer service is provided to Mather Field, much of the project area is vacant and does not currently contain sewer infrastructure to support future development consistent with the land use designations of the proposed project. Future development at Mather Field will require infrastructure improvements and connections to exiting sewer facilities in order to allow for sewer service. In order to determine the appropriate infrastructure needs of future development coordination with

SASD would be necessary and connection to the SASD sewer system would be required. With mitigation requiring coordination with SASD prior to project development, potential impacts related to sewer service are ***less than significant***.

CLIMATE CHANGE

RESIDENTIAL, COMMERCIAL AND INDUSTRIAL ENERGY USE

The Project does not include any development and will not directly result in increases of long term GHG emissions over the existing condition. However, the project includes land use amendments related to industrial, public/ quasi-public, and UDA land use designations. Development consistent with the proposed project has the potential to result in various long term emissions from residential, commercial and industrial and transportation related uses and activities. Although the exact amounts of GHG emissions are unknown, it is reasonable to conclude that, at build out, the GHG emissions related to these land uses will be considerably greater than the existing GHG emissions at Mather Field. However, the proposed land use designation amendments do not directly result in GHG emissions. Future development projects within Mather Field consistent with the proposed land uses will be required to demonstrate adequate GHG emissions reductions quantitatively, and include appropriate and reasonable GHG emissions reductions mitigation where applicable. With mitigation impacts related to climate change are ***less than significant.***

EFFECTS FOUND NOT TO BE SIGNIFICANT

LAND USE

SACRAMENTO COUNTY GENERAL PLAN

Although several land use designation changes are proposed to occur through the approval of this project, the designations proposed would allow for uses generally consistent with those currently allowed and are not in conflict with the General Plan Land Use Element Strategies, goals and policies and are not expected to result in substantial changes in land use development. Additionally, due to the designations that will remain on the site in the post project condition, no uses currently allowed would be precluded from being on site. Land use related environmental impacts associated with the General Plan designation changes are ***less than significant***.

GENERAL PLAN TRANSPORTATION DIAGRAM

In addition to the General Plan Land Use Designation amendments, the proposed project includes a request to amend the General Plan Transportation Diagram to realign Zinfandel Drive. The realigned roadway would not be inconsistent with the goals of the Circulation Element and would still be able to provide accommodations for a roadway that provides mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise. Land use related environmental impacts associated with the Transportation Diagram amendment are ***less than significant***.

CORDOVA COMMUNITY PLAN

The Mather Field project does not require any amendments to the Cordova Community Plan. The proposed project is intended to provide for the redevelopment of the Mather Field consistent with the intent of the Community Plan at it relates to Mather Field. The proposed land use plan for Mather Field is anticipated to aid in the transformation of the area consistent with one of the primary goals of the Community Plan. Additionally, the proposed project includes land use designations that will provide the opportunity for the revitalization of Mather Field, the introduction of industrial, business park, mixed use, residential, and infrastructure and transportation concepts that are in line with the stated objectives and implementation measures of the Community Plan. Land use related environmental impacts associated with consistency with the Cordova Community Plan are ***less than significant.***

MATHER FIELD SPECIFIC PLAN

The proposed Mather Specific Plan amendments are consistent with the intent of the Plan and build on the existing objectives within. The proposed project furthers the vision for the reuse of the Mather Field area and its transition from military to civilian

uses. Land use related impacts resulting from the Mather Field Specific Plan land use amendments *are* ***less than significant.***

Mather Field Special Planning Area Ordinance

The proposed districts and infrastructure improvements are consistent with and support the intent of the Mather Special Planning Area. Land use related impacts resulting from the Mather Field Specific Plan land use amendments are ***less than significant.***

Mather Airport Master Plan

An update to the Mather Airport Master Plan (Master Plan) was recently proposed by the Department of Airports specific to Mather Airport and airport operations. The Master Plan received approval by the Board of Supervisors on August 26, 2014. The updated Master Plan establishes a program for modifications of existing facilities and development of new facilities at Mather Airport through the year 2035. The Master Plan provides flexible recommendations for facilities and phasing of projects that will accommodate users and tenants. The Master Plan includes facility upgrades, airfield improvements, runway upgrades, building construction and roadway and runway extensions. In addition to the physical changes, the Master Plan proposal to extend the northern runway will result in the extension of the north eastern Approach/ Departure Safety Zone related to the northern runway.

All of the physical improvements proposed in the Master Plan, as well as the extended Approach/ Departure Safety Zone, are located on the northern portion of Mather Field SPA and outside of the areas subject to land use changes related to this project. Land use impacts related to project consistency with the Mather Airport Master Plan are ***less than significant.***

Surrounding Land Uses

The lands surrounding the project site largely have land use zones that allow for industrial, agricultural and commercial types of uses. The proposed land uses are similar in nature to those uses currently at Mather Field. These uses are generally compatible with the surrounding uses. In regard to the rendering plant, although the proposed General Plan and Specific Plan Land Use Designation will allow for a wide array of uses, the SPA changes will not allow for uses not currently permitted in the Commercial Recreation District and no new uses incompatible with the rendering plant will result. Land use impacts associated with land use designation changes along Kiefer Boulevard and the Sacramento Rendering Company's rendering plant are ***less than significant.***

AIR QUALITY

PROJECT LEVEL CONSTRUCTION-RELATED EMISSIONS

IMPACTS TO AIR QUALITY RESULTING FROM FUGITIVE DUST DURING ROADWAY AND SEWER CONSTRUCTION ACTIVITIES

The proposed project includes the extension of Zinfandel Drive and trunk sewer facilities. Zinfandel Drive will be extended approximately 900 feet south of Douglas Road (the existing southern terminus of the recently extended Zinfandel Drive) to approximately 2,100 feet south of Woodring Drive, including T-intersection improvements at Woodring Drive.

Construction related to the Roadway Project will disturb a maximum of 0.25 acres per day and is well below the 15 acre area which is known to have significant impacts when graded at any one time. Additionally, dust abatement practices are required pursuant to SMAQMD Rule 403. Therefore, air quality emissions of the Roadway Project resulting from fugitive dust are ***less than significant***.

OPERATIONAL EMISSIONS FROM ROADWAY PROJECT

Operational thresholds (long term effects) for both ROG and NOx are 65 pounds per day. The Zinfandel Drive project is not capacity enhancing, and as such, the operational emissions are the same as they would be without the project. Operational impacts to air quality resulting from the roadway improvements are considered ***less than significant***

TOXIC AIR CONTAMINANTS

Though specific development details are unavailable at the programmatic level, based on the land uses of the Project, it is reasonable to assume that some TAC-generating uses could be constructed within the Industrial District. However, because the uses permitted by the proposed project in the Industrial District are the same as those that can be developed in the existing condition, and because the distance of the proposed Industrial District and the nearest sensitive receptors will not be substantially closer in the post project condition, the Project will not expose existing sensitive receptors to increased risk related to TAC.

Within the project site, the proposed project will result in a new UDA District. The UDA District, according to the proposed Mather Field SPA, is contemplated to contain a residential component, schools, and other uses in the future that may introduce new sensitive receptors into the project area. However, as detailed in the Land Use Chapter of this document, the UDA designation for the site alone does not allow development and no new sensitive receptors will be exposed to TAC by through the implementation of this project. Future analysis related air quality will be required prior to the development of the UDA District.

As analyzed, the Project will not expose existing sensitive receptors to substantial risk related to TAC exposure. Project impacts related to TAC exposure are ***less than significant.***

Odors

The Sacramento Rendering Company operates the Sacramento Rendering Plant just south of the project area. The rendering plant property is located immediately south of the project site and is divided from it only by Kiefer Boulevard. The main plant processing facility is located approximately 700 feet south of the southern property line of the project area. Rendering plants generate objectionable odors.

Although the proposed project area is adjacent to the rendering plant and downwind of the prevailing wind pattern in the Mather Field area, given that the proposed project will not introduce additional sensitive receptors over those currently permitted in the Mather Filed SPA, impacts related to odor generated at the Sacramento Rendering Plant are ***less than significant***.

Biological Resources

Programmatic Level Impacts to Riparian Habitat

Riparian habitat has been identified at Mather Field. The riparian habitat predominantly occurs in patches along the shores of Mather Lake and a small portion of Morrison Creek just between Mather Lake and Zinfandel Drive and along drainage features west of the Mather Golf Course and east of Zinfandel Drive near Woodring Drive. The riparian habitat is largely within the exclusion area of Mather Field and located outside of the area where land use designation changes are proposed . Therefore, development proposals consistent with the proposed project will not affect riparian habitat within Mather Field. Impacts to riparian habitat are ***less than significant***.

Swainson's Hawk Foraging Habitat

The CNDDB, 2013, indicates that the nearest recorded species occurrence for the Swainson's hawk, is approximately 3.5 miles to the southeast of Mather Field and the Project site contains open grasslands that provide foraging habitat for Swainson's hawk. However, the proposed project will not result in a rezone of property or uses that are more intensive than those already allowed. Impacts to Swainson's hawk foraging habitat are ***less than significant***.

Critical Habitat for Slender and Sacramento Orcutt Grasses

Designated critical habitat for slender Orcutt grass and Sacramento Orcutt grass at Mather Field is located solely within the proposed Natural Preserve and no impacts related to future development consistent with the proposed project are expected to result. Critical habitat for Orcutt grass is also located off site to the southwest adjacent to the proposed Commercial Recreation District; however, because of the barrier created by Kiefer Boulevard that divides Mather Field from the critical habitat, no

indirect impacts will result. Impacts to designated critical habitat for slender Orcutt and Sacramento Orcutt grass are ***less than significant.***

CULTURAL RESOURCES

POTENTIAL DISTURBANCE OR DESTRUCTION OF KNOWN SIGNIFICANT BUILT ENVIRONMENT HISTORIC RESOURCES

No architectural resources that meet the criteria of significance under CEQA were located in the Mather Field or Zinfandel Drive APEs. Therefore, no known significant architectural resources would be affected by the proposed project. Project impacts related to architectural resources are ***less than significant***.

HAZARDOUS MATERIALS

LANDFILL WP-07

According to the Final Explanation, an area that was once used for the disposal of construction rubble as well as petroleum, oil and lubricant wastes from 1953 to 1966 is located at the southwest corner of Mather Field. Also, this area was later used to dispose of soil excavated from IRP sites within Mather Field and treated as necessary to meet municipal landfill criteria and later capped in accordance with landfill closure requirements.

This area will be designated for industrial uses with a surface mining overlay. The intent of adding the surface mining designation to the site is to identify this area for future planning efforts related to aggregate resource extraction, and to ensure that future development would not preclude the timely extraction of aggregate resources. It should be noted that the aggregate resource combining designation only preserves the area for mining activities and does not permit the actual use of the site for mining operations. Future mining proposals for the site swill need to undergo further permitting and environmental review processes. At that time issues associated with the use of the site will be evaluated and any appropriate mitigation measures will be identified to meet the specific needs of the proposal. The proposed project will not result in damage to the landfill or remediation systems or result in any uses inconsistent with ICs applicable to Landfill WP-07. Impacts related to Landfill WP-07 are ***less than significant.***

ASBESTOS

The renovation or demolition of existing structures constructed prior to 1989 can pose an exposure risk to workers from asbestos-containing material if the material is chipped away and then accidentally ingested, or if it becomes airborne and is inhaled. When an individual applies for a demolition or renovation permit through the County Building Permits and Inspection Division, the applicant will be required to get a permit from the Sacramento Municipal Air Quality Management District. As part of the permit process, the applicant will need to show compliance with federal regulations and Air District Rule 902, which requires a survey for asbestos prior to demolition. Any asbestos found would require abatement. Given that there is already a process requiring the applicant

to survey for and abate any asbestos, impacts related to asbestos exposure are ***less than significant.***

Lead Based Paint

The renovation or demolition of existing structures constructed prior to 1978 can pose an exposure risk of workers to lead-based paint if the paint were chipped away and then accidentally ingested, or if the paint became an airborne dust and was inhaled. Also, lead can deposit on exposed soil, which can then be tracked into the home, ingested by children and adults. As with asbestos in older homes, there are existing rules and regulations to ensure that workers are apprised of the risk of lead exposure before renovation or demolition can begin, and are given protocols to avoid exposure. Environmental impacts resulting from lead exposure from lead based paint are ***less than significant*** with the adherence to existing regulations and laws.

Hydrology and Water Quality

Programmatic Level Impacts to Drainage and Flooding

Build-out of the project area, consistent with the proposed land use amendments, will require site improvements such as grading that will alter the existing topographic and drainage features on site. Development of the project area would also require the construction of structures, sidewalks, roadways, parking areas and other impervious surfaces that will increase runoff from the project area. These improvements have the potential to produce considerable changes in downstream hydrology and increased flooding onsite and downstream. Additionally, FEMA designated 100-year floodplains are located where industrial, mining, commercial and recreation uses may be proposed in the future. However, with conformance with applicable standards, future development associated with the Project will not substantially increase the rate, amount or location of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity or result in the placement of fill or structures within a designated floodplain. Project impacts related to drainage and flooding are expected to be ***less than significant.***

MATHER DAM

In the event of a dam breach at Mather Lake portions of the project area would be subject to short lived, shallow inundation. Although flooding would occur in the project area in the event of a dam breach at Mather Lake, the proposed project does not include land use amendments that would result in additional homes or other structures within the area shown to be flooded and would not result in the exposure of people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam. Impacts associated with flooding resulting from the failure of a levee or dam are ***less than significant.***

Programmatic Level Impacts to Water Quality

Construction Impacts

Construction activities would involve the use of heavy equipment, such as bulldozers, graders, earth movers and other machinery for grading, trenching, utility installation, and the construction of roads buildings and other facilities. The use of these types of machinery could result in the release of water quality pollutants. The use of heavy machinery would also disturb surface soils. During storm events, stormwater could mobilize disturbed soils and/or release residual chemicals that could become entrained in stormwater runoff, and be transported into waterways on site, including Morrison Creek and other waterways downstream or offsite. As a result, water quality could be adversely affected in Morrison Creek and other waterways. However, the current Sacramento County Stormwater Ordinance (Sacramento County Code Section 15.12) prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. Development consistent with existing regulations will ensure that that stormwater quality is not degraded and; therefore, impacts would be ***less than significant***.

Operational Impacts

Development and redevelopment related to the project may result in an increase of use of substances that could pollute waterways if not regulated. However, new development will be required to treat urban runoff using the BMPs required by the current standards defined in the 2007 Stormwater Manual and subsequent editions in the years to come that meet or exceed requirements established by the CVRWQCB. Conformance with applicable standards and regulations will ensure impacts from future development/redevelopment projects associated with stormwater quality will be ***less than significant.***

Project Level Impacts to Drainage and Flooding

The Zinfandel Drive/ trunk sewer extension will extend from North Mather Boulevard in the City of Rancho Cordova to approximately 2,100 feet south of Woodring Drive. The sewer extension is proposed to extend the entire length of the work area while improvements related to Zinfandel Drive will begin at the existing southern terminus of the recent extension of Zinfandel Drive; approximately 900 feet south of Douglas Road. The work area identified to allow for the installation of the proposed roadway and sewer extensions is crossed by several drainage features and their associated FEMA floodplain areas.

County DWR concluded that the project will not alter the existing drainage pattern in such a way that causes flooding or contributes to runoff that would exceed the capacity of existing or planned stormwater infrastructure. Additionally, the project will not place housing within the 100-year floodplain; place structures in a 100-year floodplain that would cause substantial impacts as a result of impeding or redirecting flood flows; or expose people or structures to substantial loss of life, health, or property as a result of flooding. Impacts related to drainage and flooding are considered ***less than significant***.

MATHER DAM

Zinfandel Drive is within the area identified to be subject to flooding in the event of a dam failure at Mather Lake. However, DWR staff (S. Rehman) has concluded that the improvements associated with the proposed project will not alter the path or volume of waters exiting Mather Lake during a dam breach given that Zinfandel Drive will be overtopped in both the pre- and post-project condition. The proposed project will not expose people or structures to a substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam. Impacts associated with flooding resulting from the failure of a levee or dam are ***less than significant.***

PROJECT LEVEL IMPACTS TO WATER QUALITY

CONSTRUCTION IMPACTS

Construction activities across waterways within Mather Field will be required for the proposed extension of Zinfandel Drive and trunk sewer facilities. Construction activities within and adjacent to waterways have the potential to degrade water quality. Water quality impacts could occur during construction from increased soil erosion and sedimentation due to demolition or removal of existing facilities, clearing of vegetation, alteration of drainages, and grading. Construction activities also involve the use of fuels, oil, lubricants, antifreeze, hydraulic fluid, solvents, paints, concrete, and other materials that have the potential to contact and affect runoff from construction sites.

Although construction activities have the potential to result is impacts to water quality, project related construction activities are required to be in conformance with the County's Municipal Stormwater NPDES and project compliance with existing requirements and regulations, as administered by County DWR and CVRWQCB. Compliance with existing regulation will ensure that project-related erosion and pollution impacts are ***less than significant***.

OPERATIONAL IMPACTS

The extension of Zinfandel Drive and trunk sewer facilities will include the widening of pavement, the installation of concrete culverts and will require that soils be compacted in order to support proposed facility improvements. These project components can increase the amount of runoff generated in the project area and the potential for polluted waters to enter the nearby surface waters.

Project development, with the stormwater controls included in the drainage study and in conformance with applicable guidelines and regulations, will not result in the creation of substantial sources of polluted runoff or otherwise substantially degrade ground or surface water quality. Project related operational impacts associated with water quality are ***less than significant.***

PUBLIC UTILITIES AND SERVICES

RELOCATED UTILITIES AND DISRUPTION OF SERVICE

Construction related activities associated with the proposed Zinfandel Drive extension and trunk sewer improvements will require relocation of several joint utility poles near the Mather Golf Course east of Zinfandel Drive and at the west side of the intersection of Zinfandel Drive and Woodring Drive. An additional utility pole east of Zinfandel Drive approximately 900 feet north of Douglas Road has also been identified within the proposed work area associated with the Zinfandel Drive/ trunk sewer improvements and will need to be relocated. Additional modifications to existing utilities required of the proposed improvements relate to sewer connections. Although not being relocated, the existing sewer lateral from Mather Golf Course that connects with the sewer system in the area will need to be modified.

Standard practices for locating, working around and relocating public utility lines, including coordination with affected agencies, will ensure that impacts related to utilities and interruptions in service will be ***less than significant***.

CONSTRUCTION OF NEW FACILITIES

Depending on the location and type of facility, the construction and operation of new facilities could result in the following impacts typical of new construction: air quality (related both to construction and operation), biological resources, traffic and circulation, erosion and grading, water quality, drainage, noise (sirens and traffic) and public utility services demand (electric, water, and wastewater). Less typical, but still possible, are impacts related to cultural resources, and hazardous materials.

These construction activities will take place within the identified Districts within Mather Field, and it has already been assumed that development could take place anywhere within these Districts. The relevant topical chapters of this EIR have already disclosed the impacts of full development within the areas where proposed land use changes are proposed and provided mitigation as appropriate. The development of public service facilities will not result in any additional environmental impacts that have not already been disclosed within the relevant topical chapters of this EIR. Therefore, construction will not result in any additional substantial impacts specific to public services; additional impacts specific to public facility construction are ***less than significant***.

POTABLE WATER SERVICE

The water demands associated with the future development of Mather Field have been included and addressed in the latest Zone 41 Urban Water Management Plan (UWMP) (SCWA, 2012) and in the development of the Zone 40 “conjunctive use” program as described in the Zone 40 Water Supply Master Plan (WSMP) (SCWA, February 2005). According to SCWA staff (D. Eck, personal communication, October 20, 2014); because project demands related to Mather Field are included in the UWMP and WSMP, adequate water supplies are available to support the future development of Mather Field. Impacts related to water supplies and water service are ***less than significant***.

Project Level Impacts To Sewer Service

A sewer study dated January, 2010 and entitled *Master Sewer Study for South Mather Development & Zinfandel Dr. Extension* (Sewer Study) was prepared for this project to demonstrate that the trunk sewer infrastructure proposed to be installed as part of this project is adequate to support future development in the shed area at full build out. The Sewer Study concluded that the proposed trunk sewer infrastructure and the Bradshaw Interceptor, that will collect flows from the proposed sewer line, are capable of serving the shed area under the ultimate build out condition. SRCSD staff (G. Darting) reviewed the Sewer Study and indicated that it is considered adequate for the submittal of improvement plans for the proposed trunk sewer facilities. Impacts related to sewer service are expected to be ***less than significant***.

Fire Protection Service

PROGRAMMATIC LEVEL IMPACTS TO EMERGENCY SERVICES

The General Plan contains policies that allow the Board of Supervisors to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district. The fire districts that receive such funds must maintain Insurance Service Office (ISO) ratings of 3 for hydrant areas and 8 for non-hydrant areas and a response time of five minutes for emergency calls, where staffing levels are adequate. Furthermore, building permits for new developments will not be issued until an applicant has contributed all required mitigation fees when there is a Board of Supervisors-certified fire district financing plan for any applicable fire district. Additionally, the policies contained in the General Plan require that new buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate. These policies will ensure that impacts associated with growth and funding for adequate fire protection will be ***less than significant.***

PROJECT LEVEL IMPACTS TO EMERGENCY SERVICES

During construction related to the Zinfandel Drive/ trunk sewer extension, one of the five access points into Independence at Mather will be temporarily closed. Restricting access to Independence at Mather will require that emergency service providers and residents not use Woodring Road at the east side of the subdivision and use one of the other four access routes into the subdivision. However, project proponents responsible for roadway infrastructure improvements are required to coordinate with emergency service providers to ensure that there are no impediments to the provision of emergency services during and after project related construction activities. Although access is expected to be adequate during construction related activities associated with the Zinfandel Drive/trunk sewer extension, mitigation is recommended to require notification, coordination and adequate access during construction related activities associated with the Zinfandel Drive/ trunk sewer extension.

Mitigation Measure PS-2 will ensure that impacts related to the provision of adequate emergency services and access during construction will be *less than significant.*

Law Enforcement Service

Using the County's goal of one officer to 1,000 residents (Sacramento County, 2010), to maintain adequate levels of service, additional officers, facilities, and equipment would be required to serve potential future development consistent with the proposed project. The Sheriff's Department is funded through Sacramento County's General Fund and sometimes supplemented by grant money. Future development within Mather Field would contribute to the General Fund and funding of law enforcement services through increased property tax and sales tax collection. Thus, the impacts to law enforcement services are expected to ***be less than significant***.

Solid Waste Service

The County has met AB 939's requirement with a 58% diversion rate and is in compliance with Senate Bill 610's per capita disposal maximum of 7.7 pounds per person per day by disposing only 5.9 pounds per person per day. The County is expected to continue waste diversion through General Plan policy PF-19 (implementation and support of recycling programs), the SWA and County recycling program, and through the County Integrated Waste Management Plan. With the increases in recycling efforts, Kiefer Landfill has the capacity to meet demand until 2035 or later. The proposed project will not result in significant environmental impacts to solid waste facilities; impacts are considered ***less than significant***.

School Services

The project site spans the Sacramento City Unified, Elk Grove Unified and Folsom/Cordova Unified school districts. The only portion of the project site within the Sacramento City Unified school district is the airport which does not include housing. Independence at Mather as well as most of the project site is located within the Folsom/Cordova Unified District. A strip of land on the eastern portion of the project site is located within the Elk Grove Unified School District.

Although the proposed land use designations will not directly relate to increased residential development at Mather Field, the proposed UDA District will allow for future planning efforts that may increase residential densities at the site.

The General Plan includes policies to accommodate for growth and increased service demands. For instance, there are policies that require land dedications or reservations for new schools, and Specific Plans (such as those plans required for the UDA District) must show locations of future school sites. These policies, in addition to developer fees under SB 50 and school facilities mitigation under the California Government Code, would serve as complete CEQA mitigation for the impacts of increased development on the ability of school districts to provide adequate services. Therefore, this impact is considered ***less than significant***.

Park and Recreation Services

The project site is located within the Cordova Recreation and Park District (CRPD) which encompasses 75 square miles (Cordova Recreation and Park District, 2010). Regional park facilities within the project site include Mather Regional Park, which includes Mather Golf Course and Mather Lake. Allowed activities include golfing, picnicking and fishing.

Although no development is currently proposed that would increase demand for park services or would be required to pay for or develop park sites, the proposed UDA District will allow the planning of future residential uses that would require park srvices.

As required by the Quimby Act and General Plan policies, park land dedication and/or in-lieu fees are required in order to develop and maintain parks when the UDA District is developed. General Plan policy PF-124 requires new subdivisions to provide sufficient acreage of parks to meet the long-range needs of the community. As development plans are proposed for the UDA District, parks will be developed as part of those plans. Additionally, the current project includes proposals to have Recreation and Commercial Recreation Districts that will allow recreational opportunities to be provided within Mather Field.

General Plan policies, mitigation, and the Quimby Act ensure that impacts associated with the provision of park services in the growth areas of the General Plan Update would be ***less than significant.***

Energy Services

Electrical service is currently provided to Mather by the Sacramento Municipal Utility District (SMUD). SMUD generates, transmits and distributes electric power to a 900-square mile service area including Sacramento County and a portion of Placer County. SMUD gets its electricity from diverse resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market (Sacramento County, 2009). Natural gas service is provided by West Coast Gas.

Future development consistent with the proposed land use designations would require additional energy production and distribution facilities (such as transmission corridors) to provide delivery of electricity and natural gas to new development. The General Plan contains policies regarding the siting of energy facilities that attempt to minimize impacts associated with land use conflicts, visual and aesthetic resources, historic or cultural resources, and biological resources.

Any new required facilities would be constructed within the proposed Zinfandel Drive/ trunk sewer work area or in the proposed Districts associated with the project, and would not result in any additional environmental impacts that will not already be caused by general development of the site consistent with the proposed land use designations as discussed and mitigated (as appropriate) in the relevant topical chapters of this EIR.

With the policies contained in the General Plan, impacts will be minimized and/or mitigated; impacts are considered ***less than significant***.

TRAFFIC AND CIRCULATION

The proposed project would result in land use designations that have a lower trip generating potential than those designations currently at Mather Field. The land use changes proposed with this project would not result in a substantial increase in vehicle trips that would exceed, either individually or cumulatively, a level of service standard established by the County. Additionally, future development within Mather Field is required to participate in a Transportation Management Association and Transportation Systems Management Program designed to reduce vehicle trips and support alternative transportation. The proposed project would continue to support and implement these existing programs. Finally, the proposed Zinfandel Drive improvements would still provide mobility for current and future residents through a balanced and interconnected transportation system which includes multiple modes of travel, provides an integrated roadway system that maximizes the mobility of goods and services in a safe and efficient manner, and encourages the use of bicycle and walking as a viable transportation mode and as a form of recreation and exercise.

In summary, traffic and circulation impacts related to the proposed project are expected to be similar to those that would be generated if Mather Field were built out under the existing Specific Plan. Impacts are ***less than significant.***

CUMULATIVE IMPACTS

An EIR must discuss the "cumulative impacts" of a project when its incremental effect will be cumulatively considerable. This means that the incremental effects of the individual project would be considerable when viewed in connection with the effects of other current projects, and the effects of probable future projects (Section 15065(c)).

CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." This Section further states that "Individual effects may be changes resulting from a single project or a number of separate projects." Additionally, "The cumulative impact from several projects is [defined as] the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Section 15130(a)(3) states also that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Finally, Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, that it should reflect the severity

of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

To be adequate, a discussion of cumulative effects must include the following elements:

> Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130(c)).

As used above, the phrase "past, present and probable future projects" includes existing approved, planned, or budgeted projects; projects which are currently under construction; and projects requiring an agency approval for an application which has been received at the time of NOP release. (Section 15130(b)(1)(B)(2)).

The cumulative analysis for this EIR is based on the anticipated development in Rancho Cordova, Elk Grove, the City of Sacramento, unincorporated Sacramento County, and the Sacramento Area Council of Governments Blueprint projections.

IMPACTS

Although the proposed project would not directly relate in development at Mather Field, future development consistent with the proposed land use designations would increase the intensity of the land uses within the project area. In addition, Sacramento County is currently processing several master plans and large development proposals, a number of which are in close proximity to the project site along Jackson Highway, which have the potential to greatly increase in the intensity of land use within the area and Sacramento County as a whole. However, the Mather Field project occurs primarily within areas that have previously been designated for urban development and much of the site is designated Public, Retail, Office and Low Density Mixed Use in the SACOG Blueprint. In all, while the proposed project has the potential to intensify some land uses in the area over existing uses, the proposed project does not substantially change what could be built out under existing designations. Cumulative impacts related to land use are considered less than significant.

With the intensification of uses, public services would effectively be impacted. However, as mentioned above, the intensification proposed in the SPA is not substantially different from what could occur under existing zoning without the proposed project. Therefore, with any new development in the area improvements to infrastructure will be required. Cumulative impacts to service providers are not considered significant.

Although the proposed project will not directly result in the generation of traffic, future development consistent with the proposed project will result in an increase in traffic coming to and from the site. However, given that several of the proposed land uses have no traffic generating potential or have a lower trip generating potential than the land uses in the existing condition, a reduction in trip ends is expected as a result of project implementation. Cumulative impacts related to traffic are considered less than significant.

The proposed project would result in impacts related to air quality and climate change, which by their very nature are cumulative impacts. Despite the EIR conclusions of substantial impacts to air quality and climate change, the project is expected to have local and regional benefits in these areas, in that locally beneficial mitigation has been added to reduce these impacts. However, in the case of air quality, there is no available mitigation that would feasibly reduce impacts to less than significant in all cases. Thus, the proposed project would result in significant cumulative impacts for air quality issues. Given that climate change impacts can be reduced effectively with proposed mitigation, cumulative impacts are considered less than significant.

Future development consistent with the proposed land use designations has the potential to impact biological resources; however, impacts to resources would be mitigated to less than significant levels on a project-by-project level. The project also proposed a 1,272 acre Natural Preserve that will provide protected habitat that will be managed in order to restore habitat for affected species. Thus, cumulative impacts related to biological resources would be considered less than significant.

GROWTH INDUCING IMPACTS

An EIR must discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing in the vicinity of the project, and how that growth will, in turn, affect the surrounding environment (see CEQA Guidelines Section 15126.2(d)). Growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval.

A number of issues must be considered when assessing the growth-inducing effects of development plans such as the proposed project. These include the following:

Elimination of Obstacles to Growth: The extent to which infrastructure capacity provided to accommodate the proposed project would allow additional development in surrounding areas; and

Economic Effects: The extent to which development of the proposed project could cause increased activity in the local or regional economy.

Although the proposed project could result in future development consistent with the proposed land use designations for Mather Field that will result in intensification of uses and will increase economic activity in the County over the existing condition, similar uses and densities would be allowed in some form in the project area under existing entitlements and the project will not result in amenities or other attractors over that which could be developed under existing conditions. Additionally, roadway and sewer improvements related to the proposed project are consistent with infrastructure plans already in place for the project area. Furthermore, infrastructure improvements will not extend beyond the project area in a manner that would allow development in the surrounding areas. The proposed project will not result in significant growth inducing impacts, either directly or indirectly.

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18 GLOSSARY OF ACRONYMS / ABBREVIATIONS

AADT	annual average daily trips
ADT	average daily trips
AQMD	Air Quality Management District
ANSI	American National Standards Institute
APCD	Air Pollution Control District
AQAP	Air Quality Attainment Plan
BACT	Best Available Control Technology
BMP	Best Management Practices
CAA	Clean Air Act (Federal)
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CAC	Citizens Advisory Committee
Cal/EPA	California Environmental Protection Agency
CALINE4	air pollutant concentration model for vehicle traffic
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CESA	California Endangered Species Act

CEV	Controlled Environment Vault
CFD	Community Facility Disstrict
cfm	cubic feet per minute
cfs	cubic feet per second
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
COE	Corps of Engineers
CRHP	California Register of Historic Places
CSD-1	County Sanitation District No. 1
CSWMP	Comprehensive Storm Water Management Program
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted sound levels
dbh	diameter at breast height
DHA	Department of Human Assistance
DHS	California Department of Health Services
DOPAA	Description of Proposed Action and Alternatives
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EGCSD	Elk Grove Community Services District
EGUSD	Elk Grove Unified School District

EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMF	Electric and Magnetic Fields
EPA	Environmental Protection Agency
ERM	Emission Reduction Measures
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FWS	U.S. Fish and Wildlife Service
H_2S	hydrogen sulfide
HAZMAT	Hazardous Materials Emergency Response
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HHS	Department of Health and Human Services
HMD	Hazardous Materials Division
HOV	High Occupancy Vehicle
HPMM	Historic Preservation Maintenance Manual
HRA	Health Risk Assessment
HUD	U.S. Department of Housing and Urban Development
IFI	Important Farmland Inventory
IGSM	Integrated Groundwater and Surface Water Model
IWTP	Industrial Wastewater Treatment Plant

kg	kilogram
kV	kilovolt
L_{dn}	day-night noise level
L_{eq}	equivalent sound level
LLRW	low-level radioactive waste
L_{max}	A-weighted maximum sound level
LOS	level of service
LPFFP	Laguna Public Facilties Financing Plan
MAPA	Mather Airport Policy Area
MCL	maximum contaminant level
MGD	million gallons per day
mph	miles per hour
MSA	Metropolitan Statistical Area
N_2O	nitrous oxide
N_2O_3	nitrous anhydride
N_2CO_4	nitrogen tetroxide
N_2CO_5	nitric anhydride
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NDDB	Natural Diversity Database
NEPA	National Environmental Policy Act of 1969
NO	nitrogen oxide
$N0_2$	nitrogen dioxide
$N0_3$	nitrogen trioxide

NO_x	nitrogen oxides
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Completion
NOI	Notice of Intent
NOISEMAP	Noise Exposure Model
NOP	Notice of Preparation
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NWS	National Weather Service
O_3	ozone
OAP	ozone attainment plan
ODC	ozone depleting chemical
OL	operating location
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyls
PFFP	Public Facilities Financing Plan
PG&E	Pacific Gas & Electric Company
PM_{10}	particulate matter equal to or less than 10 microns in diameter
ppb	parts per billion
ppm	parts per million
ppmv	parts per million by volume

PPP	Pollution Prevention Program
PRL	potential release location
PSD	Prevention of Significant Deterioration
PST	Pacific Standard Time
PVC	polyvinyl chloride
ROAP	Regional Ozone Attainment Plan
ROG	reactive organic gases
RT	Regional Transit
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SAFCA	Sacramento Area Flood Control Agency
SARA	Superfund Amendments and Reauthorization Act
SCRSD	Sacramento County Regional Sanitation District
SCS	U.S. Soil Conservation Service/or site characterization summary
SCWA	Sacramento County Water Agency
SCWMD	Sacramento County Water Maintenance
SEL	sound exposure level
SHPO	State Historic Preservation Officer
SHRA	Sacramento Housing and Redevelopment Agency
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utilities District
$S0_2$	sulfur dioxide
SO_X	oxides of sulfur
SPA	Special Planning Area

SPCCP	Spill Prevention Control and Countermeasures Plan
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSES	Sacramento Sewerage Expansion Study
SSSS	Special Status Species Survey
SVAB	Sacramento Valley Air Basin
SWRCB	State Water Resources Control Board
TAP	toxic air pollutant
TCE	trichloroethylene
TCM	Transportation Control Measure
TMA	Transportation Management Association
TMDL	Total Maximum Daily Load
TOD	Technical Operations Division
TOG	total organic gases
tpd	tons per day
TPH	total petroleum hydrocarbons
tpy	tons per year
UBC	Uniform Building Code
UGA	Urban Growth Area
UPA	Urban Policy Area
URBEMIS	air pollutant emission model for vehicle traffic
USACE	U.S. Army Corps of Engineers
USB	Urban Service Boundary
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

USGS	U.S. Geological Survey
V/C	volume-to-capacity
VELB	Valley Elderberry Longhorn Beetle
VMT	vehicle miles traveled
VOC	volatile organic compound
WRD	Sacramento County Water Resources Division
WMRD	Sacramento County Waste Management and Recycling Division
WQCP	Water Quality Control Plan
WWTP	wastewater treatment plant

19 RESPONSE TO COMMENTS

The written comment period for the DEIR closed on June 12, 2015 at 5 p.m. A total of 18 individual letters were received during the written comment period. All 18 letters are included at the end of this Response to Comments chapter. Each letter has been given a numeric designation (e.g. Letter 1), which can be found on the upper right-hand corner of the letter.

Opportunity for oral comment on the DEIR was offered at a Sacramento County Planning Commission workshop on June 8, 2015 and during the Sacramento County Planning Commission hearing on June 22, 2015. Many of those who provided comments at the workshop and hearing also submitted their comments in writing. Written comments related to the workshop and hearing were also given a number and are included at the end of this chapter.

Each Draft EIR reviewer that submitted written comments is listed below, along with the text of the submitted comments and a response to each comment. Oral comments received during the workshop and public that are not already reflected in writing are also included below. Oral comments begin after the written comments.

Individual comments addressing separate subjects within each letter are labeled in this chapter based on the letter's numeric designation and comment number (e.g. 1-1). The text of the comments has been provided, followed by a response. Note that the preface language of the letters is often excluded (where the text consists of salutations and brief descriptions of the commenting organization). Oral comments have been paraphrased with a response following each comment.

In some cases the response to the comment is "comment noted". Pursuant to Section 15088 of the CEQA Guidelines, no written responses are provided for those letters or comments that did not address the adequacy of the DEIR. While no response to the comment is provided, the comment letters are forwarded to the Board of Supervisors for consideration via this EIR.

Written Comments on the EIR

LETTER 1

Trevor Cleak, Environmental Scientist; Central Valley Regional Water Quality Control Board; written correspondence; dated May 13, 2015.

Comment 1-1

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

Response 1-1

Project related activities will be required to incorporate stormwater quality measures in conformance with applicable County ordinances and standards, and state and federal law. Compliance with the County's current MS4 NPDES permit and the General Industrial Permit as well as implementation of a SWPPP and BMPs described in the Hydrology and Water Quality chapter of the EIR will reduce any potential impacts to water quality to less than significant levels.

Comment 1-2

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

Response 1-2

Comment noted. See Response 1-1.

Comment 1-3

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

Response 1-3

Comment noted. See Response 1-1.

Comment 1-4

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

Response 1-4

It is anticipated that some projects within the project area will require a Section 404 and Section 401 permit from the USACOE and the State Regional Water Quality Control Board as discussed in the Biological Resources chapter of the EIR. All appropriate permits will be required to be obtained prior to impacting waters or wetlands.

Comment 1-5

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Response 1-5

Comment noted. See Response 1-4.

Comment 1-6

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

Response 1-6

Comment noted. See Response 1-1.

Comment 1-7

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program.
There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Response 1-7

The project does not include irrigated agriculture.

Comment 1-8

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

Response 1-8

Comment noted. See response 1-1.

LETTER 2

Lynn Richardson; Mather resident; written correspondence; July 6, 2015

Comment 2-1

I haven't been able to attend the Sacramento County Planning Commission meetings but wanted my voice to be heard. There are a lot of us out here in Mather and surrounding areas such as Kavala Ranch, SunRidge Park, Anatolia, Stone Creek, etc. that have been anxiously waiting for the Development to begin for a very long time. For us, it's been 12 years. We await the development of a grocery store, a gas station and a traffic bypass to name of few. We continue to give our money to the City of Folsom because we do not want to drive into Rancho Cordova and would much rather have our money go to the coffers of Sacramento County. Please do not let a handful of folks deter the outlined development. We are very thankful that the county has set land aside to handle the various vernal pools.

Thank you so very much in advance.

Let the development begin.

Response 2-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 3

Sean Wirth, Conservation Chair; Mother Lode Chapter of the Sierra Club; written correspondence; dated May 28, 2015

Comment 3-1

I have been reviewing the recently released Mather Field PEIR, as well as of the transfer documents from the Air Force to Sacramento County, and I had a few questions that I am hoping that you can help with.

I understand that the "take" of vernal pools analyzed in the PEIR will be mitigated with the creation of a vernal pool preserve at Mather. I was unable to determine, though, how payment for that mitigation works. A private developer will be building residential units at Mather on county land, and the development will be at least partially mitigated using vernal pools that are also on county land - with both the land to be developed as well as the mitigation land being part of the Federal transfer of lands to the county.

My questions are as follows:

1.) Will the county be receiving remuneration from the private developer for the use of county lands for development ,as well as the use of those vernal pools for mitigation, and if so, what is the amount?

2.) If remuneration is received, how will those funds be allocated?

3.) Will the private developer be required to provide an endowment to pay for operation and management of the preserve in perpetuity?

4.) If the vernal pools are to be used to mitigate for the "take" associated with the development portion, how does that square with the requirement of the transfer that some of those lands are to be used for conservation? How was the calculation made as to how much and which lands should be conserved?

Response 3-1

Comment noted. This is not a comment on the adequacy of the EIR. This has been forwarded to the County's Economic Development and Marketing Division and the Board of Supervisors for their consideration.

LETTER 4

Lisa Infusino, Mather Resident; written correspondence; dated June 10, 2015

Comment 4-1

On the June 8th planning commission meeting, the agenda indicated that the Mather Plan would be discussed via a workshop. The agenda line item indicated expansion of road, planning and zoning amendment.

I was not able to attend the meeting as I was out of town. We had approximately 75 members of the Independence at Mather community attend the meeting in person to show our concern regarding the proposed development. We also signed a petition that includes about 300 local residents. Our represensatives were told that the South Mather Plan was not being discussed only the zoning etc was being discussed and tried to brush them off.

I attempted to view the meeting online for myself to determine what really occurred. The video that is attached is not for the planning commission agenad. I urge you to locate the video and watch for yourself. Hopefully it isn't an edited version. I reviewed the agenda minutes and in the area for public comments - none are recorded. This is not true as we had several speakers

attend and be the voice of our community. The supporting documents for the agenda line item is the Mather South plan...so how is the planning staff telling residents that isn't what is being discussed and the concerns/comments not being included in the formal minutes to be on record.

I want you to understand the full nature of the community's position **against** the development which is not being represented to you by the planning commission nor the economic development staff personnel.

I understand that community development is vital to the County..however there needs to be a balance between development and the environment.

Response 4-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-2

The plan will destroy two vernal pools that are relevant and significant to the area. The economic development department will tell you that they are not significant which is not true. I will leave the vernal pool and environment concerns to my neighbors who are well versed in the biological and environmental concerns.

Response 4-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-3

> There are so many empty retail/commercial spaces and housing for lease/rent/sale within a few mile radius of the proposed project that a project of this size is not needed at this time. Why destroy the wetlands?

Response 4-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-4

> One of the planning commissioners asked why people are speaking up now. It was explained that the project and plan has been modifed and we are only now learning of the sheer magnitude and the destruction to the surrounding community.

Response 4-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-5

> When the plan was presented to our HOA, I specifically asked about water resources. There will be a significant amount of water that will need to be used for the construction and thereafter to serve the new development. Where is that water going to come from? When our state is in a drought and we are mandated to cut our water use by 30%, there is no way any survey can tell us that there is water to support this development. If a water study was done it wasn't this year nor maybe even last year.

Response 4-5

Project related impacts associated with water supply are addressed in the Public Utilities and Services chapter of the EIR beginning on page 11-1. The Sacramento County Water Agency (SCWA) is the water service provider for the project area. Development at Mather Field, consistent with the proposed project, has been anticipated and is already included in SCWA's Urban Water Management Plan and Zone 40 Water Supply Master Plan (Master Plan).

The Master Plan analysis of water supply for growth areas is based on more than 80 years of hydrologic data. This 80 year record includes data from past droughts and is the most dependable predictor of what available water supplies will look like in the

future. Looking ahead, drought conditions are factored into the long term analysis of the ability to provide water to the service area as it builds out.

The 30% reduction in water use noted in the comment pertains to statewide conservation standards required by the State that applies to all urban water suppliers. According to the State Water Resources Control Board *Emergency Regulations Fact Sheet* (http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/emergency_reg_fact_sheet_20150428.pdf), the required reductions are based on the amount of water used within a service area, not on the amount of water a service provider has available. The SCWA was assigned the final conservation requirement of 32%. According to SCWA's website the reduction percentage for the month of June was 41.1% and in exceedance of State requirements.

As stated on page 11-26 of the EIR, adequate water supplies area available to support future development of Mather Field consistent with the land use designation included in the proposed project.

Comment 4-6

> The last part I will speak to is the increase in traffic and safety concerns. While the sewer line is being installed, Excelsior Road will be the only entrance/exit into the community. Excelsior is a two lane very narrow street where parking is only on one side. With the increase of traffic on Excelsior and the volume of cars, should an emergency vehicle (ambulance/fire truck) need to get through, there is simply no room for vehicles on both sides to move out of the way to allow it to pass.

Response 4-6

Project proponents responsible for roadway infrastructure improvements are required to coordinate with emergency service providers to ensure that there are no impediments to the provision of emergency services during and after project related construction activities. Although the provision of access is expected to be adequate during construction related activities associated with the Zinfandel Drive/ trunk sewer extension, text has been added to the Public Services and Utilities chapter recommending Mitigation Measure PS-2 which requires coordination with emergency service providers. Mitigation Measure PS-2 is as follows:

The project applicant shall notify local emergency response agencies of the proposed construction routes and timing of construction prior to the initiation of construction activities related to the proposed Zinfandel Drive/ trunk sewer improvements. Additionally, prior to project related construction activities, a plan detailing how adequate access will be provided during construction shall be provided by the project proponent to law enforcement, fire protection and other emergency service providers for review and approval before beginning construction.

Comment 4-7

I urge you to really consider all impacts of the plan, not just the economic side.

Please come and visit the area, (the vernal pools are dry now) if you haven't already done so. The peace and tranquility is just wonderful to escape to after a long work day. I am privileged to live in Mather. I hope that you vote against the destruction of the peace and quiet that I call home.

Response 4-7

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 5

Jesse J. Yang; Taylor and Wiley; written correspondence; dated June 11, 2015

Comment 5-1

Chapter 2. Project Description

Pages 2-9, 2-11, 2-14, Plates PD-4, PD-6, and PD-8. The Sacramento County General Plan Transportation Plan shows a planned four-lane arterial on the Mather Field site that will connect Douglas Boulevard and Excelsior Road. This planned roadway is not shown on any of the proposed land use maps for the Project, including the proposed General Plan (Plate PD-4), Specific Plan (Plate PD-6), or SPA (Plate PD-8) amendment exhibits. The Specific Plan and SPA need to be consistent with the General Plan Transportation Plan.

Response 5-1

The commenter is correct that the General Plan Transportation Plan includes a planned four-lane arterial roadway on the Mather Field site that will connect Douglas Road and Excelsior Road. This future roadway is informally referred to as the Douglas Bypass or Douglas Extension, and its alignment is designed to route traffic around the Independence at Mather residential area. Construction of the Douglas Extension is not a part of the proposed project. However, the proposed project does not preclude the future construction of the Douglas Extension.

Comment 5-2

Chapter 12. Traffic and Circulation

No Analysis of Proposed Connection of Douglas Boulevard and Excelsior Road. The DEIR does not analyze the planned four-lane arterial on the project site that will connect Douglas Boulevard and Excelsior Road. The traffic analysis for the DEIR should include this segment, which is depicted on the General Plan Transportation Plan.

Response 5-2

The previous FEIRs for the Mather Field Specific Plan (County Control Numbers 93-0666 and 95-0669) included a traffic analysis of the proposed specific plan. That analysis included the planned four-lane arterial roadway known as the Douglas Extension, although in a different alignment than what is currently shown on the General Plan Transportation Plan. Text has been added to the Traffic and Circulation chapter to clarify.

LETTER 6

Rob Ferrera, Environmental Specialist; Environmental Management and Legislative Affairs; Sacramento Municipal Utility District; written correspondence; dated June 12, 2015.

Comment 6-1

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the EIR, Mather Field General Plan Amendment, Specific Plan Amendment, Zoning Ordinance Amendment. SMUD is the primary energy provider for Sacramento County and the proposed project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is SMUD's expectation that potential biological and wetland impacts related to relocated and/or new utility poles needed to support the Mather Field General Plan Amendment, Specific Plan Amendment, Zoning Ordinance Amendment are addressed in the EIR and permits required for the proposed project. Also, it is our desire that the EIR, will acknowledge any project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/do-business-with-smud/documents/Guide-for-Transimssion-Encroachment.pdf. Some of these requirements include the following
  - https://www.smud.org/en/business/customer-service/support-and-services/documents/Underground-Structure-T007.pdf
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed project. Please ensure that the information included in this response is conveyed to the project planners and the appropriate project proponents.

Response 6-1

A conservative approach was used in assessing and analyzing impacts associated with the proposed project and the EIR details impacts based on a worst case scenario. As stated on page 11-25 of the EIR, the analyses assume that all areas within the developable portion of the project area will be subject to project related improvements including those related to the provision of public utilities and other infrastructure improvements.

LETTER 7

Ken Pawlowski, President; Independence at Mather Homeowners Association; written correspondence; dated June 12, 2015.

Comment 7-1

I would like to make some comments on the Mather Field Project Draft Environmental Impact report. I know others are submitting comments and concerns regarding technical aspects of the report and I do agree with most, if not all, of those. However, my biggest concern is that there are some larger/global concerns about this project. I am very concerned how the EIRs are being divided out. First there is a DEIR for the Mather Field Project as a whole, and then there will be a DEIR specifically for the Mather South Project, which will fall under the entire Mather Field Project. My concern is that when these projects start getting parceled out the environmental impact from the "sub-project" will not be recognized as to the impact on the project (or surrounding environment) as a whole.

Response 7-1

It is not uncommon for general land use designation proposals for large Specific and Special Planning Areas to be addressed through a programmatic level EIR. Except for the analysis of the Zinfandel Drive and trunk sewer extension, the Mather Field EIR is programmatic in nature due to the broad nature of the proposed land use designation amendments. Programmatic EIRs are not designed or intended to provide project level clearance for any specific development proposal. Programmatic EIRs are often used to set the stage for future projects that require their own environmental analysis that is tiered off or consistent with the programmatic level EIR. It is anticipated that many additional environmental analyses will be required for future projects at Mather Field that address project specific issues and to ensure that project specific issues and impacts are fully addressed. Text has been added to the Project Description chapter of the EIR to clarify.

Comment 7-2

We only have one chance to get this right. We have an incredible resource in the Mather vernal pools and wetlands. This is our chance to not only preserve them, but also showcase them in a master community that highlights and celebrates them for generations to come. Once any are destroyed we will not get a second chance, nor be able to rectify unforeseen or unintended consequences to the surrounding wetlands.

As the Chairman stated – this is a *Draft* EIR. I know there is some apparent concern that there has not been enough community involvement prior to this. Well, I can say it is very difficult for the average citizen to understand the process and when/where/how to get involved. Previously referenced CPAC meetings were over 2 years ago (only 2 of them). We have not had a "hard" document to fully comprehend the project until now. That said, now we do have the community engaged and involved, so let's use that energy and turn this project into what it can be – something spectacular. I understand that there will be development, but let's not charge forward with something that we will all be sorry about in the future. Let's step back and use this DEIR for what it is – a first draft, and put all the talent and dedication that we have – at the County and within our community to do this project correctly – not hastily.

Response7-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 8

The Mather Neighborhood Alliance; written correspondence; June 12, 2015.

Comment 8-1

Draft EIR Comments

The Alliance submits this letter as a comprehensive set of our collective concerns about the DEIR related to the proposed boundary and land use designation changes of the Mather Field General Plan, Mather Field Specific Plan, and General Plan Transportation Diagram as well as a project proposal to extend Zinfandel drive and a trunk sewer line into the southern portion of the project area. The Alliance offers the following comments and suggestions in an effort to move forward on a path that avoids costly litigation and negative publicity. We request that County Planning and Environmental Review and Transportation staff continue their engagement with Mather residents to create revised development plans which better reflect the community character of Mather Field (south of the airport) and more effectively optimize the existing environmental, educational, and aesthetic assets therein.

Recognizing that this DEIR covers all of Mather Field, the Alliance restricted its comments primarily to the following proposed land use changes and developments:

- Realignment of Zinfandel Road
- Establishment of a sewer trunk along Zinfandel Road
- Establishment of the Urban Development Area boundary in the eastern portion of Mather
- Establishment of a Public Quasi Public boundary in the eastern portion of Mather
- Establishment of a Commercial Recreation District in the eastern portion of Mather

In addition to comments on DEIR impact identification deficiencies, the Alliance would like the County to address the following text from page 7-78 of the DEIR regarding compensation for direct impacts to and loss of vernal pool acreag

> "To meet the partial preservation requirements of direct fill resulting from the proposed project, **an easement (acceptable to USACE and USFWS) shall be recorded over the Mather Preserve and proposed Riparian Corridor.** Onsite preservation of habitat capable of supporting vernal pool species within the Preserve and Riparian Corridor shall total **no less than 68.88 acres**."

To the Alliance, this appears to be double-dipping the value of the planned Mather Vernal Pool Preserve to give the developer (the Lewis Group, AKA Mather South, LLC) a free pass on vernal pool mitigation. For example, if any developer in Sacramento County proposed to fill 36 acres of vernal pools, that developer would be required to preserve 72 acres of vernal pools and create 36 acres of vernal pools for mitigation (i.e., compensation). At a cost of more than $150,000 per acre (perhaps as much as $200,000 per acre, which is a rough price estimate from vernal pool mitigation banks) this would cost a developer more than $16 million. From our perspective, using vernal pools in the Mather Preserve (which are already required to be protected by agreement with the U.S. Department of Defense) as a mitigation resource is an unethical and fiscally irresponsible use of a public asset. Such an action suggests that the County Department of Community Development is showing exceptional and unwarranted favoritism to the developer.

Response 8-1

As stated on page 7-48 of the EIR, standard programmatic consultation mitigation measures are recommended for the Mather Field project in order to ensure that impacts to suitable vernal pool habitat are reduced to less than significant levels. Based on the recommended mitigation, development consistent with the proposed project would require the preservation of 79.96 acres of suitable habitat and the creation of 36.48 acres. Mitigation Measure BR-6 starting on page 7-77 details the recommended preservation and creation requirements.

The language noted in the comment indicates that an easement shall be recorded over 68.88 acres of suitable habitat because that is all of the available habitat remaining on site. What is not included in the comment is that additional mitigation is included in the EIR that recommends that project proponents purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank; record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or apply acres of restored/created/rehabilitated habitat for federally listed vernal pool species resulting in functional increase in habitat of vernal pool species within the preserve for an additional

11.08 acres. Mitigation in the EIR recommends that easements be provided for 79.96 acres of suitable habitat.

As stated in the mitigation applicable to the proposed project, compensation for the loss of suitable habitat for vernal pool species is subject to the approval of the federal regulatory agencies.

Comment 8-2

Land Use

The DEIR's insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

The DEIR project description (pg. 2-1) explains the purpose of the proposed Zinfandel/sewer trunk extension is "to provide improved access and sewer service to the central portion of the project site." The DEIR goes on to explain "the intent of the project is to provide for new development and economic opportunities within the County and to provide services for County residents and visitors." Currently no residents or visitors require service at the terminus of this proposed extension (approximately 2,100 feet south of Woodring Drive). It is clear that this proposed extension is intended to provide infrastructural improvements for residential and commercial development in the Mather South Project area, the impacts of which were specifically excluded from consideration in this DEIR.

It appears then that County staff is deliberately attempting to circumvent CEQA guidelines requiring a full accounting of all potential environmental impacts within the project area and avoid the scrutiny of a comprehensive EIR and the requisite studies that would entail. The County would not go to the trouble and expense of constructing a 4-lane road and trunk sewer line out into an empty field unless it already had approved projects to connect it to. Since those projects have not yet been approved and full scope of impacts they might impose has not been determined, we contend that the conclusions drawn in this DEIR are not valid and have not been adequately assessed.

Recommendations

The Zinfandel Drive / trunk sewer line extension is obviously intended to serve the Mather South Project. Thus this DEIR should *either* consider all of the ramifications that project will have on the Mather region as a whole, *or* the proposed construction on Zinfandel should be postponed and reconsidered as part of the Mather South Project EIR.

Response 8-2

As shown on page 2-2 of the EIR, Mather Field is entirely located within the Urban Services Boundary (USB) and Urban Policy Area (UPA). As stated on page 11-1 of the Public Utilities and Services chapter of the EIR, according to the Sacramento County General Plan, the USB indicates the boundary of the urban area in the unincorporated county. The UPA defines the area within the USB expected to receive urban levels of public infrastructure and services within the planning period. The General Plan states that the area within the UPA must be able to accommodate growth projected for the 25 year planning period. The USB allows for the permanent preservation of agriculture and rangelands, critical habitat and natural resources, while the UPA concentrates and directs growth within previously urbanized areas, limiting arbitrary and sprawling development patterns. The proposed infrastructure improvements are consistent with the General Plan's requirement of providing infrastructure to accommodate growth within the planning period.

Additionally, although the eastern portion of Mather Field is currently vacant, the Mather Field Specific Plan and Special Planning Area (SPA), as detailed in the Land Use Chapter of the EIR, currently designate the area noted in the comment for recreation and commercial recreation uses. The existing recreation land use designation provides areas for active public recreation including community parks and County parks. The Mather Regional Park Land Use Plan shown on page 37 of the existing Mather Field Specific Plan document shows the area approximately 1,200 feet south of Woodring Road as an area with a commercial park complex and just east of that, a velodrome. One of the many objectives of the existing Mather Field Specific Plan that speaks to the redevelopment of Mather Field is to create a new commercial recreational attraction, such as a theme park or a major institutional use at the southeast corner of the site.

According to the Mather Field SPA, the Commercial Recreation District located at the southeastern portion of Mather Field allows for uses in the Recreation (O) Zone as listed in the Zoning Code as well as indoor and outdoor recreational facilities, active sports complex buildings, campgrounds, County office buildings, and County Regional Parks corporation yard. Any of these uses would be required to utilize public sewer facilities and connect to the public sewer system. Sewer infrastructure will be required with or without Mather South to serve anticipated development consistent with the Mather Specific Plan and Mather SPA. Additionally, these uses would require adequate access and the extension of roadway facilities to serve them.

Lastly, the Sacramento Area Sewer District (SASD) 2010 System Capacity Plan (Capacity Plan) includes an expansion plan for sewer facilities along Zinfandel Drive and identifies the proposed sewer extension as a needed facility to be developed by 2020. Figure A.8-3 of the 2010 Capacity Plan shows that needed facilities along Zinfandel Drive include a gravity main from North Mather Boulevard in the City of Rancho Cordova to just north of Kiefer Boulevard. The project includes sewer infrastructure improvements consistent within the identified improvements of the SASD Capacity Plan. Also, the General Plan Transportation Diagram identifies Zinfandel Drave as an arterial to be developed by the year 2030.

Text has been added to the Project Description and Public Utilities and Services chapters of the EIR to clarify.

Comment 8-3

The DEIR's insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

We disagree with the County's attempt to adopt a programmatic approach (pg. 2-16, DEIR) to the environmental analysis for land use designations. We view this as an intentional effort to dissect environmental impacts associated with development on the South Mather Project from those related to the broader land use designation entitlements requested for the Mather Field and to disguise the true extent of environmental impacts to the Mather Field region *as a whole*. The DEIR states multiple times that **". . . the future amount of construction activity that could occur consistent with the project proposal is unknown…"** yet it assumes that mitigation measures will somehow compensate for losses such that impacts are "less than significant."

We believe this approach reflects a willful effort to skirt CEQA regulations and guidelines by subdividing environmental impacts into narrowly defined land use areas with (as yet) unspecified development plans that may have broader consequences to the full Mather ecosystem. Regardless of the legality of this tactic, we regard it as an *unethical* attempt to circumvent the spirit of CEQA regulations and a violation of the public trust. Consequently, we conclude that the environmental impact findings of "less than significant" and "less than significant with mitigation" presented in the DEIR for the Mather Field Project are NOT valid on the basis that they do not adequately or accurately assess the full extent of potential environmental impacts created by the proposed changes in land use designations.

As stated in the DEIR, the first strategy listed under the County General Plan Land Use Element has the intended goal to "Direct new growth to previously urbanized areas, planned growth areas and strategically located new growth areas to promote efficient use of land, to reduce urban sprawl and its impacts, to preserve valuable environmental resources, and to protect agricultural and rangeland operations." The Mather Field DEIR fails to address this.

Response 8-3

It is acknowledged that the exact types of future development within Mather Field is currently unknown; therefore, a conservative approach was used in assessing and analyzing impacts associated with the proposed project and the EIR details impacts based on a worst case scenario. The programmatic level analyses in the EIR assume that all areas within the developable portion of the project area will be subject to project related development and mitigation, where applicable, is based on assuming all developable portions of the proposed project are fully built out.

It is not uncommon for general land use designation proposals for large Specific and Special Planning Areas to be addressed through a programmatic level EIR. Except for the analysis of the Zinfandel Drive and trunk sewer extension, the Mather Field EIR is programmatic in nature due to the broad nature of the proposed land use designation amendments. Programmatic EIRs are not designed to or intended to provide project level clearance for any specific development proposal. Programmatic EIRs are often used to set the stage for future projects that require their own environmental analysis that is tiered off or consistent with the programmatic level EIR. It is anticipated that many additional environmental analyses will be required for future projects at Mather Field that address project specific issues and to ensure that project specific issues impacts are fully addressed. Text has been added to the Project Description chapter of the EIR to clarify.

In regard to the General Plan Land Use element, the proposed Project is located completely within the Urban Services and Urban Policy Area boundaries which show the areas identified to be developed and serviced by public utilities. See Response 8-2 for more information relate to the UPA.

Comment 8-4

Urban Development Area

Designating a large undeveloped tract of land surrounded by other large undeveloped tracts of land as an Urban Development Area also sets a terrible precedent, effectively undermining the value and potential use of this area as an environmental resource. We are concerned that regardless of the outcome of future EIRs and Master Planning studies, any land designated as Urban Development Area within Sacramento County will permanently be recognized as being suitable ONLY for urban development applications. Once given this designation, these types of properties will no longer be recognized as having any environmental value to the surrounding community, thus making it considerably more difficult to argue for their preservation.

We specifically object to use of the Urban Development Area land use designation as a "holding" designation that "only identifies where future development may occur and does not allow for any development." We also oppose the proposal to amend language in the Sacramento County General Plan related to the Urban Development Area designation.

Response 8-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-5

We also object to the implied assertion that all of the land in this proposed area qualifies as "disturbed" or that the wetlands therein are not suitable for preservation. We regard this as a purposely inaccurate characterization intended to dismiss the importance of these lands to the overall health and well-being of the Mather ecosystem. The County's Urban Development Area designation is founded on incorrect assumptions and incomplete consideration specific wetland habitats within the proposed UDA boundary. The Alliance rejects County staff's characterization that all lands (and associated wetland habitats) adjacent to the Folsom South Canal are "highly disturbed" and their contention that the best use is for Urban Development Area (UDA), Commercial Recreation District (REC), and Public Quasi Public (PQP).

Response 8-5

Although portions of the site have been disturbed by past activities associated with Air Force operations and the construction of the Folsom South Canal, as detailed in the Biological Resources chapter of the EIR, all seasonal wetlands are considered to provide suitable habitat for vernal pool species and are treated as such. Taking a conservative approach, all wetlands, regardless of how disturbed, within the developable portions of the proposed land uses were included in impact calculations and mitigation requirements.

Comment 8-6

The County's DEIR fails to acknowledge that the vernal pool habitats and related wetlands at Mather Field are sustained by groundwater flow. In other words, these are not simple pools filled by rainfall or surface runoff that subsequently evaporate during the summer. Water flowing through these pools comes from groundwater trapped on top of a layer of impermeable soil just a few feet below the surface (known as a hardpan). This is a condition known as a "perched" aquifer. Groundwater within the perched aquifer is not just sitting still though. It flows laterally beneath the land surface and may "daylight" in areas where land surfaces (e.g. depressions and swales) lie below the elevation of the groundwater surface. Many vernal pools are connected to one another by this shallow groundwater flow and are sustained for weeks after the end of the rainy season by groundwater flow from surrounding upland areas.

Response 8-6

Federal regulatory agencies recognize the potential for indirect impacts associated with construction and development that may occur adjacent to vernal pool habitat. As stated in the Biological Resources chapter of the EIR, mitigation requirements for direct and indirect impacts to suitable vernal pool habitat were calculated using standard federal programmatic consultation guidelines and mitigation measures. The programmatic consultation indicates that all habitat within 250 feet of proposed development may be subject to indirect impacts. Indirect impacts can include but are not limited to polluted runoff and other urban contaminants, dust and siltation, the introduction of non-native species, and hydrologic changes. The federal guidelines are applicable to all suitable habitat whether it is supplied with water through direct precipitation, overland drainage, or subsurface flows. Text has been added to the Biological Resources chapter to clarify.

Comment 8-7

While it is true that some of this area was covered by excavation waste from the Folsom South Canal, there is a substantial portion that was not disturbed. Careful examination of aerial photography (available from the United States Geological Survey (USGS) and other sources) clearly shows the boundary between disturbed and undisturbed lands as evidenced by morphologic and biologic indicators. There is clear evidence of undisturbed grasslands, wetlands, and vernal pool habitats visible in these images, within the proposed UDA, REC, and PQP boundaries proposed in the DEIR. Wetlands in these undisturbed areas continue to maintain a high degree biologic function. One vernal pool in this area is known for having the greatest diversity of threatened and endangered invertebrate species anywhere in Mather (known as the Splash Critter Pool). Furthermore, wetlands in the disturbed and marginally disturbed areas in some locations have managed to partially recover and maintain a remarkable amount of functionality despite the damage done.

More importantly, the spread of excavation waste from the Folsom South Canal did not disturb the perched aquifer beneath this disturbed land. Lateral movement of this perched groundwater beneath this site *continues to sustain the health of vernal pools in both disturbed and undisturbed areas*. We, therefore, reject claims (often stated as fact) by County staff that the entirety of this land has been irreparably disturbed and thus not suitable for preservation. Perched aquifers beneath disturbed areas may also be contributing (or even sustaining) groundwater flow to vernal pool habitats within the boundaries of proposed conservation lands. Any development immediately adjacent to a vernal pool preserve will have significant and unpredictable impacts.

Response 8-7

See response 8-5 and response 8-6. Additionally, the EIR identifies impacts associated with suitable vernal pool habitat as significant and recommends mitigation measures in accordance with federal guidelines to reduce impacts.

Comment 8-8

Recommendations

The County must:

- Adopt a more flexible land use designation that does not stigmatize future land use exclusively for urban usage.
- Give greater consideration to the existing biologic and environmental diversity in these areas and their potential educational and environmental value.
- Complete a thorough study of groundwater flow within these areas and fully assess potential disruption that future development might create.

Once the County completes the actions outlined above, land use designations and boundaries can then be redrawn to be more compatible with existing resources and land uses.

Response 8-8

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-9

Air Quality

Insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

A traffic study has not been completed to determine what the air quality impacts caused by increased traffic flow might be. An increase of atmospheric nitrogen deposition caused by increased vehicle emissions will directly impact the vernal pools by changing their nutrient composition, making them more susceptible to invasive plant species. Without a complete assessment of future traffic flows, the County cannot adequately assess the extent of impact that associated changes in air quality might have the health of the preserve.

Recommendations

The County must complete a full accounting for traffic related impacts, for both short and long term traffic loads, on air quality along the Zinfandel alignment and propose realistic mitigation strategies for limiting impacts to vernal pool habitats nearby.

Response 8-9

See response 8-6.

Comment 8-10

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

The DEIR makes no mention of how the resulting change in land uses will impact air quality, which creates another important “unknown” factor.

Recommendations

This DEIR presents far too many "unknowns" regarding the extent and degree of future developments across the Mather project area. It also does not consider any potential impacts from traffic loads associated with other projects further to the south. The County must complete a much more detailed accounting of estimated development extents and associated traffic loads before they can confidently establish a "less than significant" impact to air quality within the project limits as they apply to land use designations and boundaries.

Response 8-10

The Air Quality chapter of the EIR includes a programmatic level analysis of air quality impacts related to the proposed land use designations as well as a project level analysis of the Zinfandel Drive/trunk sewer extension. The EIR concludes that impacts related to programmatic level construction (fugitive dust) and operational emissions will be significant and unavoidable and includes mitigation measures to reduce these impacts. The EIR also concludes that air quality impacts related to the construction of Zinfandel Drive and trunk sewer will be significant but will be reduced to a less than significant level with mitigation.

Comment 8-11

Biological Resources

Insufficient Coverage of Possible Impacts from Zinfandel and New Sewer Trunk Extension

The DEIR does address shallow subsurface hydrology adjacent to the Zinfandel / sewer trunk extension and does not indicate that any studies have been conducted to determine how much of an area might be affected by disrupting groundwater flow along the alignment. The sewer trunk requires the digging of a trench up to at least 35 feet deep. This will undoubtedly affect shallow groundwater flow in nearby areas. Because vernal pool habitats (and the threatened and endangered species therein) at Mather Field are maintained by shallow groundwater flow, it is imperative to identify the patterns and extent of this subsurface flow before disrupting it with such a deep excavation.

Approving any phase of construction associated with the proposed Zinfandel Drive and trunk sewer extension without first completing a thorough multi-year hydrology study can lead to substantially greater environmental impacts to vernal pools in the preserve areas than have been assumed in this DEIR, or which can be successfully mitigated for. This would lead to CEQA violations and open the County and Mather South, LLC to lengthy litigation proceedings.

Recommendations

The County must complete a thorough study of groundwater flow within these areas and fully assess potential disruption that future development might create. Construction plans and mitigation strategies can then be reconsidered to address potential impacts and their relative significance.

One possible alternative would be to change proposed sewer trunk path to enter property at southeast corner (near intersection of Kiefer Blvd and Sunrise Blvd), and extend sewer trunk northward, aligning with the South Canal and eastern edge of the property; thereby increasing distance between disruption to subsurface hydrology and the preserve vernal pools dependent upon subsurface waters.

Response 8-11

See response 8-6.

Comment 8-12

Insufficient Coverage of Possible Impacts from Proposed Zinfandel Alignment

We fervently believe that introduction of a 4 (possibly 6)-lane major traffic artery through the heart of Mather wildlands will irreparably damage the long term biologic viability, species diversity, ambient noise, and aesthetic value of the entire Mather ecosystem, in direct violation of CEQA guidelines. The DEIR has failed to consider any of these issues with respect to the proposed Zinfandel alignment.

Among the more critical problems:

> The County has not completed study of subsurface hydrology for the Mather Field Project. Without one, they cannot adequately assess the full range of potential impacts that road (and subsurface utility) construction might have on near-surface groundwater hydrology and associated long term health of vernal pool and wetland habitats sustained by this groundwater throughout the project area.
>
> The County has not completed a traffic study for any alignment alternative. They have not published data to project the total number of vehicle trips, ambient noise generation, vehicle velocity, potential collisions with wildlife, vehicle emissions, etc., associated with the alignment and thus cannot draw any relevant conclusion regarding potential impacts or their relative significance. The DEIR also fails to consider or address any impacts that roadway development on this alignment might impose on the aesthetic value of surrounding land or land use.

Response 8-12

In regard to the portion of the comment related to the Mather ecosystem, see response 8-14.

The proposed project includes the construction of Zinfandel Drive as a two-lane roadway south of Douglas Road. The segment of Zinfandel Drive south of Douglas Road to Keifer Boulevard is designated on the General Plan Transportation Plan as a future four-lane arterial roadway.

The impacts associated with construction of Zinfandel Drive are addressed in the applicable chapters of the DEIR. Text has been added to the Traffic and Circulation chapter in response to the comment regarding a traffic study.

Comment 8-13

Recommendations

We do not support the proposed amendment to the General Plan Transportation Diagram regarding the realignment of Zinfandel through the project and ask that the County reject this alignment in favor of one that is more complementary to land use and existing aesthetic within the project area.

One possible alternative is to realign Zinfandel to avoid some of the more sensitive pools and habitat altogether. We are providing this proposed alignment for your consideration as Figure 1: Alternative Alignment of Zinfandel.

If no viable alignment alternative can be found, we recommend (and prefer) that Zinfandel Drive not be expanded or extended through the project area. We believe that a major traffic artery of this sort is inconsistent with the existing character of the Mather community and would represent an extremely significant and unacceptable imposition on the landscape and on the adjacent habitat health and safety.

Response 8-13

This is not a comment on the adequacy of the EIR. This comment has been forwarded to the Board of Supervisors for their consideration.

It should be noted that the request to not extend Zinfandel Drive to Keifer Boulevard is inconsistent with the General Plan Transportation Plan and Mitigation Measure 4.4-1(e) adopted for the original Mather Field Specific Plan (County Control Number 93-0666). This mitigation measure states:

> "In future planning of development of Mather Field, further consideration should be given to additional connections from Mather Field to adjacent area roadways, in order to provide a more complete "grid" of roadways to meet travelers' needs, and potentially mitigate roadway level of service impacts."

Comment 8-14

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

One of the biggest issues identified in the Biological Resources section is the lack of consideration given to impacts on an ecosystem level. There is no recognition that impacts to one species or habitat can have profound secondary effects on other species, and eventually will degrade the entire ecosystem. The DEIR treats every species and habitat individually and does not consider the impacts how even minor impacts to one might affect some or all of the others. Any student of wildlife management can tell you that disruptions to top level predators can have huge impacts on prey species populations and can eventually degrade the entire ecosystem. On a species by species basis, the effects a four to six-lane major artery running through the heart of Mather - and right next a large portion of the proposed conservation areas - will have on each one might seem "less than significant," but cumulatively, the reduction in total predation at Mather could result in a total ecosystem collapse.

Response 8-14

As stated on page 7-68 and shown in Plate BR-11 on page 7-66 of the EIR, Mather Field is partially located within the Mather Core Recovery Area (Core Area). Core areas are specific areas the USFWS have identified as necessary for preservation in order

foster the recovery of certain listed species. The Mather Core Area is ranked Zone 1, meaning that it has the highest priority for recovery. The protection of species occurrences and suitable habitat within areas ranked Zone 1 is necessary to prevent the extinction or irreversible decline of the covered species.

As noted on page 7-68 of the EIR, the USFWS prepared the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Recovery Plan), which outlines goals, objectives and strategies necessary for the recovery of vernal pool species. One of the overall objectives of the Recovery Plan is to promote natural ecosystem processes and functions by protection and conserving intact vernal pools and vernal pool complexes. Habitat protection under the Recovery Plan includes the protection of topographic, geographic, and edaphic features that support hierologically interconnected systems or vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes. As stated on page ix of the Recovery Plan:

> This recovery plan presents an ecosystem-level strategy for recovery and conservation because all of the listed species and species of concern co-occur in the same natural ecosystem and are generally threatened by the same human activities.

As detailed on Page 7-68 through 7-70 of the EIR the proposed project is consistent with the provisions of the Recovery Plan and ecosystem level strategy for recovery and conservation for the Mather Area. Text has been added to the Biological resources chapter of the EIR to clarify.

Comment 8-15

The DEIR also fails to address the compatibility of land uses in adjacent areas. We content that development and land uses associated with UDA (e.g., shopping centers, high density residential), PQP (e.g., solid and liquid waste disposal, cemeteries), and REC (e.g., theme parks, sports parks) would be incompatible with protection of the adjacent vernal pool preserve lands. The areas proposed to be UDA, PQP, and a REC east of Eagles Nest (now Zinfandel Drive) sit on the up-gradient (uphill) side of seasonal drainages and vernal swales that feed westward toward the Morrison Creek drainage and across the eastern half of the proposed conservation area. As noted previously, the flow (depth, magnitude, and direction) of groundwater which sustains vernal pools across the area has not been considered and is entirely unknown at this time. It stands to reason however that in at least some areas, near-surface groundwater gradients follow a similar westward across these lands.

Response 8-15

See comment 8-6.

Comment 8-16

The long-term functionality/viability of existing vernal pools at Mather Field, including those in the proposed Natural Preserve/Resource Conservation Area-Protected (NP-RCA-P) regions may be dependent on the integrity of the groundwater (and possibly surface water) within the proposed UDA, REC, and PQP boundaries along the eastern margin of the Project. The shallow groundwater beneath these areas remains intact, despite the addition of excavation waste spread there by the Folsom South Canal project.

Response 8-16

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-17

Future use of chemicals, fertilizers, herbicides, and pesticides within any of these proposed boundaries for any of these land use designations, both during and following construction, could easily find their way into groundwater and surface drainages that flow directly into wetlands in the proposed conservation areas, effectively killing off threatened and endangered vernal pool species. The proposed land use designations will permit as yet unknown land developments that could threaten the biological integrity of adjacent vernal pool preserve lands. We therefore conclude that this DEIR cannot satisfactorily ascertain that environmental impacts to vernal pools habitats will be less than significant without gaining a more complete understanding of the subsurface hydrology and full knowledge of ALL potential construction activities which could intersect and disrupt groundwater flow.

Response 8-17

The Hydrology and Water Quality chapter of the EIR addresses both construction and operational impacts associated with the proposed project. The discussion associated with operational impacts begins on page 10-15 of the EIR. As stated in the EIR, new development and redevelopment projects are required to incorporate stormwater quality measures in conformance with applicable County ordinances and standards as well as state and federal law. Urban runoff will be treated using Best Management Practices required by the standards in place during the time of development that meet or exceed the requirements of the CVRWQCB.

Comment 8-18

The DEIR fails to address the loss of a special vernal pool habitat (known locally as the Splash Critter Pool) within the proposed UDA boundaries, which as previously noted, contains the greatest diversity of threatened and endangered species anywhere in the Mather region. This pool, which contains all of the threatened and endangered aquatic invertebrate species known at Mather, is used as an absolutely invaluable research and teaching tool for hundreds of school children each year. Establishing a UDA designation on such a rare vernal pool represents a significant biological impact that is not even remotely addressed by the DEIR.

Response 8-18

The comment incorrectly states that the EIR fails to address the loss of this vernal pool. The EIR indicates that this vernal pool will be directly affected and recommends mitigation for its loss consistent with federal guidelines.

Comment 8-19

A second rare pool is within the proposed REC boundary in the southeast portion of the project area. It is the only vernal pool in Mather known to have a thriving Western Spadefoot Toad population. The DEIR correctly identifies the Western Spadefoot Toad as a California listed species of concern (CSC) and notes that there is no published regulatory guidance for habitat mitigation for this species. However, there appears to be an (implied) assumption that any vernal pool within the project area (including the proposed conservation areas) can provide a suitable habitat for the species.

Response 8-19

According the U.S. Fish and Wildlife Service's *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Recovery Plan) western spadefoot toads require two distinct habitat components in order to meet life history requirements. They require upland habitat for feeding and constructing burrows and wetland habitat for breeding. According to the California Natural Diversity Database, western spadefoot toad populations have been observed in a number of other vernal pools located west of the proposed Zinfandel Drive and within the proposed preserve area. This information indicates that suitable habitat to support western spadefoot toad populations other than the habitat noted in the comment exists on site.

As stated in the biological resources Chapter, the western spadefoot toad occurs in shallow, seasonal wetlands and adjacent grazed and ungrazed upland; vernal pools and other temporary wetlands may be the optimal for breeding. This suitable habitat is found throughout much of Mather Field. The EIR does not state that all vernal pools support spadefoot toad populations but recommends that if individuals are encountered within developable areas they be relocated to suitable habitat within the Preserve area.

Additionally, as stated in response 8-14, the Recovery Plan provides an ecosystem-level strategy for recovery and conservation because all of the listed species and species of concern (including the western spadefoot toad) co-occur in the same natural ecosystem and are generally threatened by the same human activities. The proposed project is consistent with the provisions of the Recovery Plan. Text has been added to the Biological Resources chapter of the EIR to clarify.

Comment 8-20

Local naturalists around Mather know full well that Spadefoots can only be found in this one very limited area. No one knows why the Spadefoot population is limited to this location, but many biologists and ecologists suspect that their habitat needs are a bit more specific than just any random vernal pool. Changing the land use designation in this area to REC will allow for developments such as theme parks and sports parks and will likely result in the total extinction of spadefoots at Mather. We consider this potential impact to a Mather biological resource to be highly significant and one that cannot be addressed with the County's irresponsible and unsubstantiated mitigation plans.

Response 8-20

In response to the portion of the comment related to spadefoot toad habitat, see response 8-19.

In regard to the portion of the comment related to proposed land use changes, the vernal pool noted in the comment is currently located within the Commercial Recreation District as detailed by the existing Mather Field Special Planning Area Ordinance and shown in Plate PD-7 of the EIR. This area will continue to be designated as a Commercial Recreation District in the event that the proposed project is approved and this portion of Mather Field can be developed in a similar manner with or without the project. However, with the proposed project, mitigation to reduce impacts to spadefoot toads above and beyond all guidelines and requirements is recommended which may not occur without the project.

Comment 8-21

The DEIR proposes excavating every Spadefoot burrow they find by hand in order to relocate them to more suitable habitat. Without any regulatory guidance or academic expertise specifically identifying what habitat is (or is not) optimal for the Spadefoot, this assumption seems unreasonable. Furthermore, the proposed mitigation fails to recognize that Mather soils are composed of heavy clay with abundant rock cobbles, which are very hard during the summer and almost impossible to dig by hand. Spadefoot burrows can go down as much as three feet into the subsurface. Consequently, even if it were possible to dig down that far, it would not be possible to move an entire burrow (preserving the soil moisture in the process) without killing the animal inside. There is no scientific evidence or regulatory guideline to suggest this mitigation strategy will work.

Disturbingly, language in the DEIR on this subject seems to suggest that the species will likely be eliminated entirely from the Mather region, but states that because its habitat is preserved elsewhere in California, the local extinction of this population is acceptable. We counter that the likely local extinction of this species represents an unacceptable loss to biodiversity at Mather and the health of the ecosystem therein and **must not occur**.

Response 8-21

The mitigation measure recommended in the EIR to reduce impacts to individual spadefoot toads indicates that a qualified biologist shall conduct surveys at locations of suitable habitat prior to any construction consistent with the proposed project and relocate any individuals found to suitable habitat within the Preserve. The measure does not recommend the relocation of entire burrows.

Comment 8-22

Recommendations

Conduct a well-executed, multi-year study of shallow groundwater movement such as an Integrated Groundwater and Surface Water Model (IGSM) throughout the proposed development and conservation areas to determine potential impacts of land uses changes to vernal pools and establish more realistic setback requirements based on actual science rather than an unsupported guess. A multi-year study is necessary given the high variability of seasonal precipitation and current severe drought conditions. Results of the study can subsequently be used to change proposed boundaries of UDA, REC, and PQP areas (or eliminate them) in order to preserve hydrologic source integrity of preserve vernal pools, and to preserve and protect the highly valuable Splash Critter Pool and Spadefoot Pool. Since these pools contain very unique and genuinely rare species, the County should regard them pool as a valuable educational and environmental resource and maintain the Recreation land use designation to allow flexibility in future plans for their preservation. Alternatively, we recommend expansion of the NP-RCA-P area to encompass these valuable pools, with adequate setback requirements established to prevent any disturbance to their well-being.

Response 8-22

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-23

Hydrology and Water Quality

Insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

Significant hydrologic features within the project footprint of the proposed sewer trunk and Zinfandel realignment include Morrison Creek and subsurface hydrology that maintains the vernal pools of Mather. As noted previously, upland areas, vernal pools, and seasonal streams at Mather are all part of an integrated surface-water/perched groundwater system that extends laterally beneath the vernal pools and surrounding habitat. Some pools are sequentially linked by this groundwater flow, such that pools at the upper end of the subsurface gradient are discharging to pools lower down. What this means is that any disturbance to the shallow subsurface hydrology has potentially dire implications in regards to impacts to vernal pool habitats and water quality throughout the project area.

The scientific support for this assertion can be found in Rains et al. (2005)[1] in which a UC Davis research team studying vernal pools at Mather concluded that:

". . . small changes in local land use, such as the development of irrigated agriculture or parkland, may have considerable impacts on the vernal pools. The degree to which small changes in local land use might affect the vernal pools is poorly understood, because the fundamental hydrogeological characteristics of perched aquifers remain relatively unexplored. The management of perched aquifers should rest on a scientific foundation that provides a general understanding of the conditions necessary to maintain perched aquifers capable of supporting the physical and biological functions of dependent wetland ecosystems."

The Mather Neighborhood Alliance sees no evidence that the County has fully mapped the subsurface hydrology of Mather. If no such mapping has been done to determine the groundwater flow that sustains the vernal pools in the proposed preserve area, it cannot be stated that the impacts of the Zinfandel re-alignment project and the sewer trunk installation along Zinfandel are "less than significant" with respect to area hydrology and water quality. The project as proposed may cut off or irreparably alter the subsurface groundwater flow maintaining vernal pools in the preserve, reducing or eliminating their functionality as wetlands.

In addition, runoff and spillage from construction to realign/extend Zinfandel and establish a new sewer trunk beneath the roadway could severely impact water quality within the vernal pool preserve. Volatile organic hydrocarbons (VOCs) found in fuels and solvents can very quickly infiltrate and spread in shallow groundwater systems, especially when introduced through subsurface excavations. No amount of best management practices (BMPs) or stormwater management efforts can completely eliminate VOC (and similar) contamination from infiltrating shallow groundwater systems and eventually impacting environmentally sensitive habitats.

Recommendations

Because many pools are sequentially linked by groundwater flow, such that pools at the upper end of the subsurface gradient are discharging to pools lower down, it is essential that the groundwater hydrology throughout the Mather area be fully mapped and understood before any kind of infrastructural improvements are proposed for approval. Otherwise irreversible damage to existing vernal pool habitats may very well be inflicted by the proposed development plan.

Response 8-23

In response to the portion of the comment related to impacts to vernal pools, see response 8-6.

Additionally, the Hydrology and Water Quality chapter of the EIR addresses project related impacts associated with water quality and includes an assessment of construction and operational impacts associated with the development of the Zinfandel Drive/trunk sewer extension. Project related construction activities are required to be in conformance with the County's Municipal Stormwater NPDES permit and all requirements and regulations administered by the County Department of Water Resources and the Central Valley Regional Water Quality Control Board (CVRWQCB). Best management practices are required where new development and redevelopment projects create water quality impacts to meet the standards of reducing pollutants in urban runoff to the maximum extent practicable as set forth in Sacramento County's MS4 Permit issued by the CVRWQCB.

To address operational impacts, as detailed on page 10-21 of the EIR and in the drainage study prepared for the project, Zinfandel Drive has been designed to include stormwater treatment control measures to provide effective runoff treatment. Project designs include the installation of stormwater planters, vegetated filter strips and vegetated swales. The project stormwater quality features were reviewed by County DWR and found to meet treatment objectives.

Comment 8-24

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

Similar to significant impacts the construction of Zinfandel re-alignment and establishment of a sewer trunk, the land uses made possible by the proposed changes land use designations for the Mather Field project could cause substantial harm to area hydrology and water quality. Specifically, land uses that result from the proposed designations and boundaries of the UDA, PQP, and REC could potentially deposit a tremendous amount of VOCs to waters that will move towards the preserve through both surface and subsurface flows. These include VOCs found in fuels, solvents, herbicides, and pesticides. The infiltration and spread of these VOCs into Mather's shallow groundwater systems could cause significant degradation to water quality. While the DEIR does discuss stormwater management during construction activities, it does not address any long term contaminant management strategies or potential impacts associated with residential, business, recreational or industrial activities that will be permitted in the UDA, PQP, or REC areas.

Response 8-24

The Hydrology and Water Quality chapter of the EIR addresses both construction and operational impacts associated with the proposed project. The discussion associated with operational impacts begins on page 10-15 of the EIR. As stated in the EIR, new development and redevelopment projects are required to incorporate stormwater quality measures in conformance with applicable County ordinances and standards as well as State and federal law. Urban runoff will be treated using Best Management Practices

required by the standards in place during development that meet or exceed the requirements of the CVRWQCB.

Comment 8-25

Utility trenches, drainage channels, sanitary sewer and storm drainage lines are certain to intersect the perched groundwater table within the project area, with some potentially penetrating the hardpan layer into deeper soil strata below. These intrusions pose two obvious potential impacts to vernal pools in the surrounding areas. First, subsurface utilities and deep earthworks could disrupt groundwater flow to the point that some vernal pool areas - including those in the proposed conservation areas - could dry up much faster than normal or potentially never fill in the first place. Second, these subsurface trenches and utilities can act as "sensitive receptors" that allow contaminated surface waters to infiltrate the groundwater table and flow laterally into environmentally sensitive habitats.

Recommendations

As stated previously, a well-executed, multi-year study of shallow groundwater movement must be conducted throughout the proposed development and conservation areas to determine potential impacts of land uses changes to vernal pools and establish more realistic setback requirements based on actual science rather than an unsupported guess. While there are no ways to contain the potential impacts to water quality from the inputs associated with construction and post-construction VOC uses on-site, recognizing where and how far those impacts might extend is essential for assessing their relative significance.

Land uses designations and boundaries proposed will need to be reassessed pending the outcome of the hydrologic study. At a minimum, the UDA boundary in the eastern portion of Mather Field to should be adjusted to ensure protection of the hydrology that feeds vernal pools in NP-RCA-P areas. This may include designations of open space and additional preservation lands.

We strongly recommend the County to abandon proposed PQP and a REC designation changes for the eastern portion of Mather Field.

Response 8-25

See response 8-6.

Comment 8-26

Traffic and Circulation

Insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

There are only two roads providing routes in and out of Mather. The proposed Zinfandel realignment and construction of a sewer trunk along Zinfandel requires closure one of these two roads (Zinfandel) for an undetermined length of time. The one road that would remain open – Excelsior – is a two-lane residential street through Mather that is overcrowded during morning and evening rush hours with Mather residents and through traffic experiencing long waits and low levels of service. Based upon speeding tickets issued by the California Highway Patrol at Independence points of entry, at least 20 percent of vehicles entering Mather are not from the local residential area. The actual number of non-residential traffic during rush hours could be higher as speeding tickets are not issued with regularity on these roads. With closure of Zinfandel (Eagles Nest) all Mather residents will be forced to take Excelsior in and out of the subdivision, further loading an already-crowded thoroughfare.

Response 8-26

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-27

If during the weeks or months of proposed construction that closes Zinfandel (also known as Eagles Nest), an emergency vehicle needed access to a Mather residence during these rush hours, it would be impossible to get through that traffic quickly. There is nowhere for the traffic to go to make way for a police car, ambulance or fire truck, other than onto people's lawns. Delays in emergency services can result in grievous injury, and even death, to Mather residents. The closure of Zinfandel (via Woodring Drive) would also leave residents vulnerable in the event of an emergency evacuation order. We consider these to be very significant impacts. None of these issues have been addressed in this DEIR, nor has any mitigation been communicated to the public.

Recommendations

Delay any and all construction that would close Zinfandel until the planned Douglas Road Extension has been constructed to allow through traffic an alternative route around Independence at Mather.

The existing Zinfandel (Eagles Nest) Road alignment should remain where it is any new extension should be wrapped around the southern boundary of the golf course as illustrated in Figure 1. If the sewer trunk must be extended, we recommend that access be brought in via Kiefer Boulevard to the south. According to this DEIR, "Kiefer Boulevard has been identified as a suitable area for commercial development…." If Kiefer will contain commercial development, a sewer extension will be required. Bringing in sewer from the south via Kiefer will avoid several significant impacts identified in this comment letter.

Response 8-27

In regard to the portion of the comment related to emergency services, see Response 4-6.

In regard to the portion of the comment related to sewer service, the Sacramento Area Sewer District (SASD) 2010 System Capacity Plan (Capacity Plan) includes an expansion plan for sewer facilities along Zinfandel Drive and identifies the proposed sewer extension as a needed facility to be developed by 2020. Figure A.8-3 of the 2010 Capacity Plan shows that needed facilities along Zinfandel Drive include a gravity main from just north of Kiefer Boulevard to North Mather Boulevard in the City of Rancho Cordova . The project includes sewer infrastructure improvements consistent within the identified improvements of the SASD Capacity Plan. Also, the General Plan Transportation Diagram identifies Zinfandel Drave as an arterial to be developed by the year 2030.

Trunk sewer systems are required to connect to larger sewer interceptors. The Bradshaw Interceptor at North Mather Boulevard is the identified connection point for the trunk sewer that will serve Mather. The comment recommends that sewer be provided from the south. This is infeasible because there is no existing sewer interceptor to connect to that will continue the transmission of sewage flows to the Sacramento Regional Wastewater Treatment Plant.

Comment 8-28

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

Changes in land use designations will bring as yet unknown and unstudied changes to traffic flow throughout the project area. Numerous issues relating to air quality, water quality, and biologic resources associated with anticipated increases in traffic flow have already been described.

As previously stated, the County has not completed traffic studies for any alignment alternative or assessed potential local impacts to traffic from future development. There are no data to project the total number of vehicle trips, ambient noise generation, vehicle velocity, potential collisions with wildlife, vehicle emissions, etc., associated with the alignment and thus cannot draw any relevant conclusion regarding potential impacts or their relative significance. The DEIR fails to consider or address any impacts that roadway development on this alignment might impose on the aesthetic value of surrounding land or land use.

Recommendations

Fully complete traffic studies, including assessments of thru-traffic loads from outside Mather and local traffic loads associated with future development at Mather. Without these, the County cannot adequately address impacts from proposed land use changes, boundaries, and roadway alignments.

Response 8-28

The Traffic and Circulation chapter of the EIR includes a discussion of traffic analyses conducted for the Mather Field Specific Plan that was included in prior FEIRs. These previous analyses have been incorporated by reference consistent with CEQA Guidelines. As stated on page 12-7, the prior FEIRs concluded that traffic impacts associated with the Mather Field Specific Plan would be significant and unavoidable.

Comment 8-29

Climate Change

Insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

Roadways add more heat to a given area as solar radiation is absorbed and re-radiated out as infrared (thermal) heat. Additional blacktop lanes will increase localized temperatures.

Recommendations

Maintain Zinfandel as a two-lane road.

Response 8-29

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-30

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

Natural land surfaces cool down much more rapidly than developed land surfaces via less specific heat retention. Replacement of the area's grasslands with roadways, blacktop, and rooftops will permanently alter the local climate.

Recommendations

Decrease development footprint and provide for more open space.

Response 8-30

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-31

Aesthetics

Insufficient Coverage of Possible Impacts from Zinfandel Re-alignment and New Sewer Trunk

The County failed to consider the compatibility of a 4-lane traffic artery within the existing community and have disregarded the impacts this type of road will have aesthetic value of Mather's preserves and existing residences. This impact is significant and has not been identified as such in the DEIR.

Recommendations

Retain Zinfandel (Eagles Nest) as a two-lane road and do not extend it southward alongside the Mather Preserve.

Response 8-31

Aesthetics issues related to the proposed project are addressed in Chapter 14 of the EIR, which includes the Initial Study Checklist for the Mather Field project. In order to ascertain the potential aesthetic impacts of a project, the checklist includes a review of whether or not the project would substantially alter an existing view shed such as a scenic highway, corridor or vista; substantially degrade the existing visual character or quality of the site or its surroundings, or create a new source of substantial light, glare or shadow that would result in safety hazards or adversely affect nighttime views in an area. It should be noted that aesthetic impacts are subjective and visual effects that one individual considers intrusive may not be considered objectionable by another viewer.

Although it is acknowledged that Mather Field contains large expanses of open space that contain aesthetic value to some, Mather Field is not considered or located near a scenic highway, corridor or vista. These view sheds are specific official designations which do not occur in the project area. Additionally, the project occurs in an area previously used as an Air Force Base and contains a large residential housing subdivision and related infrastructure, a golf course, paved roadways, street lighting, above ground power lines, and outbuildings and facilities related to past and existing Air Force operations. The additional pavement and lighting associated with the extension

of Zinfandel Drive will not substantially degrade the visual character of the project site or introduce a new substantial source of light in the project area.

Comment 8-32

Insufficient Coverage of Possible Impacts from Proposed Changes to Mather Field General Plan Land Use Designations, Mather Field Specific Plan Land Use Designations, and Mather Field Specific Plan Amendment

In the Initial Study checklist, the DEIR states that "The project does not occur in the vicinity of any scenic highways, corridors, or vistas." and that "Construction will not substantially degrade the visual character or quality of the project site." Neither of these assertions is true. Much of Mather Field is a scenic corridor. Hundreds of children each year visit Mather Field to learn about vernal pool ecosystems and water conservation. Many have never seen wide vistas and open grasslands like those at Mather and would be unable to travel farther afield to be able to experience this kind of aesthetic. People from all over the state (and even from abroad) come to marvel at the wildflower blooms around Mather Field. The much loved public television host Huell Howser even visited the vernal pools of Mather and his show on the subject "California Gold" still airs each year.

Response 8-32

See Response 8-31.

Comment 8-33

The DEIR makes no mention of light pollution or noise pollution and potential impacts these might have on sensitive vernal pool habitats. Without a doubt, there are many species within the project area that are nocturnal or corpuscular, some of which are undoubtedly going to be affected adversely by light pollution from the proposed development areas. The DEIR also fails to address urban noise pollution associated with development after construction is completed. One of the most appealing aspects of living in Mather Field is the relative quiet compared to the surrounding region. This is especially true in the southeastern portion of the proposed conservation and urban development areas, well away from the airport. Aside from occasional "touch and go" training flights by the local air national guard wing, the Mather Field grasslands along Eagles Nest road are extraordinarily quiet much of the time. It is difficult to imagine that years of housing construction and the addition of many thousands of additional cars per day travelling on an expanded Zinfandel Drive will not have an impact. Many of the very best, most visited and most appreciated vernal pools at Mather Field are immediately adjacent to this proposed extension of Zinfandel. The roadway, development, and associated traffic will create a significantly negative impact on the aesthetic value of these pools and their appreciation by numerous members of the public.

Response 8-33

Currently there are no regulatory guidelines associated with light and noise pollution associated with vernal pool habitat. Additionally, the Sacramento County General Plan noise requirements do not include standards or thresholds associated with non-human receptors.

Comment 8-34

The DEIR fails to consider any impacts the project might have on these less tangible, yet no less important aspects of our community. Construction will substantially degrade the visual character or quality of the project site. The removal of natural open space, grasslands, trees, and water features for installation of roadways, blacktop parking lots, and buildings will permanently alter the aesthetic value of Mather. This impact is significant and has not been identified as such in the DEIR.

Response 8-34

See responses to comments 8-31.

Comment 8-35

Recommendations
Decrease development footprint and provide for more open space.

Response 8-35

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 8-36

Conclusions

Because the DEIR does not address the development impacts that will result from proposed land use and boundary changes to the Mather Field General Plan, Mather Field Specific Plan, and Mather Field Specific Plan Amendment, it lacks sufficient information to determine the true and cumulative impacts of the proposed action. The repeated statements in the DEIR admitting that the full extent of construction activities within the proposed development areas are "unknown" indicate that the County has not done its due diligence in fully evaluating the short- and long-term environmental impacts of this project. Thus it follows that the repeated conclusions of "less than significant" impact are invalid as well.

We urge the County to consider the full suite of impacts, including cumulative impacts, that proposed changes in land use designations and infrastructure construction will bring about to the community of Mather.

Response 8-36

This comment is a summary of prior comments in this letter. The responses to the prior comments are applicable here.

LETTER 9

Susan and Larry Edginton; Mather residents; written correspondence; dated June 12, 2015

Comment 9-1

As thirteen year residents of the Independence at Mather community we have developed a keen awareness, understanding and appreciation of the open space areas surrounding our housing development. Like many residents, we chose to purchase a home at Independence because of them.

We regularly attend meetings of our Homeowners Association and over several years we have heard presentations by Sacramento County Planning and Economic Development staff regarding future County plans for the Mather Field area. In our collective memory of the presentations, no mention was made of project specific development plans until a meeting on May 18, 2015. Prior to that meeting, County staff always represented that any future development would be consistent with the needs of our community and those of its surrounding natural environment. At this meeting, a presentation was given detailing the extent of ongoing County planning and development activities in association with Mather South LLC was given. From this presentation it was clear; the needs of our community and our surrounding environment were being given a back seat to the interest of a particular developer.

This belief was further reinforced after having reviewed the Draft Environmental Impact Report for the Mather Field General Plan Amendment, Specific Plan Amendment and Zoning Ordinance Amendment Our review of the document again causes us to believe Sacramento County has only a limited interest in protecting and promoting the interests of our community and its surrounding open space areas. As residents of Independence at Mather and Sacramento County voters we find the proposal, as it currently stands, to be unacceptable.

We have had the opportunity to review the comments prepared by the Mather Neighborhood Alliance in response to the County request for comments on this matter. We find ourselves in concurrence with their comments and ask that you consider them as ours as well.

In closing, we want to be clear that we are not anti development. We understand that it can be of benefit to both current and future Sacramento County residents. However, the impacts of the proposed development activities on our community and its surrounding open space areas are unacceptable. For the reasons enumerated in the attached comment document we respectfully request that this matter be put under further review and study. We believe that if the County is willing to work as diligently with members of our community as it has with Mather LLC, a plan can be developed that meets all legal and regulatory requirements and which our community can support.

Response 9-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

The attached document noted in the comment is the letter submitted by the Mather Neighborhood Alliance on June 12, 2015. See comments and responses noted above for Letter 8.

LETTER 10

Linda Roberson, Park Planner; Cordova Recreation and Park District; written correspondence; dated June 9, 2015

Comment 10-1

The Cordova Recreation and Park District wishes to thank you for the opportunity to comment on the Mather Field Draft Environmental Impact Report. As the representative of Cordova Recreation and Park District, I have reviewed the draft document and find it provides sufficient information related to our agency's responsibility.

The District appreciates the County's commitment to planning environmentally responsible and sustainable communities and we look forward to future engagement in this project. Please don't hesitate to contact me if you have any questions.

Response 10-1

Comment noted.

LETTER 11

Ken Nahigian; Sacramento County resident; written correspondence; dated June 12, 2015

Comment 11-1

As a Sacramento County citizens, we have serious misgivings about the proposed development and housing expansions in the Mather Field area (re: Report Control# PLNP2013-00044). The proposed expansion, including the required widening of Zinfandel Drive / Eagles Nest Road and trunk sewer extension, will invariably cause collateral damage to existing wetlands and vernal pools, either through direct intrusion, increased traffic, or polluting runoff from construction.

As you know, the rare wetland vernal pools of Mather are unique within California and are habit for numerous at-risk species. The grassland ecological community includes native grass and forb species such as the yellow mariposa lily, *Calochortus luteus*, and the Vernal Pool Buttercup, *Ranunculus bonariensis*. The vernal pools at Mather are also vital habitat to Ahart's Dwarf Rush *Juncus leiospermus*, Boggs Lake *hedgehyssop Gratiola heterosepala*, the rare *Legenere limosa*, and many native birds and ground mammals. The ecological niches range from 50,000 to 200,000 years old, and are delicately interconnected. The proposed development of 885 acres on the eastern portion of the Mather area endangers these wetlands. Current offers of mitigation do not address these concerns.

I urge the County Planning Commission to reject or critically restrict any development of the eastern areas of Mather. Thank you for hearing my concerns.

Response 11-1

The Biological Resources chapter of the EIR includes an analysis of direct and indirect impacts identified in the comment and mitigation for these impacts is recommended consistent with federal regulatory guidelines.

LETTER 12

Julie Douglas; Mather resident; written correspondence; dated June 12, 2015

Comment 12-1

I am writting this letter against the development. The reason we chose to move to Mather was because of the wild life and the feeling of being secluded from all the development. We would have moved to Folsom if we wanted all the traffic and noise and wanted to be close to a grocery store.
We were told when we moved here that no development was allowed on the preserved wild life areas because of the vernal pools. I recently learned that they want to build a sewer line along Eagles Nest. I THINK THIS IS VERY SNEAKY WAY Of MAKING SURE THE VERNAL POOLS DRY UP and now they can build over them. They know this will effect the ecological structure of the preserved area in THEIR FAVOR!!!
For once I would like to see someone stick up to the developers and do what is right for the residents and for the wild life. It always seems like $$$$ talks and overrides everything and people look the other way, but I beg you to help us save our little bit of paradise. It is so quiet out here and so peaceful. The beauty of all the birds and plants and all the wild life will be destroyed. Just last night we had a turkey and her babies roosting in our tree and quail and their babies running behind our backyard on the field.
If you could just spend one day out here, you would see what we love about Mather.
The widening of the roads and making it connect to Jackson will be devastating. Zinfandel will be like a freeway and the peacefulness will be gone. This is our home, we did not sign up for a freeway or more homes, apartments or grocery stores out here!!
Please listen to us and the wild life and help us preserve Mather. Thank You

Response 12-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 12-2

I have been reading alot about how deceitful Eric has been and that he is doing everything he can to deceive us and lie, including having the next meeting downtown that makes it very difficult for some of the residents to attend. The meeting in the past, have been in a building in the Mather business park.

Response 12-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 13

Brent and Lynn Vockrodt; Sacramento County residents; written correspondence; June 12, 2015

Comment 13-1

Water: how much water will the new construction require, plus the added households will require water to our already depleted resources.

Response 13-1

See response 4-5.

Comment 13-2

What are the pro's of this new development? The Con's?
Pro's 1. The city will acquire more almighty tax dollars.
Con's 1. more pollution 2. More water usage in a drought 3. More crime 4. less wildlife habitat 5. More county and city resources depleted such as Police, Sheriff, Fire department.

Mather area was given to Rancho Cordova by the Federal Government to protect the natural resources, but Rancho Cordova is not being a good steward of the gift.

Response 13-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 14

Andrew Brown; Sacramento County resident; written correspondence; June 12, 2015

Comment 14-1

Please reject the current proposal plans for the development of the Mather South area. Unfortunately, I have been unable to dedicate the time necessary to develop my concens for the Mather South proposal; however, the Mather Neighborhood Alliance has provided the following information which I find in keeping with my thoughts. Please read our concerns and the proposal. This is not something that you have to implement to find out what is in it, as famously proclaimed by Hilary Clinton.

Response 14-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 14-2

Land Use and Planning

Though the vernal pool preserve will help the Mather area retain some of its natural assets, to construct what resembles urban infill immediately adjacent to that preserve makes little sense. These two land uses will ultimately conflict. We understand that there are many developments proposed along the Jackson Highway, on lands that have been privately held and heavily utilized, primarily for industrial purposes. From a planning point of view, if population pressure demands expansion into rural areas at some point, it seems logical to focus on re-development of already heavily disturbed lands while preserving lightly disturbed and undisturbed lands. Project proponents have argued that the land proposed for Mather South is disturbed land because soil was deposited on the site during construction of the South Canal, but we assure the Commission this evening that not all of the land is as disturbed as they would have us believe and that in the decades since the construction of the canal, native plants and wildlife have made full use of this land and call it home.

Response 14-2

As shown on page 2-2 of the EIR, Mather Field is entirely located within the Urban Services Boundary (USB) and Urban Policy Area (UPA). According to the Sacramento County General Plan, the USB indicates the boundary of the urban area in the unincorporated county. The UPA defines the area within the USB expected to receive urban levels of public infrastructure and services within the planning period. The General Plan states that the area within the UPA must be able to accommodate growth projected for the 25 year planning period. The USB allows for the permanent preservation of agriculture and rangelands, critical habitat and natural resources, while the UPA concentrates and directs growth within previously urbanized areas, limiting arbitrary and sprawling development patterns. As described in the Land Use Chapter of the EIR, the proposed project is not in conflict with the General Plan Land Use Element growth strategies, goals, or policies.

In response to the portion of the comment related to impacts to vernal pool habitat, see response 8-5.

Comment 14-3

Urban and Suburban Sprawl

To avoid sprawl development, the County's Blueprint Project outlines how infill development within the metropolitan area is important in order to "put homes where there are existing homes and infrastructure rather than taking up our valuable agriculture, open space, and recreation areas." Mather is not within a metropolitan area. It is surrounded by natural habitat, farmland, and very recent suburban developments. There is nothing urban about Mather, and yet the proposal before you today aims to force an urban designation and design on land that is a beautiful natural landscape. It's an ecological and economic jewel of Sacramento County that will be obliterated by the developer's current plan. This plan **is** sprawl. Proponents argue that this piece of Mather is valuable because it is a large contiguous piece of land for the County to develop. We counter that it is valuable because it is a large contiguous undeveloped piece of land in Sacramento County that still provides habitat for wildlife.

"We should intensify and redevelop existing communities, not develop more greenfields." – *Sacramento County Growth Management Strategy, General Plan Update Workshop #9, 10/26/05*

Response 14-3

See response 14-2.

Additionally, in regard to the portion of the comment pertaining to the Blueprint, the Sacramento Area Council of Governments (SACOG) Board of Directors adopted the Preferred Blueprint Scenario in December of 2004, hereinafter referred to as the Blueprint. The Blueprint is a growth concept for the greater Sacramento region based on the seven principles listed below, with an ultimate planning horizon of 2050. Consistent with General Plan Policy LU-113, the Blueprint is treated as an applicable land use policy document intended to avoid environmental impacts. General Plan policies LU-23 and LU-26 are also applicable in this context, as they require inclusion of many of the growth principles (mixed use, compact community design, walkable environments, and open space) unless determined to be infeasible.

1. Provide a variety of transportation choices, including walkable paths
2. Mix land uses
3. Take advantage of compact building and community design
4. Create a range of housing opportunities and choices
5. Strengthen and direct development toward existing communities
6. Foster distinctive, attractive communities with a strong sense of place
7. Preserve open space, farmland, natural beauty, and critical environmental areas

The SACOG website for the Blueprint (http://www.sacregionblueprint.org/adopted/) states that the Blueprint "should be interpreted as a concept-level illustration of the growth principles" and that it is "not intended to be applied or implemented in a literal, parcel level manner." The Blueprint can be considered an example of how the seven principles could be applied in the Sacramento Region.

The Blueprint concept plan for the Mather Field area depicts conceptual build out in the year 2050 and includes public, residential, retail, office and open spaces. These uses are similar the uses proposed in the project. Text has been added to the Land Use chapter of the EIR to clarify.

Comment 14-4

Land Use Compatibility with Existing Land Uses

The proposed housing density of the developer's Mather South plan is three times the current density of the existing Mather community in roughly the same footprint. Mather has 1,271 residential units built on an existing pad of development left by air force housing. This plan proposes an additional 3,545 residential units on open space that currently provides habitat for Mather's thriving wildlife. This is not in keeping with the existing character of the Mather community.

Response 14-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 14-5

Vernal Pools and Education

If you have lived in the Sacramento area for any length of time, it is very likely you know, or have even raised, children who have been on field trips to view the vernal pools of Mather. Literally, thousands of children have benefited from these field trips. And for many, it is the only outdoor scientific training they receive during primary school. Vernal pools are a rare resource nationwide, and the vernal pools of Mather are especially rare because the lands have been incidentally protected from farming and

other land uses by being part of an Air Force Base. Recognizing the value of these pools, the federal government required that Sacramento County preserve a large portion of the area in perpetuity. As the local stewards of this land and its extremely rare ecosystems from which we benefit, we should hold ourselves to a similar standard when considering land development. The proposed project would destroy two of the rarest vernal pools in all of Mather. One pool in the middle of the proposed development is known for its incredible species diversity as it contains every threatened and endangered aquatic invertebrate in Mather. This is the only pool which contains all species, and it is unknown why no other pools support this complete suite of species. Rather than pave over this incredibly rare ecosystem that is used as a teaching tool for hundreds of children every year, we want to see this pool protected.

Response 14-5

As stated in the Biological Resources chapter of the EIR the project includes the designation of 1,272 acres of land as a Natural Preserve consistent with the requirements of the federal government noted in the comment. Additionally, the EIR assesses impacts to the vernal pools consistent with federal regulatory guidelines.

Comment 14-6

The Spadefoot Pool

The other rare pool is adjacent to the proposed alternative Eagles Nest (or Zinfandel) Road alignment, and will be destroyed to make way for a proposed sports park. This pool is home to the western spadefoot toad, a California species of special concern. It is the only vernal pool in Mather that the spadefoots have chosen as habitat. As of today, it is unknown why the spadefoots prefer this pool over others. Further study of this pool could eventually reveal the environmental attributes needed for spadefoot habitat, advancing preservation efforts for the species statewide. However, if these development plans are implemented, the answer to that question, if it ever comes, will not come from Mather. Rather than replace this rare vernal pool with playing fields for a sports park, we want to see this pool protected for future generations and for the long term benefit of this sensitive species.

Response 14-6

See response 8-19.

Comment 14-7

Impact of Increased Vehicle Trips on the Preserve

With over 3,500 new residences, a sports park, and a university planned for South Mather, thousands of additional vehicles will be funneled to the road bordering the vernal pool preserve every day. Any future plan to connect this road with major roadways to the south will bring **tens** of thousands of cars by the preserve border every day. An increase of vehicle traffic, especially at the high speeds driven in this part of the county, will dramatically increase wildlife-vehicle collisions, causing injuries and death to our local wildlife. Another consequence of increased vehicle trips adjacent to the preserve area will be an increase of atmospheric nitrogen deposition caused by vehicle emissions. This will directly impact the vernal pools by changing their nutrient composition. The native species of these pools have evolved in nutrient-poor environments. Increases in nutrient levels make the pools more hospitable for invasive species and less hospitable for the native threatened and endangered species the preserve aims to protect.

Response 14-7

The majority of this comment focuses on potential impacts associated with land uses proposed in the Mather South Community Master Plan (County Control Number PLNP2013-00065). This is a separate project for which a separate Environmental Impact Report is being prepared to analyze all potential impacts associated with that project.

In regard to the portion of the comment related to indirect impacts to vernal pools, see response 8-6.

Comment 14-8

Sports Park is a Bad Idea

The following are several reasons why the proposed sports park of Mather South is a bad idea. To begin, Mather already has sports park facilities in its business park, and additional playing fields are planned for lands along the south side of Excelsior, north of the preserve. A sports park in the South Mather east of Eagle's Nest would take habitat-rich land and turn it into an ecological desert of playing fields. Fertilizers, herbicides, and pesticides needed to maintain these fields could easily find their way into groundwater and surface drainages that flow directly into wetlands in the proposed conservation areas.

In addition, the extraordinarily shallow water table in some areas would render some fields unusable during the wet season or would require substantial (and expensive) engineering work to keep the fields from becoming saturated. Fences around and within the sports park would restrict wildlife corridors and illuminating these facilities would undoubtedly create light pollution that will disturb (or displace) Mather's wildlife, especially nocturnal birds and amphibians.

A sports park will use a tremendous amount of water, which is an increasingly scarce resource here in California. Proposing a sports park for Mather demonstrates a fundamental lack of understanding about Mather's vernal pool and grassland habitats and what they will need to thrive. From an environmental perspective, locating a sports park (or even worse, a theme park!) right next to a proposed conservation area full of ecologically sensitive habitats seems an imprudent planning decision.

The proposed sports park will eliminate valuable wildlife habitat, such as the spadefoot toad pool, effectively causing the spadefoot's local extinction. Proponents of the project who desire to eliminate the spadefoot pool argue that the spadefoot doesn't deserve protection because it is not yet listed as threatened or endangered. But since when did the value of life rest solely on the speed at which government moves to declare it? The spadefoot is already a species of special concern to the State of

California. That means it is rare and - like most rare species - has been and is struggling for survival in the face of ever-expanding human development. Why would we cause the local extinction of a species when there is no great need or reason to do so?

Response 14-8

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

In regard to the portion of the comment related to impacts to vernal pool habitat refer to response 8-6.

In regard to the portion of the comment related to spadefoot toad, see comment 8-19.

Comment 14-9

Preservation of Raptor Habitat in Mather

Raptors are a top predator of the Mather ecosystem, and they require mature, tall trees for hunting and nesting. Any proposed development that fails to preserve the existing mature trees will likely disrupt these important birds, upsetting the natural balance of predator to prey species at Mather. For example, the Mather area undergoes a significant population expansion of voles every few years, with recent "outbreaks" so large that the roadways around the neighborhood were quite literally littered with the bodies of these native rodents.

Any loss of raptors associated with disturbances to their natural habitat (especially perch locations) could trigger some unfortunate consequences to the Mather ecosystem. Another vole population explosion could severely impact existing habitat due to insufficient forage and will likely trigger future vole invasions into adjacent subdivisions during the summer months. Without our natural rodent controls, people resort to the use of rodenticides which further destroy bird and coyote populations and kill family pets as these predators eat the sickened rodents.

Mather has already seen a reduction in the burrowing owl population due to land development and suburban encroachment, so we are fervently opposed to any activities that will cause further reduction to predatory birds in our region. And if someone tells you that other existing trees in our area will be sufficient habitat, do not believe them. The other trees already have their resident birds, and all species have a threshold of how much space they require.

Response 14-9

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

As stated in the Biological Resources chapter of the EIR, raptors and their active nests are protected by the California Fish and Game Code and include applicable mitigation measures consistent with CDFW accepted protocol to ensure that impacts to nesting raptors are less than significant.

Comment 14-10

Preservation of Wildlife Passage

The current proposed plan inhibits wildlife passage. Fencing and major roads will impede and prevent migration, mating, and foraging. Open spaces and natural corridors are crucial to the overall health of an ecosystem, especially when such a habitat is being increasingly surrounded by suburban and industrial sprawl. This begs the question as to if the Mather South area really must be developed as proposed, restricting habitat used by a diverse and relatively abundant wildlife population. The lands surrounding Mather have been utilized for grazing, farming, ranching, and gravel extraction for decades, while Mather lands were left fairly natural, especially after closure of the base. This has allowed wildlife to thrive in Mather. The proposed developments will needlessly harm this ecosystem, along with much of the economic, educational, and aesthetic benefits it offers our community.

Response 14-10

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 14-11

Using the Preserve for Mitigation

Concerns have been raised that this plan may bestow upon the developer millions of dollars worth of public assets that should be going towards habitat mitigation by effectively double-dipping on conservation requirements using Mather's preserve wetlands. The U.S. Air Force required the County to create and maintain a vernal pool preserve in order to obtain the land of Mather Air Force Base. The plan before you proposes to fill 36 acres of Mather vernal pools outside of the County's proposed preserve boundaries. The standard required mitigation to offset this loss would be preservation of 72 acres and creation of 36 acres of vernal pools.

This is typically done through payments to a mitigation bank. A mitigation bank holds lands of a certain type, such as vernal pools, and sells credits of their acreage to developers, tending to the preserved acreage in perpetuity. Doing the math, current estimated costs for vernal pool mitigation is $150,000 per protected acre. For 72 acres of protected vernal pools and 36 acres of created vernal pools, the developer would pay $16 million as part of their cost for this proposed Mather South development. However, the draft EIR indicates that establishing conservation easements on the existing Mather preserve may be used to mitigate for vernal pool losses of the Mather South plan. This amounts to a $16 million gift from Sacramento County to the developer.

Response 14-11

See response 8-1.

Comment 14-12

Alternative Idea - Showcase Property Development (Eagles Nest Village)

Most people who move to Mather have come for the peace and quiet, open space-related recreational opportunities, and abundant wildlife. If development of Mather lands must occur, concerned Matherians have come together to develop ideas that will preserve as much of its charm and character as possible. We propose to develop a "green" ecological mixed use community in the most disturbed portions of the land adjacent to the golf course and Mather Lake; and designate the lands south of the swale drainage as open or protected space, to be used for nature-focused recreational and educational purposes. This space would primarily encompass the proposed sports park and university sites, which are incompatible land uses next to Mather preserve. This revision destroys far fewer vernal pools and preserves Mather's two most valuable educational pools. Much of the most valuable wildlife habitat would also remain, contiguous to the Mather preserve. Rather than completely surrounding the Mather vernal pool preserve with urban development, we could protect the preserve's watershed by rejecting locally inconsistent development ideas. Reject to protect.

Response 14-12

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 15

Richard Guerrero, President; Board of Directors; Environmental Council of Sacramento; written correspondence; June 11, 2015

Comment 15-1

Project Description

1.) Page 2-26 says: *"It should be noted that although a Natural Preserve Land Use Designation is proposed for a large portion of the project site, this document does not cover any physical improvements related to the preserve area, the adoption of a management plan or assess any impacts that may result from restoration activities within the proposed preserve."*

Does this then mean that a subsequent DEIR will be prepared to analyze these important components of the Natural Preserve? Or will the county be relying on a forthcoming DEIS? Either way, it is not possible to understand the full extent of the impacts without this analysis, and therefore this DEIR is incomplete. As well any creation or replacement that occurs offsite from the Mather Field project also needs to be analyzed, and since there are not sufficient vernal pool resources available per this DEIR's own omission and they are not analyzed anywhere in the DEIR, this is another example of an incomplete analysis of impacts.

Response 15-1

The proposed project description does not include any physical improvements or other activities within the proposed Natural Preserve area. Future restoration activities within the preserve are subject to oversight by the appropriate federal regulatory agencies but these activities may not constitute a discretionary project subject to CEQA. If future restoration activities require local discretionary approval, they will be subject to further environmental review under CEQA.

Comment 15-2

Alternatives

The EIR generally lacks an explanation of exactly how the project proponent determined the acreage to be added and subtracted from each land use designation. This chapter gives an overview of how the project differs from other options; the land use chapter details the proposed changes in acreage for each land use designation. However, the benefits of the exact configuration of the proposed project are not thoroughly explained. A blanket

statement that the configuration complies with goals and County requirements does nothing to explain why the project as proposed is the best possible configuration of land use designations. ECOS requests a more thorough discussion of the proposed configuration, as the possibility of approving the various amendments suggested by the proposed project is a serious one, deserving of a better explanation.

Response 15-2

The existing environmental and land use setting at Mather Field largely determined the proposed land use designation layout. In particular, the Natural Preserve area was strategically located west of Zinfandel Drive because that is where, generally, the highest functioning and most biologically healthy wetland habitat is located, as noted in the Biological Resources chapter of the EIR.

As indicated in the Land Use Chapter of the EIR, the Industrial Extensive designation containing the Aggregate Resources Area combining land use zone is proposed over an area known to contain aggregate resources. The Industrial Intensive designation is proposed along the southern boundary of the Mather Airport runway in order to support airport operations and where airport operations can most easily support industrial activities consistent with General Plan Policy. The Commercial Recreation designation was chosen at the southeast corner of Mather Field to take advantage of the major roadways in the area and consistent with the Mather Field Specific Plan. The UDA area was selected to be located at the eastern portion of the site to take advantage of the existing Mather Golf Course amenity, access to the pedestrian trail along the Folsom South Canal and the proximity of future commercial recreation development to the south. Lastly, as shown in Plate PD-7 and PD-8 of the Land Use chapter, these locations were selected because the Mather Field SPA Ordinance currently allows similar development patterns.

Comment 15-3

Land use

While for the most part, this DEIR appears to be at a programmatic level, it is very confusing. The owners are listed as the County of Sacramento and Mather South LLC. **But who owns what?** This appears to be a critical unanswered question. Does the County retain ownership of the Nature Preserve area? If so, how does it plan to fund the long term management of the area? Does the County retain ownership of the Recreation and Public Quasi Public areas? These questions must be answered for the environmental document to be complete.

This area is considered part of the Jackson Corridor Development Area. As such, it should be treated in the same fashion as the remainder of the Jackson Corridor. ECOS has long indicated that the County must establish a phasing schedule for the development of the Jackson Corridor. Without such a phasing plan for the entire area, the development pattern will be a free-for-all and the resulting development will exemplify that. At this time it appears the only area within the scope of this DEIR that could develop is the Industrial Intensive area and perhaps a small Commercial and Office area. Other projects in the Jackson Corridor also have significant Industrial Intensive areas. A phasing plan for the entire Jackson Corridor area must be prepared before any development proceeds. The Board of Supervisors has been reluctant in the past to apply any meaningful phasing to new development, including the General Plan. ECOS continues to believe this to be a massive error in judgement, one that should not be repeated in this DEIR. Failure to establish such a schedule pits project against project for, among other things, allowable greenhouse gas emissions (as per SB 375's Sustainable Community Strategy), and allows "the market" to set the County's priorities, instead of the Board setting them.

Given climate change and the drought conditions that we now endure, no new development should be permitted without water efficient landscaping. This must be a mitigation measure and a condition of approval of this project.

Response 15-3

In response to the portion of the comment related to the listed owners, the application submittal incorrectly identified the property owners as Sacramento County and Mather South LLC. Sacramento County is the owner of properties within the project area. Page 2-7 of the EIR has been changed to show this correction.

Sacramento County will retain ownership of the Natural Preserve and funding for the long term management of the Preserve is to be done through a US Fish and Wildlife Service approved property analysis record (PAR) which will calculate fees based on a

pro rata metric for impacts attributable to projects at Mather Field consistent with the Proposed Conservation Measures detailed in the U.S. Fish and Wildlife Service *Biological Opinion for the Disposal of the Former Mather Air Force Base, Sacramento County, California, January 24, 2012* (2012 BO).

In response to the portion of the comment related to the Industrial Intensive land use designation, as shown on Plate PD-7 and Plate PD-8 of the EIR, the proposed Industrial Intensive land use designation is similar in size and location to the existing South Airport Industrial Subarea included in the Mather Field SPA Ordinance. The proposed project does not include any substantial increases in industrial land uses over the existing condition.

In response to the portion of the comment related to water efficient landscaping, Chapter 14.10 of Title 14 of the Sacramento County Code contains the County's Water Use and Conservation Ordinance. The purpose of the requirements of this Ordinance is to define the standards and procedures for the design, installation, and management of landscapes in order to utilize available plant, water, land, and human resources to the greatest benefit of the people of Sacramento County. Skillful planting and irrigation design, appropriate use of plants, and intelligent landscape management can assure landscape development that avoids excessive water demands and that is less vulnerable to periods of severe drought.

The requirements of the Ordinance are applicable to new and rehabilitated landscaping for industrial, commercial, and institutional developments; to parks and other public recreational areas; to multifamily residential, common areas and model homes; and County road medians and corridors; all as defined in the Sacramento County Zoning Code; provided, however, that these requirements shall not be applicable to the residential portions of developments which are subject to a development agreement entered into pursuant to Government Code Sections 65864 et seq., if such development agreement was in effect as of January 1, 1989. Given water efficient landscaping is already required pursuant to County Code, mitigation measures are not necessary.

In response to the Governor's Executive Order B-29-15, the State Department of Water Resources has published a draft Model Water Efficient Landscape Ordinance. The County's Water Use and Conservation Ordinance is in the process of being updated to reflect the State requirements. Future single-family residential development will be required to comply with this ordinance, and mitigation measures are not necessary.

The portion of the comment related to phasing of the entire Jackson Corridor area is not a comment on the adequacy of the DEIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-4

Biological Resources

Our comments regarding biological resources start with an overview, as we understand it, of the mitigation arrangements agreed to, or proposed, for the vernal pool resources extant in the Mather Field project area. We would appreciate any corrections as to the substance or specifics of our understanding as expressed in this overview. Next, we list a number of questions regarding the proposed mitigations for the project. And finally, we include a series of text-specific questions/concerns/comments (these are numbered and page-referenced throughout).

As a result of the Mather Field closure, in the mid 1990's, the Air Force, regulatory agencies (USFWS, Army Corps of Engineers, EPA), and the county of Sacramento, with the participation of local environmental interests like the California Native Plant Society, began exploring conservation land transfer opportunities to the county of Sacramento. Mather Field had been identified for some time as having critical habitat, and other important habitat, for endangered vernal pools species, and it has been included from the beginning in the "Mather Core Recovery Area Program" prepared by the federal natural resource regulatory agencies. To oversimplify the complexity of the discussions that underpinned those explorations, it was generally concluded that some of the vernal pools had been seriously degraded over the years, while others had suffered from neglect as well, but were still suitable for habitat restoration efforts that would provide valuable ecological lift that would enhance their ability to provide reliable high quality habitat for endangered vernal pool species, and would be capable of making up for the "take" of the seriously degraded vernal pools. So the strategy that evolved was to allow for the "take" of certain degraded vernal pools in exchange for conserving and enhancing a large contiguous vernal pool preserve that would contain the most valuable vernal pool resources. Conservation easements were to be recorded

and full wetland delineations as well as an Interim Wetland Management Plan were to be completed before the transfer occurred. It was also agreed that the development activities of the Mather Field project/s would foot the bill for the habitat restoration and the operations and management of the vernal pool preserve by creating and funding an endowment for that purpose. Though the Mather Field project sits squarely within the geography of the South Sacramento Habitat Conservation Plan (SSHCP), it had been carved out of the SSHCP Plan Area and will receive no coverage if the Plan gets implemented

It is useful to contrast this seemingly unique arrangement with that of a more typical project with vernal pool resources in that part of the county. Such a project could seek coverage from the SSHCP when, or if, it is implemented. The mitigation ratios would be likely consistent with those suggested in this DEIR, 2:1 replacement with an additional 1:1 creation/enhancement/restoration for "no net loss" of wetlands. Absent the SSHCP, a project proponent would have to seek section 7 endangered species consultation with the USFWS, and get a 401 and 404 permit from the USACOE, which would likely result in higher mitigations than those stated for the SSHCP because the regional conservation benefits would not be realized with a project by project mitigation approach. The cost of mitigation for the "take" of vernal pools would be quite expensive for a typical project, with wetted vernal pools going for upwards of $200,000/ acre, with a similar expense for creation per acre. The SSHCP will be requiring an endowment for operations and management of its preserve lands in perpetuity, and this would then likely become a minimum requirement as well.

Assuming a "take' of 35 wetted acres, if this were a typical project, the cost for mitigation would likely be a minimum of: 35 wetted acres x 2 (for the replacement mitigation ratio) x $200,000.00 per wetted acre which equals $14,000,000.00; plus 35 wetted acres x 1 (for the creation mitigation ratio) x $200,000.00, which equals another $7,000,000, for a grand total of $21,000,000.00 – not including any associated uplands or the endowment funding.

There has been general discomfort in the environmental community with the idea that the high value vernal pool resources to be transferred to the county for free, for purposes of conservation, will be used as the mitigation for development in the other lands transferred for free to the county at Mather Field. There is a sentiment that; "Those lands are already preserved, so then how can they be used as mitigation, and how is that not double dipping?" There is also quite a bit of discomfort that private developers at Mather Field will not be paying for the equivalent of vernal pool credits for the pools they "take" as a consequence of construction.

We see adequate funding as one of the key elements to the success of the Natural Preserve and are concerned that the determination of the correct amount for the endowment will be influenced by political forces rather than scientific methodology. It is clear that more than enough funding would be available to properly fund the endowment since project proponents are not being required to provide the vast majority of the vernal pool replacement credits normally required. And, since the conservation land transfer is a public trust, we continue to be concerned that the trust will not be utilized to appropriately benefit the citizens of the county and the country.

Response 15-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. However, given the nature of the comment it is felt some discussion is warranted.

The summary overview of vernal pool resources and mitigation proposals are generally correct. It should be noted that, as detailed in Mitigation Measure BR-6 of the EIR, the recommended mitigation measures to account for impacts to vernal pool habitat are consistent with federal regulatory guidelines.

Any alternative mitigation strategy would need to be approved by regulatory agencies. Funding for alternative mitigation strategies are proposed to occur though the utilization of a US Fish and Wildlife Service approved property analysis record (PAR) which will calculate fees based on a pro rata metric for impacts attributable to projects at Mather Field consistent with the Proposed Conservation Measures detailed in the U.S. Fish and Wildlife Service *Biological Opinion for the Disposal of the Former Mather Air Force Base, Sacramento County, California, January 24, 2012* (2012 BO).

Comment 15-5

If the strategy of "taking" the seriously degraded pools, as a way to raise the needed funds to provide some much needed ecological lift to the pools within the Natural Preserve, is accepted, what assurance is there that funding, equal up to that which is commensurate with a typical project, will be forthcoming?

Response 15-5

See response 15-4.

Comment 15-6

What assurance is there that the restoration needs as well as the operations and management of the Natural Preserve in perpetuity drive the price tag for the endowment, and not the other way around?

Response 15-6

See response 15-4.

Comment 15-7

An endowment is typically structured as a non-wasting fund such that principal is not expended, and such that the investment returns allow for keeping pace with inflation while generating the needed funds for restoration, operations, and management. Since the restoration component would be most effective as a front-loaded expense, how does the funding work using an endowment which is typically an amortized approach to funding? Would it not make more sense to charge a fee for the restoration work, and then collect funds for the endowment for operations and management in perpetuity?

Response 15-7

See response 15-4.

Comment 15-8

The only monetary figure presented to date associated with the vernal pool preserve is $80,000.00/ year for interim management. How was this figure generated and what were the specific cost assumptions utilized to calculate this amount?

Response 15-8

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-9

No figures were presented for the endowment. When will these figures be forthcoming? Will the USFWS, the USACOE, the EPA and CFW have to sign off on the amount? How will this amount be calculated? Do the wildlife agencies have less legal leverage to influence the amount of the endowment if the lands for conservation are transferred before it is calculated? Will any development be allowed to proceed before the endowment amount is established? What will be the public input opportunities for weighing in on the endowment amount?

Response 15-9

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-10

As the easement holder, what will the county of Sacramento's responsibilities be as regards the Natural Preserve? How will these responsibilities be altered if the county contracts out the restoration, operations and management activities to a third party?

Response 15-10

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-11

Are private developers paying for the land they are building on? Was consideration given to using funds generated from sale of county land to developers for improved mitigation for vernal pool resources?

Response 15-11

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-12

What relation does the transfer of the conservation lands from the Air Force have to this DEIR? Is the transfer contingent upon approval and certification of this DEIR? Or to a subsequent EIS?

Response 15-12

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

The transfer of lands from the Air Force to the County is not contingent on certification of this EIR and approval of this project or a subsequent EIS. This project consists of local land use entitlements subsequent to the transfer of lands in a manner consistent with the federal land transfer conveyance mechanisms in place. The federal land transfer process is independent of the local zoning and entitlement process.

Comment 15-13

2.) Page 7-21 says: *"The proposed Natural Preserve is intended to allow for the onsite compensation for the project related loss of onsite wetlands and waters. As part of the creation of the Natural Preserve conservation easements will be placed over the preserve area in order to ensure that the area is set aside as a conservation area in perpetuity. In addition to the Natural Preserve designation, an Interim Wetlands Management Plan (IWMP) has been developed consistent with the Corps permitting process, in order to assist in the compensation efforts. The U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. EPA and California Department of Fish and Wildlife approved the Interim Mather Wetlands Management Plan (IWMP) in the second quarter of 2014."*

It is our understanding that the conservation easements are required as part of the transfer. Is that accurate? The IWMP is by definition only "interim," and it was a specific requirement of the transfer. The county offers that it will be preparing a "permanent" wetlands management plan. Is that not a specific requirement of the federal regulatory agencies, outside of the transfer but as part of section 7 and 401 and 404 consultations? Since the Natural Preserve is only "proposed," is there any way that the county can change the land use after transfer?

Response 15-13

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 15-14

3.) Page 7-45 says: *"Currently, based on the studies conducted and discussions with regulatory agencies, the mitigation strategy at Mather Field includes a proposal intended to fund, manage, restore and protect in perpetuity (through an endowment, wetlands management plan, and conservation easements) suitable habitat for vernal pool species, including approximately 65.30 acres of habitat within an on-site Natural Preserve and 3.58 acres within a riparian buffer area."*

Since the main facet of the mitigation for vernal pool resources is stated in the above paragraph, is not the fact that it is only a current "proposal" by definition mean that the mitigation is deferred? There is no assurance that this will be the final implemented mitigation, and there are no performance metrics offered.

Response 15-14

As detailed in the Biological Resources chapter of the EIR, impacts to vernal pool habitat were calculated using a worst case scenario, assuming all areas within the developable potion of the project site were to be developed. As stated in the EIR and detailed in Mitigation Measure BR-6, standard mitigation consistent with regulatory guidelines is recommended to compensate for impacts to vernal pool habitat. However, the ultimate compensation strategy is at the discretion of the USFWS. The mitigation measure has been created to allow for an alternative mitigation strategy subject to the approval of regulatory agencies. The language noted in the comment is a part of an alternative mitigation strategy that the project applicant is working on with appropriate regulatory agencies. The regulatory agencies would need to find the alternative to be in compliance with the Endangered Species Act. If the alternative mitigation strategy is found by regulatory agencies to adequately compensate for impacts to vernal pool habitat, impacts are considered less than significant.

Mitigation is not deferred. Mitigation Measure BR-6 provides a performance standard consistent with federal regulatory guidelines. The commenter is correct that formulation of mitigation measures should not be deferred until some future time; however, measures may specify performance standards which would mitigate the significant effect of the project (CEQA Guidelines, Section 15126.4(a)(1)(B)). Mitigation Measure BR-6 establishes a minimum mitigation ratio of 1:1, and describes the interface between this requirement and the regulatory permitting process. It is possible that the mitigation plan will involve construction of created wetlands or restoration of existing degraded wetlands, but it is also possible that it will be achieved through other means (such as purchase of mitigation credits from wetlands which have already been created). Measures which defer these particular details to a later time have been challenged in the courts numerous times, but these challenges have failed. A recent example in our region is the Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200, in which it was stated that "a condition requiring compliance with environmental regulations is a common and reasonable mitigating measure". This statement was, in fact, a quote from yet another court case: *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308. Courts have approved deferring the formulation of the details of a mitigation measure where another regulatory agency will issue a permit for the project and is expected to impose mitigation requirements independent of the CEQA process, so long as the EIR included performance criteria and the lead agency

committed itself to mitigation. Mitigation Measure BR-6 commits the County to ensuring that mitigation is provided at a minimum 1:1 mitigation ratio, which is a sufficient and common performance standard and is also consistent with County policy.

Comment 15-15

4.) Page 7-46 says: *"As a part of the consultation process for the previous roadway construction, the USFWS determined that eleven wetland features with [underscore mine] 250 feet of the roadway would not be indirectly impacted by the construction of the road."*

We are assuming that the intent was the eleven features are "within" 250 feet of the roadway.

Response 15-15

The commenter is correct; the statement should read "As a part of the consultation process for the previous roadway construction, the USFWS determined that eleven features within 250 feet of the roadway would not be indirectly impacted by the construction of the road."

This sentence has been corrected in the EIR.

Comment 15-16

5.) Page 7-46 says: *"These construction practices further minimized any chance of indirect hydrologic impacts to the wetland feature during the operation of the road".*

But what about other indirect impacts like invasive species, human intrusion, light pollution etc?

Response 15-16

See Response 8-6.

Comment 15-17

6.) Page 7-53 says: *"While the project ultimately will require the removal of the elderberry shrubs, completing the consultation process and obtaining permits may take some time."*

Given that elderberry bushes can grow quite quickly in height and girth, which has the potential to change the provided calculations, how will this mitigation be updated if construction does not occur immediately?

Response 15-17

As stated in Mitigation Measure BR- 8 and Mitigation Measure BR-9 of the EIR, valley elderberry longhorn beetle (VELB) habitat shall be avoided or compensated for in accordance to USFWS guidelines. According to USFWS guidelines surveys of VELB habitat are required prior to construction. Future surveys done prior to construction will capture changes in elderberry bush sizes.

Comment 15-18

7.) Page 7-57 says: *"The CNDDB, 2013, indicates that the nearest recorded species occurrence for the Swainson's hawk, is approximately 3.5 miles to the southeast of Mather Field and the Project site contains open grasslands that provide foraging habitat for Swainson's hawk. However, the proposed project will not result in a rezone of property or uses that are more intensive than those already allowed."*

Is there any property at Mather Field with an intensive zoning that has yet to be developed and has never provided mitigation for Swainson's hawks that currently provides suitable habitat for foraging? How much undisturbed grassland (regardless of how intensive the zoning) is going to be developed that was not previously mitigated for Swainson's hawk foraging habitat?

Response 15-18

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. However, given the nature of the comment it is felt that some discussion is warranted.

As shown on Plate PD-7 of the EIR, the Mather Field Special Planning Area Ordinance designates lands within Mather Field for Industrial, recreation and commercial recreation uses. Much of these areas are currently underutilized. However, as stated on page 7-56 and page 7-57 of the EIR, in Sacramento County impacts to foraging habitat are assessed when the rezoning of lands results in more intensive uses. As stated on page 7-57, the proposed project will not result in the rezone of property or uses more intensive than those already allowed.

Comment 15-19

8.) Page 7-58 says: *"The development of the Project site would not result in substantial negative effects to the sustainability of the species; however Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to golden eagle habitat are **less than significant**."*

For all species mitigations where this statement is utilized as justification for impacts being less than significant, it is important to acknowledge that management of the Natural Preserve for the species in question is an important component, as important as the easements. How will the preserve be managed such that it will provide suitable foraging habitat for the golden eagle and for all the other species that this rationale was used for justifying a less than significant impact?

Response 15-19

The justification for a less than significant impact is based on current regulatory guidance for the species, not on the amount of land being set aside as a preserve or how it is managed. Currently, there is no regulatory guidance on the mitigation of foraging habitat and no mitigation is required in order to account for any loss of foraging habitat for this species. However, as conservative approach, it is recommended in the EIR that the proposed easements be in place to keep foraging habitat on site to minimize impacts. The Preserve lands will include wetland and upland habitat similar to that of the existing condition and will maintain habitat as it currently does for this species.

Comment 15-20

9.) Page 7-61 says: *"Any species wintering in the general Project area would likely be in competition with the known Swainson's hawk that forage in the vicinity of the site. The fact that Swainson's hawk are successfully occupying the area makes it less likely that ferruginous hawk use the site."*

See from earlier discussion of Swainson's hawks in this DEIR: "It is a migratory raptor typically nesting in or near valley floor riparian habitats during spring and summer months." There is not a lot of temporal overlap with these species and so the justification that ferruginous hawks would be less likely to utilize this site because of Swainson's hawks is unfounded. As well, there are many species that winter in the general project that would not be in competition with any raptor because of their natural history – like any songbirds for example.

Response 15-20

It is acknowledged that temporal overlap between the ferruginous and Swainson's hawk is minor. However, the EIR does not state that the ferruginous does not use the site, the EIR simply states the fact that the CDFW Life History Account for the ferruginous hawk notes that they tend to displace Swainson's hawk and that since Swainson's hawk have been observed foraging at the site that it is less likely that ferruginous hawk use the site.

The commenter is correct that songbirds would not be in competition with raptors for foraging habitat. This sentence has been changed to "The Life History Account also indicates that the species has a tendency to displace red-tailed hawks and Swainson's hawks," to clarify the relationship between the ferruginous hawk and the Swainson's hawk.

Comment 15-21

10.) "*However, Mitigation Measure BR-2 requiring easements over the Natural Preserve is recommended to ensure that impacts to white-tailed kite are* ***less than significant."***

Since the preserve is the only mitigation being provided, **recommending** required easements is an odd construct. In order for the mitigation to be in perpetuity, the easements need to be **required**, not recommended. As well see comment 8.) about management.

Response 15-21

It is common practice for mitigation measures to be recommended during the environmental analysis process to avoid, minimize or reduce potential project related impacts. Whether or not the recommendations become requirements of a project is at the discretion of the final hearing body (in this case the Board of Supervisors). However, the language in the mitigation measures are drafted in a way as to minimize ambiguity and words like "shall" and "required" are utilized so that it is clear what actions are to be taken to avoid, minimize or reduce impacts. Once the hearing body approves the project and adopts the mitigation measures they become conditions of approval and requirements of project proponents.

Comment 15-22

11.) Page 7-71 says: "*BR-1: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO WETLANDS AND OTHER WATERS*
To compensate for the permanent loss of wetlands and waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/ uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Prior to the issuance of building permits, grading permits or approval of improvement plans, all areas within the Mather Field SPA designated as Natural Preserve or Riparian buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and 401 wetland permits. "

However, all of the three measures appear to be necessary, should the project, indeed, result in the loss of 42.58 acres of jurisdictional waters. These measures are not alternatives to each other. Rather, they each serve separate needs. Each alone would be insufficient. All three measures should be required by this Biological Resource mitigation measure.

Response 15-22

It is acknowledged that, if appropriate habitat exists on site, the three measures would be required. However, the flexibility is built into the measure in the event that non-jurisdictional wetlands are encountered and impacted during future development. In any event, with the proposed mitigation, impacts to jurisdictional and non-jurisdictional wetland features would be appropriately mitigated.

Comment 15-23

12.) Page 7-76 says: "BR-5: PROJECT LEVEL RIPARIAN HABITAT
To mitigate for 0.608 acres of riparian habitat removal, an equivalent amount of existing habitat removed shall be placed into a permanent conservation easement, or an equivalent amount of hab*itat within an existing protected area shall be revegetated/restored."*

If re-vegetation or restoration is to occur, the impacts of those activities need to be analyzed as part of this report.

Response 15-23

See Response 8-1.

Comment 15-24

13.) Page 7-78 says: *"The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species."*

If restoration/enhancement is to occur, the potential impacts of that restoration/enhancement need to be analyzed as part of the DEIR. This DEIR needs to specify where the restoration/enhancement would occur and how it would be done and what the impacts would be.

Response 15-24

See response 15-1 regarding onsite restoration and enhancement activities within the proposed preserve.

Comment 15-25

14.) Page 7-83 says: *"It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/ fill activities occurring within the remaining 4,444 acres of the Mather conveyance.*

The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of this BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite."

Where as this may be above and beyond that required for the transfer, it would be very hard to argue that it even comes close to that which would be required for mitigating a typical project in that part of the county that impacts vernal pools.

Response 15-25

See response 15-14.

Comment 15-26

Traffic and Circulation

This project is part of the Jackson Corridor Development Area, so the project area should be treated the same as the other projects in the area. As advocated by ECOS in the past, the other projects in the Corridor have agreed to establish a Transportation Services District with a per dwelling unit equivalent assessment for transportation services. This approach is critical to the development of this entire area and is crucial to reducing ozone precursors and greenhouse gas emissions.

Mather Field (the project area) must be part of this Transportations Services District. This could include annexation to County Service Area 10, or the establishment of a new district. This must be included as a mitigation measure as well as an amendment to the Mather Field Master Plan.

Without the mitigation measures described here and above under **Land Use** [above], this DEIR must be considered incomplete and inadequate, since these and other feasible mitigation measures have not been applied.

Response 15-26

The Air Quality Chapter includes a discussion of project related operational emissions and recommends Mitigation Measure AQ-2 to reduce impacts related to operational emissions.

Mitigation Measure AQ-2 requires future project proponents be active participants on the 50 Corridor TMA or similar association, and adhere to the Mather Field Transportation Systems Management Plan. Additionally the mitigation measure requires that that future projects are consistent with the Mather Field Transportation Systems Management Plan, and are in compliance with the Mather Field Air Quality Plan or other approved air quality management plan.

Comment 15-27

Conclusion

It is not at all clear how the current alternative has been arrived at. The bases for the proposed alterations to the current uses of land remain to be explained clearly. There does not appear to be a strong rationale for the preferred alternative. This is especially true with regard to the lack of clear relationship of this DEIR to the continuing development trajectory of the Jackson Corridor Development Area.

ECOS strongly supports the preservation of higher-quality vernal pools. This DEIR does not appear to describe a feasible, performance-based strategy for doing this. The proposed mitigations to not appear to have sufficient conceptual, financial or programmatic power to accomplish the desired preservation, especially over an extended period of time.

Response 15-27

This comment is a summary of prior comments in this letter. The responses to the prior comments are applicable here.

LETTER 16

Craig Martinez; Mather resident; written correspondence; May 13, 2015

Comment 16-1

Sacramento County has inadequately addressed the growth in the area that has already taken place south of the US 50 corridor in the past 15-years making traffic through Mather via Excelsior dangerous to that part of the community.
To remedy this, Zinfandel needs to first be extended from the Mather golf course to SR 16 as a 4-lane (2 in each direction), restrict traffic on Excelsior to the speed way and redirect through traffic altogether before the residential zone (cut-off the Mather housing development from that direction because it is extremely hazardous to the residents as it is now) to the north by connecting only to Keifer with the east bound option to Zinfandel/Sunrise passing the rendering plant and the west bound option parallel to the south boundaries of the airport towards the new SMUD building on Bradshaw. With the connection of Keifer from just north of the speedway to the east or west in lieu of it continuing north will help correct a dangerous situation presently faced by the existing Mather Community.

Response 16-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 16-2

Handle the logistics first, then build in areas outside the boundaries of the wetland preserve that the USAF entrusted to Sacramento County. There's plenty of room for both, so lets work smarter to accommidate both development and the wetlands. Better planning can make a win-win for all including wildlife...

Response 16-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 16-3

Count this on the petition to 'preserve the wetlands' because both interests can be achieved!

Response 16-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 17

Efrem and Lynn Richardson; Mather residents; written correspondence; May 13, 2015

Comment 17-1

I live in the Mather community 95655 on Excelsior Road. Every morning and afternoon I have to fight to get out of my driveway due to the major traffic issues we have with commuters from Elk Grove going to and from the Mather business park and other areas of business in and around Rancho Cordova. The cut through traffic is unbearable every day. The county promised the Mather community that something would be done about the cut through traffic, and nothing yet has been done. Is there a time frame for some kind of traffic re-route?, is the Eagle's nest/Zinfandel project still on track?, what about the bypass project? Mather is in need of some kind of relief from the traffic. Please help!!!

Response 17-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 18

Kathy; Sacramento County resident; written correspondence, May 13, 2015

Comment 18-1

Please do not fill in the Mather wetlands. They are beautiful and add to the tranquil, peaceful quality of life here in Mather. We that live out here find the wetlands to be one of the major reasons we moved out here in the first place.

I feel that there are many other productive ways to spend that money, instead of filling in the wetlands.

Response 18-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 19

Mather Neighborhood Alliance; written correspondence; dated June 20, 2015

Comment 19-1

We have recently uncovered information related to statements made at the Mather Field Workshop segment of the June 8, 2015 Planning Commission meeting. At the Workshop, you told the audience that you had a personal meeting with Rick Balazs during which Rick stated that the land east of Eagle's Nest Road (aka Zinfandel) was badly disturbed from the placement of excavation waste during construction of the Folsom South Canal. Rick went on to describe to the Workshop audience that the environmental surveys completed east of Eagle's Nest indicated that all of the pools in that area were "badly degraded." This was used as the justification for developing this land and changing the land use designations of that area to Urban Designation Area, Commercial Recreation, and Public Quasi Public as specified in the DEIR.

We requested the environmental surveys Rick was referring to (known as CRAM evaluations) from the County, but eventually obtained them through a third party. This document (which is NOT available on the County's website and is quite difficult to locate) lists results for 24 vernal pools or vernal pool systems evaluated at Mather, four of which are located east of Eagle's Nest Road. The Spadefoot Pool - which we described to the commission during the June 8 Workshop as being a valuable pool the County wants to destroy - had the second highest evaluation score of ANY vernal pool evaluated at Mather Field.

Another pool that we described to the commission during the June 8 Workshop as being a valuable pool that the County wants to destroy – the Critter Pool - had the fourth highest score for biotic structure (an indicator of biological health) of all the pools evaluated at Mather. As we explained at the Workshop, the Critter Pool is known to have the largest diversity of invertebrate species at Mather.

We would like to emphasize that CRAM evaluation metrics do not consider animal species diversity; they only look at plant communities as an indicator of overall biological health. If animal species diversity were considered, the Critter Pool would probably rank as one of the best at Mather. The Critter Pool also would have scored higher in the overall rankings were it not for its proximity to the fill areas from the South Canal construction. CRAM evaluation scores factor in disturbance in areas adjacent to a pool, so this lowered the Critter Pool score even though the pool itself is not disturbed.

This shows that even by the County's chosen metrics and evaluation, these pools are indeed of a high quality and are valuable. And in the field it is quite evident that the Critter Pool and Spadefoot Pool are not disturbed. Though we would prefer to rest assured that our planning process is open and transparent with nothing to hide, we feel as though County staff have deliberately tried to deceive us with their proposal for Mather Field. We view it as ridiculous that the second highest rated vernal pool at Mather

(and the ONLY pool to have Spadefoots in it) would be proposed for destruction to make room for a sports park. Even more disturbing is that this mischaracterization of actual field data looks like a deliberate attempt to deceive the members of the Commission.

It seems important to note the lack of any reference (title, author, date, etc.) regarding the CRAM evaluation report in the Mather Field Project DEIR, even though it would seem to have a substantial role to play in evaluating potential environmental impacts. Furthermore, the aggregate results of the CRAM evaluations were published in the South Mather Wetlands Management Plan, but a full physical reference (again: title, author, date, etc.) was not listed in the text OR the reference chapter. This made finding and requesting a copy of the CRAM report an exceptionally difficult task! To us, this feels like a deliberate attempt to hide information from public scrutiny.

Response 19-1

The purpose of the CRAM is not to provide information for CEQA analysis. The purpose of the CRAM exercise was to document the existing conditions at Mather for future comparative studies that would measure wetland functional uplift associated with active management within the proposed preserve area. The study area was expanded to include limited features within the proposed development areas. The results of the CRAM study demonstrated that cumulative average CRAM scores of the features within the propose preserve area are higher than the cumulative average scores of the features within the proposed development area.

The analysis in the EIR did not utilize the assessment methodology included in the CRAM to determine habitat quality or significance of project related impacts. The CRAM had no role in the conclusions provided regarding project related impacts. As stated in Response 8-5 and as detailed in the Biological Resources chapter of the EIR, all seasonal wetlands are considered to provide suitable habitat for vernal pool species and are treated as such. Taking a conservative approach, all wetlands, regardless of how disturbed, within the developable portions of the proposed land uses were included in impact calculations and mitigation requirements.

In regard to the portion of the comment related to vernal pool impacts, see response 8-1.

In regard to the portion of the comment related to spadefoot toad, see response 8-19.

Comment 19-2

It was evident to many of us in the Workshop audience that our commissioners genuinely care about doing their jobs well and with great attention to detail. We also understand that, by necessity, you do need to maintain positive working relationships with County staff. So we recognize that it will be uncomfortable to take a tough stance with staff members, but we trust that you will do your very best to put a stop to this kind of deceptive behavior, especially in public forums.

Response 19-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 19-3

If you would like to verify our findings, you can find the CRAM evaluation data in the following report:

CRAM EVALUATION OF VERNAL POOL HABITAT

MATHER SPECIFIC PLAN

Sacramento County, California, July 2012

prepared by Gibson & Skordal, LLC

If you can't get your hands on that report, please let us know and we will be happy to provide you with a copy. For reference, the Spadefoot Pool is identified as assessment area (AA) 23 in this report and the Critter Pool is identified as AA21. We've attached several pages that highlight the findings listed above.

Response 19-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 20

Joy Nahigian, Mather resident; written correspondence; dated June 22, 2015

Comment 20-1

My name is Joy Nahigian, I am a Mather resident and a certified project management professional. I share my observation about the County's proposed project with the Comissioners from a project manager's perspective.

Projects either succeed or fail during the planning phases of the project. During the planning phase, the project team must identify **all** potential key stakeholders, including special interest groups (such as citizens and environmental or union advocates), and those positively or negatively affected by the project deliverables. Project teams must gain an understanding of these stakeholder's interests with respect to the project. Many projects fail at this planning stage because the project team does not recognize how to address the needs of all stakeholders. In this case, key stakeholders, such as County citizens, have had little (or no) involvement in the planning phases, due to ineffective public outreach and communication. However, the County asserts we are the ones who are supposed to benefit from the project!

During any project phase, if a key stakeholder recognizes a risk of an unaddressed issue, they must have the liberty to bring it to the project manager's attention. Sometimes team members do not recognize risks because "they've always done it this way," or they hesitate to share risks for fear of reprisal by the project manager. Teams cannot operate effectively with this mindset. Best-practice project management isn't an impediment to the project, it is critical to project success. As the saying goes, "Pain me now... or pain me later." We are here to "pain you now."

Response 20-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 20-2

Based on our research, the Mather Neighborhood Alliance determined that Sacramento County is missing some major fundamental project requirements to mitigate risks that will make this project fail miserably, at the huge cost of precious wildlife habitats and public assets. The development's project plans need to better reflect the community character of Mather Field and more effectively optimize the existing environmental, educational, and aesthetic assets. If the risks are left unidentified, we can only assume that County staff is deliberately attempting to circumvent citizen requirements and environmental regulations that require a full accounting of all potential environmental impacts within the project area and avoid the scrutiny of a comprehensive EIR and the required studies.

Response 20-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 20-3

I urge you, our Commissioners, to ask Sacramento County Planning and Environmental Review and Marketing, and Transportation staff to consider the needs and requirements of key stakeholders before they move forward with any future phases of this project.

Response 20-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 21

Vanessa Emerzian; Mather resident; written correspondence; June 22, 2015

Comment 21-1

Thank you for the opportunity to speak here today. My name is Vanessa Emerzian. I am an ecologist and resident of Mather. I was formerly a rural community planner, and my bachelor's and master's degrees are both in planning.

I came across a great quote by E.B. White, the author of "Charlotte's Web." It goes like this:

I arise in the morning torn between a desire to improve the world and a desire to enjoy the world. This makes it hard to plan the day.

I can relate to that. I've been a resident of Mather for almost seven years, and I thoroughly enjoy its gifts of quiet serenity, beautiful views, abundant wildlife, and friendly neighbors.

Many of the people before you today feel the same. That's why we're here. We want to enjoy our world, but have found ourselves in the unfortunate position of having to spend precious time and energy defending some of the rarest ecosystems in the world from destruction. We have a unique and precious jewel of a landscape here in Sacramento County at Mather, thanks in large part to the U.S. government. Land that has not been developed, and as public land owned by its citizens, doesn't have to be.

Think about that. It doesn't have to be. This comes down to choice. As land use planners and residents, we can choose to develop every inch of open space we have. Or, we can choose to infill existing urban areas and leave open space for the inherent value it provides, for our birds, plants and wildlife, and for our own psychological and emotional well-being.

And this is not just about the residents of Mather. It's about the thousands of school children who visit Mather. It's about birders, painters, photographers, plant and wildlife enthusiasts, nature hikers, and researchers. It's about you and your families, your children and grandchildren, their families and all of the other families of our county that you serve.

Why not take this opportunity to do something truly remarkable and wonderful for the people of Sacramento County? The environmental resources at Mather are some of the last of their kind remaining. Ninety to 95% of the vernal pools of California have already been lost to development. — Smithsonian website Instead of wiping out the last of critical species and ecosystems that took thousands of years to develop, why not preserve and enhance them for all to enjoy? A place where people can come to observe, learn, escape the daily stress of life, and experience the quiet serenity and beauty we know and love here at Mather.

Response 21-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 21-2

Why settle for the same old development routine, when we could do something that benefits everyone? The County will argue that they don't have the money to preserve more of these pools, but that's not true. Just leaving them alone would be better than what they are proposing, and that's free. No, the fact is that they haven't really considered anything other than intensive land development. They got this amazing gift from the federal government and seem to have immediately started scheming about how to maximize revenue off of it. As if the millions of tax dollars they receive from Independence and the business park isn't enough.

Response 21-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 21-3

That brings up a good question. When is it ever enough? When there is not one more acre of natural land left? Then can we stop the sprawl? Well I guess we'd have to, wouldn't we? Can you picture a world like that, and do you want to?

We've all heard the argument that ever-expanding growth is necessary for increased tax revenue. Just how long will it take for you to get into the black on this one? I'll tell you. You never will be. Studies prove that developments like the one proposed create a constant state of deficit spending. That's why municipalities keep developing more land, to extract more money from developers, to pay for the developments you already have to service.

This is a pointless pattern that borders on lunacy.

Response 21-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 21-4

On the other hand, creating infill development within existing urban areas can actually make money for the County. Multi-story, mixed use redevelopment projects along existing transportation corridors have been known for years to be the best way to get in the black on government spending. And this County has more urban areas than you can shake a stick at. So, why are we considering a ridiculous proposal of urban sprawl on relatively untouched publicly-owned open space of extremely rare ecosystems? Is this starting to sink in?

It is time for Sacramento County Community Development to start living up to their name. It is time to look at the big picture and think about what is good for our community, not what is good for a rich developer from southern California.

It is time for Economic Development and Marketing to focus on economic development, not natural land development. Job creation through construction is a temporary salve for a much bigger wound in our economy. We benefit from industry development within the urban footprint. That is real economic development. Housing sprawl is the lazy way.

Finally, it is time to start thinking beyond the short term gains for a few and consider our long term losses as a community if ~~you~~ we blindly continue to wipe out vital natural resources that can never be regained because some guy at some point said it should be so. Is that who we are, Sacramento County?

Response 21-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 22

The Mather Neighborhood Alliance; written correspondence; June 22, 2015.

Comment 22-1

The Commission has expressed surprise about the number of people who are coming out to meetings in opposition to the Mather Field plan. At the June 8 Commission meeting, it was noted that the County has been developing this plan for years and holding public outreach meetings. So, where was everyone?

It's a good question. I don't know why the County's public outreach efforts only resulted in small numbers of attendees throughout the years. Or why our posts to an online community inspired over 100 people to show up to a meeting. But I suspect public outreach is part of the planning process that hasn't quite caught up with the speed of development.

Every land development begins with ideas. These are discussed - words are spoken and heard. This is all people have until they see plans on paper. Before the release of the County's DEIR, the public process consisted of meetings with County staff speaking and presenting map displays. The understanding of what was being said – the discussion – varied as it passed through each person's filters of perception. It was not on paper for public evaluation, and this makes the process rather opaque until public documents come out. When the development ideas are put on paper – like a DEIR - that's when the proposal takes a more uniform shape for everyone.

Based upon what we have heard from Mather residents, their interpretations of what the County said at public meetings for the past several years does not match what is now being proposed on paper. We have already forwarded to you samples of the statements we have received about this.

Based upon what we have heard from other stakeholders and agency staff involved in this planning process over the years, the input given was only accepted if it fit with what the County Office of Economic Development and Marketing was proposing. What this does is undercut the public input process by accepting only what the County staff chooses to accept from interested stakeholders' opinions, which is close to accepting no input at all.

The next three parts of this letter will address the County's misrepresentation of the CRAM (California Rapid Assessment Method) evaluation of the Mather vernal pools, the dire need for a multi-year subsurface hydrology study in order to protect the water sources for the vernal pools in the proposed preserve, and concerns that have been raised about groundwater quality given that the residents of Mather will be asked to share their wells with an additional population three times the size of Independence at Mather. No one in Mather thinks that's a good idea.

Following the CRAM, subsurface hydrology and groundwater concern comments, we have included a copy of several oral comments given during the June 8 Workshop. Thank you for your consideration of all of these topics.

Response 22-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 22-2

CRAM Results

During the June 8 Workshop, it was noted that development of land with vernal pools is usually not done. The audience was then assured by Rick Balazs of the Office of Economic Development and Marketing that the land east of Eagle's Nest Road (aka Zinfandel) was so badly disturbed from the placement of excavation waste during construction of the Folsom South Canal that the environmental surveys (CRAM evaluations) completed east of Eagle's Nest indicated that all of the pools in that area were "badly degraded." This was used as the justification for developing this land and giving it the land use designations of Urban Designation Area, Commercial Recreation, and Public Quasi Public.

The Alliance requested the CRAM evaluations from the County, but we were told that we would need to make an ftp server available for the County to transfer the large file. Luckily, a third party gave us the CRAM results.

The CRAM evaluation examined 24 vernal pools or vernal pool systems at Mather. Four of these are located east of Eagle's Nest Road (Zinfandel). Two of these pools east of Eagle's Nest were pointed out to the Commission on June 8 as incredibly important to Mather and the greater Sacramento Valley community: the Spadefoot Pool and the Critter Pool.

Per the County's own CRAM results, the Spadefoot Pool had the **second highest** evaluation score of ANY vernal pool evaluated at Mather Field. Given the score of this pool, how could County staff publicly claim that it was badly degraded? We've also looked at historical aerials of this pool and can find no evidence of disturbance to it at any time during the last 100 years. If the County rezones, the plan includes filling this rare and robust vernal pool to create lawn for a sports park.

The CRAM report indicates the Critter Pool had the **fourth highest** score for biotic structure (an indicator of biological health) anywhere at Mather. As we explained at the June 8 Workshop, the Critter Pool is known to have the largest diversity of invertebrate species at Mather. We'd like to emphasize that CRAM evaluation metrics do not even consider animal species diversity; they only look at plant communities as an indicator of overall biological health. If animal species diversity were considered, the Critter pool would probably rank as one of the best at Mather.

The Critter Pool also would have scored higher were it not for its proximity to the fill areas from the South Canal construction. CRAM evaluation scores factor in disturbance in areas adjacent to a pool; so although the Critter Pool itself is not disturbed, disturbed areas nearby lower its score.

County staff's assertions that the vernal pools east of Eagles Nest are of low value and not worth preserving appear to be a mischaracterization of field data. This looks like a deliberate attempt to deceive the public and members of the Commission in order to get this plan approved. We strongly object to the filling of two of Mather's best vernal pools for any reason.

Response 22-2

See response 19-1.

Comment 22-3

Subsurface Hydrology and Vernal Pools

In Mather Field, upland areas, vernal pools, and seasonal streams are all part of an integrated surface-water/perched groundwater system that extends laterally beneath the vernal pools and surrounding habitat. The vernal pools are connected by a shallow groundwater table that flows laterally on a subsurface layer of low permeability soil (i.e., a soil hardpan). Groundwater flow across this hardpan surface sustains the vernal pools long after winter rains have ended and provides a source of freshwater recharge through the pools. Many pools are sequentially linked by this groundwater flow, such that pools at the upper end of the subsurface gradient are discharging to pools lower down. What this means is that any disturbance to the shallow subsurface hydrology has potentially dire implications in regards to impacts to vernal pool habitats and water quality throughout the project area.

What this means is that lateral movement of groundwater through the (as yet) undisturbed perched aquifer beneath this site *continues to sustain the health of vernal pools in both disturbed and undisturbed areas*. Perched aquifers beneath disturbed areas may also be contributing (or even sustaining) groundwater flow to vernal pool habitats within the boundaries of proposed conservation lands. Urban development immediately adjacent to a vernal pool preserve can have a significant impact.

Response 22-3

See response 8-6.

Comment 22-4

Subsurface utilities and deep earthworks can disrupt groundwater flow to the point that some vernal pool areas (e.g., those in the proposed conservation areas) could dry up much faster than normal or potentially never fill in the first place. In addition, runoff from construction to realign Zinfandel and establish a new sewer trunk alongside Zinfandel could severely impact the water quality of the vernal pool preserve. The sewer trunk requires the digging of a trench up to at least 35 feet deep. This, it would seem, will affect groundwater flow. Because the threatened and endangered species vernal pool habitats at Mather Field are maintained by groundwater flow across a layer of hardpan soils a few feet below the surface, it is imperative to identify the patterns of that subsurface flow before disrupting it by digging deep trenches.

The Mather Neighborhood Alliance has seen no evidence that the County has fully mapped the subsurface hydrology of Mather. If no such mapping has been done to determine the groundwater flow that sustains the vernal pools in the proposed preserve area, the County's DEIR is inaccurate, which states that the impacts of the Zinfandel re-alignment project and the sewer trunk installation along Zinfandel are less than significant to area hydrology and water quality. To wit, the project as proposed may cut off the subsurface hydrology that flows to the vernal pools of the preserve, reducing or eliminating their functionality as wetlands.

Response 22-4

See response 8-6.

Comment 22-5

Approving any phase of construction associated with the proposed Zinfandel Drive and trunk sewer extension without first having completed a thorough multi-year subsurface hydrology study —to determine how far shallow groundwater drainages extend within the area that will be disturbed by the proposed Zinfandel Drive and trunk sewer extension— can lead to substantial environmental impacts to the preserve vernal pools and their threatened and endangered species. This would lead to CEQA violations and open the County and Mather South, LLC to lengthy litigation proceedings.

Response 22-5

See response 8-6.

Comment 22-6

Ironically, if the Zinfandel road/sewer extension was built as currently proposed, it would contradict the County's own wetland management plan for Mather as it undermines pools that were specifically identified as targets for rehabilitation work. A road extension would also alter future CRAM scores for pools along the roadway, giving a quantitative measure of how much damage is done by County actions.

We propose the County first conduct a well-executed, multi-year study of shallow groundwater movement, such as an Integrated Groundwater and Surface Water Model (IGSM) throughout the proposed development and conservation areas to determine the potential impacts of land uses changes to the vernal pools. A multi-year study is necessary given the high variability of seasonal precipitation and current severe drought conditions. The County could then use the results to change proposed boundaries of Urban Designated Area in order to preserve hydrologic source integrity of preserve vernal pools. This would be more responsible land use planning.

Response 22-6

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 22-7

Mather Groundwater Concerns

From the USGS website on groundwater:

The water stored in the ground can be compared to money kept in a bank account. If you withdraw money at a faster rate than you deposit new money, you will eventually start having account-supply problems. Pumping water out of the ground faster than it is replenished over the long-term causes similar problems. The volume of groundwater in storage is decreasing in many areas of the United States in response to pumping. Groundwater depletion is primarily caused by sustained groundwater pumping. Some of the negative effects of groundwater depletion:

- *lowering of water table and drying up of wells*
- *reduction of water in streams and lakes*
- *deterioration of water quality*
- *increased pumping costs*
- *land subsidence*

According to the USGS, "decreased groundwater flow to surface waters can affect aquatic ecosystems that rely on a continuous supply of groundwater to sustain aquatic habitats and stream flow."

This gives Mather two reasons to be concerned about zoning changes that allow increased residential, industrial, and commercial uses at Mather Field. As stated, Mather will be asked to share their wells with an additional population three times the size of Independence at Mather. That equals withdrawal at four times the current rate. This cannot be practical or sustainable. We need our groundwater levels to remain relatively stable. Just as overpumping of groundwater near the ocean causes saltwater intrusion into the water table that is used for metropolitan, industrial and agricultural uses, so may increased withdrawal of Mather's water table draw the underground toxic plumes of Mather closer to our water wells. Ask yourself, is this a risk you'd take with the water in your neighborhood? If the answer is "no," then please consider our health and well being as you would yours and your families.

Response 22-7

See response 4-5.

As stated in the Hazardous Materials Chapter of the EIR, several studies analyzing the existing conditions at Mather Field have been conducted since the 1980's and contaminated sites have been identified and restrictions and measures have been developed to address hazardous materials at Mather Field. Since 1982, approximately 89 contaminated sites have been identified within Mather Field as a result of aircraft fueling and maintenance activity, fire protection training, corrosion control, past disposal activities, and landfilling. Main contaminants include solvents, petroleum products, and various solid wastes. In addition, pesticides, herbicides, asbestos, polychlorinated biphenyls (PCBs), radon, ordnance, metals (including lead), low-level radioactive waste, landfill gases, and medical waste, which were used, stored, or generated as part of base operations have been identified as potential sources of contamination.

Since Mather Field was operated as a federal military installation, the US EPA, Department of Defense (DOD), U.S. Air Force (USAF), California EPA, and Department of Toxic Substance Control (DTSC) oversee hazardous substances investigations and remediation. The DOD also oversees its own program, Installation Restoration Program (IRP), which identifies, characterizes and remediates contamination at military facilities. The DOD implemented IRPs in 1980 to clean up hazardous substances/waste contamination on its installations. The program established a process for identifying and evaluating past disposal sites, controlling migration of contaminants, and controlling potential hazards to human health and the environment. The DOD has the authority, through Section 211 of the Superfund Amendments and Reauthorization Act (SARA), codified as the Defense Environmental Restoration Program (DERP), to conduct its own environmental restoration programs.

The Mather IRP identified soil and groundwater contamination throughout the airfield and surrounding areas, and the former Mather Air Force Base is listed on the National Priorities List (NPL). Remediation is currently underway at several locations at Mather, as shown in. Existing soil contamination is undergoing remediation using in situ treatment (soil vapor extraction (SVE) and/or bioventing) and excavation and transport of contaminated soils to an on-site ex situ bioremediation facility. There are currently nine sites with active SVE/biovent remediation. Three on-site landfills have been

capped and closed, and a minimum of thirty years of post-closure monitoring and maintenance is being conducted. Soil sampling is also occurring at the location of two above-ground storage tanks.

According to the U.S. Air Force Civil Engineer Center website (http://www.afcec.af.mil/), Mather Field is in the final stages of environmental cleanup and all major decisions related to the cleanup effort have been made, documented and are overseen by the Air Force Real Property Agency, the U.S. EPA, DTSC, Central Valley Water Quality Control Board, and the Integrated Waste Management Board. The Air Force has spent more than $162 million on cleanup activities and 75 of the 89 identified sites have gone through remediation.

As part of the groundwater modeling utilized to design the remediation systems at Mather Field, it was assumed that pumping at Mather was at its maximum capacity in order to assess a worst case scenario. The modeling assumed that the pumps at Mather were pumping six millions gallons per day rather than the one million gallons per day that is actually does pump. Text has been added to the Public Utilities and Services Chapter of the EIR to clarify.

Comments 22-8 through 22-18

Comments 22-8 through 22-18 are duplicates of comments 14-2 through 14-12 and are not addressed in this section. Please refer to Letter 14 above.

LETTER 23

Patrick L. Scott, Esq.; written correspondence; June 21, 2015

Comment 23-1

The report authored January 24, 2012 by the United States Department of the Interior regarding Mather Air Force Base property was given to the properties stewards' (Sacramento County) as fiduciaries to protect and preserve the endangered critical habitat of the vernal pools and their crustaceans, grasses and frogs. At the bottom of page 1 this report states "Our primary concern and mandate is the protection of federally listed species and this biological opinion is issued in accordance with section 7 of the Endangered Species Act of 1973…" It is therefore important that this Board of Directors understands that the Mather alliance is categorically opposed to the destruction of the endangered vernal pools surrounding our homes. In the biological opinion on page 6 this report states, "…the proposed action includes establishment of the onsite preserve to protect, in perpetuity, sensitive and high-value vernal pool habitat and associated listed species."

A wise man once said, "People don't care that you know until they know that you care." This report on page 3 categorically and unequivocally explains that there are critical habitats for vernal pools and vernal pool grasses in the Mather Field area. In 1999 the service issued a biological opinion that states

"… the County preserve the vernal pool habitat on the airport and park properties at the Base under perpetual conservation easement." The report further states on page 7, "Additionally, on the north side of Morrison Creek a 50 foot buffer from the centerline of the Creek is included in the preserve…; a bike path may be approved within the buffer in the future." As stated in paragraph 1 on page 8, "The conservation easement will prohibit any use of, or activity on, the preserve which is inconsistent with the protection of federally listed species, without the prior written concurrence from the service." The preserve will be managed in accordance with a service - approved management plan, will be funded by a non-wasting endowment, and will be managed by a natural resource manager in perpetuity…"

The action area in question is listed on page 10 as, "…bounded by Mather Road to the north, Folsom South Canal to the East, Kiefer Blvd. to the South and old Placerville Road/Happy Lane to the West." The County in taking this property understood on page 10 that it had an indelible custodian-ship over this fragile Mather Field property. The County was made aware on page 12, paragraph 3 that the vernal pools were clustered into pool complexes. "The genetic characteristics of the species, as well as ecological conditions, such as watershed continuity, indicate that populations of these animals **are** defined by pool complexes rather than by individual vernal pools (Fugate 1992).

Therefore, the most accurate indication of the distribution and abundance of the species is the number of inhabited vernal pool complexes. The pools and, in some cases, pool complexes supporting these species is usually small." Widespread urbanization has had disastrous effects on the species. On page 13 under paragraph entitled Status and Distribution of V**ernal Pool Crustaceans** of this report states, "Both vernal pool crustaceans are imperiled by a variety of human caused activities primarily the loss and modification of habitat due to urban development, agricultural conversion, and infrastructure construction, especially along the periphery of urban areas…" "Habitat loss occurs from direct destruction and modification (EG., to the hydrology) of pools due to filling, grading, disking, leveling, and other activities as well as modification of surrounding uplands which alters the vernal pools watershed." It is further stated on page 14 that damage to these pools will result in nearly an impossible reproduction of this endangered species. The County's protection of these lands is therefore mandatory. The same alert regarding fairy shrimp is also listed on page 15 for Sacramento Orcutt grass. It too is listed as an indigenous grass and an endangered species and is directly connected to and supports the life in these ecologically fragile vernal pools and the lives therein. In paragraph 1 on page 17 of this report stated that, "Critical habitat units near areas that are rapidly developing are under the greatest degree of risk. Critical habitat for the vernal pool fairy shrimp is the most threatened by development activities… most threatened in Sacramento County." Ignoring these warnings of damage to this critical habitat has caused habitat loss and degradation of suitable vernal pool crustacean habitats within designated critical habitats. Sacramento County contains approximately 15% of the remaining vernal pools and grasslands in the state of California.

Page 20 of this report states, "The protection provided by the conservation easement will ensure that the property remain in its natural condition forever, and will prohibit any use of, or activity on, the protected property which is inconsistent with the protection of federally listed species…" The species to which this report alludes are the fairy shrimp, tadpoles and endangered grasses. In the last paragraph on page 21 the report states, "The future development project may affect the vernal pool crustaceans and grasses due to direct fill, increased sedimentation, changes in the hydrologic regime (E. G., change in rates of surface flow, reducing subsurface volumes), alteration of the hardpan, and changing the slope or ground cover of the surrounding landscape. Survival of aquatic organisms like the vernal pool fairy shrimp and vernal pool tadpole shrimp are directly linked to the water regime of their habitat…" The report resolves, "Therefore, construction near vernal pool habitat is likely to result in take of the vernal pool crustaceans. This loss or disturbance of vernal pool habitats could result in the taking of an unknown number of vernal pool fairy shrimp and vernal pool tadpole shrimp… (in) acres directly affected and… indirectly affected by the County's future development."

The report states on page 22, "Further, the Preserve will be managed to benefit the vernal pool crustaceans and their habitat. Because the protection of these critical habitat units are part of the Preserve, these units should play a strong role in the conservation of the species and the proposed project

should not irreparably damage the functioning of the range-wide critical habitat."

This report clearly shows the damage to one group of vernal pools will effect and could critically damage or destroy the entire vernal pool system of an ecologically preserved and protected Preserve area in the Mather Air Force Base properties over which Sacramento County accepted a fiduciary role to protect in perpetuity.

Response 23-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. However, given the nature of the comments it is felt some discussion is warranted.

Activities at Mather Field have been subject to consultation with the USFWS for decades. Since 1993 and the Final Record of Decision for Disposal and Reuse of Mather Air Force Base, consultation and review of proposed reuse activities at Mather Field has occurred with federal regulatory agencies. As part of the ongoing consultation at Mather Field, several Biological Opinions (BOs) have been issued covering various actions. Each BO includes in depth discussions of special status species and associated habitat and includes measures, where applicable, for the protection and preservation of these species and habitats.

It is acknowledged that the language in the statements above taken from past biological opinions at Mather Field is factual and these facts are not being disputed. However, it should be noted that the biological opinions do not preclude future development at Mather Field. In fact, most recently, the U.S. Fish and Wildlife Service *Biological Opinion for the Disposal of the Former Mather Air Force Base, Sacramento County, California, January 24, 2012* (2012 BO), contemplates future development of Mather Field consistent with the proposed project. The 2012 BO assesses the impacts to special status species and habitat consistent with the provisions of the Endangered Species Act.

The 2012 BO indicates that the transfer of Mather Air Force Base will not result in any direct effects to vernal pool crustaceans or grasses but the transfer of the base will facilitate an adverse indirect effect to federally listed species because the County has proposed development at Mather Field that is reasonably certain to occur post transfer.

The 2012 BO states that the County has submitted permit application proposals to the US Army Corps of Engineers (Corps) for environmental review of development covering approximately 1,900 acres of Mather Field. According to the 2012 BO, this development is expected to result in direct effects to approximately 34 acres of vernal pool habitat and potential indirect effects to approximately 8 acres. The 2012 BO also indicates that as part of the redevelopment proposal for Mather Air Force Base a 1,272 acre preserve will be created. Figure 1 of the 2012 BO shows the proposed developable portion of Mather Field and the proposed preserve area.

The 2012 BO concludes that the effects and cumulative effects of the proposed Action (transfer of Mather Air Force Base) is not likely to jeopardize the continued existence of vernal pool fairy shrimp, vernal pool tadpole shrimp, Sacramento orcutt grass, slender orcutt grass, vernal pool fairy shrimp critical habitat or vernal pool tadpole shrimp critical habitat. Additionally, the BO states that, although the future development by the County will likely adversely affect the species and designated critical habitat, the proposed project establishes a Preserve that protects, in perpetuity, a large, contiguous portion of the highest quality habitat on Mather Field which will contribute to the long-term preservation and management of vernal pool habitat in an area that is critical for the species' survival and recovery, and includes a large portion of the Mather critical habitat units and the Mather Core area.

Finally, the 2012 BO indicates that future development proposals at Mather Field that may incidentally take federally listed species or adversely affect critical habitat are

required to be in compliance with either Section 7 or Section 10 of the Endangered Species Act, as appropriate. In the case of Section 7 consultation, an Incidental Take Statement with Reasonable and Prudent Measures and Terms and Conditions to minimize take will be issued with the Biological Opinion. Section 10 will require development of an HCP and issuance of an incidental take permit. The conclusion that the effects to vernal pool crustaceans in the form of direct effects to 34 acres and indirect effects to 8 acres of vernal pool wetland habitat are not likely to jeopardize the continued existence of these species, and that the effects to vernal pool critical habitat are not likely to cause adverse modification to the critical habitat, will apply to future development at Mather Field by the County. However, these conclusions may need to be reassessed in future Section 7 consultation or Section 10 permit process if it is determined that significant changes have occurred in the baseline of the species or critical habitat that may influence the jeopardy or adverse modification analysis.

To summarize, the commenter is correct that past Biological Opinions for Mather Field indicate that Mather Field contains suitable habitat that has been identified by federal regulatory agencies to be protected. Also, the commenter is correct that habitat at Mather Field should be protected within a preserve under perpetual conservation easements and managed in accordance with a USFWS approved management plan that will be funded by a non-wasting endowment. Additionally, the commenter is correct that the 2012 BO indicates that future development at Mather Field will result in impacts to vernal pool species. However, the Biological Opinions do not preclude the development at Mather Field and, in fact, the 2012 BO contemplates and includes an assessment of future development consistent with the proposed project.

Impacts and mitigation measures identified within the EIR are consistent with the analysis included in the 2012 BO. Text has been added to the background section of the Project Description chapter to clarify.

Comment 23-2

I understand as a businessman and a taxpayer that the County wants to re-zone these precious and protected areas in order to generate further tax revenues for the County coffers. I implore this Sacramento County Board to forgo implementing any change to these protected lands and species as the fiduciary for these Preserves and species. Do not destroy lands which you cannot replace. Future generations of Sacramento inhabitants, including children, will lose the opportunity to explore and learn from these protected Preserves and species once they are destroyed by urbanization.

Response 23-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 24

Eleanor Averitt; Mather resident; written correspondence; June22, 2015

Comment 24-1

What headlines do you want for Sacramento County?

California State, Sacramento County, leads the way to conserving native endangered habitat and natural education resources

Or

California State, Sacramento County, destroys native habitat and educational resources to make room for dense population housing and industrial parks.

I personally, would prefer the first headline where I am proud to live in a county that provides for not only the present students and residents but also for future generations. I also believe Sacramento County should honor the federal government which entrusted Mather wetlands to Sacramento County for the purpose of protecting the wetlands with specific directives, not destroy and pave over it. The federal government saw the importance of this area, why can't Sacramento County?

Response 24-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 24-2

Mather wetlands provide educational resources for families, elementary schools, colleges and universities. Several school districts utilize the Mather wetlands/fields for students to learn about ecology, native habitats, endangered species, geology, and science. The Mather Wetlands is an essential habitat to many endangered species. With the class field trips to this special area, you are engaging young minds to the importance of nature and science. Who knows how many scientists, doctors and teachers, to name just a few occupations, will come out of this experience. The importance of this for the present and future generations is priceless.

Response 24-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 24-3

At the June 8th meeting, I heard that Sacramento County has applied for 7 permits for that area. I don't understand why they applied for 7 permits, when in fact all they want to do is destroy the land and then build on it. This is such an elaborate puzzle. Sacramento County has other nonviable land resources to build housing and industrial parks. An example is areas that aggregate companies have used up the land for their needs. That land is already nonviable.

Response 24-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the applicant and the Board of Supervisors for their consideration.

Comment 24-4

Why go through the time and expense of destroying viable land (that the federal entrusted to the County to preserve) when you already have nonviable land to build on? Once the wetlands lands have been disturbed, destroyed, and paved over, they are gone. There is no second chance.

Response 24-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 24-5

I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 24-5

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 25

Lisa Infusino; Mather resident; written correspondence; June 22, 2015

Comment 25-1

I am concerned that we do not have an adequate water supply to cover the rezoning and subsequent proposed development. In reading through the draft Environmental Impact Report ("EIR"), there are references to water studies performed and according to staff, there is an adequate water supply to support the development. The draft EIR indicates that the water studies were included in the Sacramento County Water Agency's ("SCWA") Urban Water Management Plan for 2010. The water studies were done in 2010 – five years ago - prior to our current drought.

The water tables labeled PS-2 and PS-3 in the draft EIR do not extend beyond a 3 year dry situation. As announced by Governor Brown, we are now in our 4th year of drought. It is unknown what may happen in years, 4, 5 or even 6 in the current ongoing drought. The Governor has declared a state of emergency and mandated strict conservation.

The draft EIR states that there is an adequate water supply to support the development, since the Mather Field Development was included in the SCWA's Urban Water Management Plan. Yet SCWA implemented its Water Shortage Contingency Plan (revised January 2014), announced that we are in Stage 3 of its Water Shortage Contingency Plan and has mandated a 32% decrease in water consumption. **The SCWA has defined Stage 3 as follows: "Water Crisis – major failure of a supply, or distribution system; supplies not meeting current demands".** Given, that the SCWA has labeled our drought as a "Crisis" and has enacted drastic water conservation mandates, this is a serious concern. If SCWA can't meet current demand, how will it be able to meet future demand that this project will require? There appears to be no **recent** plan addressing infrastructure issues including water.

The Independence at Mather residents are taking the water shortage seriously and are doing their part to conserve. Drive through our neighborhood and you will see our dead landscaping and lawns.

I ask the County Planning Commission to do their part, and vote against the rezoning and proposed development at this time. We have a water crisis and can't support this project and development.

Response 25-1

See response 4-5.

LETTER 26

Jean-Paul and Virginia Prentice; Mather residents; written correspondence; June 22, 2015

Comment 26-1

Item 1

Rezoning Recreation to Urban Development. We specifically object to the use of the Urban Development Area land use designation as a "holding" designation that "only identifies where future development may occur and does not allow for any development." Valuable and irreplaceable vernal pools are found within the Urban Development Area shown in the Plan. Once given this designation, these types of properties will no longer be recognized as having any environmental value to the surrounding community, thus making it considerably more difficult to argue to reverse zoning back for their preservation.
We recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-2

Item 2

The County's Insufficient Coverage of Possible Impacts from Extending Zinfandel Road
A traffic study has not been completed to determine what the air quality impacts caused by increased traffic flow might be. An increase of atmospheric nitrogen deposition caused by increased vehicle emissions will directly impact the vernal pools by changing their nutrient composition, making them more susceptible to invasive plant species. Without a complete assessment of future traffic flows, the County cannot adequately assess the extent of impact that associated changes in air quality might have on the health of the preserve. The County must complete a full accounting for traffic related impacts,

for both short- and long term traffic loads, on air quality along the Zinfandel alignment, and propose realistic mitigation strategies for limiting impacts to vernal pool habitats nearby. Moving forward without this traffic study is just bad planning and very shortsighted on the County's part.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-2

See response 8-6.

Comment 26-3

Item 3

The County's proposal to realign Zinfandel through the vernal pools area.
I do not support the proposed amendment to the General Plan Transportation Diagram regarding the realignment of Zinfandel through the project area and ask that the Commissioners reject this alignment in favor of one that is more complementary to land use, protects the wildlife habitat, and preserves the existing aesthetics within the project area.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-4

Item 4

The County's proposed project that puts Mather's entire ecosystem at risk.
The County's Draft Environmental Impact Report failed to consider impacts on an ecosystem level. The report did not note how impacts to one species or habitat will profoundly affect other species, and eventually will degrade the entire ecosystem. It treats every species and habitat individually and does not consider how even minor impacts to one might affect some or all of the others. Disruptions to top level predators can have huge impacts on prey species populations and can eventually degrade the entire ecosystem. On a species by species basis, the effects a four to six-lane major artery running through the heart of Mather— and right next to a large portion of the proposed conservation areas—will have on each species might seem "less than significant," but cumulatively, the reduction in total predators at Mather could result in a total ecosystem collapse.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-4

See response 8-14.

Comment 26-5

Item 5

Severe water quality impacts. The project as proposed may cut off or irreparably alter the subsurface groundwater flow maintaining vernal pools in the preserve, reducing or eliminating their functionality as wetlands.
In addition, runoff and spillage from construction to realign/extend Zinfandel and establish a new sewer trunk beneath the roadway could severely impact water quality within the vernal pool preserve. Chemicals found in fuels and solvents can very quickly infiltrate and spread in shallow groundwater systems, especially when introduced through subsurface excavations. No amount of best management practices or stormwater management efforts can completely eliminate this contamination from infiltrating shallow groundwater systems and eventually impacting environmentally sensitive habitats at Mather. We request the County consider how the proposed development plan may cause irreversible damage to existing vernal pool habitats.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-5

In regard to the portion of the comment related to vernal pool impacts, see comment 8-6.

In regard to the portion of the comment related to water quality, see responses 1-1, 8-17, and 8-23.

Comment 26-6

Item 6

County's Draft Environmental Impact Report's insufficient coverage of possible impacts from Zinfandel realignment and new sewer trunk
There are only two roads providing routes in and out of Mather. The proposed Zinfandel realignment and construction of a sewer trunk along Zinfandel requires closure one of these two roads (Zinfandel) for an undetermined length of time. The one road that would remain open – Excelsior – is a two-lane residential street through Mather that is overcrowded during morning and evening rush hours with Mather residents and through traffic experiencing long waits and low levels of service. With closure of Zinfandel (Eagles Nest) all Mather residents will be forced to take Excelsior in and out of the subdivision, further loading an already-crowded thoroughfare.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-6

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-7

Item 7

County's Draft Environmental Impact Report's insufficient coverage of possible impacts from Zinfandel realignment and new sewer trunk
During the weeks or months of proposed construction that closes Zinfandel (also known as Eagles Nest) for the installation of a sewer line, if an emergency vehicle needed access to a Mather residence during these rush hours, it would be impossible to get through that traffic quickly. There is nowhere for the traffic to go to make way for a police car,

ambulance or fire truck, other than onto people's lawns. Delays in emergency services can result in grievous injury, and even death, to Mather residents. The closure of Zinfandel (via Woodring Drive) would also leave residents vulnerable in the event of an emergency evacuation order. We consider these to be very significant impacts. None of these issues were addressed in the Draft EIR, nor has any mitigation been considered. It would be poor planning to approve this plan without clear published alternatives that would assure the safety of Mather residents.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-7

See Response 4-6.

Comment 26-8

Item 8

County's Draft Environmental Impact Report's insufficient coverage of possible impacts from Zinfandel Realignment and New Sewer Trunk
Roadways add more heat to a given area as solar radiation is absorbed and re-radiated out as thermal heat. Additional blacktop lanes will increase localized temperatures.
Natural land surfaces cool down much more rapidly than developed land surfaces.
Replacement of the area's grasslands with roadways, blacktop, and rooftops will permanently alter the local climate.
I recommend you retain Zinfandel (Eagles Nest) as a two-lane road and do not extend it southward alongside the Mather Preserve.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-8

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-9

Item 9

County's Draft Environmental Impact Report's insufficient coverage of possible impacts from Zinfandel Realignment
The Draft Environmental Impact Report made no mention of the potential light pollution or noise pollution impacts that a 4-to-6 lane roadway might have on sensitive vernal pool habitats. Without a doubt, there are many species within the project area that are nocturnal, some of which are undoubtedly going to be adversely affected by light pollution from the proposed development areas.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-9

See response 8-30.

Comment 26-10

Item 10

Sacramento County's Ineffective Public Outreach regarding Mather Specific and Mather Field Plan
The June 10, 2014, County Planning Action Committee meeting minutes stated:
This 2014 Board of Supervisor's agenda states, "Extensive public outreach is planned to occur throughout the environmental review process and after the draft EIR is released. Staff and the applicant will continue to engage the public throughout the planning and environmental review process to address questions, comments and concerns expressed."
We were also told by County staff at the June 8 meeting that the County has done extensive public outreach to educate us about the proposals.
However, the consensus of hundreds of residents is that public outreach has not been effective.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-10

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-11

Item 11

Sacramento County's Ineffective Public Outreach regarding Mather Specific and Mather Field Plan

I would like to provide the Commissioners a few examples of the ineffective public outreach:

- The step-by-step project planning process has never been outlined and published so residents can follow the process. This information is not searchable on the County's website.
- The County Planning Commissioner's names and contact information is not published on a public website.
- Mather residents received only a few public notices in the mail about this project, with no specific details.
- The County considers Mather's HOA meetings as public outreach. The attendance at those meetings is usually fewer than 25 residents. That leaves nearly one thousand residents uninformed.
- Residents in the Mather community and surrounding region may have known about the County's desire to develop land areas. However, the public outreach could be characterized as more like marketing propaganda with very general outlines that presented "potential" projects with huge public benefit, such as closer shopping, public transportation, bike paths, and hiking trails. Unless we requested to view the County's Draft Environmental Impact Report, we would not even know the extent of these projects.
- To get electronic Sac County meeting notifications, you must sign up by email for each type of meeting. Without knowing the step-by-step County planning process, we cannot know which meetings we need to attend.
- Sac County electronic notifications arrive less than a week before the meeting date.
- The Sac County's website is difficult to use and to find information. Worse, it does not provide effective search tools.
- The constant and numerous plan amendments and different project names causes confusion and gives the impression that the County is not being transparent.

I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-11

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 26-12

Item 12

The proposed Zinfandel Trunk/sewer line. Regarding the plans to dig a 35-foot deep trench for the trunk sewer line, the County's Draft Environmental Impact Report states, "The intent of the project is to provide for new development and economic opportunities within the County and to provide services for County residents and visitors." Currently no residents or visitors require sewer service at Woodring and Zinfandel. There is no reason to install this sewer line, until the Planning Commission and Board of Supervisors approve the commercial/residential plan for South Mather, which the county states is not the subject for discussion at this meeting. Please do not spend public funds to build a sewer line that only benefits a developer's unapproved plans.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-12

See response 8-2.

Comment 26-13

Item 13

The County's proposed road and sewer project that puts Mather's vernal pool preserve at risk.
The County has not done its due diligence in determining the impacts that road construction and a 35-foot deep trench for a sewer line will have on the subsurface hydrology that created and maintains the vernal pools of Mather. The County cannot state that the impacts to the vernal pools of the preserve will be less than significant if there is no way of knowing with any certainty what the impacts of disruption of

subsurface hydrology will be. In order to determine whether or not this sewer line project could be implemented without irreparably harming the vernal pools of the preserve, the County would have to conduct a multi-year study of shallow groundwater movement throughout the proposed development and conservation areas. This would also help to determine the potential impacts of other proposed land uses changes. The County could then use the results to change proposed boundaries of Urban Designated Area in order to preserve hydrologic source integrity of preserve vernal pools. This would be more responsible land use planning.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-13

See response 8-6.

Comment 26-14

Item 14

The loss of irreplaceable vernal pools.
The following is a direct quote from the California Department of Fish and Wildlife website:
"It is difficult to know how much of California was covered by vernal pool systems prior to the arrival of Spanish explorers, but we do know that most of the historical vernal pool habitat has been destroyed. A vast and rapid loss of vernal pool habitat was first a result of agricultural expansion within the Central Valley followed, to a lesser extent, by urban development. Estimates suggest that close to 90 percent or more of the vernal pool habitat in the Central Valley and in other parts of the state has been lost. **Recent studies** have documented continuing vernal pool habitat loss in recent decades, with over 13 percent of the **remaining** Central Valley vernal pool habitat (137,100 acres) being lost from baseline conditions in 1976-1995 to the conditions in 2005. Agriculture and development have also altered the hydrology of land surrounding vernal pools, increasing erosion and runoff and contributing harmful pesticides and fertilizers."

Some vernal pool soils are said to be hundreds of thousands of years old. How can this commission, in good conscience, endorse a plan such as this that gives our community nothing special and at the same time takes something so rare and exceptional? This plan is not good stewardship. It's a throwback from a time before we knew better. Let's do something today that we can look back on with pride rather than regret. Do the right thing. Demand the County do the necessary studies. And do not endorse needless damage that can't be undone.
I urge you recommend that the County Board of Supervisors deny the County their proposed general plan amendments, amendment to the general plan transportation diagram, specific plan amendment, zoning ordinance amendment, and Zinfandel drive extension.

Response 26-14

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 27

Rachel Dubose, Air Quality Planner/Analyst; Sacramento Metropolitan Air Quality Management District; written correspondence; June 15, 2015

Comment 27-1

The EIR mitigation measures, especially AQ-2, are rigorous, clear and concise; therefore don't see the need to send a comment letter.

Response 27-1

Comment noted.

LETTER 28

T. Nathan Manley, Mather Field Resident; written correspondence; dated June 8, 2015.

Comment 28-1

Groundwater Hydrology & Impacts on Vernal Pool Habitats

As a Professional Geologist and former environmental consultant on numerous groundwater monitoring and contaminant remediation projects across California, I have a fair amount of background knowledge in subsurface hydrology and a particular interest in the shallow subsurface hydrology of the Mather Field Area as it relates to vernal pool habitats.

After reviewing the DEIR, I am concerned by the glaring lack of consideration given to impact(s) that construction activities might have on subsurface hydrology and the potentially significant damage this might have on the health of vernal pool habitats across the entire Mather project area. The DEIR states quite clearly that "the future amount of construction activity that could occur consistent with the project proposal is unknown…", yet somehow the authors still conclude that "with mitigation, impacts to waters and wetlands that will result from development are **less than significant**." I submit that this conclusion is unwarranted, is based on very little real data and demonstrates a less than adequate understanding of perched aquifer hydrology.

Response 28-1

See response 8-3.

Comment 28-2

Researchers from UC Davis and the University of South Florida published a 2005 paper in the journal Hydrological Processes (*The role of perched aquifers in hydrological connectivity and biogeochemical processes in vernal pool landscapes, Central Valley, California;* Rains, et. al) detailing their results of an investigation into subsurface hydrology

around some of the vernal pools at Mather Field. These authors concluded (as many of us have long suspected) that upland areas, vernal pools, and seasonal streams are all part of an integrated surface-water/perched groundwater system that extends laterally beneath the vernal pools and surrounding habitat. In short, the vernal pools at Mather Field are connected by a shallow groundwater table that flows laterally on a subsurface layer of low permeability soil (i.e. a soil hardpan). Groundwater flow across this hardpan surface sustains the pools long after winter rains have ended and provides a source of freshwater recharge through the pools. Many pools are sequentially linked by this groundwater flow, such that pools at the upper end of the subsurface gradient are discharging to pools lower down. As a resident and geologist, I can confidently attest that this condition is not limited to the pools studied by this particular research team and is readily observable through basic field observation around other pools and upland areas during the wet season.

I was surprised to find that this research was not included in the DEIR bibliography and appears to have been overlooked by the investigations conducted by the County and/or consultants hired to perform impact evaluations of the project area. This obvious lack of understanding regarding shallow subsurface hydrology has potentially dire implications for the relative "significance" of environmental impacts to vernal pool habitats and water quality throughout the project area and, consequently, the conclusions reached in the DEIR. It also has substantial ramifications for any of the "proposed" mitigation actions which rely on construction of new pools or improvements to existing habitats.

The UC Davis research team concluded that "*small changes in local land use, such as the development of irrigated agriculture or parkland, may have considerable impacts on the vernal pools. The degree to which small changes in local land use might affect the vernal pools is poorly understood, because the fundamental hydrogeological characteristics of perched aquifers remain relatively unexplored. The management of perched aquifers should rest on a scientific foundation that provides a general understanding of the conditions necessary to maintain perched aquifers capable of supporting the physical and biological functions of dependent wetland ecosystems.*" To be clear, what these researchers are saying is that the health of vernal pool ecosystems depends on a solid understanding of the shallow groundwater aquifer. Activity (such as construction of subsurface utilities) which even slightly alters how this groundwater moves beneath the land surface could have potentially large (negative) impacts on the vernal pools. In short, we cannot treat vernal pools as isolated ponds fed by surface runoff and mitigate impacts to them by establishing an arbitrary setback to prevent damage. It is essential that the groundwater hydrology in the South Mather area is fully mapped and understood before any kind of infrastructural improvements are made. Otherwise irreversible damage to existing vernal pool habitats may very well be inflicted by the proposed development plan.

Response 28-2

See response 8-6.

Comment 28-3

As a former consulting geologist, I know from personal experience that construction activities associated with major developments can profoundly affect near surface groundwater. Utility trenches, drainage channels, sanitary sewer and storm drainage lines are certain to intersect the perched groundwater table within the project area, with some potentially penetrating the hardpan layer into deeper soil strata below. These intrusions pose two obvious potential impacts to vernal pools in the surrounding areas. First, subsurface utilities and deep earthworks could disrupt groundwater flow to the point that some vernal pool areas (even those in the proposed conservation areas) could dry up much faster than normal or potentially never fill in the first place. I don't think I need to tell you what this would mean for the mitigation and conservation plans proposed in the DEIR! Second, these subsurface trenches and utilities can act as "sensitive receptors" that allow contaminated surface waters to infiltrate the groundwater table and flow laterally into environmentally sensitive habitats. I know quite well just how quickly volatile organic hydrocarbons (VOCs) found in fuels, solvents, herbicides, and insecticides can infiltrate and spread in shallow groundwater systems. No amount of best management practices (BMPs) or stormwater management efforts can completely eliminate VOC (and similar) contamination from infiltrating shallow groundwater systems and eventually impacting environmentally sensitive habitats. While the DEIR does discuss stormwater management during construction activities, it does not address any

long term contaminant management strategies or potential impacts associated with residential, business, or industrial activities proposed for development areas.

Response 28-3

In response to the portion of the comment that related to vernal pools, see response 8-6.

In response to the portion of the comment related to water quality, see response 8-17.

Comment 28-4

My review of the DEIR failed to find any reference to an Integrated Groundwater and Surface Water Model (IGSM) for the Mather Field Special Planning Area. A well-executed, multi-year study of shallow groundwater movement throughout the proposed development and conservation areas is essential before any definitive EIR can establish that impacts will not be significant (with or without mitigation). A cursory review of the project maps (e.g. Plates PD-8, BR-1 and BR-4 from the DEIR) reveals that much of the proposed Urban Development and Commercial Recreation areas east of Eagles Nest (now Zinfandel Drive) sit on the up-gradient (uphill) side of seasonal drainages and vernal swales that feed westward toward the Morrison Creek drainage and across the eastern half of the proposed conservation area! It stands to reason that in at least some areas, near-surface groundwater gradients will follow a similar pathway. Thus county staff and/or paid environmental consultants cannot satisfactorily conclude that environmental impacts to vernal pools habitats are less than significant without having a more complete understanding of the subsurface hydrology and full knowledge of ALL potential construction activities which could intersect and disrupt groundwater flow.

Approving any phase of construction associated with the General Plan (including the proposed Zinfandel Drive and trunk sewer extension) without first having a complete IGSM, will undoubtedly lead to substantially greater environmental impacts than have been assumed or which can be successfully mitigated for. These in turn would consequently invite CEQA violations and open the County and Mather South, LLC to lengthy litigation proceedings.

Response 28-4

See response 8-6.

Comment 28-5

Western Spadefoot Toad Mitigation Plans

The DEIR correctly identifies the western spadefoot toad as a California listed species of concern (CSC). The document also correctly notes that there is no published regulatory guidance for habitat mitigation for this species. However, there appears to be an (implied) assumption that any vernal pool within the project area (including the proposed conservation areas) can provide a suitable habitat for the species. Without any regulatory guidance or academic expertise specifically identifying what habitat is (or is not) optimal for the spadefoot, this assumption seems unreasonable. In fact, language in the DEIR on this subject seems to suggest that the species will likely be eliminated entirely from the Mather region, but states that because its habitat is preserved elsewhere in California, the destruction of this population is acceptable.

I, and other people who recognize the folly of this presumption, disagree. Vehemently. To begin, these lands were given to the county by the federal government and are held in trust by the County as public lands. Destruction of any natural resource, especially a relatively unique and sensitive species of concern like the western spadefoot, should not be taken so lightly or callously. One has to marvel at the notion that the California Department of Fish and Wildlife (CDFW) requires special permits to keep western spadefoots for educational purposes, but would actually be willing to accept the destruction of hundreds (perhaps thousands) of them for yet another addition to suburban sprawl? Regardless of whether or not the CDFW would knowingly allow this to occur, I think the taxpaying members of the general public (and their elementary aged school children) will not accept the foregone conclusion that the destruction the Mather Field spadefoot population serves the greater public interest. For this reason alone, you should reject any plans that might result in their demise.

The project proponents have argued in the DEIR that with mitigation, damage to the spadefoot population will be "less than significant". Yet throughout the DEIR the authors repeatedly state that the full extent of future construction activities within the project area is unknown. Thus there is no way to fully ensure what damage will be done or that a trained biologist will always be on hand to prevent or mitigate destruction of spadefoot burrows. I know full well how negatively construction crews regard the presence of wildlife biologists on a project site and thus have little confidence that they will act responsibly in and around spadefoot habitat when the project's profitability is on the line.

In fact the whole notion of mitigating for western spadefoot habitat is laughable, considering the lack of understanding we have about their behavior and habitat preferences. Local naturalists around Mather know full well that spadefoots can only be found in one very limited area (coincidentally located within the proposed Urban Development and Commercial Recreation areas). No one knows why the spadefoot population is so spatially limited at Mather, but there are many biologists who suspect that their habitat needs are a bit more specific than just any random vernal pool in California. Furthermore, the supposition that a spadefoot burrow can be successfully excavated and transplanted somewhere else without killing the animal inside is completely preposterous. There is no regulatory or scientific basis to suggest this is a viable mitigation strategy, yet this is the strategy the County has proposed to mitigate all these "unknown" impacts to "less than significant" levels.

I urge you to reject plans to "take" the only known habitat for this species in the project area. Amphibians are well known throughout the scientific community as an indicator species for ecosystem health due to their sensitivity to minor changes in environmental conditions. With the glaring lack of a proven mitigation strategy, it is almost a guarantee that western spadefoots will disappear from Mather forever if their present habitat is destroyed. If the project proponents do intend to destroy the species at Mather, they should have the decency to take responsibility for it and not hide behind a knowingly false mitigation proposal. Your commission and the County board of supervisors should know that if they decide to permit the destruction of spadefoot toads at Mather, I will be bringing my 5-year old son and all his kindergarten friends to a future planning commission and board meetings so you can explain in person why these creatures had to be destroyed. If you're going to destroy a species meant to be preserved for these children's future, the least you can do is explain it to them yourselves.

Instead, the County really should be looking at this pool as a valuable educational and environmental resource, not something that has to be destroyed to make room for some fantastically unrealistic sports park or university campus. It is an economic and educational opportunity, not an impediment.

Response 28-5

In regard to the portion of the comment related to the unknown specifics of future projects that may be located at Mather Field, see response 8-3.

In regard to portion of the comment that related to spadefoot toad, see response 8-19.

Comment 28-6

Ecosystem Level Considerations

After reading the Biological Resources chapter of the DEIR, I was struck by the lack of consideration given to broader ecosystem-wide consequences of the proposed developments. Throughout this chapter I read time and again how each individual species or habitat could be mitigated for (which, as I've already illustrated are not necessarily realistic), but nowhere did I read any discussion about how the interruption/disruption of individual species and habitats might affect the ecosystem as a whole. I also did not see any discussion of how surrounding the conservation area with urban and industrial development might impact the long term health of the remaining ecosystem within the conservation area.

As residents of Mather Field for the past 6 years, my family has grown to love the diversity of species found in our backyard. From snakes, squirrels and raccoons, to hawks, owls (including great horned owls that regularly nest in our trees) and the coyotes that patrol the fields, we treasure our proximity to (and coexistence with) the surrounding flora and fauna. In fact I've come to rely on many of these creatures to help keep things in balance. Any long time Mather resident can tell you that episodically, the local vole population undergoes an explosion and as things start to dry out, the neighborhood can be quite literally overrun with these voracious little creatures. If not for the snakes, owls, hawks, kites, falcons, egrets, herons, and coyotes out there, I cannot begin to imagine what kind of chaos those hungry voles could inflict during one of these vole population explosions!

Yet this is exactly my worry about the proposed development plan and the critical lack of full ecosystem level considerations in the DEIR. Every good environmental scientist knows that the balance of predators to prey within a system is a delicate one, and scientific literature is awash with examples of how reduction (or removal) of predators from an ecosystem invariably results in a dramatic decline of the overall health of plant and animal communities due to

unchecked population increases in prey species. This is certainly a possibility within the Mather project and one that has not been even remotely addressed.

For instance, the DEIR assures us that any tree that is removed will be replaced, and that no construction will occur within ½ mile of a nesting Swainson's hawk. The supposition here is that just because you are providing for a conservation area, there won't be an appreciable loss of nesting or foraging habitat, thus making the impact "less than significant". But if most of the tall trees are removed (as the big cottonwoods in the Urban Development/Commercial Recreation areas will likely be), where exactly are all the hawks, kites, and owls going to perch during the heat of the day? Just because they aren't nesting doesn't mean they aren't going to need to land somewhere. Many of these kinds of birds need a tall viewpoint from which to hunt and rest, but replanted trees intended for mitigation aren't likely to reach those kinds of heights for decades. Some of bird species are quite shy as well and tend to avoid heavily trafficked areas. For example, the Great Blue Heron is a commonly seen species around the Mather area and is considered by the CDFW to be a "special animal" and an "at risk" species. These herons (a known predator of voles) are extraordinarily shy and tend to abandon areas subject to heavy construction and high traffic roadway development. Yet the DEIR makes absolutely no mention of this species and the impacts it's disappearance from the site would have on the surrounding ecosystem. So while the project may be preserving suitable habitat within the conservation area, the surrounding development and infrastructure may be preventing many species from actually using it, leaving the ecosystem diminished.

Surrounding the conservation area with heavy development (including a 4 to 6 lane extension of Zinfandel and transformation into a major traffic artery) will most certainly have a negative impact on all kinds of species, from coyotes and western pond turtles (yes, they actually do leave the water from time to time) to snakes, voles, and gophers. Owls are particularly susceptible to being killed by moving vehicles (I've noted more than a half dozen barn owl kills on Zinfandel over the past few years) and the coyote population will likely be forced to relocate elsewhere given the heavy traffic loads projected. While it is relatively easy to write off each of these species on a case by case basis, the cumulative effect to the ecosystem will be dramatic. Without adequate predation, vernal pool habitats could be irreparably damaged by rodent outbreaks and the resultant effects up and down the food chain could prove disastrous. The project as proposed could effectually turn the Mather Field vernal pool conservation area into an unsustainable island of nature surrounded by a wall of urban sprawl.

Response 28-6

See response 8-14.

Comment 28-7

The DEIR also makes no mention of light pollution or noise pollution and potential impacts these might have on sensitive vernal pool habitats. Without a doubt, there are many species within the project area that are nocturnal or corpuscular, some of which are undoubtedly going to be affected adversely by light pollution from the proposed development areas. The DEIR also fails to address urban noise pollution associated with development after construction is completed. One of the most charming (and appealing) aspects of living in Mather Field is the relative quiet compared to the surrounding region. This is especially true in the southeastern portion of the proposed conservation and urban development areas, well away from the airport. Aside from occasional "touch and go" training flights by the local air national guard wing, the Mather Field grasslands along Eagles Nest road are extraordinarily quiet much of the time. It is difficult to imagine that years of housing construction and the addition of many thousands of additional cars per day travelling on an expanded Zinfandel Drive will not have an impact. Many of the very best, most visited and most appreciated vernal pools at Mather Field are immediately adjacent to this proposed extension of Zinfandel. The roadway, development, and associated traffic cannot help but negatively impact the aesthetic of these pools and their appreciation by numerous members of the public.

Response 28-7

In response to the portion of the comment related to light and noise impacts to vernal pools, refer to response 8-30.

In response to indirect impacts to vernal pools with the construction of Zinfandel Drive and development that may occur in the future, see response 8-6.

Comment 28-8

Hundreds of children each year visit Mather Field to learn about vernal pool ecosystems and water conservation. Many have never seen wide vistas and open grasslands like those at Mather and would be unable to travel farther afield to be able to experience this kind of aesthetic. People from all of over the state (and even from abroad) come to marvel at the wildflower blooms around Mather Field. The much loved public television host Huell Howser even visited the vernal pools here and his show on the subject still airs each year. In many ways, the *environment around* Mather Field is an unappreciated and (apparently) unrecognized economic and educational benefit to the County. The DEIR fails to consider any impacts the project might have on these less tangible, yet no less important aspects of our community.

Per CEQA guidelines, a significant impact is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." (Section 15382) Certainly an ecosystem wide collapse (due to reduced predation) would qualify as a potentially significant impact to flora and fauna? Are we expected to believe that the introduction of 4 lanes of speeding traffic right next to the best vernal pool habitats will *not* significantly impact the ambient noise there? Will light pollution from streetlights, homes, businesses, retail parking, or worse yet, a *theme park* really NOT have any impact on the aesthetic of the area for visitors and residents alike?! None of these issues are even remotely addressed by the DEIR and thus have failed to consider substantial and potentially substantial impacts as required by CEQA. More importantly, ignoring these issues to the eventual detriment of the Mather Field community as a whole will constitute a failure of the public trust.

Response 28-8

As stated in chapter 15 of the EIR many significant impacts related to the project have been identified including impacts to air quality, airport compatibility, jurisdictional waters, native and non-native trees, vernal pool habitat and related species, habitat for the valley elderberry longhorn beetle, western spadefoot toad, western pond turtle, tricolored blackbird, nesting and foraging habitat for birds of prey, nesting migratory birds, badgers, special status plants, critical habitat for vernal pool tadpole and fairy shrimp, habitat within the Mather Core Recovery Area, riparian habitat, cultural resources, hazardous materials, public utilities and services and climate change. However, as stated in the EIR these impacts can be reduced to less than significant levels with mitigation measures that have been developed in order to reduce impacts.

In response to indirect impacts to vernal pools with the construction of Zinfandel Drive and development that may occur in the future, see response 8-6.

Additionally, it should be noted that the project proposal does not include any proposed development other than the construction of the Zinfandel Drive/ trunk sewer extension. In regard to the portion of the comment related to homes, businesses, retail parking and a theme park having impacts on aesthetics, the existing land designations at Mather Field already allows for these types of uses.

As shown on page 2-2 of the EIR, Mather Field is entirely located within the Urban Services Boundary (USB) and Urban Policy Area (UPA). According to the Sacramento County General Plan, the USB indicates the boundary of the urban area in the unincorporated county. The UPA defines the area within the USB expected to receive urban levels of public infrastructure and services within the planning period. The General Plan states that the area within the UPA must be able to accommodate growth projected for the 25 year planning period. The USB allows for the permanent preservation of agriculture and rangelands, critical habitat and natural resources, while the UPA concentrates and directs growth within previously urbanized areas, limiting arbitrary and sprawling development patterns. The proposed infrastructure improvements are consistent with the General Plan's requirement of providing infrastructure to accommodate growth within the planning period.

Additionally, although the eastern portion of Mather Field is currently vacant, the Mather Field Specific Plan and Special Planning Area (SPA), as detailed in the Land Use chapter of the EIR, currently designate the southeastern portion of Mather Field for recreation and commercial recreation uses. The existing recreation land use designation provides areas for active public recreation including community parks and County parks. The Mather Regional Park Land Use Plan shown on page 37 of the existing Mather Field Specific Plan document shows the area approximately 1,200 feet south of Woodring Road as an area with a commercial park complex and just east of that, a velodrome. One of the many objectives of the existing Mather Field Specific Plan that speaks to the redevelopment of Mather Field is to create a new commercial recreational attraction, such as a theme park or a major institutional use at the southeast corner of the site.

According to the Mather Field SPA, the Commercial Recreation District located that the southeastern portion of Mather Field allows for uses in the Recreation (O) Zone as listed in the Zoning Code as well as indoor and outdoor recreational facilities, active sports complex buildings, campgrounds, County office buildings, and County Regional Parks corporation yard.

The uses noted in the comment are already allowed at Mather Field and the impacts associated with those allowed uses have already been analyzed. As stated on page 4-18 of the EIR, the proposed project includes Specific Plan amendments that are consistent with the intent of the Specific Plan for Mather Field and builds on the existing objectives identified for the project site.

Comment 28-9

Conclusions

As stated in the DEIR, the first strategy listed under the County General Plan Land Use Element has the intended goal to "Direct new growth to previously urbanized areas, planned growth areas and strategically located new growth areas to promote efficient use of land, to reduce urban sprawl and its impacts, to preserve valuable environmental resources, and to protect agricultural and rangeland operations." From what I have read, the Mather Field DEIR fails to responsibly address this and several other strategies established by the General Plan. Thus I can only conclude the people of our County, specifically residents of Mather Field, are at risk of being fiscally, culturally, and environmentally harmed by the implementation of the proposed Mather South development.

The repeated statements in the DEIR admitting that the full extent of construction activities within the proposed development areas are "unknown" indicate that the County has not done its due diligence in fully evaluating the short

and long term environmental (and perhaps fiscal) impacts of this project. Thus it follows that the repeated conclusions of "less than significant" impact are invalid as well, regardless of the supposed mitigation strategy. Add to this the obvious lack of consideration paid to shallow groundwater hydrology around vernal pool habitats, reduced predation (and downstream implications thereof), light pollution, noise pollution, and associated impacts to the overall aesthetic of the undeveloped grasslands in the project area, and I am forced to conclude that the County is engaging in willful negligence of their duty to manage Mather Field lands in the best interest of the public trust. By failing to completely evaluate the potential impacts, the County is quite clearly on a path to be in direct violation of CEQA guidelines and is likely to incur substantial economic losses due to foreseeable litigation.

I cannot see how allowing this project to proceed as currently imagined could be in the best interest of the County or its taxpayers. I therefore urge you to reject the proposed development plans, dismiss the DEIR as being inadequately executed, and require any future EIR submissions to contain a more complete accounting of all potential environmental, fiscal, and aesthetic impacts.

Response 28-9

This comment is a summary of prior comments in this letter. The responses to the prior comments are applicable here.

LETTER 29

Ken Nahigian; County resident; written correspondence; July 20, 2015

Comment 29-1

As a County resident and citizen, I am deeply concerned about the proposed new residential housing in the Mather area (over 3,500 housing units with about 1,000 apartments) and collateral expansion of Excelsior Road, Eagles Nest Road and Zinfandel Road. In my opinion, the County has not done an adequate environmental analysis of the development. The housing and road expansions will invariably damage the delicate nature areas and unique vernal pools of Mather. Local independent scientists report that the proposed 35-foot deep sewer trunk alone could destroy Mather vernal pools forever. The proposal also fails to secure a viable water source for the development; County staff have stated that it may require the tapping of area wells. The Mather water table is already suffering from the drought, and can probably not support four times the current rate of water withdrawal.

Response 29-1

In regard to the portion of the comment related to natural areas and vernal pools refer to response 8-5 and 8-14.

In regard to the portion of the comment related to water supply, see response 4-5.

Comment 29-2

I urge Sacramento County to put a hold on the sewer trunk line placement, and to redirect proposed funding for the Zinfandel / Eagles Nest Road expansion to the development of a Douglas bypass. A Douglas bypass would offer a cheaper, faster, and less intrusive alternative to divert traffic away from Excelsior Road. All development in the Mather area should be well away from its protected nature areas. Thank you for your wisdom on this issue.

Response 29-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 30

Sherita Normington; Mather resident; written correspondence; June21,2015

Comment 30-1

My husband and/or I have attended almost every HOA meetings where there was a discussion of the proposed development. It wasn't until a meeting earlier this year,I think that was the timing, where there was a presentation on the sports complex.

I also had a difficult time finding the DEIR until Mather Alliance gave me the link. I spent a day off from work reading a large part of it. When I submitted my comments, I sent it to the wrong email address which I didn't realize until after 5:00 p.m.. The thing that bothers me about the DEIR is that it really didn't seem to discuss the number of houses, the sports complex or the university. It wasn't until you go to the Mather South Community Plan that you find out about these things and other than the number of housing units it is still in vague terms. The only way I knew anything about the sports complex was from an HOA meeting. I don't think most people in Mather realize how large the sports complex is planned or the amount of traffic, noise, and light pollution that could result from this venue. The university is just listed as public use space which doesn't tell one anything.

Both the time of the meetings, the middle of a work day, and the difficulty in finding documents, I think are meant to discourage potential opposition. I am also somewhat hesitant to expect that Don Nottoli will listen to our concerns. After his yes vote on the Cordova Hills Project I lost all of my respect for him, just another politician getting money from big developers.

Response 30-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 31

Patrick Scott; Mather resident; written correspondence; June 21, 2015

Comment 31-1

When I purchased my home at independence in Mather the salesman told us unequivocally that the land around housing project and the golf course were federally protected and would not be built on. Subsequently, although I read the newspaper daily, I did not read any information that the county was planning to change the zoning for the endangered property in the Mather Air Force Base area. In addition, I did not see any notices from the county to Mather residences regarding meetings to change the zoning laws or zoning criteria for the vernal pool properties. When I went to the "planning meeting" a couple of weeks ago I did not see any notice that the county changed the criteria for the range of subjects to be discussed until I arrived at the meeting. I was also shocked and concerned when the head of the Council said with great pride that he worked for developers for over 50 years. That level of employment prejudice makes any decision regarding changing the zoning of our property to industrial or residential uses suspect, at best. It is a gross conflict of interest, in my opinion, for a county planning commission to change zoning of a protected property where they make no income to a property zoning that will allow the county to recover tax revenue.

During that last county meeting at 700 H St. I felt commission did a classic bait and switch move done only by the most shady and self-serving salespeople in the business. Those people are in the business of finding ways for the county to make money on its property. To make that property financially viable for the county coffers, zoning criteria of that property must be changed to allow them to develop it. I feel betrayed by the Sacramento County Council.

Response 31-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 32

Kathy Ramos, Mather resident; written correspondence; June 20, 2015

Comment 32-1

I have lived here since June of 2003 and the only thing I ever received was a postcard on the extension of Zinfandel and Eagles Nest Road and even that had no verbiage on changing the name of Eagles Nest to Zinfandel so I never went to the meeting. When there is activity that can or will affect an area within 500 feet, the county is suppose to send a notice. They have never sent any notification with specific language about any changes street name change nor development.

Response 32-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 33

Jerry Street; Mather resident; written correspondence; June 21, 2015

Comment 33-1

Here [Mather] for 4 years. This was the first we have heard of the development. There was one sign posted on Eagles Nest regarding a purposed development but the hearing time listed was not possible for us. The county website is not user friendly and my experience has been their search engine does not work well either.

My experience as a politically pointed county department head is that staff working with projects every day do have a different opinion on public availability than the public who has limited information. The bottom line is what is the political objectives of the county. Are they trying to just fulfill the minimum legal requirements. Or, do they want to ensure the public is actually informed and has opportunity to express their opinions. As property owners who made their purchase based upon the plan from 10 years ago that did not address this kind of development I would think they would want to ensure there is a well-informed community and that the community was given assurances and guarantees that their concerns would be mitigated.

Maybe part of what is going on is that the economic development staff have been doing a lot of the notification work instead of the planning staff. The job of the economic development staff is tax base within the county. The planning staff responsibility is to ensure uniform and appropriate types of development.

One of the biggest issues in my mind is the lack of public transportation to area which will be severely isolated from most of the services they will need. public transportation and high density. This is economically marginal at best. In the area of proposed, is in this case isolated 3 to 5 miles from services they will need it Will either require significant public infiltration of funds or will not occur. Urban sprawl for the population that the high density housing is targeting was long ago found to be not a good development policy.

Response 33-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 34

Robert and Linda Milanowski; Mather residents; written correspondence; June 20, 2015

Comment 34-1

We bought our home here at Mather Independence in 2011, we understood at that time that there would be no further development directly around us because it is protected wetlands surrounding the area dating back to the agreement with the U.S. Air Force when Mather was first developed. Along with other neighbors, we have been blindsided by the County's Mather South plan. We are very concerned and unhappy about these plans and the affect on the wetlands/vernal pools, and wildlife in the area.

We moved here for the quiet, peaceful and natural surroundings that Mather provides and we are personally appalled that the County states that we were informed and knew of this information for *years*! As I said, we moved here in 2011 and this is the first we have heard of this proposal involving Mather south area.

We are absolutely against the plans for this development of so many homes, filling of portions of the wetlands and expansion of the Zinfandel Road. We did not move here to see the environment altered, the wetlands destroyed, wildlife and ecosystems negatively affected and the peace and quiet to be disturbed. Building 3,500 homes and expanding Zinfandel Drive to 4-6-lanes is just plain wrong.

In addition, it would be considerate of the County to conduct a meeting near our Mather area to provide everyone a better opportunity to attend rather than the location on H Street in Sacramento. Some of the neighbors I have spoken with have said they would be able to attend if the location was not in the city.

Thank you for the opportunity to voice our displeasure with this proposal. We do hope that our voices will be heard and respected.

Response 34-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 35

Lisa Infusino; Mather resident; written correspondence; June 20, 2015

Comment 35-1

I remember attending one HOA meeting about two years ago. There was some brief commentary and a map on a board. They briefly discussed a possible university at some point and some housing. I don't recall any specifics discussed regarding size, number of units and certainly not any mention of filling in any of the wetlands nor any environmental discussions.

The only communication has been through the HOA from what I am aware of. The County should not be relying on the HOA to get the word out. They should have sent direct correspondence in the mail to the residents. I don't recall any of that being done.

I can't understand the breaking up of the two projects. One I believe is the rezoning and the second is the development plan. It is very confusing and I think that is being done on purpose.

Response 35-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 36

Darcy Coddington; Mather resident; written correspondence; June 20, 2015

Comment 36-1

We have been here [Mather] since January of 14. We did not hear, read or in any way know what was going on with the Mather South development until we heard from the HOA at the beginning of this year. There were no mailers or inserts in our papers or flyers at our doors.
Thanks for everything you are doing.

Response 36-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 37

Ray and Karen Lucas; Mather residents; written correspondence; June 20, 2015

Comment 37-1

Hello: We bought out in Mather in 2011. The reason we bought out here is because the country setting. I have known of this area since the development of this housing area from the start. I was stationed at Mather AFB in early 70's, live in Rosemont for 38yrs, this is our retirement home. My point is I strongly opposed the Mather South development of all the reason our community have stated. I will be out of town next week but hope you or the alliance can voice my family concerns.

Response 37-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

LETTER 38

Linda Milanowski; Mather resident; written correspondence; June 22, 2015

Comment 38-1

The comments 38-1 through 38-14 provided in this letter are a restatement of the comments included in Letter 26 above.

Response38-1

See Response 26-1 through 26-14

LETTER 39

Eva Butler, written correspondence, June 12, 2015.

Comment 39-1

My main concern is that the analysis of Biological Resources does not adequately address the potential impacts of mitigation on the vernal pool habitat within the Natural Preserve. The Draft EIR must comply with CEQA Section 15126.4 "Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects". However, the Draft EIR on p. 2-16 specifically states "this document does not cover any physical improvements related to the preserve area, the adoption of a management plan or assess any impacts that may result from restoration activities within the proposed preserve."

While there is no analysis of the impacts on the Natural Preserve, the Draft EIR relies upon the Natural Preserve area for mitigation of impacts to vernal pool habitat. Mitigation Measure BR-6 requires preservation of no less than 68.88 acres of vernal pool and riparian corridor habitat within the Natural Preserve and creation of no less than 36.48 acres such habitat also within the Natural Preserve area.

The analysis in the biological resources chapter concludes that the implementation of the proposed mitigation measures (BR-6 and BR-7), which would make use of the Natural Preserve area for vernal pool creation, will result in less-than-significant impacts. However, there is no support for this conclusion because there is no analysis of how the creation of new pools, or creation of Western Spadefoot habitat on the Natural Preserve would effect the existing habitat within the Natural Preserve area and the Draft EIR does not address potential adverse impacts to special status vernal pool plants and animals that currently inhabit the Natural Preserve area. In addition the Draft EIR does not address the question of long-term viability of created vernal pools, which would have bearing on the adequacy of the mitigation measures.

Response 39-1

See Response 15-1 and Response 15-14.

Comment 39-2

The Draft EIR acknowledges that a vernal pool is reliant on adjacent uplands - the hydrologic connection, and that many vernal pool species also rely on adjacent uplands as part of their life cycle. The DEIR does not make clear whether the acreage of impact counted includes just the vernal pool seasonal wetland area or does it take in the adjacent upland areas that are vital to the pools' hydrologic connections and survival of associated plants and animals?

Response 39-2

As stated on page 7-42 of the EIR, direct effects to suitable vernal pool habitat are assumed if any part of a vernal pool, vernal swale or seasonal wetland is directly affected. Additionally, as stated in the EIR, indirect impacts are assumed if project related activities are located within 250 feet of vernal pools, vernal swales or seasonal wetlands. This methodology assesses impacts to wetted features and is consistent with federal regulatory guidelines.

The EIR also assesses project consistency with the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (Recovery Plan). Habitat protection under the Recovery Plan includes the protection of topographic, geographic, and edaphic features that support hierologically hydrologically interconnected systems or vernal pools, swales, and other seasonal wetlands within an upland matrix that together form hydrologically and ecologically functional vernal pool complexes. Refer to Response 8-14.

Comment 39-3

The cumulative impacts discussion is rather cursory and does not state clearly what the existing significant cumulative condition is regarding vernal pools [CEQA Guidelines Section 15130(b)(B)(2)] and does not present facts and analysis to support the conclusion [CEQA Guidelines Section 15130(a)(3)]. The Draft EIR discussion does not clearly place the Mather pools in the regional context and let the reader know how it fits in and what contribution the project would make to the existing cumulative impact. The conclusion relies upon the above-referenced mitigation that would provide for vernal pool creation within the Natural Preserve area. As noted above, the potential impacts of this vernal pool creation, and the long-term effectiveness of the vernal pool creation are not evaluated. Therefore, there is no basis for the conclusion that there would be no considerable contribution to cumulative impacts to vernal pool habitat.

Response 39-3

See Response 8-14.

Comment 39-4

The expansion of urban land uses within unincorporated Sacramento County should be carefully considered. Because of these deficiencies I do not believe that the Draft EIR provides a sound basis upon which decision makers can rely to make a fully informed decision.

Response 39-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 39-5

Specific Comments

pp 2.4 – 2.6 Background

The Record of Decision (ROD) and Supplemental Records of Decision (SROD) that guided conveyance of Mather Field by the US Department of Defense to the County, and the public's long-standing expectations based on the intent of that decision, was that the protection of vernal pool habitat and species was a primary objective requiring a commitment in word and deed to its preservation in perpetuity. While economic development could be a compatible and complimentary objective if done correctly, the approach evidenced in this DEIR shows a commitment to maximizing the dollars from development and minimizing the actual commitment to habitat preservation and restoration.

Response 39-5

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. Mitigation measures have been included to ensure that the proposed preserve's habitat and species are protected in perpetuity.

Comment 39-6

While the public expected an DEIR that spelled out how, where and when preservation, restoration and enhancement of natural resources would occur, this DEIR skirts the specifics and asks the public to rely on vague promises and references to preservation and management that will occur at some unspecified time and place through an undefined process. The public gains little confidence in the County's ability or will to commit to habitat preservation and enhancement based on its actions of the last decade.

Response 39-6

See Responses 8-1 and 15-14.

Comment 39-7

Mather Field constitutes most of the Recovery Area for threatened and endangered vernal pool species designated by the US Fish & Wildlife Service. The County has an on-going obligation to use Mather Field to help recover native species supported by the existing habitat at Mather Field. While it might be difficult to enforce recovery obligations on private landowners, the public land at Mather Field is one place where recovery can take precedence over economic interests of the landowner.

Response 39-7

See Responses 8-14 and 15-14.

Comment 39-8

The mitigation "required" by local, state and federal law is not necessarily commensurate with the mitigation required to recover species. The public can expect levels of environmental protection above and beyond the minimum expectation of government. Levels of impact that are considered "less than significant" are indeed significant when any reduction of vernal pool habitat acreage occurs or any direct or indirect impacts to ecological function occurs. When the County proposes to destroy existing occupied, presumed-to-be occupied habitat, or potential habitat for any species at Mather Field, it is not feasible to fully mitigate those impacts on site through preservation, creation, or restoration or "above and beyond" management measures as defined (or undefined) in the DEIR.

Response 39-8

See Response 8-14.

Comment 39-9

The current level of impacts evident within the vernal pool prairie at Mather Field is a direct result of escalating vandalism, OHV incursions, and expansion of invasive plant populations. References in the DEIR to "over and above" measures to provide functional "lift" ignore the fact that significant investment will be required to simply maintain this habitat with the persistent pressure of these destructive forces. This effort is not "over and above;" it is what is expected and needed simply to protect the habitat and species.

Response 39-9

Funding for the long term management of the Preserve is to be done through a US Fish and Wildlife Service approved property analysis record (PAR) which will calculate fees based on a pro rata metric for impacts attributable to projects at Mather Field consistent with the Proposed Conservation Measures detailed in the U.S. Fish and Wildlife Service Biological Opinion for the Disposal of the Former Mather Air Force Base, Sacramento County, California, January 24, 2012 (2012 BO).

Comment 39-10

The bar for Mather Field programmatic and project level environmental review should be higher than for private property projects. On public land there is no imperative to maximize profit at the expense of the public's interest in its natural resources. The simple fact that all these projects and the preserve are occurring

on public property by definition means that the public interest must be considered and served at or above the economic interests of the County and its development partner(s). Economic interest is not the sole and primary interest of the public but it seems to be the primary interest of the County based on its approach to this DEIR.

Response 39-10

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. However, it should be noted that the analysis included in the EIR is consistent with standard practices.

Comment 39-11

Birds

The pages devoted to discussion of occurrence, impacts and mitigation for birds in Chapter 7 seem to rely primarily on a review of records logged in the CNDDB. The CNDDB is widely recognized among biologists as woefully inadequate. It is commonly known that the CNDDB grossly undercounts the presence and abundance of species because it relies on individuals to submit the field data. When additional survey data of the same quality is available, it is incumbent upon the County to use it.

In anticipation of a dearth of bird data for this area, a team of experienced, highly qualified birders conducted a survey of birds in the project area between January 4 and June 13, 2014. The data were submitted to the CNDD in July 2014. However, due to the notoriously long delays in the uploading of data at the CNDDB, the same data were provided to and accepted by Todd Smith of the County Planning Department with assurances that they would become part of the NOP comments and used as a resource in the environmental review. In the DEIR analysis, those data appear to have been ignored. We ask that the next iteration of the DEIR include this information.

Response 39-11

As stated in the Environmental Setting section of the Biological Resources chapter of the EIR, several studies have been conducted at Mather Field over the years to adequately assess the habitat and species within the project area. These studies, in conjunction with the CNDDB, were utilized to develop the biological setting at Mather Field and to analyze project related impacts. Text has been added to reflect the contribution of local individuals as mentioned in the comment.

Comment 39-12

P 7-55

BIRDS-PROGRAMMATIC AND PROJECT LEVEL; SWAINSON'S HAWK. The DEIR states […] Swainson's hawks were once common throughout the state, but various habitat changes, including the loss of nesting habitat (trees) and the loss of foraging habitat through the conversion of native Central Valley grasslands to certain incompatible agricultural and urban uses has caused an estimated 90% decline in their population.

As stated in this section "Swainson's Hawks and other raptors and avian species are in dramatic decline as evidenced by many research and survey projects conducted in the Sacramento Region and California." This project has the option to take measures to improve the habitat of Swainson's Hawks and other special status species. To recover these populations requires more than going through the motions. To commit to surveys to avoid pushing parents off the nest during breeding season is not the same as ensuring that the same or more nesting habitat is available to these species in proximity to the foraging habitat of the preserve.

Response 39-12

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 39-13

P 7-57

CONCLUSION; NESTING HABITAT

This conclusion incorrectly states "…no occurrences of Swainson's hawk have been recorded at Mather Field,…" The data provided in July 2014 to the Planning Department shows on-site evidence of Swainson's Hawks, Ferriginous Hawks and other raptors and birds. The County should improve this analysis by using the data available.

Response 39-13

Table BR-5 in the Biological Resources chapter of the EIR states that Swainson's hawks have been observed on the project site. The EIR indicated that there are no recorded occurences of nest sites at Mather Field, not that no Swainson's hawks have been observed. Additionally, the data referenced in the comment provided to the County in July of 2014 was utilized for the analysis included in the EIR. Table BR-5 was updated to include the Nuttall's woodpecker as a species that may be affected by the proposed project. All other species noted in the 2014 submittal were already included in the analyses included in the EIR.

Comment 39-14

P 7-58 parag 2: "The Project site predominantly contains open annual grassland. Mature trees of sufficient size to support tree-nesting raptors are located along the banks of some of the creeks and channels within Mather Field, around Mather Lake, within Mather Golf Course and within in scattered clumps of trees throughout the site. "

Comment: The project site east of Zinfandel contains the largest concentration of large trees at Mather Field. The dredging from the Folsom South Canal created a permeable overburden atop the native soil profile, which is more hospitable to shrubs and trees than the underlying clay soils and perched water table. The proposed development of this site will result in the permanent loss of these trees, which constitute the most extensive nesting and roosting habitat adjacent to the proposed Preserve. With so little available nesting and roosting habitat within the plan area, this loss cannot be deemed to be less than significant.

Response 39-14

As stated on page 7-58 of the EIR, raptors and their active nests are protected by the California Fish and Game Code Sections 3503.5, 3511, and 3513. The Code states the following: "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird." Because most raptors migrate they are also protected by the Federal Migratory Bird Treaty Act of 1918, which states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. Section 3(18) of the Federal Endangered Species Act defines the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Causing a bird to abandon an active nest may cause harm to egg(s) or chick(s) and is therefore considered "take."

These protections cover species and their active nests not trees or other features that provide suitable habitat for nests. The EIR includes mitigation measures in order to protect raptors and their nests consistent with the provisions detailed in the protections noted above.

Comment 39-15

If the parcel east of Zinfandel were to remain in its current condition (the no-project alternative) raptors including Swainson's Hawks and other special status species have roosting/nesting habitat in close proximity to foraging habitat. This is the higher quality habitat for these species because the birds expend less energy traveling to and from the nest in search of food, and more time protecting their young. This logically results in higher reproductive success, which is needed to protect and expand populations of these threatened species.

Response 39-15

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 39-16

Pre-construction surveys will do nothing to mitigate for the permanent loss of nesting habitat. A true mitigation measure to replace nesting habitat would entail avoidance of mature trees on the development site and integration into compatible, low-density land uses such as parks, schools, or recreation sites. In addition, true mitigation would replace trees that are lost to development or will be lost to attrition. Planting of trees within the Preserve is not appropriate due to soil disturbance and direct and indirect impacts to functional vernal pool prairie habitat and species.

To maintain the current functionality of the Mather Field landscape for raptors and other birds (not just special status species) successful planting of native nesting tree species will be required. These will require at least 15 years of growing time to serve this function for fast-growing species such as Cottonwoods. No plan to identify and utilize sites for planting replacement trees was identified in this DEIR. No suitable sites for planting replacement trees has yet been identified in this DEIR. There are limited opportunities to grow trees for nesting because most of the habitat that supports the growth of mature trees primarily exist son the parcel slated for development. The high rate of failure of trees planted by County Parks along the bike trail adjacent to Mather Boulevard attest to the lack of suitable conditions for trees on most of the land in the project area.

Response 39-16

Mitigation Measure BR-3, included in the Biological Resources chapter of the EIR, states that all on-site healthy trees shall be protected and preserved to the maximum extent feasible. This language is more stringent than the standard language included in typical tree related mitigation measures and is intended to maximize the retention of on-site trees. Additionally, mitigation measures included in the EIR require inch for inch replacement plantings to account for project related native tree removals, non-native tree canopy replacement to account for non-native tree removals and riparian habitat replacement/revegetation for impacts to riparian habitat.

Comment 39-17

Air Quality

Missing from the DEIR is any analysis of the impacts of the Zinfandel road expansion (and use) on nitrogen oxides, noise and dust that would spread over the preserve land. Recent studies conclude that the deposition of nitrogen compounds from automobiles encourages the growth of non-native species by

fertilizing the adjacent landscapes. Light and vibration from the road and adjacent development has a huge impact on species in the vicinity.

Response 39-17

See Response 8-6 and Response 8-33.

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Oral Comments on the EIR

ORAL COMMENTER 1

Ken Pawlowski, President; Independence at Mather Homeowners Association; Sacramento County Planning Commission Workshop dated June 8, 2015

Comment 1-1

The alternatives analyzed did not do enough to change the project in order to preserve more natural space.

Response 1-1

According to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines:

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

It is important to note that CEQA does not require that every conceivable alternative to a project be analyzed; rather that a reasonable range of alternatives be analyzed to foster meaningful public discussion and informed decision making.

As detailed in the Alternatives chapter of the EIR, five alternatives were explored. The alternatives were designed to reduce impacts to many topical areas but focus on reducing impacts to biological resources. As stated in the Alternatives chapter, the Multiple Preserves Alternative, which includes the addition of 70 acres to the proposed preserve area, was found to be the Environmentally Superior Alternative.

ORAL COMMENTER 2

Marvin Broils; Mather resident; Sacramento County Planning Commission Workshop dated June 8, 2015

Comment 2-1

I was told that no more development would occur other than the Independence at Mather subdivision. Additional development in the area will affect home values negatively and increase crime. Additionally, the project will increase traffic noise and the existing quiet at Mather will go away. The project includes Section 8 housing and there is already plenty of Section 8 housing in Mather Field.

Response 2-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 3

Tim Schmidt; Mather resident; Sacramento County Planning Commission Workshop dated June 8, 2015

Comment 3-1

Standard BMPs used for construction runoff need to be made mitigation measures so that there are no impacts to the environment.

Response 3-1

Mitigation Measure BR-6 beginning on page 7-77 includes measures to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites through the implementation of BMPs.

Comment 3-2

Construction related to the project will generate noise.

Response 3-2

As stated in the Initial Study Checklist which is Chapter 14 of the EIR, project construction will result in a temporary increase in ambient noise levels. This impact is less than significant due to the temporary nature of these activities, limits on the duration of noise, and evening and nighttime restrictions imposed by the County Noise Ordinance.

Comment 3-3

No traffic study was prepared for the project and there is no projected ADT for the Road.

Response 3-3

The Traffic and Circulation chapter of the EIR includes a discussion of traffic analyses conducted for the Mather Field Specific Plan that was included in prior FEIRs. These previous analyses have been incorporated by reference consistent with CEQA Guidelines. As stated on page 12-7, the prior FEIRs concluded that traffic impacts associated with the Mather Field Specific Plan would be significant and unavoidable.

Comment 3-4

I was promised that this area will not be developed.

Response 3-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 4

Vanessa Emerzian; Mather resident; Sacramento County Planning Commission Workshop dated June 8, 2015

Comment 4-1

The County should focus development on already disturbed areas not on lands that are valuable because they are undeveloped and contain habitat.

Response 4-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-2

The project will destroy a pool that contains all of the vernal pool species at Mather and a pool that provides the only habitat to support spadefoot toads.

Response 4-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-3

The project will increase vehicle traffic and result in more vehicle collisions as well as pollution that will change the nutrient composition of vernal pool habitat.

Response 4-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-4

The proposed sports park will create an ecological desert of playing fields. Fences will disrupt wildlife corridors and lighting will affect sensitive species.

Response 4-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-5

The county should focus on development that is consistent with the Sustainable Communities Strategy.

Response 4-5

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 4-6

The proposed project will result in the removal of trees and raptor nesting habitat. This, in turn, will increase the rodent populations and the use of rodenticides which will harm the ecosystem as well as the economic and educational values at Mather Field.

Response 4-6

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 5

Rebecca Garrison, Executive Director; 50 Corridor TMA; Sacramento County Planning Commission Workshop dated June 8, 2015

Comment 5-1

Currently there is no enforcement of the existing Mather Field Transportation System Management Program (TSMP). How do we be sure that the measures in the EIR that recommend adherence to the TSMP are enforced?

Response 5-1

As stated in the Traffic and Circulation chapter of the EIR, past project approvals have required that transportation demand management programs be developed at Mather Field, and have required that the Mather Specific Plan area be included within a transportation management association and implement a comprehensive transportation systems management program.

To that end, the Mather Field Transportation System Management Program and Mather Field Air Quality Plan were developed in order to reduce operational emissions at

Mather Field. The Sacramento County Department of Airports is a paying member of the Highway 50 Corridor TMA.

County staff has worked with the Sacramento Metropolitan Air Quality Management District (SMAQMD) to conduct inspections at Mather Field to assess compliance with the requirements noted above that stemmed from approvals of prior projects. SMAQMD staff has determined that Mather Field is in substantial compliance with the Mather Field Air Quality Mitigation Plan.

For the current project proposal, mitigation measures have been recommended in the Air Quality chapter of the EIR to reduce air quality impacts. Mitigation Measure AQ-2 requires future project proponents be active participants on the 50 Corridor TMA or similar association, and adhere to the Mather Field Transportation Systems Management Plan. Additionally the mitigation measure requires that that future projects are consistent with the Mather Field Transportation Systems Management Plan, and are in compliance with the Mather Field Air Quality Mitigation Plan or other approved air quality mitigation plan.

With the approval of the proposed project and adoption of the recommended mitigation measures for the project, future projects will be required to adhere to Mitigation Measure AQ-2. According to Sacramento County Code Section 20.02, project proponents are required to comply with all applicable measures included in an adopted Mitigation Monitoring and Reporting Program.

ORAL COMMENTER 6

Joe Zillas; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 6-1

I have concerns regarding the proposed UDA. It is located upstream of the preserve area and I am concerned that the UDA will stifle groundwater flows to the west. The site contains a shallow water system and it is important to maintain subsurface flows.

Response 6-1

See letter response 8-6.

ORAL COMMENTER 7

Robbin Sutter; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 7-1

Closing Zinfandel Drive to allow for sewer line and roadway extensions will limit entrances to the Independence at Mather subdivision. Please deny the project.

Response 7-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 8

Christopher Humphry; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 8-1

Zinfandel Drive has never been fixed. How can we expect that new traffic along Zinfandel Drive will not exacerbate poor road conditions when the County can't maintain roadways in the existing condition? How can the County handle increased population?

Response 8-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 9

Tom Humphry; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 9-1

There are lots of species around Mather Lake that will be affected by the project. Developing Zinfandel Drive to a 4 lane thoroughfare would be just atrocious.

Response 9-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 10

Vanessa Emerzian; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 10-1

The alignment of Zinfandel Drive should be relocated more to the east to keep the spadefoot pool.

Response 10-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 10-2

Why the impacts to the subsurface flows and vernal pool habitat west of Zinfandel Drive from trenching required of the installation of the proposed sewer line was not analyzed is unfathomable.

Response 10-2

See letter response 8-6.

Comment 10-3

The Douglas Bypass has been talked about for 10 years. Why can't we build the Douglas Bypass instead?

Response 10-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 10-4

The project should not be approved without a hydrology and air quality study that shows how the project will impact vernal pools.

Response 10-4

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 10-5

The County hasn't really considered anything other than the development that will generate tax revenue.

Response 10-5

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 11

James Bryson; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 11-1

Are the tax payers paying for this? If so, it does not sound like the tax payers want it. I don't want my tax dollars to go toward standard development. There are lots of vacant buildings, why not fill those?

Response 11-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 11-2

Will Zinfandel extend to Highway 16? That would decrease traffic at Independence.

Response 11-2

The General Plan Transportation Diagram shows that Zinfandel Drive is planned to be developed to Highway 16 (Jackson Road). Given the cost and time needed to install roadways and related infrastructure, roadways are often developed in stages and are rarely developed in their entirety through the implementation of a single project. This is the case with Zinfandel Drive; the proposed project includes just a single phase of what will be required for Zinfandel Drive to be constructed consistent with the General Plan Transportation Diagram.

ORAL COMMENTER 12

Ken Pawlowski, President; Independence at Mather Homeowners Association; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 12-1

How does air quality affect Vernal Pool habitat?

Response 12-1

See letter response 8-6.

Comment 12-2

What if Mather South is declined? What do we do with Zinfandel Drive and sewer that is extended to nowhere?

Response 12-2

See response 8-2.

Comment 12-3

What is the harm in delaying this project for six months? Why can't we take that time to make this the best project possible?

Response 12-3

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 13

Cecelia White; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 13-1

Nothing is close at Mather. A car is required to get anywhere or do anything. Greenhouse gas emissions need to be considered before approving the proposed UDA area.

Response 13-1

As stated in the Climate Change chapter of the EIR, greenhouse gas emissions related to the proposed project were considered and mitigation measures have been

recommended. Additionally, the UDA area does not allow for any development and assessing project specific impacts associated with greenhouse gasses are infeasible for the UDA area. Furthermore, within the definition of UDA, as detailed on page 4-15 of the Land Use chapter, studies will be required or applications for a Master Plan must be submitted prior to any development in this area. In either case studies related to greenhouse gas emissions will be conducted before development occurs within the UDA area.

Comment 13-2

The project will destroy habitat invaluable to SPLASH, and will destroy the outdoor classroom Mather currently provides to visitors to the site. We should save this habitat and related species.

Response 13-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 14

Kathy Ramos; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 14-1

The proposed Zinfandel Drive extension will get rid of vernal pools and increase roadkill at Mather. Proposed development in the area is also running off the rendering plant and the raceway.

Response 14-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 15

Raymond Hill; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 15-1

I have concerns related to the clarity of the process. The Planning Commission said they would investigate my concerns and get back to me. But they have not gotten back to me

Response 15-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 16

Marvin Broyels; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 16-1

Digging the trench required for the sewer line will block flows to the preserve.

Response 16-1

See letter response 8-6.

Comment 16-2

I have a problem with the noticing that has occurred for this project. The notices are full of acronyms that are not easily understood.

Responses 16-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 17

Minor Washington; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 17-1

I walk all over Mather. I love my home and the residents at Mather love how it is out here. I ask that the Planning Commission weigh the situation carefully and make the right decision.

Response 17-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 18

Eleanor Averit; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 18-1

The federal government saw the importance of preserving the wetlands at Mather. Why can't the County? The wetlands at Mather are important to endangered species and children that come to visit and learn. I don't understand this process when we have unviable land to build on already. I recommend that this project be denied.

Response 18-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 19

Sean Wirth, Conservation Chair; Mother Lode Chapter of the Sierra Club; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 19-1

I have looked at the mitigation measures and they do not add up. The Preserve includes preservation but what about the creation requirement?

Response 19-1

As stated on page 7-48 of the EIR, standard programmatic consultation mitigation measures are recommended for the Mather Field project in order to ensure that impacts to suitable vernal pool habitat are reduced to less than significant levels. Based on the recommended mitigation, development consistent with the proposed project would require the preservation of 79.96 acres of suitable habitat and the creation of 36.48 acres. Mitigation Measure BR-6 starting on page 7-77 details the recommended preservation and creation requirements.

Comment 19-2

If functional uplift is to account for the 1:1 creation there needs to be a huge front load of money that should not be left to an endowment.

Response 19-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

ORAL COMMENTER 20

Rebecca Garrison, Executive Director; 50 Corridor TMA; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 20-1

Although the Mather area is a partner in the 50 Corridor TMA and is subject to the TSMP, no transportation mitigation enforcement has occurred in 20 years. A new strategy need to be taken. Mather is currently in CSA 10 but it needs to be activated.

Response 20-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 20-2

We need to be sure the TSMP and Mather Air Quality Plan mitigation measures are respected as we move forward.

Response 20-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration. However, given the nature of the comment it is felt some discussion is required.

Sacramento County has worked with the Sacramento Metropolitan Air Quality Management District staff to ensure compliance with the Mather Field Air Quality MitigationPlan (AQMP). In 2013 and through the first half of 2014 inspections occurred at Mather Field to determine compliance with the AQMP. The inspections found that County and private facilities at Mather Field currently provide measures aimed at reducing automobile dependence, including transit subsidies, bicycle lockers/racks at 24 locations and shower facilities for employees at 11 buildings. Currently, a total of six Regional Transit bus routes intersect with the Mather Field/Mills light rail station. Four of these routes directly serve the Mather Field campus and its immediate vicinity. Carpool/vanpool parking is provided at four locations. Updated fiber optic and T1 wiring and connections exist throughout the Mather Commerce Center to facilitate telecommuting. The Sacramento County Department of Airports is a paying member of the Highway 50 Corridor TMA.

The inspections also found that the Sacramento County Environmental Management Department participates in the County of Sacramento Employee Transportation Program. Benefits include the following:

- Subsidized transit passes,
- Rideshare services and benefits,
- A Guaranteed Ride Home program,

- Alternative work schedules, and
- Flex time.

Sutter Health offers its employees the following:

- Subsidized Transit passes
- Telecommuting
- Carpool matching and preferred parking
- Carpool employee rewards program

Inspections also found that Bloodsource and the Veterans Administration Hospital offers employees subsidized transit passes and fully paid transit passes, respectively.

The SMAQMD concluded that Mather Field in in substantial compliance with the Mather Field Air Quality Mitigation Plan.

ORAL COMMENTER 21

David Nahigian; Mather resident; Sacramento County Planning Commission Hearing dated June 22, 2015

Comment 21-1

I am concerned about the Planning Commission's recommendation. I am concerned about building a roadway and sewer to nowhere. Doing so will destroy vernal pool habitat. A vote to approve this project is a vote to destroy.

Response 21-1

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

Comment 21-2

If the County did their noticing due diligence the community would have spoken up sooner and the County did not want that.

Response 21-2

Comment noted. This is not a comment of the adequacy of the EIR and has been forwarded to the Board of Supervisors for their consideration.

COUNTY OF SACRAMENTO
DEPARTMENT OF COMMUNITY DEVELOPMENT
PLANNING AND ENVIRONMENTAL REVIEW DIVISION

20 MITIGATION MONITORING AND REPORTING PROGRAM

CONTROL NUMBER: PLNP2013-00044

NAME: Mather Field General Plan Amendments, Specific Plan Amendment, Zoning Ordinance Amendment, and Extension of Zinfandel Drive

LOCATION: The Mather Field project area is located in the Cordova community of unincorporated Sacramento County. The boundaries of the project site are Mather Boulevard and International Drive to the north, the Folsom South Canal to the east, Kiefer Boulevard to the south and old Placerville Road and Happy Lane to the west.

ASSESSOR'S PARCEL NUMBER: VARIOUS

APPLICANT:

Sacramento County

Office of Economic Development and Marketing

Attn: Clark Whitten

PROJECT DESCRIPTION:

1. A **General Plan Amendment** to amend the Land Use Diagram from Intensive Industrial (approximately 247.5 acres), Low Density Residential (approximately 391.8 acres), Public Quasi-public (approximately 2,266 acres), Commercial and Office (approximately 3.9 acres) and Recreation (approximately 2,468.5 acres) to Extensive Industrial-Aggregate Resources (approximately 67.9 acres), Intensive Industrial (approximately 667.3 acres), Low Density Residential (approximately 392.5 acres), Natural Preserve-Resource Conservation-Protected (approximately 1,383.2 acres), Public Quasi-public (approximately 1,605.2 acres), Recreation (approximately 483.8 acres), Commercial and Office (approximately 3.9 acres) and Urban Development Area (approximately 773.8 acres) for approximately 5,377.6 acres. Note: the Land Use Diagram changes in the Mather Airport and Commercial and Office areas of the project site and the Independence at Mather housing development area result in only minor modifications to the existing designations, and no change to the allowed uses, in those areas.

2. An **Amendment to the General Plan Transportation Diagram** to reflect a proposed realignment of Zinfandel Drive.

3. A **General Plan Amendment** to amend language contained in the Land Use Element defining the Urban Development Area (UDA) Land Use Designation.

4. A **Specific Plan Amendment** to amend the Mather Field Specific Plan, including addition of Natural Resources-Protected, and Urban Development Area Land Use Designations and to remove areas within the City of Rancho Cordova from the Specific Plan.

5. A **Zoning Ordinance Amendment** of the Mather Field Special Planning Area (SPA) (SZC 97-0021, Section 603) encompassing a number of changes to the SPA text and exhibits to accommodate new Natural Preserve and Urban Development Area Land Use Districts, to clarify allowed uses in the Commercial Recreation District and to remove areas within the City of Rancho Cordova from the Special Planning Area ordinance. Note: the SPA changes in the existing Mather Airport District, and Single Family Residential District (Independence at Mather) result in only minor modifications to, and no change to the allowed uses in, those areas.

TYPE OF ENVIRONMENTAL DOCUMENT:

____	Negative Declaration	____	Prior Negative Declaration
X	Environmental Impact Report	____	Prior Environmental Impact Report
____	Supplemental Environmental Impact Report	____	
____			

PREPARED BY: Sacramento County Department of Community Development
Planning and Environmental Review Division

827 7th Street, Room 220

Sacramento, CA 95814

PHONE: (916) 874-7914 or (916) 874-6141

MITIGATION MONITORING AND REPORTING PROGRAM

ADOPTED BY: **DATE:**

ATTEST:_____

SECRETARY/CLERK

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PURPOSE AND PROCEDURES

Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the Sacramento County Code, a Mitigation Monitoring and Reporting Program has been established for the project entitled Mather Field **(Control Number:** PLNP2013-00044).

PURPOSE

The purpose of this program is to assure diligent and good faith compliance with the Mitigation Measures which have been recommended in the environmental document, and adopted as part of the project or made conditions of project approval, in order to avoid or mitigate potentially significant effects on the environment.

NOTIFICATION AND COMPLIANCE

It shall be the responsibility of the project applicant/owner to provide written notification to the Environmental Coordinator, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The Environmental Coordinator will verify that the project is in compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). Any non-compliance will be reported to the project applicant/owner, and it shall be the project applicant's/owner's responsibility to rectify the situation by bringing the project into compliance and re-notifying the Environmental Coordinator. Any indication that the project is proceeding without good-faith compliance could result in the imposition of administrative, civil and/or criminal penalties upon the project applicant/owner in accordance with Chapter 20.02 of the Sacramento County Code.

PAYMENT

It shall be the responsibility of the project applicant to reimburse the Planning and Environmental Review Division for all expenses incurred in the implementation of the Mitigation Monitoring and Reporting Program (MMRP), including any necessary enforcement actions.

COMPLETION

Pursuant to Section 20.02.060 of the Sacramento County Code, upon the determination of the Environmental Coordinator that compliance with the terms of the approved Mitigation Monitoring and Reporting Program has been achieved, and that there has been full payment of all fees for the project, the Environmental Coordinator shall record and issue a Program Completion Certificate for the project.

STANDARD PROVISIONS

The project applicant shall submit one copy of all Project Plans and Construction Specifications and/or revisions to the Environmental Coordinator prior to Board approval to advertise Plans and Specifications. If the Environmental Coordinator determines that the Plans are not in full compliance with the adopted MMRP, the Plans shall be returned to the project applicant with a letter specifying the items of non-compliance, and instructing the applicant to revise the Plans, and then resubmit one copy of the revised Plans to the Environmental Coordinator prior to Board approval to advertise.

Additionally, the project applicant shall notify the Environmental Coordinator **no later than 48 hours** prior to the start of construction and no later than 24 hours after its completion. The applicant shall notify the Environmental Coordinator no later than 48 hours prior to any/all Final Inspection(s) by the County of Sacramento.

The project applicant shall notify the Environmental Coordinator of any pre-construction meetings. Upon notification, a determination will be made as to whether or not the Environmental Coordinator will need to attend the meeting.

The project applicant shall comply with the Mitigation Monitoring and Reporting Program for this project, including the payment of 100% of the Planning and Environmental Review Division staff costs, and the costs of any technical consultant services incurred during implementation of that Program.

☐ AC-1: AIRPORT NOISE

Proposed uses within the Mather Field Special Planning Area shall be in compliance with the uses and standards included in Table 4: Land Use Compatibility for Airport Noise found within the Noise Element of the Sacramento County General Plan.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AC-2: NAVIGABLE AIRSPACE

The following language shall be added to the Mather Field SPA Development Standards:

All development and redevelopment projects within the Mather Field SPA shall be in compliance with the Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

Verification (Action by the Environmental Coordinator):

1. Review final Mather Field SPA to ensure compliance.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AC-3: MATHER AIRPORT SAFETY ZONES

The following language shall be added to the Mather Field SPA Development Standards:

All development or redevelopment within the Mather Airport Approach/Departure and Overflight Safety Zones shall be consistent with the allowed land uses detailed in the "Land Use Compatibility for Airport Safety" table.

.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

Verification (Action by the Environmental Coordinator):

1. Review final Mather Field SPA to ensure compliance.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AC-4: FUTURE DEVELOPMENT APPLICATIONS

Future development applications within the Mather Airport safety zones shall be reviewed by the Airport Land Use Commission in order to ensure that proposed projects are compatible with the safety zones.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AQ-1: Programmatic Level Construction Emissions

All future construction projects in the Mather Field SPA shall include an ozone precursor analysis. If the analysis results indicate that the project will generate ozone precursors that exceed the current Sacramento Metropolitan Air Quality Management District thresholds, this mitigation shall apply. This mitigation may be modified if guidance from the Sacramento Metropolitan Air Quality Management District changes in the future.

1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information.

3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations.

4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination.

To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply:

Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in effect at the time of plan submittal.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AQ-2: Programmatic Level Operational Emissions

In order to reduce operational emissions related to development associated with the proposed project the following language shall be added into the Mather Field SPA:

1. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall be active participants in and financially support the 50 Corridor TMA or other similar transportation management association endorsed by SMAQMD.

2. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are consistent with the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD.

3. Prior to the issuance of building or use permits or the approval of improvement plans or tenant improvements or the execution of lease agreements associated with development, redevelopment or reuse within the Mather Field Special Planning Area, property owners, developers or tenants shall demonstrate that proposed projects are in compliance with the Mather Field Air Quality Plan to the satisfaction of SMAQMD or other Air Quality Management Plan deemed adequate by SMAQMD.

4. All new tenant lease agreements or agreements for sale of on-site buildings or land within the Mather Field Special Planning Area shall state that tenants/operators are required to adhere to the Mather Field Transportation Systems Management Plan to the satisfaction of SMAQMD and the Mather Field Air Quality Plan or other Air Quality Management Pan deemed adequate by SMAQMD.

5. An annual report shall be submitted to the Environmental Coordinator and to SMAQMD detailing the actions taken that year to comply with the Mather Field transportation Systems Management Plan and appropriate Air Quality Management Plan. The report shall be due by October 1 each year, and shall cover the prior fiscal year. The requirement to submit a report to the Environmental Coordinator may be terminated by the Environmental Coordinator once the mitigation is completed, or after three concurrent reporting years demonstrate full compliance, to the satisfaction of the Environmental Coordinator. The requirement to submit an annual report to SMAQMD shall continue in perpetuity.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

Verification (Action by the Environmental Coordinator):

1. Review final Mather Field SPA to ensure compliance.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ AQ-3: PROJECT LEVEL CONSTRUCTION EMISSIONS

1. The project applicant shall provide a plan for approval by the lead agency and the District, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

2. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The District's Model Equipment List can be used to submit this information.

3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other District, state or federal rules or regulations.

4. If at the time of construction, the District has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the District prior to construction will be necessary to make this determination.

To mitigate any additional emissions that cannot be offset through implementation of measures above, the following shall apply:

> Prior to the approval of improvement plans or the issuance of grading permits, the proponent will submit proof that the off-site air quality mitigation fee has been paid to SMAQMD, consistent with the version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment in effect at the time of plan submittal.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-1: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO WETLANDS AND OTHER WATERS

To compensate for the permanent loss of wetlands and waters, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Wildlife:

A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/ uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

C. Prior to the issuance of building permits, grading permits or approval of improvement plans, all areas within the Mather Field SPA designated as Natural Preserve or Riparian buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and 401 wetland permits.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate permits to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-2: PROGRAMMATIC/ PROJECT LEVEL NATURAL PRESERVE AND RIPARIAN BUFFER CONSERVATION EASEMENTS

Prior to issuance of building permits, the Natural Preserve and Riparian Buffer shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must include at least 1,284.79 acres (including 12.79 acres for the proposed Riparian Buffer) and cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit proof of the placement of appropriate permanent conservation easements to the Sacramento County Environmental Coordinator.
3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Verify the placement of appropriate permanent conservation easements.
2. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
3. Monitor compliance during periodic site inspections of the construction work.
4. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-3: PROGRAMMATIC/PROJECT LEVEL NATIVE TREE PROTECTION AND COMPENSATION

Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements); the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall include the species, diameter, dripline, and health of all trees 6 inches in diameter at breast height or larger, and shall be prepared by an ISA certified arborist. The report shall include an exhibit that shows the trees and their driplines in proximity to the project improvements. The report shall identify any tree proposed for removal and shall quantify any encroachment from project equipment or facilities within driplines of native trees.

A) With the exception of the native trees removed and compensated for through Part B below, all healthy native trees that are 6 inches dbh or larger on the project site, all portions of adjacent off-site healthy native trees that are 6 inches dbh or larger which have driplines that extend onto the project site, and all off-site healthy native trees that are 6 inches dbh or larger which may be impacted by utility installation and/or improvements associated with this project, shall be preserved and protected as follows:

1. A circle with a radius measurement from the trunk of the tree to the tip of its longest limb shall constitute the dripline protection area of the tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of the tree. Removing limbs which make up the dripline does not change the protected area.

2. Chain link fencing or a similar protective barrier shall be installed one foot outside the driplines of the native trees prior to initiating project construction, in order to avoid damage to the trees and their root systems.

3. Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected native tree shall be done under the direct supervision of a certified arborist. To the maximum extent feasible, demolition work within the dripline protection area of the native tree shall be performed by hand. If the certified arborist determines that it is not feasible to perform some portion(s) of this work by hand, then the smallest/lightest weight equipment that will adequately perform the demolition work shall be used.

4. No signs, ropes, cables (except cables which may be installed by a certified arborist to provide limb support) or any other items shall be attached to the native trees.

5. No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled or located within the dripline of the native trees.

6. Any soil disturbance (scraping, grading, trenching, and excavation) is to be avoided within the dripline of the native trees. Where this is necessary, an ISA Certified Arborist will provide specifications for this work, including methods for root pruning, backfill specifications and irrigation management guidelines.

7. Before grading, excavation or trenching within five feet outside the driplines of protected native trees, root pruning shall be required at the limits of grading or excavation to cut roots cleanly to a depth of the excavation or 36 inches (whichever is less). Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades or other approved root-pruning equipment under the supervision of an ISA Certified Arborist.

8. All underground utilities and drain or irrigation lines shall be routed outside the driplines of native trees. If lines must encroach upon the dripline, they should be tunneled or bored under the tree under the supervision of a certified arborist.

9. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use. Any pesticides used on site must be tree-safe and not easily transported by water.

10. Drainage patterns on the site shall not be modified so that water collects or stands within, or is diverted across, the dripline of the native tree.

11. No sprinkler or irrigation system shall be installed in such a manner that it sprays water within the dripline of the native tree.

12. Tree pruning required for clearance during construction must be performed by an ISA Certified Arborist or Tree Worker.

13. Landscaping beneath the native tree may include non-plant materials such as boulders, decorative rock, wood chips, organic mulch, non-compacted decomposed granite, etc. Landscape materials shall be kept two (2) feet away from the base of the trunk. The only plant species which shall be planted within the dripline of the native tree are those which are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.

B) To the maximum extent feasible, all on-site healthy native trees shall be protected and preserved. Any substantial (>20%) encroachment and/or removal of native trees shall be compensated by planting native trees equivalent to the

dbh inches lost, based on the ratios listed below, at locations that are authorized by the Environmental Coordinator. On-site preservation of native trees that are less than 6 inches (<6 inches) dbh, may also be used to meet this compensation requirement. Encroachment of over 20 percent within the dripline radius of native trees will require compensatory mitigation based on the percentage of encroachment multiplied by the dbh. Encroachment over 50 percent will require compensation for the entire tree.

Equivalent compensation based on the following ratio is required:

- one preserved native tree < 6 inches dbh on-site = 1 inch dbh (subject to the approval of the Environmental Coordinator)
- one D-pot seedling (40 cubic inches or larger) = 1 inch dbh
- one 15-gallon tree = 1 inch dbh
- one 24-inch box tree = 2 inches dbh
- one 36-inch box tree = 3 inches dbh

Replacement tree planting shall be completed prior to the issuance of building permits or a bond shall be posted by the applicant in order to provide funding for purchase, planting, irrigation, and 3-year maintenance period, should the applicant default on replacement tree mitigation. The bond shall be in an amount equal to the prevailing rate of the County Tree Preservation Fund.

Prior to the approval of Improvement Plans or building permits, a Replacement Native Tree Planting Plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the Environmental Coordinator for approval. The Replacement Native Tree Planting Plan(s) shall include the following minimum elements:

1. Species, size and locations of all replacement plantings and < 6-inch dbh trees to be preserved;
2. Method of irrigation;
3. The Sacramento County Standard Tree Planting Detail L-1, including the 10-foot deep boring hole to provide for adequate drainage;
4. Planting, irrigation, and maintenance schedules;
5. Identification of the maintenance entity and a written agreement with that entity to provide care and irrigation of the trees for a 3-year establishment period, and to replace any of the replacement oak trees which do not survive during that period.

6. Designation of 20 foot root zone radius and landscaping to occur within the radius of oak trees < 6-inches dbh to be preserved on-site.

No replacement tree shall be planted within 15 feet of the driplines of existing native trees or landmark size trees that are retained on-site, or within 15 feet of a building foundation or swimming pool excavation. The minimum spacing for replacement native trees shall be 20 feet on-center. Examples of acceptable planting locations are publicly owned lands, common areas, and landscaped frontages (with adequate spacing). Generally unacceptable locations are utility easements (PUE, sewer, storm drains), under overhead utility lines, private yards of single family lots (including front yards), and roadway medians.

Native trees <6 inches dbh to be retained on-site shall have at least a 20-foot radius suitable root zone. The suitable root zone shall not have impermeable surfaces, turf/lawn, dense plantings, soil compaction, drainage conditions that create ponding, utility easements, or other overstory tree(s) within 20 feet of the tree to be preserved. Trees to be retained shall be determined to be healthy and structurally sound for future growth, by an ISA Certified Arborist subject to the approval of the Environmental Coordinator.

If native tree replacement plantings are demonstrated to the satisfaction of the Environmental Coordinator to be infeasible for any or all trees removed, then compensation shall be through payment into the County Tree Preservation Fund. Payment shall be made at a rate of $325.00 per dbh inch removed but not otherwise compensated, or at the prevailing rate at the time payment into the fund is made.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate arborist reposts and tree planning replacement plans to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-4: PROGRAMMATIC/PROJECT LEVEL NON-NATIVE TREE CANOPY

Prior to execution of redevelopment/development projects within Mather Field (including the Zinfandel Drive/ trunk sewer improvements), the project proponent(s) shall submit an arborist report for the project impact areas when appropriate habitat exists. The report shall identify all non-native tree canopy in and adjacent to work areas that may be affected by project related construction activities and identify non-native tree canopy that will be removed as a result of the project.

The removal of non-native tree canopy shall be mitigated for with the creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the Sacramento County Department of Transportation 15-year shade cover values for tree species. Preference is given to on-site mitigation, but if this is infeasible, then funding shall be contributed to the Sacramento Tree Foundation's Greenprint program in an amount proportional to the tree canopy lost (as determined by the 15-year shade cover calculations for the tree species to be planted through the funding, with the cost to be determined by the Sacramento County Tree Foundation).

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit an arborist report to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-5: PROJECT LEVEL RIPARIAN HABITAT

To mitigate for 0.608 acres of riparian habitat removal, an equivalent amount of existing habitat removed shall be placed into a permanent conservation easement, or an equivalent amount of habitat within an existing protected area shall be revegetated/restored. Revegetation/restoration shall consist of locally native riparian plant and tree species. To ensure species diversity, a single species shall not comprise more than 50% of the total number of trees planted. Restoration activities shall commence prior to or concurrent with removal of riparian habitat in the construction area and shall be monitored for three years from the date of planting. The success criteria for plant survival shall be 80 percent throughout the monitoring period. If the survival rate falls below the success criteria during the monitoring period, in-kind replacement plantings are required. Any new plantings shall be monitored for a further three years. Prior to commencement of restoration activities, a planting plan shall be submitted to and approved by the Environmental Coordinator. The planting plan shall include plant species, planting locations, spacing, maintenance provisions, monitoring requirements, success criteria and plant replacement provisions should a plant die within the monitoring period.

Where appropriate riparian habitat exists, the project proponent shall submit a biological resources report to the Environmental Coordinator prepared by a qualified biologist or botanist delineating the extent of on-site riparian habitat.

1. Prior to initiating project construction, install chain link fencing or a similar protective barrier that maximizes preservation of any on site riparian zone as dictated by the biological report in order to protect and preserve the riparian habitat to the maximum extent feasible. No earthwork shall be conducted within the protection area and fencing shall remain in place for the duration of all construction work.

   Or,

   2. Where earthwork is necessary to construct the Zinfandel Drive/ trunk sewer improvements and riparian habitat preservation is not possible, prior to the issuance of grading or other improvement permits, also prepare a re-vegetation plan for any altered riparian habitat, consistent with General Plan Policies that compensates for riparian habitat removals. The re-vegetation plan shall include an implementation program and quantifiable success criteria.
      Disturbed riparian herbaceous areas of the project site shall be re-planted with a combination of creeping wild rye seed, willow plants, or other suitable native species. Replanting shall compensate the removal of riparian vegetation. All tree stock shall be standard six inch tree pots (6” x 16” containers), and shall be chosen from the following native species:

      Acer negundo californicum (California box elder)

Alnus rhombifolia (White alder)

Fraxinus latifolia (Oregon ash)

Juglans californica var. hindsii (California black walnut)

Populus fremontii (Fremont cottonwood)

Quercus lobata (Valley oak)

Salix. lasiolepis (arroyo willow)

S. exigua (narrow leaf sandbar willow)

The tree plantings shall be monitored for three years from the date of planting. The success criteria for tree survival shall be 80 percent throughout the monitoring period. If at any time during the monitoring period the survival rate falls below the success criteria, in-kind replacement trees shall be planted to achieve the success criteria. Any new trees required shall be monitored for three years after planting.

Or,

3. Any mitigation required by the state or federal permitting agencies that compensates for the loss of riparian vegetation, functions and values and that provides for a native re-vegetation plan consistent with or exceeding the requirements of measure 1 above shall be deemed mitigation sufficient to reduce impacts to a less than significant level and may be utilized in place of items 1 and 2 above.

Implementation and Notification (Action by Project Applicant):

4. Comply fully with the above measure.

5. Submit a biological resources report delineating the extent of the on-site riparian habitat and replanting plan to the Sacrament County Environmental Coordinator.

6. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

4. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

5. Monitor compliance during periodic site inspections of the construction work.

6. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-6: PROGRAMMATIC LEVEL IMPACTS TO VERNAL POOL HABITAT

To compensate for the direct impacts to ~~36.48~~ **29.99** acres of suitable vernal pool habitat and indirect impacts to ~~3.5~~ **8.37** acres of suitable vernal pool habitat the following measures shall apply:

COMPREHENSIVE DRAINAGE PLAN.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.

The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species.

Ratios. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows:

- A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed vernal pool species;
- A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and
- A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species.

COMPENSATION FOR DIRECT IMPACTS

To meet the partial preservation requirements of direct fill resulting from the proposed project, an easement (acceptable to USACE and USFWS) shall be recorded over the Mather Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Preserve and Riparian Corridor shall total no less than 68.88 acres.

An additional 4.08 acres of preservation shall occur at an offsite location (acceptable to the USACE and USFWS) in order to satisfy the remaining preservation requirements of the project through one or a combination of the following:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;
- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or
- Apply acres of restored/created/rehabilitated habitat for federally listed vernal pool species resulting from the functional increase of habitat of vernal pool species within the Mather preserve.

The acreage of functional lift will be applied to either preservation for indirect impacts component of the mitigation or to the creation/restoration/rehabilitation component of the mitigation, but not to both.

In addition to the preservation requirements noted above, the creation requirements of the project, totaling no less than ~~36.48~~ **29.99** acres, shall be accomplished by one or a combination of the following methods:

- Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank;
- Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager;
- Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or

COMPENSATION FOR INDIRECT IMPACTS

To meet the preservation requirements of indirect impacts resulting from the proposed project totaling no less than ~~7~~ **16.74** acres shall occur through one or a combination of the following methods:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;
- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or

ADDITIONAL LIMITS UPON COMPENSATION

- Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank.

- Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats.

Use Best Management Practices (BMPs) to Provide Effective Erosion and Sediment Control.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and

oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All

fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Or,

In the event that the proposed protection and compensation methodology is approved, to mitigate for direct impacts to 36.48 aces of vernal pool habitat and indirect impacts to 3.50 acres of vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures.

COMPREHENSIVE DRAINAGE PLAN.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.

CONDITIONED CONVEYANCE

As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a ~~1,272~~ **1,383.2** acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered

species and their designated critical habitat). This ~~1,272~~ **1,383.2** acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the ~~1,272~~ **1,383.2** acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act.

TWO STEP ADAPTIVE MANAGEMENT PLAN

In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the ~~1,272~~ **1,383.2** acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step.

FIRST STEP MANAGEMENT PLAN

The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP.

LONG TERM MANAGEMENT PLAN

Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and Wildlife Service and acceptable to the County of Sacramento. The County will place a USFWS approved conservation easement on the ~~1,272~~ **1,383.2** acre Mather Preserve and will select a non-profit land trust accredited by the Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field.

ABOVE AND BEYOND

It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are "above and beyond" what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance.

The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of this BA) will

conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite.

Use Best Management Practices (BMPs) to Provide Effective Erosion and Sediment Control.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would

be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

Conduct Worker Environmental Awareness Training (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate permits and/ or approvals the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-7 PROJECT LEVEL IMPACTS TO VERNAL POOL HABITAT

To compensate for direct and indirect impacts to suitable vernal pool habitat the following measures shall apply:

COMPREHENSIVE DRAINAGE PLAN.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream the project proponent would prepare and adhere to a Comprehensive Drainage Plan. The comprehensive drainage plan would include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows would be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

COMPENSATE FOR THE LOSS OF HABITAT FOR VERNAL POOL SPECIES.

The project proponent proposes on-site habitat preservation in perpetuity, purchase of habitat creation credits at an USACE and USFWS approved mitigation bank, and/or restoration/enhancement of habitat within the designated Preserve areas upon USFWS approval to fully compensate for direct and indirect effects to habitat for federally listed vernal pool species.

Ratios. Final ratios will be determined by the Corps using their mitigation ratio checklist process. Ratios will also be coordinated with USFWS. In the interim, the project proponent has used standard vernal pool mitigation ratios developed by USFWS for planning purposes. Using these preliminary ratios as a minimum, compensation would be as follows:

- A minimum ratio of 2 acres of vernal pool preservation for each acre of direct impact to habitat for federally listed vernal pool species;
- A minimum ratio of 1 acre of vernal pool creation/restoration/rehabilitation for each acre of direct impact to habitat for federally listed vernal pool species; and
- A minimum ratio of 2 acres of vernal pool preservation for each acre of indirect impact on habitat for vernal pool species.

COMPENSATION FOR DIRECT IMPACTS

To meet the preservation requirements of direct fill resulting from the Zinfandel Drive and trunk sewer extension, an easement (acceptable to USACE and USFWS) shall be recorded over the proposed Natural Preserve and proposed Riparian Corridor. On site preservation of habitat capable of supporting vernal pool species within the Natural Preserve and Riparian Corridor shall total no less than 4.02 acres.

In addition to the preservation requirements noted above, the creation requirements of the Zinfandel Drive/ trunk sewer extension, totaling no less than 2.31 acres, shall be accomplished by one or a combination of the following methods:

- Purchase credits for created/restored/rehabilitated habitat for federally listed vernal pool species at an approved wetland mitigation bank;

- Record a conservation easement over lands which include created/restored/rehabilitated habitat for federally listed vernal pool species, including the implementation of a final preserve management plan and designation of a preserve manager;

- Increase the area of the Mather Preserve to accomplish additional preservation of habitat for federally listed vernal pool species; and/or

COMPENSATION FOR INDIRECT IMPACTS

To meet the preservation requirements of indirect impacts resulting from the Zinfandel Drive/ trunk sewer extension totaling no less than 2.90 acres shall occur through one or a combination of the following methods:

- Purchase preservation credits for habitat for federally listed vernal pool species at an approved wetland mitigation bank;

- Record a conservation easement over lands designated for preservation in perpetuity, which include preserved habitat for federally listed vernal pool species; and/or

ADDITIONAL LIMITS UPON COMPENSATION

- Any purchase of created/restored/ rehabilitated vernal pool species habitat must occur at an USACE and USFWS approved mitigation bank. Any purchase of preserved vernal pool species habitat must occur at a USFWS approved mitigation bank.

- Within the Mather Preserve the restoration goal shall be to restore and enhance habitat for vernal pool species such that their ultimate functions and services are equal to or greater than the wetland features directly or indirectly affected as the case may be. This effort could include restoring vernal pools and/or other suitable aquatic features that have been damaged by prior activities. The accomplishment of restoration shall be based upon the Preserve Management approved by the USACE/USFWS with establishment of the Preserve. The plan will include monitoring requirements to ensure the long term success of restored and enhanced habitats.

USE BEST MANAGEMENT PRACTICES (BMPS) TO PROVIDE EFFECTIVE EROSION AND SEDIMENT CONTROL.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an

oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

PREPARE A HARDPAN RESTORATION PLAN

Prior to the start of construction activity for the sewer trunk line, a hardpan restoration plan shall be developed by a qualified hydrogeologist and geotechnical expert and implemented for sewer trunk line construction adjacent to the proposed preserve. The detailed plan shall include identification and documentation of the hardpan depths during excavation of the sewer trench, and appropriate backfill material to restore the hardpan functionality. The detailed hardpan restoration plan shall be included in the construction specifications for the proposed sewer trunk line.

CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons shall be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

LIMIT PROJECT ACCESS ROUTES/STAGING AREAS.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

PROTECT HABITAT IN CONSERVATION AREAS AND AVOIDED HABITATS.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Or,

In the event that the proposed protection and compensation methodology is approved, to mitigate for direct and indirect impacts to vernal pool habitat, suitable habitat at Mather Field shall be protected and managed consistent the following measures.

Comprehensive Drainage Plan.

In order to ensure that the proposed development would not result in detrimental increases in stormwater flow or flooding on site or downstream, the project proponent shall prepare and adhere to a Comprehensive Drainage Plan. The Comprehensive Drainage Plan shall include engineered facilities, such as retention basins, flood control channels, storm drainage facilities, and other features needed to ensure no net increase in stormwater discharge under a minimum 20-year, 24-hour storm event, as a result of the development. Development related increases in stormwater flows shall be assessed based on proposed changes in impervious surface coverage on site, as well as proposed grading and related changes in site topography.

Compensate for the Loss of Habitat for Vernal Pool Species.

Conditioned Conveyance

As part of the base conveyance process for the 5,716 acre former Mather Air Force Base, a 1,272 acre portion has been identified as having significant natural resource values (waters of the United States, and federally threatened and endangered species and their designated critical habitat). This 1,272 acre area will be set aside as a preserve ("Mather Preserve") and will be held in trust by the County of Sacramento for the people of the United States of America (US). The conveyance process provided for preparation of a plan for active management of the 1,272 acre Mather Preserve for the benefit of waters of the US and/or for species listed as threatened and/or endangered under the Endangered Species Act.

Two Step Adaptive Management Plan

In furtherance of the proposal to minimize adverse effects to listed species resulting from loss of habitat, the County proposes to fund the development and implementation of a comprehensive adaptive management program for the 1,272 acre Mather Preserve in perpetuity. The adaptive management program will be for the purposes of maintaining and improving wetland function and habitats for listed crustaceans and plants. The plan will be implemented in two steps. The first step is an Interim Wetlands Management Plan (IWMP). The second step is a Long Term Management Plan (LTMP) which will proceed from the conclusions of the first step.

FIRST STEP MANAGEMENT PLAN

The County has developed, and the Agencies have approved, the first step, the IWMP (2013/2014). Funding for this first step will be provided by the County of Sacramento as described in Chapter 12 and Appendix J of the IWMP.

LONG TERM MANAGEMENT PLAN

Funding for completion and perpetual implementation of the LTMP will be an endowment or an alternative mechanism subject to approval from the U.S. Fish and Wildlife Service and acceptable to the County of Sacramento. The County will place a USFWS approved conservation easement on the 1,272 acre Mather Preserve and will select a non-profit land trust accredited by the Land Trust Accreditation Commission to hold the conservation easement. The conservation easement will be recorded within ninety (90) days from the recordation date of the last federal property transfer to the County at Mather Field.

ABOVE AND BEYOND

It is recognized by all stakeholders that implementation of this two-step active management plan, will be of significant benefit to the values and functions of these natural resources. As a result, we propose these actions as measures that are “above and beyond” what was required in the conveyance process. Implementation of the active management effort will begin with the IWMP and will be considered measures that minimize the adverse effects to species listed under the FESA which may occur as a consequence of development/fill activities occurring within the remaining 4,444 acres of the Mather conveyance.

The implementation of the IWMP, the LTMP, the recordation of the conservation easement, and the funding of perpetual management, will ensure the Mather Field Specific Plan Project (as defined previously on pages nine and ten of this BA) will conserve listed vernal pool invertebrate species and is proposed in-lieu of preservation of vernal pool wetlands offsite.

Use Best Management Practices (BMPs) to Provide Effective Erosion and Sediment Control.

Use of BMPs for stormwater control is expected to reduce the potential for protected and avoided habitat for vernal pool species to be indirectly affected by sediment-laden discharges from construction sites. The performance and effectiveness of these BMPs would be determined either by visual means, where applicable (i.e., observation of

above-normal sediment release), or by actual water sampling in cases where the verification of containment reduction or elimination is required to determine the adequacy of the measures. BMPs to be implemented would include, but are not limited to, the following:

- All disturbed surfaces or stockpile areas would be protected with erosion control measures in place during the period of October 1 through April 30, or as appropriate based on weather conditions.

- BMPs for temporary erosion control (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) would be employed per the product specifications for disturbed areas, stockpiled soil, and along culverts and drainage ditches on active construction sites and in downstream areas that may be affected by construction activities. Requirements for the placement and monitoring of the BMPs would be part of the contractor's project specifications. Performance and adequacy of the measures would be determined visually by site construction management and verified by the County Department of Water Resources and Central Valley Regional Water Quality Control Board as appropriate.

- Dirt and debris would be swept from paved areas in construction zones on a daily basis as necessary to remove excessive accumulations of silt, mud or other debris. Sweeping and dust removal would be implemented by the contractor and oversight of these operations the responsibility of the construction site superintendent.

- All exposed/disturbed areas, left barren of vegetation due to project related activities, would be seeded, mulched and fertilized with a blend of native and/or naturalized grass and forb species. Locally obtained native wildflower seeds may be included in the seed mix. Planted areas must achieve an 80% acreage coverage rate to be considered successful. All exposed areas where seeding is considered unsuccessful after 90 days, would receive appropriate soil preparation and a second application of seed/mulch/fertilizer. Quarterly monitoring would be conducted for a period of one year or until the target goal is met. The application, schedule, and maintenance of the vegetative cover would be the responsibility of the contractor and requirements to establish a vegetative cover would be included in the construction contractor's project specifications.

- If discharges of sediment or hazardous substances to drainage ways are observed, construction would be halted until the source of contamination is identified and remediated. Visual indications of such contamination include an oily sheen or coating on water, and noticeable turbidity (lack of clarity) in the water.

CONDUCT WORKER ENVIRONMENTAL AWARENESS TRAINING (WEAP).

A Worker Environmental Awareness Program (WEAP) training for construction crews and construction forepersons would be conducted before any construction activities begin. The WEAP training would be conducted by a qualified wildlife biologist. The training would include a brief review of the special status species and other sensitive resources that could occur in the project area and their legal status and protection. The program would also cover all relevant mitigation measures, permit conditions and BMP plans, such as the Stormwater Pollution Prevention Plan (SWPPP) and/or erosion control and sediment plan. During WEAP training, construction personnel would be informed of the importance of avoiding ground-disturbing activities outside of the designated work area. A designated environmental inspector would be responsible for ensuring that construction personnel adhere to the guidelines and restrictions and that all persons working on site have attended a WEAP training session. WEAP training sessions would be conducted as needed for new personnel brought onto the job throughout the duration of construction.

Limit Project Access Routes/Staging Areas.

The total number of access routes, number and size of staging areas, and the total area of construction activity would be limited to those areas identified in the approved construction drawings and/or plans or as otherwise approved per permit conditions. Access routes and project boundaries would be clearly marked at all times. Access routes for heavy equipment to and from the project site would be restricted to established roadways to minimize habitat disturbance. The storing of construction equipment, vehicles, and supplies would be restricted to the designated construction staging areas outside of Preserve(s), designated avoided and riparian buffer areas. All fueling, cleaning and maintenance activities of vehicles and other equipment would be performed only in designated areas and at least 250 feet away from avoided/protected habitats. As part of WEAP training, all workers would be informed of the importance of preventing spills and appropriate measures to take in the event of a spill. All spills would be cleaned up immediately.

Protect Habitat in Conservation Areas and Avoided Habitats.

Avoided and protected habitat, including habitat within the Preserve and Riparian Buffer areas, would be protected at all times from construction activities. Habitat protection measures would include the following:

- A USFWS-approved biologist (monitor) would inspect all construction-related activities at the project site to ensure that no unauthorized take of listed species or destruction of their habitat occurs. The biologist would have the authority to stop any activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also would be required to report immediately any unauthorized impacts to the USFWS and the CDFW.

- Adequate fencing would be placed and maintained around all avoided and protected habitat for vernal pool species to prevent direct impacts from construction.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate permits and/ or approvals the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-8: PROGRAMMATIC LEVEL IMPACTS TO VALLEY ELDERBERRY LONGHORN BEETLE

Prior to construction within Mather Field where elderberry shrubs may be located, the project site shall be surveyed for the presence of the beetle and its elderberry host plant by a qualified biologist in accordance with USFWS protocols. If elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground surface level occur on or adjacent to the construction site, or are otherwise located where they may be directly or indirectly affected by the Project, minimization and compensation measures, which include transplanting existing shrubs and planting replacement habitat (conservation plantings), would be undertaken (see below). Elderberry plants with no stems measuring 1.0 inch or greater in diameter at ground level are unlikely to provide habitat for the beetle because of their small size and/or immaturity. Therefore, no minimization measures are required for removal of elderberry plants with all stems measuring 1.0 inch or less in diameter at ground level.

For shrubs with stems measuring 1.0 inch or greater, the project proponent shall ensure that elderberry shrubs within 100 feet of proposed construction be protected and/or compensated for in accordance with the *U.S. Fish and Wildlife Services' (USFWS) Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS, 1999) and the *Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office* (USFWS, 1996b).

Avoid and Protect Habitat Whenever Possible: If suitable habitat for the beetle occurs on the project site or within close proximity where beetles will be affected by the project, these areas must be designated as avoidance areas and must be protected from disturbance during the construction and operation of the project. When possible, projects should be designed such that avoidance areas are connected with adjacent habitat to prevent fragmentation and isolation of beetle populations. Any beetle habitat that cannot be avoided as described below should be considered impacted and appropriate minimization measures should be proposed as described below.

Avoidance: Establishment and Maintenance of a Buffer Zone: Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Firebreaks may not be included in the buffer zone. In buffer areas, construction-related disturbance should be minimized, and any damaged area should be promptly restored following construction. The USFWS must be consulted before any disturbances within the buffer area are considered. In addition, the USFWS must be provided with a map identifying the avoidance area and written details describing avoidance measures.

Protective Measures

1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by USFWS,

provide a minimum setback of at least 20 feet from the drip line of each elderberry plant.

2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.

3. Erect signs every 50 feet along the edge of the avoidance area with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

Restoration and Maintenance: Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.

Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.

No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.

The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed.

Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

Transplant Elderberry Plants That Cannot Be Avoided: Elderberry plants must be transplanted if they cannot be avoided by the proposed project. All elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level must be transplanted to a conservation area. At the discretion of the USFWS, a plant that is unlikely to survive transplantation because of poor condition or location, or a plant that would be extremely difficult to move because of access problems, may be exempted from transplantation. In cases where transplantation is not possible, the minimization ratios may be increased to offset the additional habitat loss.

Trimming of elderberry plants (e.g., pruning along roadways, bike paths, or trails) with one or more stems 1.0 inch or greater in diameter at ground level, may result in take of beetles. Therefore, trimming is subject to appropriate minimization measures.

1. Monitor. A qualified biologist (monitor) must be on-site for the duration of the transplanting of the elderberry plants to insure that no unauthorized take of the valley elderberry longhorn beetle occurs. If unauthorized take occurs, the monitor must have the authority to stop work until corrective measures have been completed. The monitor must immediately report any unauthorized take of the beetle or its habitat to the USFWS.

2. Timing. Transplant elderberry plants when the plants are dormant, approximately November through the first two weeks in February, after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the plant and increase transplantation success.

3. Transplanting Procedure.

a. Cut the plant back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. The trunk and all stems measuring 1.0 inch or greater in diameter at ground level should be replanted. Any leaves remaining on the plant should be removed.

b. Excavate a hole of adequate size to receive the transplant.

c. Excavate the plant using a Vermeer spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and replant immediately at the conservation area. Move the plant only by the root ball. If the plant is to be moved and transplanted off site, secure the root ball with wire and wrap it with burlap. Dampen the burlap with water, as necessary, to keep the root ball wet. Do not let the roots dry out. Care should be taken to ensure that the soil is not dislodged from around the roots of the transplant. If the site receiving the transplant does not have adequate soil moisture, pre-wet the soil a day or two before transplantation.

d. The planting area must be at least 1,800 square feet for each elderberry transplant. The root ball should be planted so that its top is level with the existing ground. Compact the soil sufficiently so that settlement does not occur. As many as five (5) additional elderberry plantings (cuttings or seedlings) and up to five (5) associated native species plantings may also be planted within the 1,800 square foot area with the transplant. The transplant and each new planting should have its own watering basin measuring at least three (3) feet in diameter. Watering basins should have a continuous berm measuring approximately eight (8) inches wide at the base and six (6) inches high.

e. Saturate the soil with water. Do not use fertilizers or other supplements or paint the tips of stems with pruning substances, as the effects of these compounds on the beetle are unknown.

f. Monitor to ascertain if additional watering is necessary. If the soil is sandy and well-drained, plants may need to be watered weekly or twice monthly. If the soil is

clayey and poorly-drained, it may not be necessary to water after the initial saturation. However, most transplants require watering through the first summer. A drip watering system and timer is ideal. However, in situations where this is not possible, a water truck or other apparatus may be used.

Plant Additional Seedlings or Cuttings: Each elderberry stem measuring 1.0 inch or greater in diameter at ground level that is adversely affected (i.e., transplanted or destroyed) must be replaced, in the conservation area, with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). Stock of either seedlings or cuttings should be obtained from local sources. Cuttings may be obtained from the plants to be transplanted if the project site is in the vicinity of the conservation area. If the USFWS determines that the elderberry plants on the proposed project site are unsuitable candidates for transplanting, they may allow the applicant to plant seedlings or cuttings at higher than the stated ratios for each elderberry plant that cannot be transplanted.

Plant Associated Native Species: Studies have found that the beetle is more abundant in dense native plant communities with a mature overstory and a mixed understory. Therefore, a mix of native plants associated with the elderberry plants at the project site or similar sites will be planted at ratios ranging from 1:1 to 2:1 (native tree/plant species to each elderberry seedling or cutting). These native plantings must be monitored with the same survival criteria used for the elderberry seedlings. Stock of saplings, cuttings, and seedlings should be obtained from local sources. If the parent stock is obtained from a distance greater than one mile from the conservation area, approval by the USFWS of the native plant donor sites must be obtained prior to initiation of the revegetation work. Planting or seeding the conservation area with native herbaceous species is encouraged. Establishing native grasses and forbs may discourage unwanted non-native species from becoming established or persisting at the conservation area. Only stock from local sources should be used.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate surveys and mitigation strategies to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-9: PROJECT LEVEL IMPACTS TO VALLEY ELDERBERRY LONGHORN BEETLE

In order to reduce project impacts to the VELB habitat to a less than significant level the following mitigation measures, consistent with USFWS guidelines, will be required:

1. For construction prior to obtaining the applicable permits allowing removal of the elderberry plants, protective measures shall apply. Prior to initiating construction, the following measures shall be completed:

    a. Temporary construction fencing and flagging shall be installed at least 100 feet outside the edge of the driplines of the elderberry plants. In areas where encroachment on the 100-foot buffer has been approved by USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant and provide documentation of USFWS approval of the reduced setback.

    b. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.

    c. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

    d. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.

2. Prior to construction within the 100-foot buffer area (or lesser buffer, as approved by USFWS) established around the elderberry plants implement one of the following methods (or a combination of the following two methods) to reduce impacts to the Valley Elderberry Longhorn Beetle to a less than significant level:

    Either

    a. Elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level shall be transplanted to a conservation area approved by the U.S. Fish and Wildlife Service (USFWS). The project applicant shall consult with the USFWS on all transplantation activities and obtain all applicable permits.

    And/Or

    b. The project applicant shall compensate for the loss of elderberry plants on the site to the satisfaction of the USFWS and shall obtain any/all

applicable permit(s) from the U.S. Army Corps of Engineers (Army Corps) and the USFWS.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit all appropriate surveys and mitigation strategies to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-10: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO WESTERN SPADEFOOT TOAD

Prior to construction within or adjacent to wetlands or vernal pools, including construction activities related to the Zinfandel Drive/ trunk sewer extension, a qualified biologist shall conduct a survey for western spadefoot. The survey shall include transecting all suitable habitat that may be affected by proposed activities and identifying suitable burrows that may be used for aestivation. Suitable burrows shall be excavated using hand tools. If a spadefoot is found in a construction area, the biologist shall move the spadefoot from the area to suitable habitat within the proposed Natural Preserve.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-11: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO WESTERN POND TURTLE

Prior to the commencement of ground-disturbing activity within 1,650 feet of aquatic habitat, including construction activities related to the Zinfandel Drive/ trunk sewer extension, the project proponent shall consult with CDFW to establish appropriate avoidance procedures, and to establish procedures which would apply in the event that a turtle is found within the construction area. The developer shall submit written evidence of the consultation and its conclusions to the Environmental Coordinator. If CDFW recommends obtaining a permit, the applicant shall obtain the permit prior to the commencement of ground-disturbing activities. Unless California Fish and Wildlife recommends other mitigation, the following shall also apply:

1. Twenty four hours prior to the commencement of ground-disturbing activity (i.e. clearing, grubbing, or grading) within 1,650 feet of aquatic habitat, a qualified biologist shall perform a survey for western pond turtle. The survey shall include all suitable upland and aquatic habitat which is within 1,650 feet of all proposed construction areas. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity.

2. If western pond turtles are found during the survey, activities shall not commence until the animal has moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area.

3. If a western pond turtle is encountered during active construction, all construction shall cease until the animal has moved out of the construction area on its own. If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area. California Fish and Wildlife and the Environmental Coordinator shall be notified within 24-hours that a turtle was encountered.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit written evidence of consultation to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

4. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

5. Monitor compliance during periodic site inspections of the construction work.

6. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-12: PROGRAMMATIC LEVEL/PROJECT LEVEL SWAINASON'S HAWK NESTING HABITAT

If construction, grading, or project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to commence between March 1 and September 15, a focused survey for Swainson's hawk nests on the site and within ½ of the site shall be conducted by a qualified biologist no later than 30 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Fish and Wildlife shall be contacted to determine appropriate protective measures, and these measures shall be implemented prior to the start of any ground-disturbing activities. If no active nests are found during the focused survey, no further mitigation will be required.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-13: PROGRAMMATIC/PROJECT LEVEL IMPACTS NESTING HABITAT

If construction, grading, or other project-related improvements, including those related to the Zinfandel Drive/ trunk sewer extension, are to occur between March 1 and September 15, a focused survey for tree or ground nesting raptors within 500 feet of the construction site shall be conducted by a qualified biologist within 14 days prior to the start of construction work. If active nests are found, California Fish and Wildlife shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-14: PROGRAMMATIC LEVEL/PROJECT LEVEL IMPACTS TO TRICOLORED BLACKBIRD

If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 300 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting tricolored blackbirds shall be conducted by a qualified biologist. The survey shall cover all potential nesting habitat on-site and off-site up to a distance of 300 feet from the project boundary. The survey shall occur within 30 days of the date that construction will encroach within 300 feet of suitable habitat. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the project site the project proponent shall do the following:

1. Consult with the California Fish and Wildlife to determine if project activity will impact the tricolored blackbird colony(s). Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from California Fish and Wildlife. Implement all protective measures recommended by California Fish and Wildlife.

2. With California Fish and Wildlife permission, the applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback, with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). The breeding season typically ends in July.

3. If tricolored blackbird habitat is permanently destroyed follow California Fish and Wildlife procedure to mitigate for habitat loss, and submit documentation of the mitigation to the Environmental Coordinator.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit appropriate documentation to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

4. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

5. Monitor compliance during periodic site inspections of the construction work.

6. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-15: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO SHORT EARED OWLS

If construction activities, including those related to the Zinfandel Drive/ trunk sewer extension (which includes clearing, grubbing, or grading) are to commence within 500 feet of suitable nesting habitat between March 1 and July 31, a survey for nesting short eared owls shall be conducted by a qualified biologist.

1. A survey for nests and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.
2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.
3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.
4. If occupied nests or short eared owls are found the project proponent shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit required documentation to the Sacramento County Environmental Coordinator
3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-16: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO BURROWING OWLS

Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable burrow habitat, a survey for burrowing owl shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat. Surveys shall be conducted in accordance with the following:

1. A survey for-burrows and owls should be conducted by walking through suitable habitat over the entire project site and in areas within 150 meters (~500 feet) of the project impact zone.
2. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (~100 feet), and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more surveyors conduct concurrent surveys. Surveyors should maintain a minimum distance of 50 meters (~160 feet) from any owls or occupied burrows. It is important to minimize disturbance near occupied burrows during all seasons.
3. If no occupied burrows or burrowing owls are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the Environmental Coordinator and no further mitigation is necessary.
4. If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012). Submit a survey report to the Environmental Coordinator which is consistent with the Survey Report section of Appendix D of the California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012).
5. If occupied burrows or burrowing owls are found the applicant shall contact the Environmental Coordinator and consult with California Fish and Wildlife prior to construction, and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Environmental Coordinator and in consultation with California Fish and Wildlife). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The California Fish and Wildlife "Staff Report on Burrowing Owl Mitigation" (March 2012) should be used in the development of the mitigation plan.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit appropriate documentation to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-17: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO AMERICAN BADGER

Prior to the commencement of construction activities (which includes clearing, grubbing, or grading) within 500 feet of suitable habitat for American badger den sites, a survey for American badger shall be conducted by a qualified biologist. The survey shall occur within 30 days of the date that construction will encroach within 500 feet of suitable habitat.

If badgers are detected, the biologist shall passively relocate badgers out of the work area prior to construction if feasible. Badgers shall be relocated to suitable areas within the proposed Natural Preserve. If an active den is located within an identified work area, the project proponent shall avoid the den, if feasible, until the qualified biologist determines the den is no longer active. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation of the den between the time of the survey and the completion of construction activities.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-18: PROGRAMMATIC/PROJECT LEVEL IMPACTS TO SPECIAL STATUS PLANTS

Prior to construction, vegetated portions of the project site including wetland habitats shall be surveyed by a qualified botanist for special-status plants following established CDFW *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* which calls for protocol-level surveys during the appropriate flowering/identification period for each potentially affected species.

Known populations of Bogg's Lake hedge-hyssop, Ahart's dwarf rush, and legenere shall be protected within the Natural Preserve. The project would also directly affect two known populations of legenere, and may affect additional, undocumented populations of special-status plants. Measures to compensate for the loss of special status species include:

- Prepare a Mitigation and Monitoring Plan to relocate plants and/or seed banks or reintroduce new populations in suitable habitat and soil types within the on-site Preserve or at a CDFW or USFWS-approved off-site location;
- Restore or enhance suitable habitat within the Natural Preserve.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.
2. Submit approved mitigation plans to the Sacramento County Environmental Coordinator.
3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.
2. Monitor compliance during periodic site inspections of the construction work.
3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-19: PROGRAMMATIC/PROJECT IMPACTS TO SANFORD'S ARROWHEAD

Surveys shall be performed by a qualified botanist during the species non-dormant, flowering period (June – October) prior to work within suitable habitat. If the species is not found during the survey, no further mitigation would be required. If plant(s) are found the botanist shall establish distribution of the colony(s) and estimate the number of individuals in the population. Unless deemed infeasible by the Environmental Coordinator, all plants or tuber/rhizomes shall be removed from the area of impact and transplanted to a new or existing preserve or, if the impact is temporary, replanted in the same location after the disturbance. Surveys shall be performed annually at the transplant location for a period of three years, to ensure success. If survival is not meeting a minimum 60% survivorship, transplantation will be deemed failed. In cases where transplanting is deemed infeasible, or where transplanting has failed, compensatory mitigation shall be provided. Compensatory mitigation shall consist of placement of a conservation easement over a known, unprotected population of the species.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-20: Programmatic Level Impacts to Suitable Habitat Within Designated Critical Habitat and Mather Core Recovery Areas

To mitigate for direct impacts to 4.98 aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 2.89 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-6 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-21: Project Level Impacts to Suitable Habitat Within Critical Designated Critical Habitat and Mather Core Recovery Areas

To mitigate for direct impacts to 0.66 aces of critical habitat for vernal pool species and indirect impacts to critical habitat totaling 1.28 acres, suitable habitat shall compensated for consistent with Mitigation Measure BR-7 above. However, all impacts to critical habitat shall be compensated for within the designated critical habitat area and Mather Core Recovery Area.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ BR-22: PROGRAMMATIC/PROJECT IMPACTS TO NESTING MIGRATORY BIRDS

To avoid impacts to nesting migratory birds the following shall apply:

1. If construction activity (including clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, a survey for active migratory bird nests shall be conducted by a qualified biologist.

2. Trees slated for removal shall be removed during the period of September through January, in order to avoid the nesting season. Any trees that are to be removed during the nesting season shall be surveyed by a qualified biologist and will only be removed if no nesting migratory birds are found.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ CR-1: UNANTICIPATED DISCOVERIES OF CULTURAL RESOURCES

If subsurface deposits believed to be cultural or human in origin are discovered during construction activities, including those activities related to and consistent with a wetlands management plan within the proposed Preserve area, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the North Central Information Center (NCIC) as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ HM-1: HAZARDOUS MATERIALS CONTINGENCY PLAN

All public and private development proposals within Mather Field shall include a detailed Hazardous Materials Contingency plan to address contaminants or other hazardous materials that may be encountered during construction activities and in the event that construction activities (including redevelopment proposals) uncover unforeseen contamination or hazardous materials including radioactive waste at Site RW-016, munitions within the 3,000 foot safety zone of Site XU-403, unexploded ordinance at Site OT-69/XE-404 and contaminants related to landfills. The plan should include steps to contain any contamination, consultation with regulatory agencies and a work plan to evaluate and characterize and remediate any contamination. In addition, all performance standards included in the Mather Field Special Planning Area Ordinance related to hazardous materials shall be incorporated into the Hazardous Materials Plan.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit Hazardous Materials Contingency to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ HM-2: REMEDIATION SYSTEMS

Prior to any public or private development or ground disturbing activities within Mather Field, project proponents shall coordinate with the U.S. Air Force, the U.S. EPA, the California EPA, and other involved agencies, as appropriate, to assure that construction activities do not disturb the remedial system components in place including groundwater monitoring, extraction, and injection wells, and soil vapor extraction and bioventing facilities.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit written proof of coordination with appropriate agencies to the Sacrament County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ PS-1: PROGRAMMATIC LEVEL IMPACTS TO SEWER SERVICE

Prior to development within Mather Field project proponents shall coordinate with SASD in order to determine appropriate sewer planning and infrastructure needs to ensure that existing and/or proposed conveyance facilities have adequate capacity.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit written proof from SASD indicating that adequate infrastructure and capacity is available to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the Project Plans prior to the start of construction. Approve Project Plans that are determined to be in compliance with all required mitigation.

2. Monitor compliance during periodic site inspections of the construction work.

3. Participate in any Final Inspection(s) as necessary.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ PS-2: PROJECT LEVEL IMPACTS TO PROVISION OF EMERGENCY SERVICES

The project applicant shall notify local emergency response agencies of the proposed construction routes and timing of construction prior to the initiation of construction activities related to the proposed Zinfandel Drive/ trunk sewer improvements. Additionally, prior to project related construction activities, a plan detailing how adequate access will be provided during construction shall be provided by the project proponent to law enforcement, fire protection and other emergency service providers for review and approval before beginning construction.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

2. Submit approved emergency services access plan to the Sacramento County Environmental Coordinator.

3. Include the above measure verbatim as a Construction Note and incorporate it into all Plans and Specifications for the project, and submit one copy to the Environmental Coordinator for review and approval prior to the start of any construction work (including clearing and grubbing).

Verification (Action by the Environmental Coordinator):

1. Review the provided emergency services access plan to ensure emergency service provider approval.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ CC-1: Residential Energy Sector Emission Reductions

Add a policy to the Mather Field SPA requiring that future applicants for residential projects reduce residential GHG emissions to below the significance threshold of 1.33 MT per capita. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per capita, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose to submit revised, project-specific, residential energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

Verification (Action by the Environmental Coordinator):

1. Review the final Mather Field SPA to ensure compliance.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____

☐ CC-2: COMMERCIAL ENERGY SECTOR EMISSION REDUCTIONS

Add a policy to the Mather Field SPA requiring that future applicants for commercial and industrial projects reduce commercial emissions to below the significance threshold of 7.87 MT CO_2 per Kft^2. In consultation with the Planning and Environmental Review Division and Sacramento Metropolitan Air Quality Management District, applicants shall submit a plan detailing a set of quantitative and/or qualitative measures that achieve the reduction in CO_2 emissions per Kft2, prior to the issuance of building permits or prior to obtaining any discretionary entitlements. This mitigation may be modified to conform with current Sacramento County climate change standards, including but not limited to a Green Building Program and Climate Action Plan. Additionally, applicants may choose to submit revised, project-specific, commercial energy-use emissions factors; however, the applicant will be required to provide adequate data to support the revised emission factor.

Implementation and Notification (Action by Project Applicant):

1. Comply fully with the above measure.

Verification (Action by the Environmental Coordinator):

1. Review the final Mather Field SPA to ensure compliance.

Comments:

Completion of Mitigation Verified:

Signature: _____ **Date:** _____