

# Environmental Management Department

## Special points of interest:

- \* Site Assessment & Mitigation
- \* Plan Review
- \* Pool Season
- \* Plastic Pollution
- \* Styrofoam Recycling
- \* E coli and Romaine Lettuce
- \* Scientist Day At the Capitol

Phil Serna, District 1  
Patrick Kennedy, District 2  
Susan Peters, District 3  
Sue Frost, District 4  
Don Nottoli, District 5  
Marie Woodin, Interim Director, EMD

## Site Assessment & Mitigation Section— Environmental Compliance Division Program Highlight

by David Von Aspern

The Site Assessment & Mitigation Section (“SA/MS”) within the Environmental Compliance Division deals with the review of both voluntary and directed environmental site assessments (ESAs) and related reports. Sometimes private parties contract for “environmental due diligence,” which can take the form of a Phase 1 ESA, Phase 2 ESA, soil and groundwater assessment, soil vapor assessment, problem assessment report and/or a human and ecological health risk assessment. “Voluntary” assessments are usually those driven among non-regulatory parties by an active or pending escrow, or the financing of real property that is to be collateral on a loan.

A voluntarily-performed

site assessment typically makes its way to SA/MS when an adverse finding is made, although infrequently the parties to an

escrow seek a “comfort letter” from the Environmental Management Department merely to confirm that a regulatory entity is in concurrence with the findings and conclusions of voluntary assessments. In those cases where adverse findings are made, a project often converts from “voluntary” to “regulated,” meaning that one side of the escrow, usually the Seller, must address the discovered contaminant(s). The SA/MS staff are the reviewers of site assessments of all



Mitigated Site on F Street, Sacramento

types, and the group seeks to direct further assessment and cleanup actions until a studied site can be considered suitable for its intended or ongoing uses. The universe of site types studied is large, ranging from “raw land” to transportation corridors to commercial and industrial facilities. Similarly, the range of potential contaminants is large and often includes assessment for heavy metals including lead (Pb) in soil from decayed paint and spent shot at firing ranges, petroleum

hydrocarbons, chlorinated solvents, legacy (persistent) pesticides such as DDT, nitrates and other inorganic

substances, as well as more exotic compounds including

semi-volatile organics such as “manufactured gas” residues in soil and groundwater.

memorial Hospital to planned single-family residential and public park land uses. Back in time when municipal infrastructure was less than adequate, a hospital would operate with its own “physical plant,” meaning off-grid provisions for back-up electrical generation, private (non-City) water supply, sterilization equipment, waste management and recovery/recycling, and large-capacity heating and cooling systems. In fact the old Sutter Memorial dating back to the 1930s was the first hospital west of the Mississippi River with bona fide air conditioning! All of these physical plant attributes required and/or were benefited by the use of various hazardous materials ranging from diesel to heavy metals to leaded paint for durability.

Most of the Sutter Memorial Hospital constituents of concern in soil and shallow groundwater have been assessed and remediated, or are in the final stages of cleanup and abatement. Sometimes SA/MS staff work largely on their own and at other times work closely with other regulatory agencies including the CA Regional Water Quality Control Board (Region 5) and the CA Dept of Toxic Substances Control. The SA/MS Local Oversight Program (LOP) is strictly for review and oversight of contaminants from leaky underground storage tanks, and is funded by grant from the CA State Water Resources Control Board.



Site Mitigation on F Street—contaminated groundwater is pumped out, filtered and discharged to sanitary sewer (under permit).

An interesting, fast-paced project over the past year-and-a-half that has embodied much of the preceding has been the conversion of the former Sutter



Grid soil sampling around the area where soil contaminated with lead was removed. Faint white lines show the grid pattern used for sampling.

Me-



- English 5
- Spanish 2
- Cantonese 2
- Korean 1

## Plan Review- Environmental Health Program Highlight

The Environmental Health Plan Review team processes, reviews, and inspects over 1000 service requests

annually for the food and recreational health programs within the Environmental Management Department (EMD). In addition to completing a substantial work load, plan reviewers also act as subject

matter experts for structural and equipment requirements. On a typical day, a plan reviewer will spend time at the front counter assisting customers, reviewing restaurant and swimming pool plans, conducting inspections on facilities under construction, and assisting district inspectors with structural and equipment questions.

Being one of the first points of contact for new or potential EMD customers, EH Plan Review staff work tirelessly to provide a positive customer experience while ensuring that

facilities are designed and constructed in compliance with California Retail Food Code. Positive first impressions are an important step to building a relationship with customers and can set the tone for all future interactions.

For many small business owners that are submitting plans for EMD review, the business being reviewed is their livelihood. It's personal to them, as they navigate the various regulatory agencies that are all part of their plan approval process, EMD plan review staff have the opportunity to make the process a smoother, more positive experience. Customers can also utilize EMD's digital plan review process, minimizing the need to bring paper plans to EMD's office.

Environmental Health (EH) Plan Review is composed of six environmental health

plans and conduct inspections and two environmental compliance technicians who perform plan intake.

Plans and specifications need to be submitted to the department before construction or operation if:

- Construction of a food establishment is proposed;
- Conversion of an existing structure is proposed for use as a food establishment;
- Changes to the types of food, methods of food preparation, or style of service are proposed;
- New equipment, flooring or finishes will be installed;
- Old equipment will be removed or replaced;
- Remodeling of an existing establishment is proposed; or
- A food establishment has not been previously permitted by the program.



Liz Twomey, part of the Environmental Health Plan Review Team.

Activities requiring plan approval: new equipment, remodel, new facility, or change out of materials



## Sacramento Environmental Commission– Annual Environmental Awards

The Sacramento Environmental Commission (SEC) is a joint County/City commission chartered to advise the Sacramento County Board of Supervisors and the City Councils of Folsom, Galt, Isleton and Sacramento on environmental issues facing our community. Their mission is to provide environmental leadership, assistance and analysis, and provide advice to the participating governments. Their goal is to promote a vision of environmental quality, conservation, public health and environmental man-

agement, environmental justice and sustainability throughout the County. The SEC focuses on the following areas: hazardous material regulation, toxic waste management, environmental health, pollution prevention, transportation, environmental justice and agriculture/land use. Recent issues of interest that the SEC has written to their appointing authorities in support of include: single use plastic bag ban, the development of electric vehicle infrastructure as an element of

community development, and the adoption of the South Sacramento Habitat Conservation Plan. An [Annual Report](#) is prepared each year and available for viewing.

Each year the SEC recognizes citizens, businesses or organizations based in Sacramento County that have demonstrated outstanding efforts to improve, protect and steward environmental resources.

### The winners of the 2018 Environmental Awards were:



Girl Scout Troop 863 and St. Mary School- Planning, marketing, and building a community garden.



Fair Oaks EcoHousing



American River Parkway Foundation Mile Stewardship Program



Sacramento County Airport Solar Project- An employee-led initiative



Councilmember Rick Jennings - For furthering progress on the Sacramento River Bike Trail



Southgate Recreation and Park District, Florin Creek Project



CSU Sacramento Sustainability Program



SMUD Rancho Seco Project- Sustainably supplying the Golden One Center with 85% of its annual energy

### Pool Season at EMD

Each year the Environmental Management Department inspects approximately 2700 public pools, spas and spray grounds in order to prevent a wide array of possible Recreational Water Illnesses (RWI's). RWIs are caused by contact with contaminated water, with symptoms ranging from gastrointestinal, skin rashes, respiratory or neurological illness and wound infections. The most commonly reported RWI is diarrhea which can be caused by Cryptosporidium or E.coli.

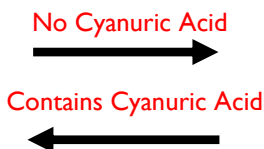
One hot topic each pool season is making



sure that drain/suction covers meet the CA State Pool Code and have not exceeded their safe life span. The Consumer Product Safety Commission (CPSC) has determined that the materials used in pool and spa suction covers can lose strength after years of exposure to water, chemicals and the sun. Because of this, the CPSC requires that all manufacturers stamp their covers with the number of years they can safely remain in use. Lifespans on most suction co-

vers varies from 3-7 years depending on the manufacturer and type of cover. The "life" of the suction cover begins the month that the cover is installed.

Many pool operators are changing their automatic chlorinators from tablet/erosion feeders to liquid chlorine feeders. The greatest advantage in changing to a liquid chlorine system is that liquid chlorine doesn't add any extra cyanuric acid to the pool water. Cyanuric acid is a stabilizer that



helps keep chlorine from evaporating too fast.

### DID YOU KNOW?

#### What Pool Chemicals Should Not Be Stored Together?

Improper storage of pool chemicals can lead to unintentional toxic chemical reactions. Storing oxidizers (such as calcium hypochlorite) alongside acids (such as muriatic acid) is particularly dangerous, as these two chemicals can react on contact to produce chlorine gas.

Safe storage of pool chemicals can be achieved through separating incompatible chemicals using storage cabinets, secondary containment or distance. Only like chemicals should be stored near each other.

#### Improper storage!!!



Store away from each other in separate cabinets or areas.



**EARTHQUAKE → Chemicals Combine = Toxic Chlorine**

## Has Plastic Pollution Finally Met Its Match? *By Zach Frese*

“a material designed to last forever – is used for products often designed to last mere minutes”



The United Nations Environment Programme (UNEP) estimated in 2006 that approximately 46,000 pieces of plastic waste are floating on every square mile of ocean and the statistics have become more staggering today. This plastic pollution is responsible for killing more than 100,000 marine animals and one million sea birds each year. There may be a light at the end of the tunnel in the form of a newly discovered enzyme.

Recent research published in *Proceedings of the National Academy of Sciences* focuses on PET hydrolase (PETase), a newly discovered enzyme which ena-

bles bacteria to degrade plastic as a food source. This natural enzyme, thought to have evolved in a waste recycling facility in Japan, hydrolyzes polyethylene terephthalate (PET) into soluble building blocks. The research, led by teams at the University of Portsmouth and the US Department of Energy's National Renewable Energy Laboratory (NREL), inadvertently engineered an even more effective version of the PET-digesting enzyme. "Although the improvement is modest, this unanticipated discovery suggests that there is room to further improve these enzymes, moving us closer to a recycling solution for the

ever-growing mountain of discarded plastics." (Professor McGeehan, Director of the Inst. Of Biology and Biological Sciences at Portsmouth)

PET, (patented as a plastic in the 1940's), the pervasive material from which plastic bottles are made, currently persists in the environment for several hundreds of years. Plastic – a material designed to last forever – is used for products often designed to last mere minutes. By tailoring the PETase enzyme for use in large-scale industrial recycling processes, the natural biodegradation process could be accelerated dramatically.



## Styrofoam Recycling

Styrofoam has long been a problem material in the recycling industry. It's lightweight, catches air easily and takes "500 yrs. to forever" to biodegrade (sciencelearn.org) so contributes heavily to urban blight. It doesn't sink, bobbing along creeks, rivers and oceans, harming wildlife. Of the 8.3 billion metric tons of plastic produced since the 1950's, 6.3 billion metric tons has become plastic waste. (National Geographic) Is there any good news?

There are over 500 Styrofoam

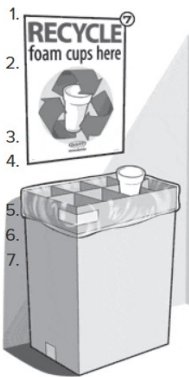
recycling programs throughout the US and Canada. Regionally, there are Styrofoam drop-off sites where "next level recyclers" can drop off Styrofoam waste which will eventually be sold to companies that recycle it into materials such as toys, appliance components, packaging products, insulation and CD cases.

The most common types of foam #6 can be found in products such as foam cups, food service containers, some foam packing peanuts, and other foam

packing products including medical coolers. These products are recycled through a densifier, a compactor specifically designed for foam and plastic, where they are melted down and pellets are created.

Similar to the printer/toner industry, some foam cup manufacturers offer Cup Recycling Kits to purchasers who collect the post-consumer foam cups and mail them back to the manufacturer for recycling.

It's a small beginning to finding a long term recycling solution.



## No Romaine From Yuma

by Louis Abadli

To date, 121 people in 25 states across the nation have fallen ill after consuming romaine lettuce contaminated with E coli O157:H7, bacteria, 24 of the cases in California. Fifty-two of those infected have been hospitalized and one California resident has died. The U.S. Centers of Disease Control and Prevention and the Food and Drug Administration point to the Yuma, Arizona, growing region as the source of contaminated lettuce.



The Environmental Management Department works closely with the Public

Health Department when there is a foodborne illness outbreak. Health inspectors are educating food operators about not serving romaine lettuce at this time.

The CDC urges consumers and restaurants to avoid whole heads, chopped romaine, and salad mixes that include the leafy green if grown in the Yuma area. The CDC also warns that packages may not contain information that identify growing regions, and in this case, the safest bet would be to throw it out.

Though California is the leading supplier of lettuce across the United States,

Yuma, Arizona, is the leading supplier of romaine from mid-November until the beginning of April. Since the first reported case in mid-March,

The Yuma growing season is over, but the FDA cannot guarantee no product is coming out of Yuma, and the CDC cautions illnesses could still occur.

### \*\*\*5-16-18 CDC Update\*\*\*

“According to the FDA, the last shipments of romaine lettuce from the Yuma growing region were harvested on April 16, 2018 and the harvest season is over. It is unlikely that any romaine lettuce from the Yuma growing region is still available in people’s homes, stores, or restaurants due to its 21-day shelf life.”

## State Scientist Day At The Capitol, May 2018



### Turtle or Tortoise?

Their forelimbs are not flipper-like, and their hind feet are not webbed. Each digit in their forefeet and hind feet contains two or fewer phalanges. They are vegetarian land dwellers.

(Answer: Tortoise)



Environmental Specialist, Dennis Catanyag, and Environmental Compliance Technician, Lisa Robbins, represent EMD at the State Capitol on Scientist Day, May 2018.

<b>By the Numbers March/April 2018</b>			
<b>Food Facility Placards Issued</b>	<b>Mar-18</b>	<b>Apr-18</b>	<b>FY to Date</b>
A. Green – Pass	1016	1340	10750
C. Red – Closed	19	16	183
B. Yellow – Conditional Pass	56	66	679
<b>Inspections</b>			
Abandoned Wells	10	3	46
Above Ground Storage Tank	1	5	72
Body Art	23	35	209
Food Protection (includes reinspections and food events)	1314	1708	14424
Farm Labor Camps	6	9	19
Public Swimming Pools/Spas	0	0	1531
Solid Waste Facilities (landfills/transfer stations)	30	23	229
Liquid Waste	7	17	298
Medical Waste	8	8	79
Small Water Systems	2	7	29
Wells and Monitoring Wells	66	69	662
Businesses/Facilities Generating Hazardous Waste	88	87	1100
Businesses/Facilities Storing Hazardous Materials	99	87	1278
Underground Storage Tank Facilities	51	41	388
Underground Storage Tank Removal, Installations, Upgrades, Repairs	12	14	123
Recycled Water	1	0	2
Storm Water Non Food Facility	39	51	654
Waste Tire	72	47	620
Tobacco Retailer	34	44	255
Commercial/Multi-Family Recycling	83	68	667
Organics Recycling	31	3	205
Refuse Vehicle Inspections/	0	0	265
Septic Tank Pumper Trucks	1	2	102
<b>Total</b>	<b>1978</b>	<b>2328</b>	<b>23257</b>
<b>Investigations</b>			
Body Art	5	1	60
Consumer Complaints	93	79	849
Food Borne Illness	11	18	107
Incident Response	49	55	521
Solid Waste	0	0	1
Storm Water	3	8	71
Waste Tire	0	0	0
Childhood Lead	9	3	75
Small Water Systems	0	1	3
<b>Total</b>	<b>170</b>	<b>165</b>	<b>1687</b>
<b>Class Attendance</b>			
Food Safety Education (Food School)	60	96	896
Hazardous Materials Business Plan (HMP) Workshop	3	14	76
Underground Storage Forms Workshop	1	3	43
<b>Total</b>	<b>64</b>	<b>113</b>	<b>1015</b>
<b>Plans, Permits, and Reviews</b>			
Abandoned Wells	53	25	237
Hazardous Materials Business Plans	392	348	3670
Body Art	10	10	108
Monitoring Wells/ Water Wells	167	106	1113
Liquid Waste	32	36	398
Food Facilities	206	174	1733
Public Swimming Pools/Spas	81	85	1026
Underground Storage Tanks Plans and Permit Reviews	8	11	82
Land Use	11	21	186
Local Oversight Program	1	0	9
Cross Connection Permits (Blue Tags)	1766	2105	17773
<b>Total</b>	<b>2727</b>	<b>2921</b>	<b>26335</b>
<b>Imaging</b>			
Document Pages Imaged	12961	12493	113273