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## **GUIDELINES FOR REPAIR AND DESTRUCTION OF HAND-DUG WELLS**

These guidelines are intended to address the legal destruction or repair of wells (or portions of wells) that were dug by hand, not drilled or driven. These wells are typically lined with concrete, bricks, or stones, and they may or may not have a well casing extending through the pit. They are commonly filled with debris, and they do not typically have construction specifications (e.g., “Well Completion Report” or equivalent) readily available.

Most commonly, well owners will choose to destroy these wells when faced with the choice of repairing them or destroying them. Occasionally, when there are no “younger” water supply options (e.g., a drilled well 15 feet from the pit) and the wells are in decent shape, well owners will choose to repair these wells and bring them back into service. Either action – repair or destruction – requires a permit from the Environmental Management Department and submittal of a “Well Completion Report” (DWR Form 188) to the Department of Water Resources and the EMD. This work must be completed by a California licensed water well contractor (C-57 specialty).

**Note:** The pit portion of these wells often constitutes a physical hazard to humans and animals; consequently, we frequently direct well owners to secure/cover these pits promptly (i.e., within 10 days) upon discovery to mitigate the physical hazard. Security measures shall be adequate to prevent access to the pits without the use of tools or mechanical force. Examples of adequate security measures include trench plates, sturdy plywood, and portable sheds.

**WELL DESTRUCTION:** The following are minimum requirements:

- **Casing Present:** If a well casing is present, either at the bottom of the pit or extending through the pit, the cased portion of the well shall be destroyed first, pursuant to the requirements contained in Sacramento County Code, Chapter 6.28, which are summarized in “Destruction of Supply Wells & Exploratory Holes (Borings)” (May 6, 2003; attached).
- **Pit Destruction:** Pit destruction shall be accomplished by cleaning all debris and hardware out of the pit and backfilling to at most 5 feet below grade with acceptable sealing or fill materials. Ideal sealing or fill materials shall be less permeable than native soil. Acceptable materials include all sealing materials allowed in SCC, Chapter 6.28 (neat cement, sand cement, concrete, and bentonite) as well as clean soil and controlled density fill (CDF). Clean soil shall not contain trash, wood, roots, sod, construction debris, or chemical contaminants. Clean soil should be compacted to 95% relative compaction.

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- Pit Liner: If sealing materials are to be placed inside the pit, the upper five feet of pit liner (concrete, stone, brick, etc.) should be removed prior to sealing material placement to 5 feet below grade. If clean soil or CDF is placed inside the pit, the pit liner may remain intact and fill should be placed to grade.

**WELL REPAIR:** The following requirements are minimum requirements for the repair of a hand-dug well:

- Casing Present: Casing installation, repair, and modification shall comply with the requirements contained in Sacramento County Code, Chapter 6.28, Section 6.28.040 (“Water Well Standards”).
- Pit Rehabilitation: Rehabilitation of the pit portion of the well shall consist of cleaning all debris and hardware out of the pit, backfilling to grade with acceptable sealing or fill materials (see “PIT DESTRUCTION”, above), and constructing surface features in compliance with the requirements contained in Sacramento County Code, Chapter 6.28. If the pit is backfilled with sealing material, a minimum concrete pad (2 feet in all directions) may be installed around the well casing. If the pit is backfilled with fill material, the pad shall extend to the original boundaries of the pit.

Note: These requirements apply to repair for original use and do not apply to conversion of use.

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