



## Division of Environmental Health

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## HAZARDOUS MATERIALS UNIT MONITORING WELL AND BORING PERMIT REQUIREMENTS

The purpose of this policy is to ensure compliance with California Department of Water Resources (DWR) Bulletins 74-81 and 74-90 and with Humboldt County Code Title IV, Chapter 1 (Wells). These requirements apply to monitoring wells, borings and other wells installed for purposes other than water supply. For permitting of water supply wells, or observation wells installed for wet weather testing, please contact Humboldt County Division of Environmental Health (HCDEH) Land Use Program. The concerns with construction of any monitoring well, temporary well point or exploratory boring are as follows:

- To prevent groundwater contamination caused by contaminants moving between aquifers or from soil to an aquifer.
- To ensure wells and borings are suitably designed and installed to achieve specified data objectives.
- To record the details of well and boring installations for future data use, and to provide details for proper destruction upon termination of use.
- To observe site conditions, construction and sampling techniques during fieldwork.

A well and boring permit from HCDEH is required for all borings, wells, temporary well points, gas survey points, etc., regardless of depth or installation method. Exemptions to this requirement are as follows:

- Hand-augered borings installed to a maximum depth of four (4) feet below ground surface for the purpose of soil textural analysis/geotechnical data.
- Dewatering wells on construction sites that will be destroyed upon completion of project.

Any boring left in place for more than 72 hours is considered a well. Permit fees will be doubled when a permit is issued for work done without a permit [HCC 631-3(b)]. A Well Completion Report (formerly known as DWR-188) must be submitted to the DWR Online System of Well Completion Reports (OSWCR) within 60 days of installation or destruction of any well:

<https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports>

### DESTRUCTION OF MONITORING WELLS AND BORINGS

Monitoring wells or exploratory boreholes that are no longer useful, permanently inactive or otherwise "abandoned" must be destroyed in order to protect groundwater quality and eliminate potential physical hazards. California Water Well Standards Bulletin 74-81, page 52 defines a well as "abandoned" when it has not been used for a period of one year, unless the owner demonstrates in writing an intention to use the well again. Destruction of monitoring wells can be completed by the following two methods:

- **Overboring.** Remove well box, casing and annular materials, preferably by overboring with the same diameter drill used during installation. See "Abandonment of Exploratory Boreholes" section below for requirements to seal the resulting borehole.
- **Pressure Grouting.** Place grout into casing under pressure, forcing it through the well screen, annular materials and into the surrounding formation. Ensure bridging and voids do not occur. Verify volume of grout placed is equal to or greater than volume of casing and maintain 25 psi for a minimum of five minutes. Add additional grout and pressure as needed. Remove top five (5) feet of casing, annular materials and well box. Match surface to existing grade.

**Abandonment of Exploratory Boreholes.** Place grout in the borehole continuously via tremie pipe or equivalent, proceeding from bottom of borehole upwards, as tremie is withdrawn. Ensure bridging and voids do not occur. Verify volume of grout placed is equal to or greater than volume of borehole. Alternatively, the borehole may be filled with bentonite chips or pellets with a two (2) foot grout seal to the surface. Match surface to existing grade.

**Sealing Materials** used for destruction of monitoring wells and exploratory boreholes must have low permeability, see Water Well Standards Bulletin 74-81, Section (9)(D) on page 34. Drilling muds or drill cuttings are not acceptable as sealing materials.

## **WELL AND BORING PERMIT APPLICATION PROCESS**

Permit applications must be submitted a minimum of ten (10) working days in advance of the proposed work date. Once approved, the well and boring permit is forwarded to the applicant. After permit approval, five (5) day notice must be given to HCDEH prior to start of work.

Well and boring permit applications must include the following, submitted concurrently:

- Permit application filled out completely and accurately.
- Correct fee, see current fee schedule. If paying online via Official Payments, ensure the confirmation number and date of payment are included with permit application.
- Detailed site plan; north arrow, scale no greater than one inch per 30 feet, proposed well and boring locations, existing structures, streets, significant topographic/drainage features, waterways, storm drains/utilities.
- Well construction detail with actual dimensions: borehole depth and diameter; casing diameter and screen interval; filter pack and seal depths; surface features.
- Lead agency workplan concurrence for regulated cleanup sites. Alternatively, letter workplan for non-regulated sites. Borehole sealing method must be specified in the workplan.

Additionally, the drilling contractor must have a currently effective Certificate of Liability Insurance with Commercial General Liability and Workers Compensation & Employer Liability on file, endorsing HCDEH as additional insured.

As no policy can address all possible situations, complex or special situations will be considered on a case by case basis, with major consideration given to the intent of California Well Standards Bulletins 74-81 and 74-90.