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## **ENVIRONMENTAL AND GEOTECHNICAL WELLS AND SOIL BORINGS**

### Introduction

This handout is intended as a general guideline for processing permits for environmental and geotechnical wells and soil borings. This includes, but is not limited to, cone penetrometers, inclinometers, piezometers, extraction wells, recovery wells, monitoring wells, temporary wells, hydropunch soil borings and soil borings drilled for geotechnical purposes (whether or not groundwater is encountered). It is not intended as a substitute for familiarity with applicable laws and regulations.

### Well Permits

A permit is required to construct or destroy an environmental or geotechnical well or soil boring. Each well or boring requires a separate permit. Permit applications are available from Contra Costa Environmental Health. Permits are non-transferable and valid for six months.

### Well Drillers

Contra Costa County requires that any well work be performed by a licensed well contractor (C-57 licensee) who has proof of Worker's Compensation Insurance and a \$5,000 performance bond on file with the Environmental Health office.

### Permit Processing

1. Well permit applications should be filled out as completely as possible to facilitate permit processing. The applications should include proposed well construction, a detailed map or plot plan and be accompanied with the appropriate permit fees. The information provided will be used to determine the suitability of the well site(s) and proposed method of work. If necessary, a site visit may be conducted to verify that the well locations are acceptable. The map or plot plan should indicate distances between the proposed wells/borings from structures and/or known or potential sources of contamination.
2. Applications for well destructions should include a copy of the Well Completion Report for the well construction, if available.

### Construction and Destruction

Once the permit has been issued the authorized work can begin. A copy of the approved permit and map should be kept at the job site for reference.

Upon the setting of the well, Contra Costa Environmental Health will inspect the installation of the annular seal. Generally, annular seal depths should be a minimum of 10 feet to 50 feet, depending on the depth of the well. The seal material must be cement or concrete in accordance with Bulletin 74-81 or an approved bentonite that is specifically formulated as an annular sealing material and mixed to the manufacturer's specifications. If bentonite is used, the final two feet must be an approved cement or concrete mixture. Contact this office for a list of approved materials.

The seal material must be tremmied when using bentonite or sealing annular spaces or cavities 30 feet or greater in depth or in the presence of water. The placement of sealing material for borings, hydropunch sampling, cone penetrometer testing and well destructions will be inspected. For well destructions the top fifty (50) feet of casing must first be removed.

The geologist and/or the well contractor are responsible for contacting Contra Costa Environmental Health to schedule inspection appointments. The greater the advance notice the more likely a mutually convenient appointment time can be arranged. 24 hours notice with confirmation verbally or in writing with the respective specialist is necessary to schedule field inspections.

#### Final Approval

After Contra Costa Environmental Health has approved the installation of an annular seal or the destruction of a well, a Well Completion Report (DWR form 188) signed by the responsible geologist or well driller must be submitted to this office. A boring log is required for borings, hydropunch sampling and cone penetrometer testing.

Upon satisfactory inspection of work and approval of the reports, final approval of the wells/borings will be granted.