

**GROUNDWATER PROTECTION POLICY:
Orland Area of Concern**

**Glenn County Environmental Health Department
April 7, 2006**

I. Objectives:

- A. To allow the construction of wells within the Orland Area of Concern that will be unlikely to serve as conduits for the movement of contaminants through formations that restrict the vertical movement of groundwater.
- B. To identify and develop groundwater that is not contaminated within the Orland Area of Concern.
- C. To characterize the vertical and areal extent of the contaminant plume and its velocity and to use this information to further define the boundaries of the Orland Area of Concern.
- D. To assure that domestic water supplies within the Orland Area of Concern meet the MCL's for PCE.
- E. To develop reporting mechanisms so that property buyers within the Orland Area of Concern are aware of groundwater contamination issues.
- F. To encourage the destruction of any wells that may provide a conduit for contamination movement between aquifers.
- G. To obtain whatever funds are available to monitor clean-up or otherwise mitigate the contamination.
- H. To encourage connections to existing public water systems within or near areas of PCE contamination.

II. Well Construction Standards:

- 1. The Orland Area of Concern shall extend 500 feet to the sides and 1,000 feet down gradient from the PCE plume identified by DTSC as shown on the attached map or any updated map to identify plume movement. Since the plume of contamination was not fully defined by the DTSC study and since the plume appears to be moving to the southeast it is expected that the boundaries of the Orland Area of Concern will have to be redrawn from time to time to reflect current information.

2. Groundwater testing shows that PCE contamination of groundwater inside the boundaries of the PCE plume extends to at least 130 feet below the surface of the ground. New wells must be constructed with annular seals that are deep enough to exclude contaminated water. Well annular seals within the Orland Area of Concern shall be deep enough to avoid known first water contamination, but no less than 140 ft. deep, and shall extend at least 5 feet into a clay formation.
3. Annular seals within the Orland Area of Concern shall isolate water bearing regions. Wells shall not have intake sections in water zones separated by formations that restrict the vertical movement of water.
4. All annular seals shall be constructed with tremie pipe/pressure-pump systems; no gravity fall of sealing materials will be allowed.
5. Sampling of the proposed water bearing zone of new wells drilled within the Orland Area of Concern shall be required to determine the presence of PCE contamination.
6. Well permits, within the Orland Area of Concern, shall contain notice of the possible existence of contamination and that well construction may not guarantee the absence of these compounds. Special well construction standards and water sampling requirements shall be noted in the permit.
7. Well permits issued southeast of the Orland Area of Concern shall include a notice that the proposed well is down gradient from an identified area of contamination and that the proposed well should be tested for PCE. The area where notification will be made is shown on the attached map or on any map revised to show plume movement.

III. Well Destruction:

Any water wells known to contain contaminants or known to serve as conduits between zones of contamination shall be destroyed pursuant to California DWR Bulletin 74-81.

IV. Notification:

Property owners that divide land or drill wells within the Orland Area of Concern shall record a notice as an addendum to the property deed that the well is within an area considered vulnerable to contamination by PCE.

Exceptions to this policy shall only be made in writing by the Health Officer or his/her designated employees.

