# BOARD OF SUPERVISORS, COUNTY OF CALAVERAS STATE OF CALIFORNIA

# MAY 6, 2008

ORNINANCE AN ORDINANCE AMENDING CHAPTER 8.20 OF TITLE 8 OF NO. 2946 THE CALAVERAS COUNTY CODE

The Board of Supervisors of the County of Calaveras does hereby ordain as follows:

Section 1: Chapter 8.20, Title 8 of the Calaveras County Code is hereby amended to read as follows:

# Chapter 8.20

# WELL CONSTRUCTION AND DESTRUCTION

### **Sections:**

### I. General Provisions

8.20.010	Purpose
8.20.020	Title and adoption of State standards
8.20.030	Definitions

### II. Permits

8.20.040	License required
8.20.050	Permit required
8.20.060	Posting
8.20.070	Permit denial
8.20.080	Penalty for failure to obtain permit
8.20.090	Permits non-transferable
8.20.100	Fees
8.20.110	Fees transferable
8.20.120	File Processing fees
8.20.130	Permit fees
8.20.140	Re-inspection fees

- 8.20.150 Late fees8.20.160 Permit conversion fees
- 8.20.170 Expedited inspection fees
- 8.20.180 Permit not to be construed to authorize violations

8.20.190 Emergency work 8.20.200 Permit application III. Locations 8.20.210 Permit certification 8.20.220 Identification of subject property 8.20.230 Well site identification 8.20.240 Site relocation 8.20.250 Abandoned wells 8.20.260 Excluded excavations 8.20.270 Minimum setbacks 8.20.280 Groundwater protection zones 8.20.290 Accessibility IV. Construction 8.20.300 Drilling fluid, foam and water 8.20.310 Well drilling wastes 8.20.320 Well casing 8.20.330 Well casing waivers 8.20.340 Glues, primers and solvents 8.20.350 Conductor casing 8.20.360 Installation of well casing 8.20.370 Perforation of well casing 8.20.380 Grouting 8.20.390 Annular seal 8.20.400 Timing of placement of annular seal 8.20.410 Gravity installation of sealing material 8.20.420 Approved sealing materials 8.20.430 Pump installation and testing V. Development 8.20.440 Well development 8.20.450 Well covers 8.20.460 Concrete surface seal 8.20.470 Sanitary seal 8.20.480 Sounding tube and air vent

8.20.490 Backflow prevention 8.20.500 Subsurface vaults

	VI. Inactive Wells
8.20.510	Report of completion
8.20.520	Inactive wells
8.20.530	Uncompleted wells
	VII. Destruction
8.20.540	Mandatory destruction of wells
8.20.550	Sealing requirements for the destruction of wells
	Disposal prohibited

8.20.570 Destruction of small diameter wells

VIII. Well Conversions

8.20.580 Well Conversions

# IX. Inspection

8.20.590 Inspections8.20.600 Waiver of inspections8.20.610 Minimum equipment required for final well inspection8.20.620 Right of entry

### X. Disinfection

8.20.630 Disinfection of wells required8.20.640 Public water systems

# XI. Sampling

8.20.650 Water testing requirements

### XII. Cathodic Protection Wells

8.20.660 Cathodic protection wells

# XIII. Geothermal Heat Exchange Wells

8.20.670 Geothermal heat exchange well

# XIV. Monitoring Wells

8.20.680 Monitoring wells

# XV. County Liability

# 8.20.690 County liability

## XVI. Administrative Variance

8.20.700 Administrative variance and exemption

8.20.710 Corrective action

XVII. Appeals

8.20.720 Appeals

XVIII. Violations

8.20.730 Violations

IXX. Enforcement

8.20.740 Enforcement authority

XX. Contractors State License Board

8.20.750 Contractors state license board

XXI. Severability

8.20.760 Severability

#### I. GENERAL PROVISIONS

The definitions, items or conditions addressed in these standards, as applied to Calaveras County, supplement the California Department of Water Resources, Bulletin 74-81, Water Well Standards: State of California, and the California Department of Water Resources, Bulletin 74-90, California Well Standards (Supplement to Bulletin 74-81) and other applicable State laws.

8.20.010 Purpose. The purpose of this chapter is to regulate the construction, siting, reconstruction, modification, abandonment and destruction of water wells, agricultural wells, cathodic protection wells, industrial wells, geothermal heat exchange wells, monitoring and observation wells, test wells, test holes and exploration holes in such a manner that the groundwater of the County will not be contaminated or polluted and that water obtained from wells will be suitable for beneficial uses and will not jeopardize the health, safety or welfare of the people of Calaveras County.

<u>8.20.020 Title and adoption of State standards.</u> This chapter shall be known and may be cited as the Calaveras County Well Ordinance and adopts the California Department of Water Resources, Bulletin 74-81, Well Standards: State of California, and the California Department of Water Resources, Bulletin 74-90, California Well Standards (Supplement to Bulletin 74-81), and any subsequent revisions.

<u>8.20.030 Definitions</u>. For the purposes of this chapter, the following terms are defined as:

- 1. "Abandoned well" means a well whose original purpose and use has been permanently discontinued or which is in such a state of disrepair that it cannot be used for its original purpose.
- 2. "Abandoned excavation" means any artificial excavation constructed by any method, for any purpose (including, but not limited to groundwater extraction), whose original purpose and use have been permanently discontinued or which is in such a state of disrepair that it cannot be used for its original purpose. Examples of abandoned excavations include, but are not limited to, mine shafts, pits, wells, hand dug wells, septic tanks, cesspools and other excavations that can present a danger to public health and safety.
- 3. "Agricultural well" means a water well whose purpose is to supply water for irrigation or other agricultural needs.
- 4. "Animal or fowl enclosure" means barnyard, stable, feedlot or an area of land where animals are corralled, penned, tethered or otherwise caused to remain in confinement in a restricted area and where supplemental feeding is required.
- 5. "Annular seal" means the cement grout or bentonite placed between the conductor casing and the borehole or the well casing and the borehole.
- 6. "Annular space" means the space or gap between the conductor casing and the borehole or the well casing and the borehole.

- 7. "Approved" means being regarded favorably or determined by the Director to be officially sanctioned.
- 8. "Application" means a form provided by the Director requesting the issuance of a permit for the purposes of developing or performing work on a well.
- 9. "Aquifer" means a geological formation, group of geological formations or part of a geological formation that is water bearing.
- 10. "Authorized agent" means the Director, an employee of a C-57 licensed Water Well Drilling Contractor working under the license of the well contractor, the property owner, or any individual duly authorized in writing by the property owner to act as the agent thereof.
- 11. "Board" and "Board of Supervisors" mean the Calaveras County Board of Supervisors.
- 12. "C-57 licensed Water Well Drilling Contractor" means any person or company licensed under authority of the State Contractors License Law, as provided in Division 3, Chapter 9, Sections 7026.1 (d), 7058, and 7059 of the Business and Professions Code.
- 13. "Casing" means a tubular structure, usually a plastic or steel pipe, installed in a borehole to maintain the well opening.
- 14. "Cathodic protection well" means any artificial excavation exceeding fifty (50) feet in depth, constructed by any method for the purpose of installing equipment or facilities for the electrical protection of metallic equipment that is in contact with the ground. Installations less than fifty (50) feet in depth are legally considered to be shallow anodes.
- 15. "Cement grout" means a mixture of cement, water and other approved material, such as sand, of such fluid consistency that it can be pumped through a tremie pipe and readily pass through a perforated well casing.
- 16. "Commercial well" means a water well that is used to supply water to an individual enterprise engaged in the sale of water for profit.
- 17. "Contaminant" means any physical, chemical, biological or radiological substance or matter which, by contact or mixing, makes water impure.
- 18. "Department" means the Calaveras County Environmental Health Department.
- 19. "Destroyed well" means a well that has been properly cleared, filled and sealed so that it cannot produce water nor act as a vertical conduit for the movement of surface or shallow subsurface contaminants or pollutants into the groundwater.
- 20. "Director" means the Director of the Calaveras County Environmental Health Department, or any designated or authorized agent thereof.

- 21. "Drilled well" means an artificial excavation, specifically a borehole, constructed by means of a mechanical drilling apparatus, such as a rotary drill, an auger, a cable tool or mud rig.
- 22. "Drilling fluid" is a liquid, used in drilling operations to remove cuttings from the borehole, to clean and cool the bit, to reduce friction between the drill stem and the borehole wall, and to prevent caving or sloughing of the borehole wall.
- 23. "Drilling foam" is a chemical agent that, when agitated in water, creates a froth used in drilling operations to remove cuttings from the borehole, to clean and cool the bit, to reduce friction between the drill stem and the borehole wall, and to prevent caving or sloughing of the borehole wall.
- 24. "Enforcement" means the process undertaken by which individuals, subject to this chapter, are made to comply with the provisions of this chapter.
- 25. "Excavation" means any hole or cavity artificially constructed by any method for any purpose including, but not limited to, groundwater extraction. Examples of excavations include, but are not limited to, mine shafts, pits, wells, hand dug wells, septic tanks, cesspools and other excavations that can present a danger to public health and safety.
- 26. "Expedited inspection" means an inspection that is requested and conducted with less than twenty-four (24) hours advanced notification.
- 27. "Exploration hole" means a test hole.
- 28. "Fee" means a fixed charge proposed by the Director, pursuant to this chapter, as approved, updated and adopted by the Board of Supervisors.
- 29. "Geothermal heat exchange well" means any uncased artificial excavation, constructed by any method, that uses the heat exchange capacity of the earth for heating and cooling, in which excavation the ambient ground temperature is thirty (30) degrees Celsius (eighty-six (86) degrees Fahrenheit) or less, and which excavation uses a closed loop, fluid system to prevent the discharge or escape of its fluid into surrounding aquifers or other geologic formations. Geothermal heat exchange wells include ground source heat pump wells.
- 30. "Groundwater" means subsurface water that occurs beneath the ground surface in fully saturated zones within soils and other geologic formations.
- 31. "Hand dug well" means an excavation that was constructed by means of hand tools, is sometimes lined with brick or stone, is of sufficient diameter to allow easy entry by a person and was constructed for the purpose of extracting groundwater.
- 32. "Inactive well" means a well that is not routinely operated but which is capable of being made operable with minimum effort, i.e., opening valves and switching on electrical power.

- 33. "Incomplete well" means a well that lacks a part or parts or a well upon which all work is not completed.
- 34. "Individual domestic water well" means any water well that is used to supply water for the individual domestic needs of a private residence.
- 35. "Industrial well" means a water well that is used to supply water to an individual enterprise engaged in the commercial production and sale of goods, services or both.
- 36. "Monitoring well" means any artificial excavation made by any method for the purpose of monitoring fluctuations in groundwater levels, quality of underground waters or the concentration of contaminants in underground waters.
- 37. "Permanently inactive well" means a well which has not been used for a period of one year, unless the person owning the land demonstrates an objective intent for further use of the water supply and maintains the well in such a manner that the well shall not allow impairment of groundwater quality, shall have a cover that is watertight and cannot be removed without special tools or equipment, shall be easily visible, locatable and identifiable as being a well, and shall be kept clear of brush, debris and waste materials.
- 38. "Permit" means well permit.
- 39. "Pollutant" means any physical, chemical, biological or radiological substance or matter which, by contact or mixing, makes water unfit for consumption or harmful to living things.
- 40. "Public water system" means a system for the provision of water for human consumption that has fifteen (15) or more service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days of the year.
- 41. "Sanitary building sewage disposal system" means the sewer line, i.e., the tight line or the sewer line, from the building to the on-site, sewage waste, disposal system.
- 42. "Sanitary seal" means a mechanical device used to form a watertight joint around the water line and against the well casing.
- 43. "Sewage dispersal area" means an area, above ground (i.e., spray fields and engineered waste disposal systems) or below ground (i.e., standard or engineered, sewage leach fields), that is used for the disposal of sewage wastes.
- 44. "Sounding tube" means a vented pipe that is attached at the access hole of the sanitary seal, is open to the contents of the well and extends into the water column. The water level within the sounding tube equals the water level within the well.
- 45. "Stand-by well" means a well that serves a public water system that is used only for short-term emergencies of five consecutive days or less, and for less than a total of fifteen (15) calendar days per year.

- 46. "Surface seal" means a monolithically poured, concrete platform or pad constructed around the well casing on compacted native soil.
- 47. "Surface water" means any water that is open to the atmosphere or subject to surface water runoff. Surface waters include, but are not limited to, lakes, rivers, creeks, irrigation ditches, drainage ditches and natural or constructed impoundments.
- 48. "Test hole" means an uncased, temporary excavation (excluding blast holes and soil profile holes excavated for soil evaluations or for on-site sewage treatment and disposal evaluation) that is greater than twenty (20) feet in depth, and whose purpose is the immediate determination of existing geological or hydrological conditions.
- 49. "Tremie pipe" means a tube inserted in the annular space, and which extends from the bottom of the annular space to the ground surface, through which cement grout is pumped to seal the annular space from the bottom of the annular space to the ground surface.
- 50. "Vapor extraction well" means any artificial excavation that is greater than twenty (20) feet in depth, constructed by any method, and used to reduce concentrations of volatile and semi-volatile compounds that are adsorbed onto soils in the unsaturated, subsurface (vadose) zone, by the application of a vacuum.
- 51. "Water quality" means the chemical, physical, radiological and biological characteristics of water with respect to its suitability for beneficial uses.
- 52. "Water system" means an assemblage of such equipment as is necessary, for the provision of water conveyed through pipes or other constructed conveyances, for human consumption and includes, but is not limited to, all wells, pumps, tanks, filters, water treatment equipment, valves, water mains, water service lines, fire hydrants, fire hydrant piping, and all associated appurtenances.
- 53. "Water well" means any artificial excavation that is greater than twenty (20) feet in depth and constructed by any method for the purpose of extracting groundwater.
- 54. "Well contractor" means a C-57 licensed Water Well Drilling Contractor.
- 55. "Well driller" means a well contractor.
- 56 "Well permit" means the formal, written approval of an application issued by the Director under authority of this chapter to perform work on a well.
- 57. "Well rehabilitation" means the treatment or repair of a well that is necessary to recover loss of hydraulic efficiency caused by incrustation or clogging of the screen, filter pack, or the water bearing, strata adjoining the well.

58. "Work on a well" means any activity on a well for which a well permit, issued by the Director, is required and includes, but is not limited to, the digging or drilling of a new well, the reconstruction, modification (i.e., sealing, deepening or re-perforation), destruction or abandonment of an existing well, or the drilling or destruction of a test or exploration hole.

#### II. PERMITS

# 8.20.040 License required.

A. No person shall undertake to dig, bore or drill any well, including but not limited to a water well, test hole, monitoring well, cathodic protection well, groundwater monitoring well or geothermal heat exchange well, or to deepen, perforate or re-perforate such a well, or to abandon or destroy such a well, unless the person responsible for that construction, alteration, destruction, or abandonment possesses a C-57 Water Well Drilling Contractor license.

B. All other work on wells shall be performed by the property owner or an individual under the appropriate license as issued by the Contractors State License Board.

# 8.20.050 Permit required.

A. No person, whether as principal, or authorized agent thereof, shall commence to dig, bore or drill a new well or to deepen, seal, perforate, re-perforate, abandon or destroy, or otherwise commence work on a well in Calaveras County without first having received a permit to do such work.

- B. An application for a well permit shall be made in such a manner and on such forms as deemed necessary by the Director. An application for a permit does not constitute a permit.
- C. When a well permit is issued, the Director may impose any condition deemed necessary to comply with the requirements of this chapter, to protect groundwater resources, or to protect public health and safety.
- D. All well permits shall be valid for one year from the date of site approval. The Director, upon receipt of a written request documenting exceptional circumstances, may grant the applicant an extension of up to one year. Upon expiration of the permit, no further work shall be done, unless and until the applicant has received an extension or has received a new permit.
- E. A well permit, when issued, shall be valid for only one proposed well site. If an alternate well site is required, the well driller, or the authorized agent, shall make application and receive a new permit for the alternate site. A site inspection must be completed before the permit is valid.
- F. Additional permits, as required by the County Building Department, shall be obtained for work associated with wells, but not specifically addressed in this chapter, examples include, but are not limited to, the installation of electrical wiring, connections and plumbing to the well.

<u>8.20.060 Posting</u>. It shall be the responsibility of the well driller to retain a copy of the applicable permit at the work site during all stages of work on the subject well.

### 8.20.070 Permit denial.

A. A permit for work on a well may be denied, at the discretion of the Director, for any of the following reasons:

- 1. Construction of the well will knowingly prohibit the use of surrounding property for any of the uses for which it is zoned;
- 2. The well may be subject to contamination or pollution;
- 3. The well is located on a flood plain or may be subject to flooding;
- 4. Construction of the well will be in violation of this chapter, or
- 5. Construction of the well will constitute a potential hazard to public health and safety.
- B. Denied permits may be appealed pursuant to Section 8.20.720 of this chapter.
- C. No new well permits shall be issued to any well contractor, or authorized agent thereof, who has unpaid fees outstanding for more than ninety (90) days.
- D. The Director may refuse to accept any application from any C-57 licensed well contractor having any unresolved violation of this chapter.
- 8.20.080 Penalty for failure to obtain permit. Any person who commences any work, for which a permit is required pursuant to this chapter, without having first obtained a permit for such work, is in violation of this chapter and is subject to enforcement actions and penalties.
- <u>8.20.090 Permits non-transferable.</u> Permits shall be issued only to a C-57 licensed, well contractor, or the authorized agent, and shall not be transferable to any other person, entity, C-57 licensed well contractor, or any authorized agent.
- <u>8.20.100 Fees.</u> All fees specified in this chapter shall be adopted by County ordinance as approved at the discretion of the Board of Supervisors.

### 8.20.110 Fees transferable.

A. If a well contractor is retained to work on a well for which another well contractor previously received a well permit, the new well contractor must submit a new application (complete with applicable maps and plot plans) with a new well permit. Fees applied to the original application may be re-applied to the new application. If the fee is transferred, the original permit shall become null and void. The new application shall have the same application number as the original application.

B. The new well contractor shall be charged a file processing fee.

C. If a site re-inspection is required, the new well contractor shall be charged a re-inspection fee.

<u>8.20.120 File processing fees</u>. The Director may assess a file processing fee to recover costs incurred by the Department for completing any application that is deemed by the Director to be incomplete, inaccurate or inadequate.

### 8.20.130 Permit fees.

- A. A permit fee shall be charged at the time a well permit application is submitted.
- B. Permit fees are not refundable beyond the life of the permit.
- C. The Director may exercise enforcement authority, as set forth in this chapter, to recover costs incurred by the Department in the recovery of any unpaid fee, late fee, assessment or administrative penalty.
- <u>8.20.140 Re-inspection fees.</u> If for any reason, it becomes necessary to conduct a reinspection, the Director may assess a re-inspection fee and may assess an hourly fee, to recover costs incurred by the Department in conducting the re-inspection.
- 8.20.150 Late fees. The Director may assess a late fee for any unpaid fee, late fee, assessment or administrative penalty that is not received within thirty (30) days of the date specified in the first over due notice.
- <u>8.20.160 Permit conversion fees</u>. To convert a permitted test hole, or any other type of well, to another use, such as a water well, the well driller must submit a new well permit application and pay a permit conversion fee.
- <u>8.20.170 Expedited inspection fees</u>. The Director may assess a fee to recover costs incurred by the Department in conducting an expedited inspection.

### 8.20.180 Permit not to be construed to authorize violations.

A. The issuance of a permit or the approval of site plans or specifications shall not be deemed or construed to be a permit for, or an approval of, any violation of any provision of this chapter.

- B. The issuance of a permit or the approval of site plans and site specifications shall not prevent the Director from requiring the correction of errors or from issuing a stop work order, if work on the well is found to be in violation of this chapter, any County, State or Federal statute, ordinance, regulation, rule or law or any other applicable law or constitutes a potential hazard to public health and safety.
- C. All work on a well shall be completed in compliance with this chapter and as approved by the Director. Any variations from approved site plans or site specifications shall require submission to and approval by the Director.

- <u>8.20.190 Emergency work.</u> The Director may waive the above provisions for emergency work that is required to maintain a supply of water for human consumption or for agricultural, industrial or commercial needs. In such cases, the person responsible for emergency work shall:
  - 1. Notify the Director within twenty-four (24) hours of the nature of the emergency and receive authorization to complete work on the well;
  - 2. Apply for a permit within three (3) working days after commencement of the work;
  - 3. Demonstrate to the satisfaction of the Director that such work was urgently necessary, and
  - 4. Demonstrate that all work was performed in conformance with:
    - a. Technical standards, as cited in this chapter;
    - b. The Department of Water Resources, Bulletin 74-81, Water Well Standards: State of California;
    - c. The Department of Water Resources, Bulletin 74-90, California Well Standards (Supplement to Bulletin 74-81);
    - d. Any subsequent revisions thereof, and
    - e. This chapter.

### 8.20.200 Permit application.

- A. A well contractor, or authorized agent, shall make application for a well permit on forms provided by the Director.
- B. The application shall include maps and plot plans, as necessary, drawn to scale and containing the following information:
  - 1. An outline of the property with property dimensions, acreage, location of property access points and a depiction of the North compass heading at the top of all plot plans and maps;
  - 2. The names and locations of streets and roads near, or bordering the property;
  - 3. The location of any easements including identification of any applicable road or utility rights of way;
  - 4. The outlines, dimensions and locations of all existing and proposed structures, including covered areas such as patios, driveways and walkways;

- 5. The location of the sewer lateral, any public sewer main, domestic sewage disposal system or proposed domestic sewage disposal system, tight lines (sanitary building sewage disposal system), and proposed expansion area for the domestic sewage disposal system;
- 6. The location and nature of any possible or known source of contamination or pollution;
- 7. The location of the proposed new well, the location of any other existing wells and sewage disposal systems on the property and any adjoining property, that is within one hundred (100) feet of the proposed well site, and
- 8. A map of the general region indicating the location of the property, surrounding communities, roads and highways.
- 8.20.210 Permit certification. All well permit applications must be submitted by a well contractor, or the authorized agent, and shall bear the signature of a well contractor certifying that the proposed well site has been properly staked and that the well permit application, including maps and directions, has been reviewed and is correct, accurate and complete.

#### III. LOCATIONS

- 8.20.220 Identification of subject property. The well driller, or the authorized agent, shall ensure that the subject property is readily identifiable by conspicuously posting the Assessors Parcel Number (APN), the street address, or both, at the access points of the property.
- <u>8.20.230 Well site identification</u>. The well driller, or the authorized agent, shall mark the proposed well site with a conspicuous well stake. The well stake shall be readily visible. The top of the stake shall be painted a bright color and marked with either "Well" or "Well Site."

### 8.20.240 Site Relocation.

- A. If a proposed well site is relocated, after the initial well site inspection, the well driller, or the authorized agent, shall submit a re-inspection fee and request a site re-inspection for the new location. In no case shall drilling commence at the new location until approved for drilling.
- B. Verbal approval to commence work at a new location, unless otherwise authorized by the Director, is prohibited.

### 8.20.250 Abandoned wells.

- A. All persons owning an abandoned well, except those abandoned wells that are excluded by Section 115700, Part 9.5, Division 104 of the California Health and Safety Code, shall have the abandoned well destroyed.
- B. As a condition of a new well permit, any abandoned wells on the property shall be destroyed in accordance with standards prescribed in this chapter, prior to commencing work on the new well.

<u>8.20.260 Excluded excavations.</u> This chapter shall apply to excavations that are greater than twenty (20) feet in depth.

### 8.20.270 Minimum setbacks.

A. All water wells shall be located at an adequate horizontal distance from potential sources of contaminates and pollutants.

# B. The following setbacks shall be maintained:

MINIMUM SET BACK DISTANCES		
Minimum Distance from:	Feet	
Property line of parcels that are less than five (5) acres in area	10	
Property line of parcels that are five (5) acres or more in area	50	
Adjacent Road Easement where no specified right of way is identified	30*	
On-site Road Easement where no specified right of way is identified	30**	
Utility Easement	10	
Any sewer line (e.g., sanitary, industrial, main or lateral or combined storm water drain)	50	
Subsurface sewage leach field or other sewage dispersal area	100	
Watertight septic tank	100	
Seepage pit or cesspool (The use of cesspools is prohibited.)	150	
Underground storage tank (petroleum products, e.g., gasoline and diesel)	150	
Animal enclosures	100	
Surface Water (e.g., ponds, lakes, reservoirs, streams, brooks, flood plains and seasonal drainage channels)	25	
Permanent structure	10	
Active or inactive well on neighboring parcel	25	
Animal Water Trough	25	

<sup>\* 30</sup> feet from the center line of the road or the property line setback, whichever is greater.

- C. The Director may require the use of setback distances greater than the above minimum distances and the installation of additional protections when adverse conditions or hazards present a potential threat to groundwater.
- D. It shall be the responsibility of the well contractor to ensure compliance with setbacks.

<sup>\*\* 30</sup> feet from the center line of the road.

# 8.20.280 Groundwater protection zones.

A. The Director may designate specific areas as groundwater protection zones, where contaminants or pollutants are known to occur and where the construction of a well would penetrate an aquifer. In areas designated as groundwater protection zones, the Director may require the installation of special well seals to prevent the mixing of water between contaminated and uncontaminated aquifers. If an applicant proposes to construct, reconstruct, or destroy a well in a groundwater protection zone, the Director may require the applicant to provide a report, prepared by a registered geologist or registered civil engineer (California Business and Professions Code Sections 7850 and 6762 respectively), that identifies all strata containing contaminated or polluted water and recommending locations of any seal or seals that are deemed necessary to prevent the mixing of water between aquifers.

B. It is the responsibility of the well driller to notify the Department of the existence of multiple aquifers prior to the grout seal inspection.

<u>8.20.290 Accessibility</u>. New wells shall be located so as to be easily accessible by workers to facilitate repairs and to provide adequate clearances for any equipment required for the cleaning, treatment, repair, testing and other maintenance of the new well or associated equipment.

### IV. CONSTRUCTION

<u>8.20.300 Drilling fluid, foam and water</u>. Any drilling fluids or foams used in boring a new well shall be free from contaminants and pollutants. Any water used in boring a new well shall be obtained from a potable water source.

#### 8.20.310 Well drilling wastes.

A. The well driller, or the authorized agent thereof, shall ensure that all well drilling wastes, such as cuttings, foams, drilling mud, water or other fluids or solids, do not enter any drainage, tributary, stream, river, water way, flood plain or any body of water.

- B. The well driller, or the authorized agent thereof, shall ensure that all well drilling wastes, such as cuttings, foams, drilling mud, water or other fluids or solids, are contained within the boundary of the property upon which the well is being drilled.
- C. Well drilling muds shall be discharged to a sump with at least two feet of freeboard. Drilling muds may remain in the sump only if the well contractor demonstrates that the drilling muds are nontoxic. The sump area shall be restored to the pre-construction state within sixty (60) days of completion or abandonment of the well.

# 8.20.320 Well casing.

A. Any well casing that is installed shall be of sufficient strength to withstand any forces or stresses imposed during installation and any forces or stresses incurred under normal operating conditions following installation. All well casing used shall be manufactured in accordance with and meet performance standards as established by the American Society for Testing and

Materials (ASTM), the American Petroleum Institute (API) or the American Water Works Association (AWWA).

- B. With the exception of piezometers, casings for new wells shall be no less than six (6) inches in diameter, and boreholes below the bottom of the annular seal shall be no less than six (6) inches in diameter.
- C. An existing well may be deepened and re-lined with well casing that is less than six (6) inches in diameter.
- 8.20.330 Well casing waivers. The Director may grant a variance or an exemption, in consideration of any unusual circumstance whereby an unnecessary hardship would result from the application of the standard, and where the granting of such a variance or an exemption would neither cause nor create a hazardous condition or endanger public health and safety.
- <u>8.20.340 Glues, primers and solvents.</u> All glues, primers and solvents used with well casing shall be compatible and shall meet applicable ASTM standards.

### 8.20.350 Conductor casing.

- A. If a temporary conductor casing is used to prevent caving during the drilling process or placement of the annular seal, the conductor casing shall be removed during installation of the annular seal.
- B. If a conductor casing is to be left in place, the annular space between the conductor casing and the borehole wall shall be sealed, from the ground surface to the applicable depth or at least ten (10) feet into an impervious, bedrock layer, whichever is deeper.
- C. If a conductor casing is to be left in place, and the annular space between the conductor casing and the borehole wall cannot be sealed to the applicable depth, an annular seal shall be installed below the conductor casing and shall extend downward for the applicable depth or at least ten (10) feet into an impervious, bedrock layer, whichever is deeper.

# 8.20.360 Installation of well casing.

- A. The well casing shall extend a minimum of twelve (12) inches above the ground surface and a minimum of six (6) inches above the concrete surface seal.
- B. Casing shall be equipped with centering guides, where applicable, to ensure even thickness of the annular seal.

### 8.20.370 Perforation of well casing.

- A. Perforated well casing shall be installed at a depth of no less than twenty (20) feet below the ground surface.
- B. The perforations shall be placed only in aquifers that underlie an impervious, bedrock layer and are neither contaminated nor polluted.

<u>8.20.380 Grouting</u>. The annular space shall be sealed, to the proper depth, with cement grout or other approved material to prevent the intrusion of surface and shallow, subsurface contaminants and pollutants into the aquifer.

### 8.20.390 Annular seal.

- A. The annular seal shall have a minimum width or thickness of two inches.
- B. The annular space shall be filled to the proper depth with cement grout, bentonite clay, either slurry, chips or pellets, or other sealing material approved by the Director.
- C. If a well is drilled through fill material, the annular space from the top of the fill material to the original ground surface shall be sealed with cement grout, bentonite clay, or other sealing material approved by the Director. In addition, the annular space from the original ground surface (the native soil surface below the fill material) shall be sealed with cement grout, bentonite clay, or approved sealing material approved by the Director, to the applicable depth or at least ten (10) feet into an impervious, bedrock layer, whichever is deeper.
- D. If the well location is approved within twenty-five (25) feet of any permanent or seasonal water course, such as, but not limited to, a drainage, tributary, stream, river, water way, flood plain or any body of water, the annular seal must extend below the bed of the water way for the applicable depth or at least ten (10) feet into an impervious, bedrock layer, whichever is deeper.
- E. Any grouting material that is used to fill the annular space shall be applied in one continuous pour. Deviations from this process may be approved, by the Director, on a site by site basis.
- F. The minimum depth of the annular seal shall be:

MINIMUM DEPTH OF SEAL BELOW GROUND SURFACE		
Well Type	Feet	
Public drinking water well	50	
Commercial well	50	
Industrial well	50	
Individual domestic well	20	
Agricultural well	20	
Vertical geothermal exchange wells	20	
Wells within twenty-five (25) feet of a water way	20*	

<sup>\*</sup> below the bed of the water way.

G. The Director, depending on site specific conditions or to mitigate potential contamination or pollution threats, may require the installation of an annular seal that is deeper than the minimum depths required above.

<u>8.20.400 Timing of placement of annular seal</u>. The annular space shall be sealed during drilling or as soon as practical thereafter. In no case shall the annular space be left open longer than fourteen (14) days following the installation of the well casing.

8.20.410 Gravity installation of sealing material. Gravity installation of sealing material is prohibited unless the interval to be sealed is dry and is no deeper than thirty (30) feet.

### 8.20.420 Approved sealing materials.

A. The following materials and mixtures are approved for use in sealing wells:

- 1. Neat cement: One sack (ninety-four (94) lbs.) Portland cement to five (5) to ten (10) gallons of potable water;
- 2. Cement grout: Not more than two (2) parts of sand by weight and one (1) part of cement by weight to five (5) to seven (7) gallons of potable water;
- 3. Bentonite and bentonite sealing materials used in accordance with the specifications of the manufacturer or as approved by the Director;
- 4. Quick setting cement, setting retardants, bentonite, or other additives, if used, may not exceed five percent of total volume. Hydrated lime may be used up to ten (10) percent of the volume:
- 5. If more than four (4) sacks of bentonite chips are required to remove water from the annular space, the remainder of the annular space shall be filled with approved sealing material.
- 6. If bentonite chips are used to fill an annular space, the chips shall be screened to remove fines then be dropped slowly into the well, but only through standing water, and
- 7. If the annular space of a well is to be sealed with hydrated, bentonite slurry, the annular space shall be filled by pumping the slurry through a tremie pipe from the top of the fill material to the ground surface.
- B. Sealing materials, other than bentonite chips or pellets, shall not be poured through or into water.
- <u>8.20.430 Pump installation and testing</u>. Only licensed professionals holding an A (General Engineering Contractor), C-57 (Water Well Drilling Contractor), or C61/D21 (Limited Specialty-Machinery and Pumps) license, issued by the Contractors State License Board, may install and test well pumps.

#### V. DEVELOPMENT

### 8.20.440 Well development.

A. Development, re-development or re-conditioning of a well shall be accomplished by a method that will not cause damage to the aquifer or introduce contaminants or pollutants into the groundwater. The well driller shall exercise care and due diligence to prevent the development or occurrence of adverse conditions that may damage or destroy barriers to the vertical movement of water.

- B. Acceptable well development, re-development or re-conditioning methods include, but are not limited to:
  - 1. Over pumping;
  - 2. Surging or swabbing by use of plungers;
  - 3. Surging with compressed air;
  - 4. Backwashing or surging by alternately starting and stopping the well pump;
  - 5. Jetting with water;
  - 6. Introducing specifically formulated chemicals into a well;
  - 7. Hydraulic fracturing, and
  - 8. Combinations of the above.
- C. Hydraulic fracturing by means of an explosive charge is prohibited.

8.20.450 Well covers. The top of the well casing must be protected at all times from the entry of foreign objects, contaminants or pollutants by use of a watertight cover. The cover shall be held in place in such a manner that it cannot be removed without the use of special equipment or tools. During construction of the well, the borehole opening shall be protected at all times from the entry of foreign objects, contaminants or pollutants.

### 8.20.460 Concrete surface seal.

A. A concrete surface seal (in the form of a framed pad that is no less than twenty-four (24) inches on each side) shall be installed around the well casing on all new wells at the time the annular seal is poured.

B. The concrete surface seal shall be monolithically poured on compacted native soil, shall have a minimum thickness of three and one half  $(3\frac{1}{2})$  inches (the dimension of a wooden,  $2 \times 4$  stud) above grade, shall be free from cracks or other defects, and shall be contiguous with the annular seal.

- C. The concrete surface seal shall be graded to allow drainage to flow away from the well casing in all directions.
- D. Any subsidence of the annular seal shall be filled with cement grout or neat cement prior to pouring the concrete surface seal.
- E. Any subsidence of the concrete surface seal shall be filled with cement grout or neat cement.

### 8.20.470 Sanitary seal.

- A. If the well pump is mounted directly over the casing, the base of the well pump shall be sealed with grout, mastic, caulking or other approved material to form a watertight joint between the well pump and the concrete surface seal.
- B. If the well pump is mounted directly over the casing, all holes in the well pump shall be sealed and all holes that open directly into the well shall be sealed.
- C. If the well pump is mounted directly over the casing, the seal at the base of the well pump shall be shaped in such a manner as to prevent the retention of water and the accumulation of foreign material.
- D. If a submersible pump is installed, the top of the well casing shall be sealed with a sanitary seal. The sanitary seal shall be installed in such a manner as to ensure that all openings into the well are sealed with a watertight seal.

### 8.20.480 Sounding tube and air vent.

- A. If an air vent is provided, it shall extend at least twelve (12) inches above the ground surface and be inverted in a downward direction. The end of the air vent shall be covered with a screen to prevent the entry of insects, spiders, or other small animals.
- B. If a commercially manufactured sanitary seal is used, a sounding tube will not be required, provided the sanitary seal is approved by the Director and is designed in a manner that allows the well to be chlorinated and the water level sounded.

### 8.20.490 Backflow prevention.

- A. All pump discharge pipes shall be equipped with an approved backflow prevention device to prevent backflow or back siphonage into the well. An air gap may be considered to be an acceptable backflow prevention device.
- B. No person shall install any equipment or mechanism that uses chemical feeders or injectors to a pump discharge pipe without the installation of an approved backflow prevention device.
- C. The installation of a backflow prevention device is required for all public water wells pursuant to Chapter 5, Article 2, California Health and Safety Code.

- D. No person shall make or allow any connection to exist between any conduit that conveys domestic water, and:
  - 1. Any conduit that conveys non-potable water from any other water source;
  - 2. Any conduit that conveys water that has been used previously for any purpose whatsoever, and
  - 3. Any conduit that conveys any biological or any chemical contaminant or pollutant.

### 8.20.500 Subsurface vaults.

A. The use of subsurface vaults to house the well head and appurtenances is prohibited.

B. The Director may grant a variance or an exemption, in consideration of any circumstance whereby an unnecessary hardship would result from the application of the standard, and where the granting of such a variance or an exemption would neither cause nor create a hazardous condition or endanger public health and safety.

### VI. INACTIVE WELLS

### 8.20.510 Report of completion.

- A. Reports of completion made in accordance with Section 13751 (b), California Water Code, shall be submitted to the Director within thirty (30) days of construction, re-construction or destruction of any water well or test hole.
- B. Reports of completion shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in conducting studies, or to any person who obtains written authorization from the owner of the well. However, any report associated with a well located within two (2) miles of an area affected or potentially affected by a known unauthorized release of a contaminant or pollutant shall be made available to any person conducting an environmental cleanup study associated with the unauthorized release, if the study is conducted under the order of a regulatory agency. Any report released to any person conducting an environmental cleanup study shall not be used for any purpose other than for the purpose of conducting the environmental cleanup study.
- C. The well contractor shall submit a report of completion for any well that was drilled but for which well construction was not completed. The report of completion shall clearly explain the reason for any non-completion.
- D. The well contractor shall ensure that the information contained in a report of completion is complete, accurate and correct.
- E. The report of completion shall document that all work was completed in accordance with standards set fourth in this chapter including any additional permit conditions required by the Director.

- F. The Director may temporarily suspend the issuance of additional well permits to a well contractor, if the well contractor has failed to submit any report of completion that is required pursuant to this chapter within the time period specified for such submission.
- G. This section shall not be deemed to release the well contractor, or authorized agent thereof, from the requirement to file a report of completion with the State Department of Water Resources or from compliance with the provisions of California Water Code, Sections 13750.5 through 13755, relating to notices and reports of completion or any other applicable County, State or Federal regulation.

### 8.20.520 Inactive wells.

- A. All inactive wells shall be maintained in such a manner that:
  - 1. The well has no defects that will impair the quality of any water in the well or in any aquifer that is penetrated by the well;
  - 2. The well has a cover that provides a watertight seal and cannot be removed without the use of special equipment or tools;
  - 3. The well is clearly visible and can be readily located;
  - 4. The well can be readily identified as a well, and
  - 5. The area surrounding the well is kept clear of brush, debris and waste materials.
- B. The Director may declare that a well, that has been inactive for five (5) years, is abandoned and require the well to be properly destroyed.

### 8.20.530 Uncompleted wells.

- A. If a well contractor ceases work on a well and abandons the project before the annular seal or the surface seal is installed, the well contractor shall seal the borehole temporarily and notify the Director, in writing within fifteen (15) days, of the abandonment and of the reason for the abandonment.
- B. It shall be the responsibility of the owner to ensure that work on any uncompleted well, on property belonging to the owner, is completed in a timely manner and in compliance with requirements set forth in this chapter.
- C. If a well contractor temporarily ceases work on a well, the well contractor shall ensure that the annual space is not left open any longer than fourteen (14) days following cessation of the work on the well.
- D. The Director may declare that an uncompleted well is abandoned and require the well to be properly destroyed.

E. The Director may exercise, as is deemed necessary, any enforcement authority available under applicable provisions of the Civil Code or any County ordinance enacted pursuant to Section 25845 of the Government Code or as set forth in this chapter to ensure that the status of an uncompleted well is resolved.

### VII. DESTRUCTION

<u>8.20.540 Mandatory destruction of wells.</u> When a well no longer functions as originally designed, or cannot function appropriately, or has fallen into such a state of disrepair that it may constitute a preferential pathway for the intrusion of contaminants or pollutants into the groundwater, or constitutes a potential hazard to public health and safety, or is found or declared to be abandoned, it must be destroyed by a well contractor, under a well permit issued by the Director.

### 8.20.550 Sealing requirements for the destruction of wells.

- A. When a well is to be destroyed, the interior of the well casing, first, shall be cleared of any debris or obstruction which might interfere with the sealing procedures.
- B. The well shall be filled, with fill material (such as pea gravel), approved by the Director, from the bottom of the well to a level that is no deeper than twenty-five (25) feet below the ground surface.
- C. At least twenty (20) feet of sealing material, approved by the Director, shall be placed on top of the fill material.
- D. The twenty (20) foot column of sealing material may be recessed up to five (5) feet below the ground surface. If the sealing material is recessed, the distance from the top of the approved sealing material to the ground surface may be excavated and the exposed casing may be removed or cut off. The resulting excavation may be filled with native soils.
- E. The Director, based on site specific conditions, may require the installation of a deeper seal or a seal that is recessed deeper than five (5) feet below the ground surface. If the top of the well casing cannot be removed, the well casing shall be filled to the ground surface with approved sealing material.
- F. If there is no annular seal, or if the integrity of either the annular seal or the well casing is unknown, the well casing shall be perforated from the top of the fill material to the ground surface. The well casing shall be perforated, at a minimum, on opposite sides of the well casing. The perforations shall be of sufficient size to allow cement grout to flow readily through the perforations, without clogging, to fill the annular space.
- G. If the depth of a well that is to be destroyed is twenty (20) feet or less in depth, the well, with the approval of the Director, may be filled with native soils.

- H. Under no circumstances shall a well or a borehole be filled, or otherwise destroyed, without the approval of the Director.
- I. During a well destruction, bentonite chips may be allowed to free fall up to two hundred (200) feet, if the space through which the bentonite chips will fall is sufficiently large enough to prevent bridging, and if the bentonite chips are used in accordance with procedures described herein and procedures specified by the manufacturer.
- J. The destruction of hand dug wells shall be accomplished by filling the well from the bottom to no less than twenty (20) feet below the ground surface with approved fill material. The distance from the top of the fill material to the ground surface shall be filled with cement grout or other approved sealing material. The Director, based on site specific conditions, may require the installation of a deeper seal.
- K. The twenty (20) foot column of sealing material may be recessed up to five (5) feet below the ground surface. If the sealing material is recessed, any well lining (rock or brick) that is exposed must be removed before the excavation is filled. The excavation may be filled with native soils.
- L. The Director may declare that a hand dug well is an abandoned excavation and require the excavation (pursuant to Section 115700, Part 9.5, Division 104 of the California Health and Safety Code) to be:
  - 1. Covered, filled or fenced securely, and kept so protected, to prevent the endangerment of public health and safety, and
  - 2. Protected in such a manner that the excavation does not become a preferential pathway for the movement of pollutants, contaminants, or poor quality water, from above ground to below ground, where such movement poses a threat to the water quality.
- <u>8.20.560 Disposal prohibited.</u> Under no circumstances shall a well, whether active, inactive or abandoned, be used for the disposal of any solid or liquid wastes.
- 8.20.570 Destruction of small diameter wells. If a well that is less than four (4) inches in diameter is to be destroyed, the well shall be filled with cement grout, bentonite, or other approved sealing material from the bottom of the well to the ground surface. The destruction of the well shall be conducted by a well contractor under a well permit issued by the Director.

### VIII. WELL CONVERSIONS

<u>8.20.580 Well Conversions</u>. The conversion or use of a domestic well, an agriculture well, a monitoring well, a test hole, a geothermal heat exchange well or a cathodic protection well to a source of public drinking water or to an industrial or commercial well is prohibited, unless the conversion is approved by the Director, and the well is free of contamination or pollution, and is re-constructed in such a manner that the converted well meets applicable standards for drinking water wells.

#### IX. INSPECTION

### 8.20.590 Inspections.

- A. The Director may conduct any inspection, deemed necessary, at any reasonable time to assure compliance with the requirements of this chapter.
- B. The Director may prescribe mandatory inspections of projects if it is deemed necessary. The stage of well construction at which each prescribed inspection is required shall be set forth on the well permit application.
- C. The Director, at a minimum, shall conduct the following prescribed inspections:
  - 1. Initial well site inspection;
  - 2. Annular seal inspection;
  - 3. Final well inspection, and
  - 4. Well destruction inspections when required.
- D. Prior to sealing the annular space, the well contractor shall notify the Director and schedule an inspection of the sealing process, unless such inspection has been waived by the Director. If the inspection is waived, the well contractor shall seal the well in accordance with standards set forth in this chapter and any permit conditions prescribed by the Director. No annular seal shall be installed until permission to proceed is given by the Director.
- E. After the work on a well has been completed, including installation of the well pump, the property owner shall notify the Director and schedule a final well inspection unless such inspection has been waived.
- F. The well contractor shall provide at least twenty-four (24) hours advanced notice to schedule any required inspection.
- G. If a well is drilled in conjunction with the construction of a private residence or other structure, the final well inspection must be completed before either the building permit or site sewage disposal permit can be finaled.
- H. For parcels that are less than one and one half  $(1^{1}/_{2})$  acres in area, the proposed well site, the proposed on-site sewage disposal system and the proposed expansion area shall be sited concurrently.
- <u>8.20.600 Waiver of inspections.</u> The Director may waive a required inspection should any of the following conditions occur:
  - 1. The well has been inspected by another appropriate, regulatory agency;

- 2. The well will be inspected by the staff of the California Regional Water Quality Control Board or the California Department of Public Health, and the inspecting agency will provide a report to the Director documenting compliance with standards set forth in this chapter;
- 3. The well is a monitoring well, and
- 4. The well will only penetrate aquifers that are known to contain contaminated or polluted water or will only penetrate geological formations that are known to contain no water.

### 8.20.610 Minimum equipment required for final well inspection.

- A. The minimum plumbing equipment, fixtures and appurtenances required for the final well inspection include:
  - 1. A well pump, water pipe, applicable electrical wiring, connections and junction box;
  - 2. A sanitary seal;
  - 3. A screened air vent that is curved one-hundred and eighty (180) degrees downward, and
  - 4. A check valve or other approved backflow prevention device installed outside of the well casing between the well pump and the first outlet.
- B. With the exception of a small diameter (1/4 inch), water sample tap, there shall be no outlets installed on the water line between the well pump and the check valve.
- C. All openings in the sanitary seal and in the well casing shall be sealed in such a manner as to be watertight.
- 8.20.620 Right of entry. The Director shall have the authority to enter upon any premises, at any reasonable time, to conduct any inspections, collect water samples or to, otherwise, assure compliance with or the enforcement of this chapter or any required permit conditions. If any such premises are occupied, the Director shall first present proper credentials and request entry. If the premises are unoccupied, the Director shall first make a reasonable effort to locate the owner of the premises or any person having charge or control of the premises and request entry. If such entry is refused, the Director shall have recourse to such remedies as are provided by law to secure entry.

### X. DISINFECTION

### 8.20.630 Disinfection of wells required.

A. Following the installation of the well casing, the well contractor shall disinfect the gravel pack, the interior and exterior surfaces of the well casing, the electrical wiring, the water pipe within the casing with potable water containing either a calcium or sodium hypochlorite

solution (household bleach) having a concentration of no less than one-hundred (100) parts per million, by means of a spray wand inserted into the well through the air vent.

- B. To disinfect a well, disinfectant shall be placed in the well and mixed with the water by surging the pump or by re-circulating water into the well by means of a spray wand inserted through to air vent to mix and distribute the disinfectant within the well.
- C. The water shall be circulated until disinfectant is detected at all outlets. Thereafter, the well shall remain idle for at least twenty-four (24) hours and then be pumped to waste until the water is free of disinfectant.
- D. Following the replacement or re-installation of a well pump or any repair that opens the water system to the outside environment, the well and all appurtenances shall be disinfected.
- <u>8.20.640 Public water systems</u>. Public drinking water systems are subject to regulation under applicable sections of the California Government Code, the California Health and Safety Code and the California Water Code.

#### XI. SAMPLING

### 8.20.650 Water testing requirements.

- A. Water from all new wells shall be tested for the presence of bacterial and chemical contamination. All water samples shall be analyzed by a State certified laboratory prior to placing the well into service.
- B. All water test results shall be submitted to the Director and must meet State bacteriological and chemical standards prior to finalizing the well. Any costs that are incurred in the collection and analysis of water samples shall be the responsibility of the owner of the well.
- C. The extent of chemical and bacteriological analyses shall be determined on a case by case basis as deemed necessary by the Director to protect public health and safety.
- D. All new wells shall be tested, at a minimum, for nitrate (as NO<sub>3</sub>), Total Coliform bacteria and either Fecal Coliform bacteria or the <u>E. coli</u> bacterium, if Total Coliform bacteria are detected.

#### XII. CATHODIC PROTECTION WELLS

### 8.20.660 Cathodic protection wells.

- A. Cathodic protection well standards can be found in the California Department of Water Resources, Bulletin 74-81, Water Well Standards: State of California and the California Department of Water Resources, Bulletin 74-90, California Well Standards (Supplement to Bulletin 74-81).
- B. Cathodic protection well standards are incorporated into this chapter by reference. Any subsequent revision of the cathodic protection well standards shall be adopted by reference.

#### XIII. GEOTHERMAL HEAT EXCHANGE WELLS

## 8.20.670 Geothermal heat exchange wells.

- A. Geothermal heat exchange wells are not specifically addressed in this chapter; however, proposed geothermal heat exchange well standards can be found in the California Department of Water Resources, Geothermal Heat Exchange Wells, Well Standards, April 1999 (draft).
- B. The geothermal heat exchange well standards are incorporated, as guidance, in this chapter by reference. Any subsequent revision of the geothermal heat exchange well standards shall be adopted by reference.

#### XIV. MONITORING WELLS

#### 8.20.680 Monitoring wells.

- A. Monitoring well standards can be found in the California Department of Water Resources, Bulletin 74-81, Water Well Standards: State of California and the California Department of Water Resources, Bulletin 74-90, California Well Standards (Supplement to Bulletin 74-81).
- B. The monitoring well standards are incorporated in this chapter by reference. Any subsequent revision of the monitoring well standards shall be adopted by reference.

#### XV. COUNTY LIABILITY

### 8.20.690 County liability.

- A. Nothing in this chapter shall be construed as imposing upon the County any liability or responsibility, whatsoever, for any damage, injury or inconvenience resulting from any activity authorized or conducted by the Director pursuant to this chapter; nor shall the County, or any employee or authorized agent thereof, incur any liability or responsibility for any damage, injury or inconvenience resulting from any due diligent decision made by any employee or agent of the County or from any activity authorized or conducted pursuant to this chapter.
- B. Neither the County nor the Director shall incur any liability or responsibility for any damage, injury or inconvenience resulting from any due diligent decision made by the Director in the administration or enforcement of this chapter, nor shall the County, or any employee or authorized agent thereof, incur any liability or responsibility for any damage, injury or inconvenience resulting from any due diligent decision made by any employee or agent of the County or from any activity authorized or conducted pursuant to this chapter.
- C. It shall be the responsibility of the well contractor to ensure that all work on a well is performed in compliance with requirements set forth in this chapter and all applicable County ordinances and State laws.

#### XVI. ADMINISTRATIVE VARIANCE

# 8.20.700 Administrative variance and exemption.

- A. The Director, as deemed necessary, may grant a variance or an exemption, from any standard set forth in this chapter, in consideration of any unusual circumstance whereby an unnecessary hardship would result from the application of the standard, and where the granting of a variance or an exemption would neither cause nor create a hazardous condition or endanger public health and safety.
- B. The Director shall issue written findings within thirty (30) calendar days of receipt of any request for a variance or an exemption. The written findings shall demonstrate the reason or reasons for denial.

#### 8.20.710 Corrective Action.

- A. The Director may require any person, subject to regulation under this chapter, to take corrective action to comply with this chapter.
- B. The Director shall provide notification to the affected person.
- B. The affected person may, within fourteen (14) calendar days of notification, request in writing a hearing during which the affected person shall have the right to present evidence and testimony.
- C. The Director shall, within thirty (30) calendar days following the hearing, provide a written statement of the findings of fact, containing a determination, based on the evidence and testimony presented, whether the grounds for ordering corrective action are valid and whether the corrective action is appropriate.
- D. If the Director determines that the corrective actions are valid, the Director may issue and serve an order on the affected person requiring such appropriate corrective actions. The order shall:
  - 1. Specify a deadline for commencing corrective action;
  - 2. Specify a deadline for completion of corrective action, if such corrective action is not ongoing, and
  - 3. Notify the affected person that, if corrective action is not taken as specified, the Director may initiate any available enforcement action, at the expense of the affected person, and that the affected person may be subject to criminal prosecution.
- E. An affected person shall have the right to appeal the decision of the Director to the Board of Supervisors.

- F. Any person who acquires ownership or possession of a well, under order of any corrective action, shall continue to take all corrective action specified in the order.
- F. In cases where public health and safety require emergency corrective action, the Director may cause emergency corrective action to be taken by the County without prior notice or order. The person or persons, who own or are in possession of an affected well, shall be jointly and severally liable to the County for the cost of such emergency corrective action.
- G. The Director may, with the approval of the Board of Supervisors, place a lien on the affected property to recover the costs of managing and performing any corrective action that is deemed necessary.

#### XVII. APPEALS

### 8.20.720 Appeals.

- A. Any affected person may appeal to the Board of Supervisors any decision of the Director regarding an enforcement action; the denial, revocation or suspension of a permit; the issuance of a conditional permit; the denial of a variance or an exemption, or the issuance of a stop work order.
- B. An appeal for a hearing shall be filed in writing with the clerk of the Board of Supervisors within fifteen (15) calendar days of notification of the decision of the Director. The appeal for a hearing shall include a copy of the notification issued by the Director and shall specifically state the basis for the appeal. The clerk of the Board of Supervisors shall schedule a hearing date within fifteen (15) calendar days or at the earliest practicable time, and shall notify the interested person and the Director in writing of the date, place and time of the hearing at least five (5) calendar days prior to the date of the hearing. All applicable appeal fees shall be paid when the appeal is filed.

### XVIII. VIOLATIONS

### 8.20.730 Violations.

- A. Any act in violation of the standards set forth in this chapter shall constitute a public nuisance and shall be punishable as a misdemeanor. Violations of this chapter are subject to abatement under provision of the Civil Code and any County ordinance enacted pursuant to Section 25845 of the Government Code. Each and every day a violation exists, constitutes a separate violation.
- B. If work being performed on a well is found to be in violation of this chapter, the Director may issue a stop work order. The stop work order shall be posted at the well site and a copy shall be mailed to the property owner and the well contractor. No further work shall be done on the well until such time as the stop work order is rescinded by the Director. No person shall remove, obliterate, or otherwise, deface a stop work order.

- C. Any stop work order issued by the Director shall include notification that the affected person may request a hearing to consider rescinding the stop work order. The request for a hearing must be submitted to the Director in writing within fifteen (15) calendar days of issuance of the stop work order. Failure on the part of the affected party to request a hearing during the time period specified shall be deemed to be a waiver of the right to a hearing. A hearing before the Director shall be held within fifteen (15) calendar days of receipt of the request for a hearing. Following conclusion of the hearing, the Director shall issue a notice of decision within five (5) calendar days. The notice of decision may rescind, extend, modify or uphold the stop work order indefinitely, or impose new conditions on any work that is to be completed.
- D. If a stop work order is issued and if the well permit is no longer valid, any subsequent issuance of a well permit must include a notice rescinding the previously issued stop work order before work may be resumed.
- E. If the stop work order is extended or continued indefinitely, the Director may rescind the stop work order if it is determined that the conditions leading to the issuance of the stop work order no longer exist.

#### IXX. ENFORCEMENT

### 8.20.740 Enforcement Authority.

- A. It shall be the responsibility of the Director to implement and enforce compliance with this chapter and any permit condition, standard, or order issued or adopted thereunder.
- B. Nothing in this chapter shall prohibit the Director from initiating any available enforcement action deemed necessary to enforce compliance with this chapter or to prevent, restrain, correct, or abate an existing or threatened violation.
- C. Nothing is this chapter shall prohibit the Director from issuing compliance orders, administrative penalties or citations (with or without administrative penalties) to any person subject to regulation under this chapter.
- D. An enforcement action shall not exempt the affected person from compliance with the requirements of this chapter.

#### XX. CONTRACTORS STATE LICENSE BOARD

8.20.750 Contractors state license board. The Director, as deemed necessary, may file a complaint with or request the initiation of enforcement action by the Contractors State License Board against any well contractor for violation of any requirement set forth in this chapter.

### XXI. SEVERABILITY

<u>8.20.760 Severability.</u> If any clause, provision, sentence or paragraph of this Chapter or the application thereof, is deemed to be invalid as to any person, entity, establishment, or circumstance, such invalidity shall not affect the other provisions of this chapter which shall remain in effect, and to this end, it is hereby declared that the provisions of this chapter are severable.

Section 2: This ordinance shall take effect thirty (30) days from and after the date of its passage and shall be published once within fifteen (15) days of its passage in a newspaper of general circulation, printed and published in the County of Calaveras, with the names of the supervisors voting for and against same.

Passed and adopted upon the <u>6th</u> day of <u>May</u> , 2008 by the following vote:					
AYES: Supervisors Wilensky, Callaway, Tryon and Thomas					
NOES: None					
ABSENT: Claudino					
C	hair, Board of Supervisors				
ATTEST:					
County Clerk and Ex Officio					
Clerk of the Board of Supervisors					
County of Calaveras, State of California					