

BEFORE  
THE BOARD OF SUPERVISORS  
OF THE COUNTY OF MADERA  
STATE OF CALIFORNIA

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING SECTIONS 13.52.010, 13.52.020, 13.52.030,  
13.52.050, 13.52.070, 13.52.090, 13.52.110, 13.52.130, AND 13.52.150 OF THE  
MADERA COUNTY CODE, AND ADDING SECTION 13.52.035, RELATING TO  
WELL STANDARDS

The Board of Supervisors of the County of Madera, State of California, ordains as follows:

**SECTION 1**

Section 13.52.010 of the Madera County Code is amended to read in its entirety as follows:

13.52.010 Purpose.

The purpose of this chapter is to protect the groundwater of the state and county for the health, welfare, safety, and enjoyment of the people in accordance with federal, state and local laws.

**SECTION 2**

Section 13.52.020 of the Madera County Code is amended to read in its entirety as follows:

13.52.020 Definitions.

All terms used in this chapter shall be defined as specified in the current editions of the California Health and Safety Code, California Water Code, California Code of Regulations, and California Department of Water Resources Bulletins (including revisions and addendums), or as stated in this section:

- A. "Abandoned" well means a well that has not been used for a period of one year, unless the owner demonstrates the intention to use the well again for supplying water or other associated purpose (such as an observation well or injection well).
- B. "Abatement" means the construction, reconstruction, repair or destruction of a well so as to eliminate a nuisance caused by a well polluting or contaminating groundwater.

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- C. "Abatement order" means both mandatory and prohibitory orders requiring or prohibiting the construction, reconstruction, repair or destruction of a well so as to eliminate a nuisance or potential hazard of a well polluting or contaminating the ground water resource.
- D. "Agricultural well" means a well used to supply water for irrigation or other agricultural purposes, including so-called "stock wells."
- E. "Air conditioning well" means any well constructed to return to the groundwater any water which has been used as a coolant in air conditioning processes.
- F. "Cathodic protection well" means any artificial excavation in excess of 50 feet deep, constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground, commonly referred to as cathodic protection.
- G. "Contamination" means the impairment of a quality of water to a degree which creates a hazard to the public health through poisoning or through spread of disease.
- H. "Dairy well" means a water well used to supply water for a dairy farm where milk is produced. The water may also be used for domestic purposes.
- I. "Director" means the director of environmental health of Madera County or his authorized representative.
- J. "Domestic well" means a water well furnishing potable water for human consumption with four or fewer service connections and serving fewer than twenty-five individuals.
- K. "Inactive well" means a well not operating but capable of being made operable with the placement of a pump.
- L. "Observation and monitoring wells" means wells constructed for the purpose of observing or monitoring groundwater conditions.
- M. "Out-of-service well" means a water well not presently in service but which the owner has declared is intended for future use.
- N. "Person" means any person, firm, corporation, or governmental agency subject to the jurisdiction of the county.
- O. "Pollution" means an alteration of the quality of water to a degree which unreasonably affects, as determined by reference to federal and state drinking water quality standards:
  - 1. Such waters for beneficial uses; or
  - 2. Facilities which serve such beneficial uses.

Pollution may include contamination.

- P. "Public water system" means any system, publicly or privately owned that:
1. Has at least fifteen service connections which are used at least sixty days out of the year; or
  2. Serves an average of at least twenty-five people at least sixty days out of the year.
- Such a system shall be operated under the jurisdiction of the County or the California Public Utilities Commission.
- Q. "Public well" means a water well furnishing potable water for human consumption which has five or more service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days of the year.
- R. "Pump installation" means the setting of a pump on any domestic, industrial, commercial or agricultural well, but does not include the resetting of a pump on an agricultural well.
- S. "Recharge or injection wells" means wells constructed to introduce water into the ground as a means of replenishing groundwater basins, repelling the intrusion of seawater or disposing of waste water.
- T. "Repair or reconstruction of well" means the deepening of a well or the reperforation or replacement of a casing.
- U. "Sanitary seal" means a grout, mastic, or mechanical device to make a watertight joint between the pump and casing or between the pump and concrete platform.
- V. "Test hole" means a hole drilled for the specific purpose of determining geologic and hydrologic data, which is temporary in nature and is not cased.
- W. "Test well" means a well constructed for the purpose of obtaining the information needed to design a well prior to its construction. Test wells are cased and can be converted to other uses such as observation and monitoring wells or, under certain circumstances, to production wells. Test wells are not the same as test holes.
- X. "Well" or "water well" means any artificial excavation constructed by any method for the purpose of extracting water from, or injecting water into, the underground. This definition shall not include:
1. Oil and gas wells, or geothermal wells constructed under the jurisdiction of the Department of Conservation of the State of California, except those wells converted to use as water wells;

2. Wells used for the purposes of:
  - a. Dewatering excavation during construction, or
  - b. Stabilizing hillsides or earth embankments; or
3. Springs.

### **SECTION 3**

Section 13.52.030 of the Madera County Code is amended to read in its entirety as follows:

#### **13.52.030 Permits.**

##### **A. Permit Requirements.**

1. A well permit is required for all activities specified in the California Health and Safety Code (including its implementing regulations) and the Department of Water Resources' Well Bulletin(s) and standards. The application for a permit shall be in the form prescribed by the director. Every permit issued shall be contingent upon compliance with the requirements specified in this chapter and on the permit.
2. A permit shall be required for the drilling of a test hole. If subsequent test holes are drilled at the same location within a period of thirty days, separate fees will not be charged for each permit unless more than one completed well is constructed. Abandoned test holes shall be destroyed in accordance with the methods prescribed in the standards.
3. When the owner, the authorized representative, or a contractor makes an application for a permit, such applicant shall have on file a certificate of insurance which states that there is in existence a valid policy of workmen's compensation insurance in a form approved by the State Insurance Commissioner.
4. A contractor may make an application for a permit on behalf of the owner. If the contractor makes such application on behalf of the owner, he shall put their address and contractors' license number on such application.
5. A copy of the permit shall be posted at the work site prior to commencement of drilling operations. Any drilling contractor who fails to comply with this requirement and drills a water well for which a permit has not been secured shall be in violation of this chapter.

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B. Permit Issuance.

1. No permit shall be issued on any parcel within a service area designated by the Public Utilities Commission or within five hundred feet of an existing public water system except,
  - a. As required by the affected public water system; or
  - b. When an existing well serving the parcel that is not currently connected to the affected public water system needs to be replaced or deepened and the applicable service area or public water system is under a connection ban. The parcel owner may apply for a permit from the director of environmental health to replace or deepen the existing well.
  - c. When the public water system does not agree to provide service for domestic and/or fire flow purposes to the parcel within ten days of submittal of a written application for service.
2. The following conditions shall apply to the exceptions in B.1:
  - a. The parcel must have adequate area for private well and onsite sewage disposal system and reserve area, unless connected to a community sewer system.
  - b. The applicant for a well shall make an effort to ensure that the operation of the well will not have an adverse effect on adjacent (private and public) wells by making a written offer of performing a pump test and drilling a monitoring well on adjacent parcels with wells within 200 feet of the proposed well prior to drilling the new well.
  - c. The applicant shall use drought-tolerant plant species and drip-type irrigation systems where appropriate.

C. Additional Permit Conditions.

1. Commercial landscaping wells on existing parcels served by a public water system are subject to the following additional conditions:
  - a. The property owner shall install and test a backflow prevention device prior to the well being placed in service and comply with conditions as required by the water system.
  - b. The well must be adequately protected from potential sources of contamination.
2. Wells for commercial uses on parcels that are not connected to a water system shall be subject to applicable conditions placed on the public water system from applicable local, state and federal regulatory agencies.

D. Permit Term.

1. Each permit issued pursuant to this chapter shall expire and become null and void if the work authorized thereby has not been completed within one hundred eighty days following the issuance of the permit. An extension, not to exceed sixty days may be granted by the director if requested prior to the expiration of a permit upon a finding that such work could not be completed for causes beyond the control of the permittee.
2. Upon expiration of any permit issued pursuant hereto, no further work may be done in connection with construction, repair, reconstruction or destruction of a well unless and until a new permit for such purpose is secured in accordance with the provisions of this chapter.

**SECTION 4**

Section 13.52.035 is added to the Madera County Code, to read in its entirety as follows:

13.52.035 Revocation or suspension of permit.

- A. A permit issued hereunder may be revoked or suspended by the director as hereinafter provided if it is determined that a violation of this chapter exists, and the permittee fails to correct such violations within thirty days after the date of mailing of the violation notice.
- B. A permit may be revoked or suspended by the director if it is determined that the person to whom any permit was issued pursuant to this chapter has obtained the same by fraud or misrepresentation.
- C. The suspension or revocation of any permit by the director shall not be effective until notice thereof in writing is mailed to the permittee, and the time for filing an appeal to the Board of Supervisors in accordance with section 13.52.120 of this chapter has expired. The notice shall advise the permittee of their right to appeal and to stay the suspension or revocation pending such appeal.
- D. Stop Work Order. Whenever any well construction, destruction, pump installation or well repair work is being done contrary to the requirements of this chapter, the director shall order work stopped by posting a notice to desist at the well site. No further work shall be done until the director deems that the necessary corrections have been made.

**SECTION 5**

Section 13.52.050 of the Madera County Code is amended to read in its entirety as follows:

13.52.050 Well Standards.

- A. Standards Adopted. Excepted as otherwise specified, the standards for the construction, repair, reconstruction, or abandonment of wells published in the Department of Water Resources Bulletins 74-81 and 74-90, "Water Well Standards, State of California" and subsequent revisions and addendums are hereby incorporated and made a part of this chapter. Standards for monitoring wells shall be those adopted by the director in conformance with requirements of the department of water resources.
- B. Well Location. All wells shall be constructed to prevent the entrance of surface water and contaminated ground water into the well or into the producing aquifer, and shall be separated a safe distance from potential sources of contamination and pollution. The following minimum horizontal distances shall be maintained for all wells furnishing potable water for human consumption:

	<b>Agricultural Well (in feet)</b>	<b>Domestic Well (in feet)</b>	<b>Public Well (in feet) *</b>
Sewer line	50	50	50
Septic tank	150	100	150
Leach line or disposal field	150	100	150
Seepage pit or cesspool	150	150	150
Areas of intense animal confinement	100	100	100
Agricultural wells		300	300

- C. Well Seals. Wells shall have a sanitary seal, surface seal, and an annular seal. An access opening in the well cap, well casing, or pump base for the purpose of disinfecting the well or measuring the water level shall be protected with a threaded, watertight plug or cap. Air vents shall be installed in an approved manner.
- D. Casing Perforations. Perforation of monitoring well casings shall conform to standards and conditions common to the industry and prescribed by the director.
- E. The well shall be located upstream of the groundwater gradient from potential sources of contamination. If this is not possible, additional permit conditions may apply.

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\* The above separation distances are for wells with adequate annular seals drilled in dry upper consolidated formations that are less permeable than sand. Wells drilled in fractured rock formations need to have much greater separation distances.

- F. The top of the casing shall be extended a minimum of twelve inches above ground level and/or twelve inches above 100 year floodplain to prevent flooding by drainage or runoff from the surrounding land. If the proposed well location appears to be within the 100 year floodplain as shown on the appropriate Federal Emergency Management Agency (FEMA) flood maps, the applicant shall either provide documentation to show the site is above the floodplain or request an onsite inspection.
- G. All wells shall be accessible for repair and maintenance.
- H. All pump discharge pipes not discharging to the atmosphere shall be equipped with an approved check valve to prevent backflow or back-siphonage into the well when the pump shuts down. The check valve shall be installed between the pump head and the connection to the distribution system or standpipe.
- I. Annular Seal. The annular space between the well casing and the wall of the drilled hole shall be effectively sealed with cement grout or other approved sealant material to protect against contamination or pollution by surface or shallow subsurface waters. The following minimum annular seal depths shall be required:

<b>Type of Well</b>	<b>Minimum Depth of Annular Seal Below Ground Surface (in feet)</b>
Domestic wells	20
Public wells (community water supplies)	50
Dairy wells	100
Industrial wells	50
Agricultural wells	20
Drainage wells	20
Cathodic protection wells	20
Air conditioning wells	20
Observation and monitoring wells	20

- J. Sealing Conditions. The following are the requirements to be observed in sealing the annular space:
  1. The sealing material shall consist of neat cement, cement grout, concrete, or bentonite clay, and shall conform to the specifications given in the standards (Department of Water Resources Bulletin 74-81 and 74-90) and subsequent revisions and addendums.
  2. Gravel Packed Wells. The width of the annular seal space between the wall of the drilled hole and the well casing, where applicable, shall be at least two inches. If gravel fill pipes are installed through the seal,

the annular seal shall be of sufficient thickness to assure that there is a minimum of two inches between the gravel fill pipe and the wall of the drilled hole. If a temporary conductor casing is used, it shall be removed as the sealing material is placed. Where the well is to be gravel packed, a watertight cover shall be installed between the conductor pipe and the inner casing at the top of the well.

K. Surface Seal.

1. A concrete surface seal or slab shall be constructed on the ground surface around the top of the well casing and shall be free from cracks or other defects likely to detract from its weather-tightness. The slab shall be monolithically poured on thoroughly compacted native earth and shall have a minimum thickness of four inches, and shall be extended at least two feet in all directions from the well casing and four feet or more in one direction if the storage tank is to be at the well location.
2. The surface of the concrete slab shall be smooth troweled and shall be graded away from the well casing in all directions for a distance of at least one foot from the casing, at a fall of at least one-fourth inch per foot to provide sufficient fall to drain water away from the casing. The concrete slab shall be poured in contact with the sealant material in the annular space.

L. Sanitary Seal. A sanitary seal shall form a durable, weatherproof, and watertight seal on top of the well, between the pump base and the top of the well casing. When a pump is offset or submerged, the opening between the well casing and any pipes or cables which enter the well shall be closed by a watertight seal or cap.

M. Backflow Prevention. All pumping equipment shall be installed with protective devices to prevent the entrance of foreign matter or back siphonage into the well casing. A properly designed air gap may be considered an acceptable protective device for agricultural wells. No person shall install any equipment or mechanism, or use any water treating chemical or substance, if such equipment, mechanism, chemical or substance may cause pollution or contamination of the domestic water supply. Such equipment or mechanism may be permitted only when equipped with an approved backflow prevention device.

N. Building Code Compliance. All electrical, plumbing and appurtenant structural work relating to the water well installation or repair shall be performed in conformity with all applicable building code requirements.

O. Disinfection. All wells and associated equipment furnishing or in contact with potable water for domestic purposes, shall be disinfected after the construction, installation, or repair of the well, pump, or storage equipment and prior to its use or return to operation. The minimum concentration of the

disinfectant solution shall be equivalent to at least 100 ppm (parts per million) of available chlorine, with a minimum contact time of twelve hours.

- P. Temporary Cover. During periods when no work is being done on the well, such as overnight, or while waiting for sealing material to set, the well and surrounding excavation, if any, shall be covered. The cover shall be strong and well enough anchored to prevent the introduction of foreign material into the well and to protect the public from a hazardous situation.
1. Whenever there is an interruption in work on the well (i.e., overnight shutdown during inclement weather, or waiting periods required for the setting up of sealing materials, testing or the installation of the pump), the well opening shall be closed with a cover to prevent the introduction of undesirable material into the well and to protect the public safety.
  2. During interruptions of one week or more, a semipermanent cover shall be installed. For wells cased with steel, a steel cover tack-welded to the top of the casing is permitted.
  3. Observation and monitoring wells must meet all standards with exception of the cement surface pad requirement.

- Q. Inactive or Out-of-Service Well. The owner shall continuously maintain any well which is inactive or out of service, so as to be safe and to prevent pollution of any aquifer. A properly maintained inactive or out-of-service well shall not be considered to be an abandoned well. As evidence of intentions for future use the owner shall properly maintain the well in such a way that:

1. The well has no defects which shall impair the quality of the water in the well or in the aquifers penetrated;
2. If the pump has been removed, the well casing shall be covered with a durable, weatherproof, and watertight seal to prevent unauthorized access and entrance of surface contaminants into the well;
3. The well is covered with a locked watertight cap or other secured means;
4. The well is marked so that it can be clearly seen.
5. The area surrounding the well is kept clear of brush or debris.

An inactive well shall not be used for the disposal of any liquid or solid waste.

- R. Abandoned Well. Every abandoned well shall be considered the property owner's responsibility and shall be destroyed in accordance with the methods prescribed in the standards (Department of Water Resources Bulletin 74-81 and applicable revisions and addendums). Abandoned wells must be destroyed to promote and protect the public welfare by preventing pollution of

the groundwater and physical injury to persons or damage to property. An abandoned well shall not be used for the disposal of any liquid or solid waste.

If the pump has been removed for repair or replacement, the well shall not be considered abandoned, provided that evidence of repair can be shown. During the repair period, the well shall be adequately covered to prevent injury to people and to prevent the entrance of undesirable water or foreign matter. Observation or test wells used in the investigation or management of groundwater basins by governmental agencies or other appropriate engineering or research organizations are not considered abandoned so long as they are maintained for this purpose. However, such wells shall be covered with an appropriate cap, bearing the label, "Observation Well," and the name of the agency or organization. When these wells are no longer used for this purpose or for supplying water, they shall be considered abandoned.

- S. Sampling Faucet. For domestic and public wells, a faucet shall be located on the discharge line ahead of the storage tank.
- T. Water Level Measurements. A sounding tube of at least  $\frac{3}{4}$  inch in diameter or as approved by the environmental health director and material shall be installed in all public wells and extend from the surface to near the pump intake to allow water-level measurements by electric sounder.

## **SECTION 6**

Section 13.52.070 of the Madera County Code is amended to read in its entirety as follows:

### 13.52.070 Well drillers and pump installers.

Wells shall be constructed and pumps installed only by contractors licensed in accordance with the provisions of the Contractors License Law of the State of California (Chapter 9, Division 3, Business and Professional Code).

## **SECTION 7**

Section 13.52.080 of the Madera County Code is amended to read in its entirety as follows:

### 13.52.080 Inspection.

- A. An inspection of the well site and surrounding property may be conducted and at any time during construction, reconstruction, repair or destruction of water wells to ensure compliance with the requirements of this chapter. The drilling contractor shall notify the department in advance as specified by the director prior to placement of seals.

- B. The sanitary, surface, and annular seals on a well furnishing potable water for human consumption shall be installed prior to placing the well into service.

## **SECTION 8**

Section 13.52.090 of the Madera County Code is amended to read in its entirety as follows:

### 13.52.090 Water analysis.

The property owner shall obtain water samples for chemical, radiological and bacteriological analyses following pump test procedures as required in section 13.52.030B.2.b. and as specified by the director. Sample results shall be submitted to Environmental Health prior to the well being placed into service, or the property being sold or otherwise transferred, whichever comes first. Any new building proposing to use a previously unused well as a water source shall not receive a final building inspection until those results are submitted. The purpose of reporting water quality analyses is to provide information to the property owner and the county regarding the presence or absence of constituents of concern.

## **SECTION 9**

Section 13.52.110 of the Madera County Code is amended to read in its entirety as follows:

### 13.52.110 Reports.

- A. Any person who intends to construct, deepen, re-perforate, abandon, or destroy a well shall file the appropriate "Water Well Drillers Report" with the State of California, Department of Water Resources on their specified form and an official copy shall be furnished to the director within thirty days after completion of the permitted work.
- B. Confidentiality of reports will be strictly enforced according to the California Water Code, Section 13752.

## **SECTION 10**

Section 13.52.130 of the Madera County Code is amended to read in its entirety as follows:

13.52.130 Permit fees. A fee schedule shall be established by resolution of the Board of Supervisors to cover the administrative costs of issuing a permit and performing installation and destruction inspections.

## **SECTION 11**

Section 13.52.150 of the Madera County Code is amended to read in its entirety as follows:

13.52.150 Violation.

- A. Violation of this chapter is a misdemeanor, punishable by a fine not exceeding one thousand dollars or by imprisonment not to exceed six months or by both fine and imprisonment, together with any administrative costs. Each separate day or any portion thereof during which any violation occurs or continues constitutes a separate offense.
  
- B. Any violation shall constitute a nuisance. The remedy to abate such nuisance shall be as prescribed in the Madera County Code and shall be in addition to any other remedy provided by this chapter or by law.

**SECTION 12**

This Ordinance shall take effect thirty (30) days after enactment.

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The foregoing Ordinance was adopted this \_\_\_\_\_ day of \_\_\_\_\_,  
2007, by the following vote:

Supervisor Bigelow voted: \_\_\_\_\_

Supervisor Moss voted: \_\_\_\_\_

Supervisor Dominici voted: \_\_\_\_\_

Supervisor Rodriguez voted: \_\_\_\_\_

Supervisor Wheeler voted: \_\_\_\_\_

\_\_\_\_\_  
Chairman, Board of Supervisors

ATTEST:

\_\_\_\_\_  
Clerk, Board of Supervisors

Approved as to Legal Form:  
COUNTY COUNSEL

By \_\_\_\_\_