

#### DESTROYING A WELL IN FRESNO COUNTY

#### ENVIRONMENTAL HEALTH DIVISION

FRESNO COUNTY DEPARTMENT OF PUBLIC HEALTH



TOM FULLER ENVIRONMENTAL HEALTH SPECIALIST What does the Environmental Health Department Do?

Our Mandate is to protect the health of the citizens of Fresno County

Our job is to make sure that what you eat, breathe, touch and drink doesn't hurt you.

#### **Environmental Health Programs:**



#### The Water Surveillance Program

#### WELL PERMITTING

DOMESTIC WELLS AG WELLS INDUSTRIAL WELLS CATHODIC PROTECTION WELLS MONITORING WELLS SOIL BORINGS WELL DESTRUCTIONS STATE SMALL WATER SYSTEMS SYSTEM INSPECTIONS TESTING FOR WATER QUALITY AND POTABILITY



## WELL DESTRUCTIONS

# What is a well destruction?

• The process used to permanently close wells that will no longer be used.





#### COMMON REASONS FOR DESTROYING A WELL

The well fails to provide safe and healthy water.

The well doesn't produce enough or goes dry.

The well is no longer needed.

The property where the well is found is being repurposed.

The availability of a municipal water system.

#### According to California State Water Well Standards: "A well that is no longer useful must be destroyed."









- residential wells
- agricultural wells
- industrial wells
- monitoring wells
- test / exploratory wells
- cathodic protection wells
- soil borings
- oil wells



#### The benefits to properly destroying a well:

1) Safety



60 foot well, 7 year old boy, survived

50 foot well, 35 year old, survived

LIABILITY

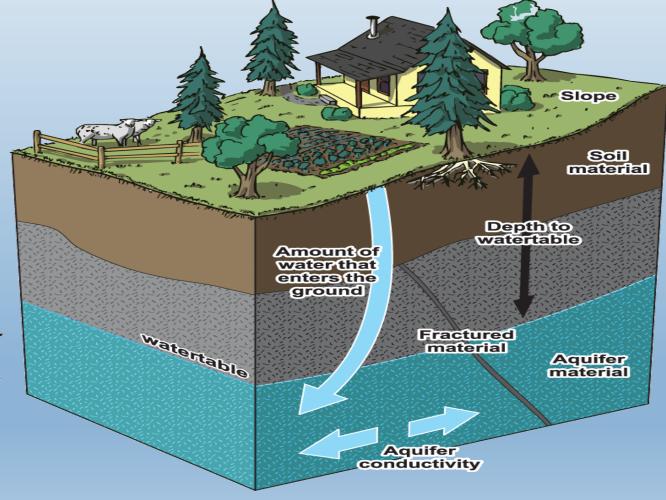


35 foot well, 6 year old, survived

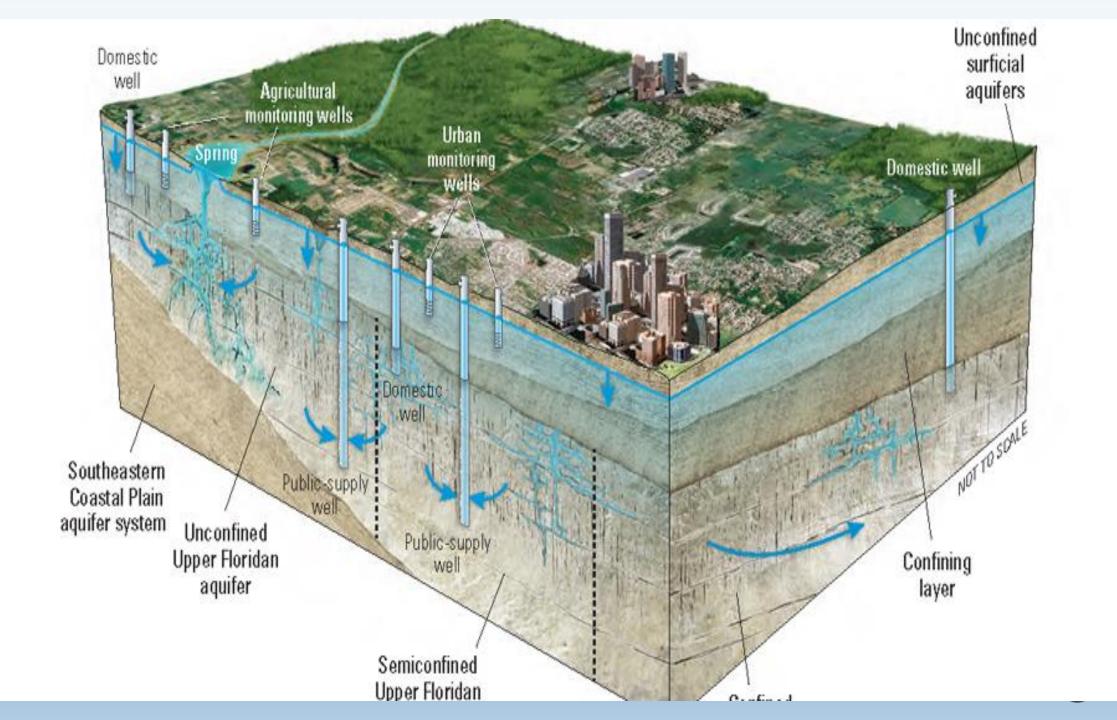


#### The benefits to properly destroying a well:

2) Protection of your water supply.

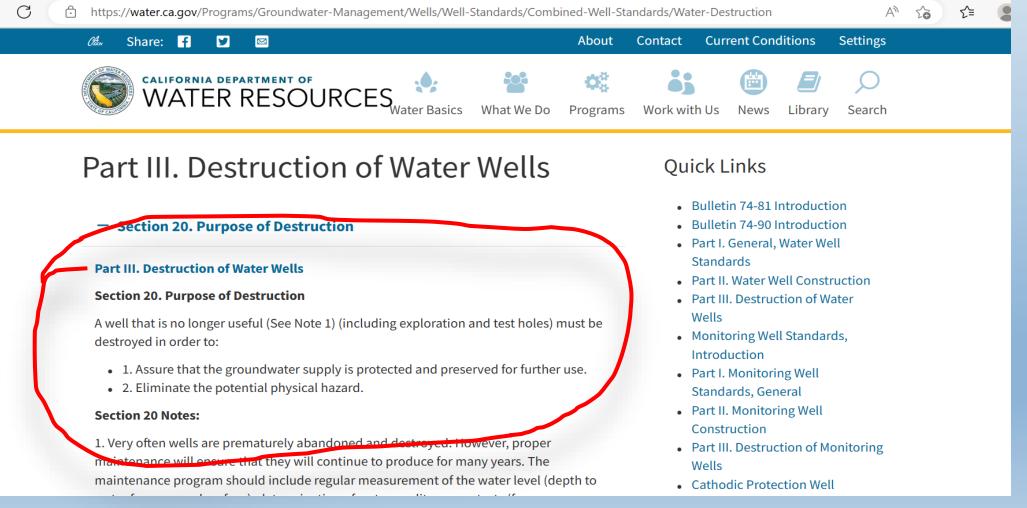


What makes an aquifer vulnerable to contamination?



#### The benefits to properly destroying a well:

#### 3) It's the law.



What are the requirements to properly destroy a well?

1) You must use a licensed contractor.

C-57 Well Drilling Contractor's License

2) The contractor must get a well destruction permit from the County.

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#### What is the process to properly destroy a well?

#### 1. Hire a C-57 licensed contractor





#### 2. Get a permit from Environmental Health

Email: EnvironmentalHealt	/ Fax: (559) 455-4646 Website: www.Icdph.org/water h@fresnocountyca.gov EEPEN, DESTROY, RECONDITION, OR REPAIR A WELL
08/21/2022         10/11/2022           Application Date         Estimated Start Date           1155         R         13E         5           PN         027180105         000         000           SPS: Lat         36.59246         Long         -120.52359           contractor         Gregory Drilling, Inc         007649           Phone         5305656289         000           simail         ken@gregorydrilling.com         00           ob Address/Location         CA	EH OFFICE USE ONLY         Well Permit #       WELL10076451         FA #
Owner Address 6121 Bollinger Canyon RD	
1. Type of Work     2. Type of Well     Casing Driven     Cathodic Reason for Destruction: Anode Bed is being Deactivat     S. Groundwater Sustainability Agency (GSA) Name: Westlands GSA <u>6. Well Destruction     Type     N/A     Vell Diameter (n) NA     Total Depth (ft) NA     Casing Perforated (ft) NA     Casing Cut off     NA     Pt Below Grade (6t max all     Oil lubricated pump (Any oil in the well shall be removed     disposed of prior     (Any oil in the well shall be removed     disposed of prior     (Any oil in the well shall be removed     disposed of prior     (Any oil in the well shall be removed     disposed of prior     (Any oil in the well shall be removed     disposed of prior     (Any oil in the well shall be removed     (Any oil in the well shall be </u>	ed     Well Casing: Material Casing Diameter (in)     PVC       Conductor Casing: Material Conductor Diameter (in)     NA     Depth (ft)       Conductor Diameter (in)     NA     Depth (ft)       Angular Seal* Depth 8: Thickness (ft) (in)     100     3"       Borehole Diameter (in)     8.25     Gravel Pack       Anticipated Total Well Depth (ft)     300       Anticipated Total Well Depth (ft)     100-300'       Anticipated Total Well Depth (st)     100-300'       Seal Material     Neat Cement       Seal Placement     Pumped
	Other Wells (ft)         NA         Property Line (ft)         NA           Cesspool (ft)         NA         Seepage Pts (ft)         NA           NA         Designated Sewage Replacement Area (ft)         NA           Water Disposal Ponds (ft)         NA         Lakes/Streams (ft)         NA
9. FEE \$769.00 New Well PAYMENT METHOD: WEB	
Standards Ordinance and the conditions of this permit application upon review of this application and issuance of the permit. I c certificate of Workers' Compensation Insurance. I further under the second	t. I understand that all work is to be done in accordance with the California Well tion, including any conditions which are added by the Environmental Health Division etify that I have a current C-57 Contractor's License and, if I engloy workers, a current erstand that any permit issued pursuant to this application is subject to such further with the Ordinance. Note: This permit is <u>non-transferable</u> and is valid for <u>180</u>
10. CONTRACTOR SIGNATURE: 11. DATE:	

#### Who applies for a permit? The contractor

# What does a destruction permit cost? \$518



 Remove from the well anything that could be an obstruction: plumbing, debris, oil, etc.







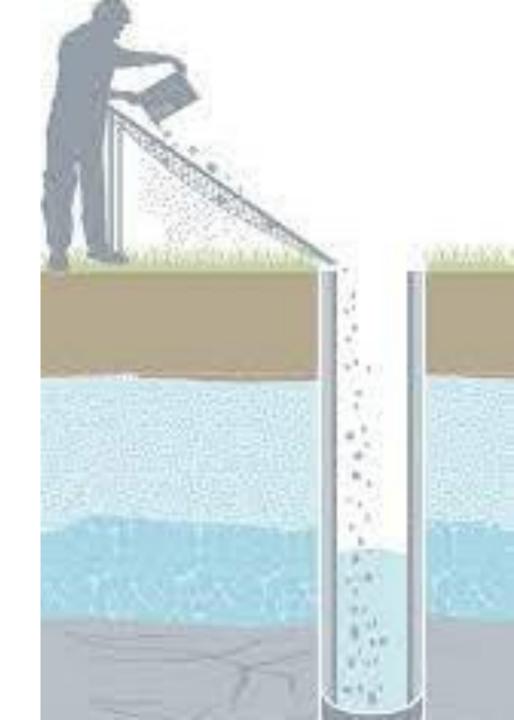




- 4. Excavate around the old well casing
- When possible, excavate around the casing of the well to be abandoned and cut off the casing about 6 feet below the ground surface.
- When excavating may damage surrounding structures, this step is not required.

5. Fill old well with <u>non-organic</u> material such as sand, dirt, or clay up to a MINIMUM 20 feet below the ground surface.

> Note: Wells that penetrate multiple aquifers will require special destruction techniques







6. Install the **seal** – a plug of impermeable material that fills in the top 20 feet of the hole

# Approved Sealing Material: 1) Bentonite clay chips -may be used when there is no water in the hole) 2) Cement or concrete

#### Inspection of the well destruction



To assure that the well is destroyed in such a way as to protect the aquifer:



An inspector from Environmental Health must be on hand when the seal is placed.



The contractor is responsible for setting up an appointment with an inspector.



The inspector will verify that the seal depth and material are correct before the seal may be installed.

#### 6. Install the seal

**Sealing Methods**:

Option #1 Free fall is permitted when: a. the hole is less than 30 feet deep and

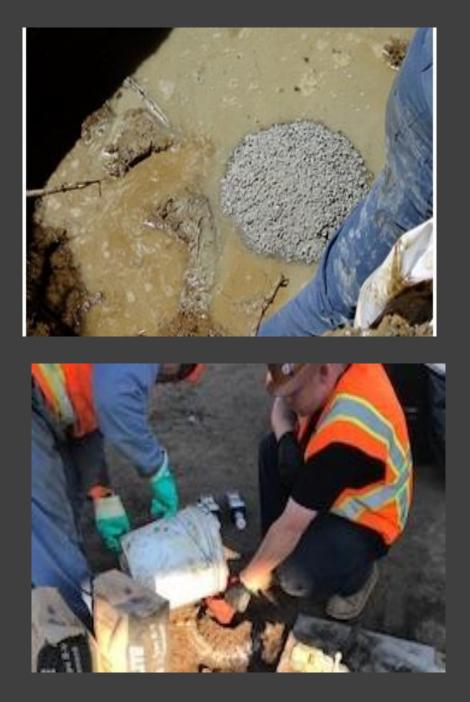
b. There is no water in the hole.



#### Sealing Method:

- Option #2. Pumping the cement.
- Use a tremie pipe to install the sealing material from the bottom up.





7. Fill the well with sealing material until it forms a mushroom cap on the top of the old casing.

• If bentonite clay chips were used, hydrate until saturated.

What is the process to properly destroy a well? 8. Refill the excavation and return site to original conditions.

## What if I want to keep an unused well for possible use in the future?

**Requirements to maintain an unused well:** 

- 1) The well can have no defects which could affect the water quality in the well or the aquifer that it penetrates.
- 2) The well must be covered with a locked watertight cap or other means of securement.
- 3) The well must be marked so that it can be clearly seen.
- 4) The area surrounding the well must be kept clear of brush or debris
- 5) An abandoned well shall not be used for the disposal of any liquid or solid waste.

### For further information please visit our website.



#### **QUESTIONS?**

Contact information: Tom Fuller (559) 600-3357 tfuller@fresnocountyca.gov

