



CITY OF RIVERBANK

6617 THIRD STREET
RIVERBANK, CA 95367
(209) 863-7127 PHONE
(209) 869-1849 FAX

REQUEST FOR WELL DESTRUCTION PERMIT

Application is hereby made to the City of Riverbank Development Services Department for a permit to destruct the work described below. Please notify the Development Services Department when you are ready to cap the well so that a City employee can be present at the job site at the start of capping.

DATE OF APPLICATION: _____

JOB ADDRESS: _____

DESCRIPTION OF WORK TO BE PERFORMED: _____

OWNER INFORMATION:

PROPERTY OWNER: _____ PHONE: _____

HOME ADDRESS: _____

CONTRACTOR INFORMATION:

FIRM/INDIVIDUAL PERFORMING WORK: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR'S LICENSE NO.: _____

THE WORK WILL COMMENCE ON _____ AND BE COMPLETED BY _____

PERMITTEE SHALL CONFIRM TO THE DEVELOPMENT SERVICES DEPARTMENT THE ACTUAL TIME OF COMMENCEMENT FOR ANY WORK AT LEAST 24-HOURS IN ADVANCE BY CALLING (209) 863-7127.

A SURVEY AND INSPECTION FEE OF \$75.00 SHALL BE PAID TO THE CITY OF RIVERBANK. IT SHALL BE THE PROPERTY OWNER'S RESPONSIBILITY TO MAINTAIN THE SIDEWALK IN A GOOD STATE OF REPAIR AT ALL TIMES SO THAT IT WILL NOT BE DANGEROUS TO THE USERS THEREOF FOR ANY REASON.

THE PROPERTY OWNER HEREBY AGREES IN THE EVENT OF INJURY OR ILLNESS ARISING OUT OF OR IN THE COURSE OF THE INSPECTION, TO RELEASE AND HOLD HARMLESS THE CITY OF RIVERBANK, ITS EMPLOYEES, OFFICIALS, VOLUNTEERS AND AGENTS FROM ANY LIABILITY ARISING FROM SUCH AN OCCURRENCE.

AS PROPERTY OWNER, I HEREBY AGREE TO THE CONDITIONS SET FORTH ABOVE.

PERMITTEE _____ DATE _____

APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT _____ DATE _____

DESTRUCTION OF WELL: Well Diameter: _____ Approx. Depth: _____

Describe Material and Procedure: _____

During prolonged interruptions (i.e., 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 adequate.

Part III. Destruction of Wells

Section 20. Purpose of Destruction.

A well that is no longer useful/ (including exploration and test holes) must be destroyed in order to:

1. Assure that the ground water supply is protected and preserved for further use.
2. Eliminate the potential physical hazard.

Section 21. Definition of "Abandoned" Well.

A well is considered "abandoned" when it has not been used for a period of one year, unless the owner demonstrates his intention to use the well again for supplying water or other associated purpose/ (such as an observation well or injection well). The well shall then be considered "inactive". As evidence of his intentions for continued use, the owner shall properly maintain the well in such a way that:

1. The well has no defects which will allow the impairment of quality of water in the well or in the water-bearing formations penetrated.
2. The well is covered such that the cover is watertight and cannot be removed except with the aid of equipment or the use of tools.
3. The well is marked so that it can be clearly seen.
4. The area surrounding the well is kept clear of brush or debris.

- 1/ Very often wells are prematurely abandoned and destroyed. However, proper maintenance will ensure that they will continue to produce for many years. The maintenance program should include regular measurement of the water level (depth to water from ground surface), determination of water quality, pump tests (for determination of pump and well efficiency) and cleaning.
- 2/ Although it should be obvious, the reader is reminded that an "abandoned" well should never be used for the disposal of trash, garbage, sewage (except where sewage is reclaimed for recharging the ground water basin, and then only in accordance with the provisions of Section 44.58 of the California Health and Safety Code and Section 13540 of the Water Code).

If the pump has been removed for repair or replacement, the well shall not be considered "abandoned". 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 ground water basins by governmental agencies or 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, and preferably shall be locked when measurements are not being made. When these wells are no longer used for this purpose or for supplying water, they shall be considered "abandoned".

Section 22. General Requirement.

All "abandoned" wells and exploration or test holes shall be destroyed. The objective of destruction is to restore as nearly as possible those subsurface conditions which existed before the well was constructed taking into account also changes, if any, which have occurred since the time of construction. (For example, an aquifer which may have produced good quality water at one time but which now produces water of inferior quality, such as a coastal aquifer that has been invaded by seawater.)

Destruction of a well shall consist of the complete filling of the well in accordance with the procedures described in Section 23 (following).

Section 23. Requirements for Destroying Wells.

- A. Preliminary Work. Before the well is destroyed, it shall be investigated to determine its condition, details of construction, and whether there are obstructions that will interfere with the process of filling and sealing. This may include the use of downhole television and photography for visual inspection of the well.
 1. If there are any obstructions, they shall be removed, if possible, by cleaning out the hole.
 2. Where necessary, to ensure that sealing material fills not only the well casing but also any annular space or nearby voids within the zone(s) to be sealed, the casing should be perforated or otherwise punctured.
 3. In some wells, it may be necessary or desirable to remove a part of the casing. However, in many instances this can be done only as the well is filled. For dug wells, as much of the lining as possible (or safe) should be removed prior to filling.
- P. Filling and Sealing Conditions. Following are requirements to be observed when certain conditions are encountered:

7. To assure that the well is filled and there has been no jamming or "bridging" of the material, verification shall be made that the volume of material placed in the well installation at least equals the volume of the empty hole.

D. Materials. Requirements for sealing and fill materials are as follows:

1. Impervious Sealing Materials. No material is completely impervious. However, sealing materials shall have such a low permeability that the volume of water passing through them is of small consequence.

Suitable impervious materials include neat cement, sand-cement grout, concrete, and bentonite clay, all of which are described in Section 9, paragraph D, "Sealing Material" of these standards; and well-proportioned mixes of silts, sands, and clays (or cement), and native soils that have a coefficient of permeability of less than 10 feet (3 metres) per year. Used drilling muds are not acceptable.

2. Filler Material. Many materials are suitable for use as a filler in destroying wells. These include clay, silt, sand, gravel, crushed stone, native soils, mixtures of the aforementioned types, and those described in the preceding paragraph. Material containing organic matter shall not be used.

E. Additional Requirements for Wells in Urban Areas.

In incorporated areas or unincorporated areas developed for multiple habitation, to make further use of the well site, the following additional requirements must be met (see Figure 9C):

1. A hole shall be excavated around the well casing to a depth of 5 feet (1.5 metres) below the ground surface and the well casing removed to the bottom of the excavation.

2. The sealing material used for the upper portion of the well shall be allowed to spill over into the excavation to form a cap.

3. After the well has been properly filled, including sufficient time for sealing material in the excavation to set, the excavation shall be filled with native soil.

F. 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 sufficiently strong and well enough anchored to prevent the introduction of foreign material into the well and to protect the public from a potentially hazardous situation.

1/ Examples of materials of this type are: very fine sand with a large percentage of silt or clay, inorganic silts, mixtures of silt and clay, and clay. Native materials should not be used when the sealing operation involves the use of pressure.

3. Well penetrating creviced or fractured rock. If creviced or fractured rock formations are encountered just below the surface, the portions of the well opposite this formation shall be sealed with neat cement, sand-cement grout, or concrete. If these formations extend to considerable depth, alternate layers of coarse stone and cement grout or concrete may be used to fill the well. Fine grained material shall not be used as fill material for creviced or fractured rock formations.

4. Well in noncreviced, consolidated formation. The upper 20 feet (6.1 metres) of a well in a noncreviced, consolidated formation shall be filled with impervious material. The remainder of the well may be filled with clay or other suitable inorganic material.

5. Well penetrating specific aquifers, local conditions. Under certain local conditions, the enforcing agency may require that specific aquifers or formations be sealed off during destruction of the well.

C. Placement of Material. The following requirements shall be observed in placing fill or sealing material in wells to be destroyed:

1. The well shall be filled with the appropriate material (as described in item D of this section) from the bottom of the well up.

2. Where neat cement grout, sand-cement grout, or concrete is used, it shall be poured in one continuous operation.

3. Sealing material shall be placed in the interval or intervals to be sealed by methods that prevent free fall, dilution, and/or separation of aggregates from cementing materials.

4. Where the head (pressure) producing flow is great, special care and methods must be used to restrict the flow while placing the sealing material. In such cases, the casing must be perforated opposite the area to be sealed and the sealing material forced out under pressure into the surrounding formation.

5. In destroying gravel-packed wells, the casing shall be perforated or otherwise punctured opposite the area to be sealed. The sealing material shall then be placed within the casing, completely filling the portion adjacent to the area to be sealed and then forced out under pressure into the gravel envelope.

6. When pressure is applied to force sealing material into the annular space, the pressure shall be maintained for a length of time sufficient for the cementing mixture to set.

1/ The limiting dimensions of coarse stone are usually considered to range between 1/4 and 4 inches (6.3 to 100 millimetres).

ENVIRONMENTAL MANAGEMENT DEPARTMENT
ENVIRONMENTAL COMPLIANCE DIVISION

WELL DESTRUCTION SUPPLEMENT

Note: A copy of the original "Well Completion Report" (DWR Form 188) or equivalent shall be submitted for each well under consideration for a destruction permit.

TYPE OF WELL:

- Domestic/private
- Dewatering
- Monitoring/extraction
- Cathodic protection
- Irrigation/agricultural
- Other: _____

EXISTING WELL CONSTRUCTION DETAILS:

- Open bottom
- Filter Pack
- Uncased
- Other: _____

PROPOSED DESTRUCTION SPECIFICATIONS:

- Pressure grout from _____ feet below ground surface (bgs) to _____ feet bgs.
- Overdrill all casing and well materials from _____ ft bgs to existing grade.
- Casing perforation from _____ ft bgs to _____ ft bgs by one of the following methods:
 - Mills knife: _____ cuts every _____ feet;
 - Explosives:
 - Detonation cord: Placement from _____ ft bgs to _____ feet bgs.
 - Boosters: Placement every _____ ft from _____ ft bgs to _____ ft bgs.
 - Other: _____
- Sealing Material:
 - Neat cement (5-6 gal H₂O per 94 lb cement)
 - Sand-cement slurry (10.3 sack mix)
 - Cement with up to 5% bentonite (w/w)
 - Concrete
 - Bentonite:
 - Chips/Pellets Product: _____
 - Slurry Product: _____
- Estimated void volume (well casing, borehole, and filter pack voids) _____

FOR OFFICE USE ONLY

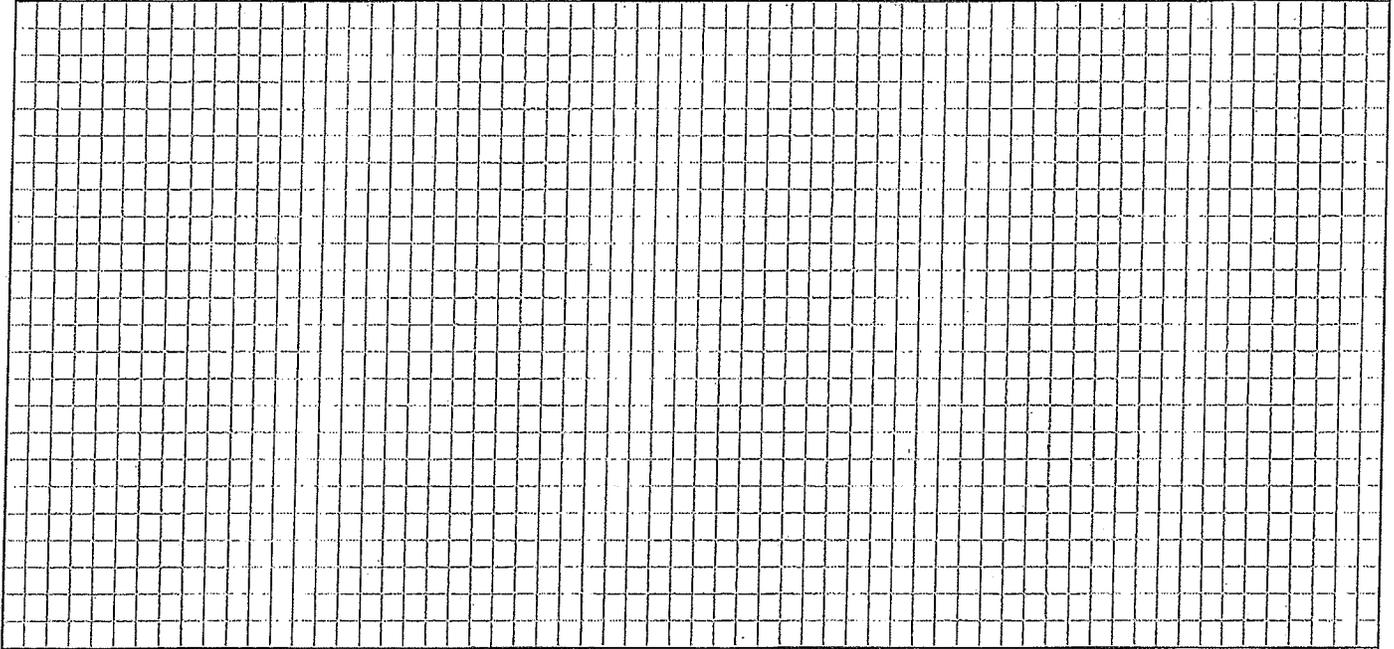
Comments: _____

PLOT PLAN

(Indicate Distances in Feet)

1. Name of street and distance from nearest cross roads to well site.
2. Outline of the property, easements.
3. Outlines and locations of all existing and proposed structures, including covered areas such as patios, driveways, and walks.
4. Location of house sewer outlet, public sewer, sewage disposal system, or proposed sewage disposal system, proposed expansion of sewage disposal system, industrial waste pond, or any other possible source of contamination.
5. Location of other wells within radius of 300 feet on the property or adjoining property.
6. Location of sewage disposal system on adjoining property or within a radius of 100 ft. (private well) 150 ft. (public well).

NORTH ↑



Written description of well location (if not visible from road): _____

I HEREBY CERTIFY THAT I HAVE PREPARED THIS APPLICATION AND THAT THE WORK WILL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LAWS OF THE STATE OF CALIFORNIA, THE ORDINANCES OF THE COUNTY OF STANISLAUS AND THE RULES AND REGULATIONS OF THE CITY OF RIVERBANK. CITY OF RIVERBANK WILL BE CONTACTED FOR INSPECTION OF ANNULAR SEAL INSTALLATION, AND AFTER WELL WORK HAS BEEN COMPLETED.

1. All existing wells within a 300 foot radius of the proposed new well(s) on the property or adjoining property have been located and so indicated.
2. Proposed well(s) will be located at least 50-150 feet from any sewage disposal system on property or adjoining property.
3. Submit well completion report on all wells drilled, as notice of well work completion.

SIGNED: _____ DATE: _____
(C57 CONTRACTOR AS AUTHORIZED REPRESENTATIVE)

CITY USE ONLY

Latitude: _____ Longitude: _____ T. _____ R. _____ Sec. _____ A.P.N: _____

Plot Card Available: Yes No G.I.S. Information Available: Yes No

Actual Grout Seal Depth: _____ Actual Sealing Material Used: _____

Claimed Clay Layer Depth at: _____ Conditions of Approval: None Description: _____

HAZMAT Mitigation Review: _____ Date: _____

Resource Management Review: _____ Date: _____

Permit Approval by: _____ Date: _____

Grout Seal inspected by: _____ Date: _____

Final Inspection by: _____ Date: _____