



October 16, 1996

131.0200.001

Ms. Susan Hugo  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94501

**WELL ABANDONMENT NOTIFICATION  
EMERY BAY MARKETPLACE  
EMERYVILLE, CALIFORNIA**

Dear Ms. Hugo:

This letter serves as notification that well abandonment activities were conducted at the above-referenced property on October 8, 1996. Wells W-5, W-8, W-15, and W-17 were abandoned under Permit # 96730, from the Alameda County Flood Control and Water Conservation District (Zone 7). Per permit specifications, the wells were overdrilled, the casings were removed, and the boreholes were grouted to ground surface.

If you have any questions, please do not hesitate to contact the undersigned.

Yours very truly,

**PES ENVIRONMENTAL, INC.**

A handwritten signature in black ink, appearing to read "Elizabeth Large", is written over the typed name.

Elizabeth A. Large  
Staff Geologist

cc: Ms. Lynn Tolin, Christie Avenue Partners - J.S.



October 4, 1996

ENVIRONMENTAL  
PROTECTION  
96 OCT 10 PM 3: 22

**131.0200.001**

Ms. Susan Hugo  
Alameda County Department of Environmental Health  
Hazardous Materials Program  
1131 Harbor Bay Parkway  
Oakland, California 94621

**GROUNDWATER MONITORING WELL ABANDONMENTS  
EMERY BAY MARKETPLACE  
EMERYVILLE, CALIFORNIA**

Dear Ms. Hugo:

Pursuant to your October 4, 1996 request to Mr. Andrew Briefer, PES Environmental, Inc. (PES) is pleased to submit this letter describing groundwater monitoring well abandonments at the above-referenced location (see Plate 1). The well abandonments are required due to construction of a roadway through the area in which the wells are located. Mr. Briefer (PES) was notified by Mr. Peter Morales of Vali Cooper & Associates, Inc. (Vali Cooper) during the week of September 23, 1996, that the City of Emeryville had retained Vali Cooper to construct a roadway through the Emery Bay Marketplace. Mr. Briefer inspected the site with Mr. Morales on September 27, 1996 and determined that groundwater monitoring wells W-5, W-15, W-16 (not locatable), and W-17 are located in the area of concern (see Plate 2).

PES proposes to abandon groundwater monitoring wells W-5, W-15, and W-17 in order to seal the potential vertical migration pathways which may be created if roadway construction were to proceed prior to well abandonments. Due to the roadway construction schedule, the well abandonments have been scheduled for Tuesday October 8, 1996.

**WELL ABANDONMENT METHODOLOGIES**

Prior to abandoning the three wells, a well destruction permit will be obtained from Zone 7 Water Agency in Pleasanton, California. A well destruction permit application has been filed with Zone 7, and is attached as Appendix A.

Groundwater monitoring wells W-5, W-15, and W-17 have total casing depths of 14 feet below ground surface (bgs), 20 feet bgs, and 25 feet bgs, respectively. All three wells are

**Ms. Susan Hugo**  
**October 4, 1996**  
**Page 2**

constructed of 2-inch diameter polyvinyl chloride (PVC) casing and well screen in 8-inch diameter boreholes.

The three groundwater monitoring wells will be abandoned by first removing the protective well vault boxes. The wells will be decommissioned by overdrilling each well with 8-inch outside diameter hollow-stem augers (HSA) to a depth of one half foot below the bottom of each well. Upon reaching the target depth with the HSA, the polyvinyl chloride casing and well screen will be pulled out of each borehole. Each borehole will be sealed by placing cement-bentonite grout in the borehole through a tremie pipe from the bottom of the borehole to the ground surface. This will ensure that a complete and continuous seal with no bridging is placed in the borehole. The surface of each borehole will be completed with rapid-set concrete.

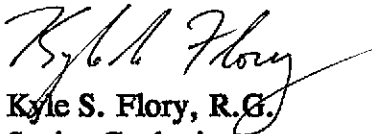
Fluids displaced from the grout installation will be contained in labeled 55-gallon drums and stored onsite pending disposal options. Soil cuttings and decontamination rinsate will be placed in labeled 55-gallon drums and stored onsite pending disposal options.

Following the well abandonments, a well completion form (Form No. DWR 188) will be filed with the proper agencies for each abandoned well.

We trust this is the information you require at this time. If you have any questions or comments please call either of the undersigned at (415) 899-1600.

Very truly yours,

**PES ENVIRONMENTAL, INC.**



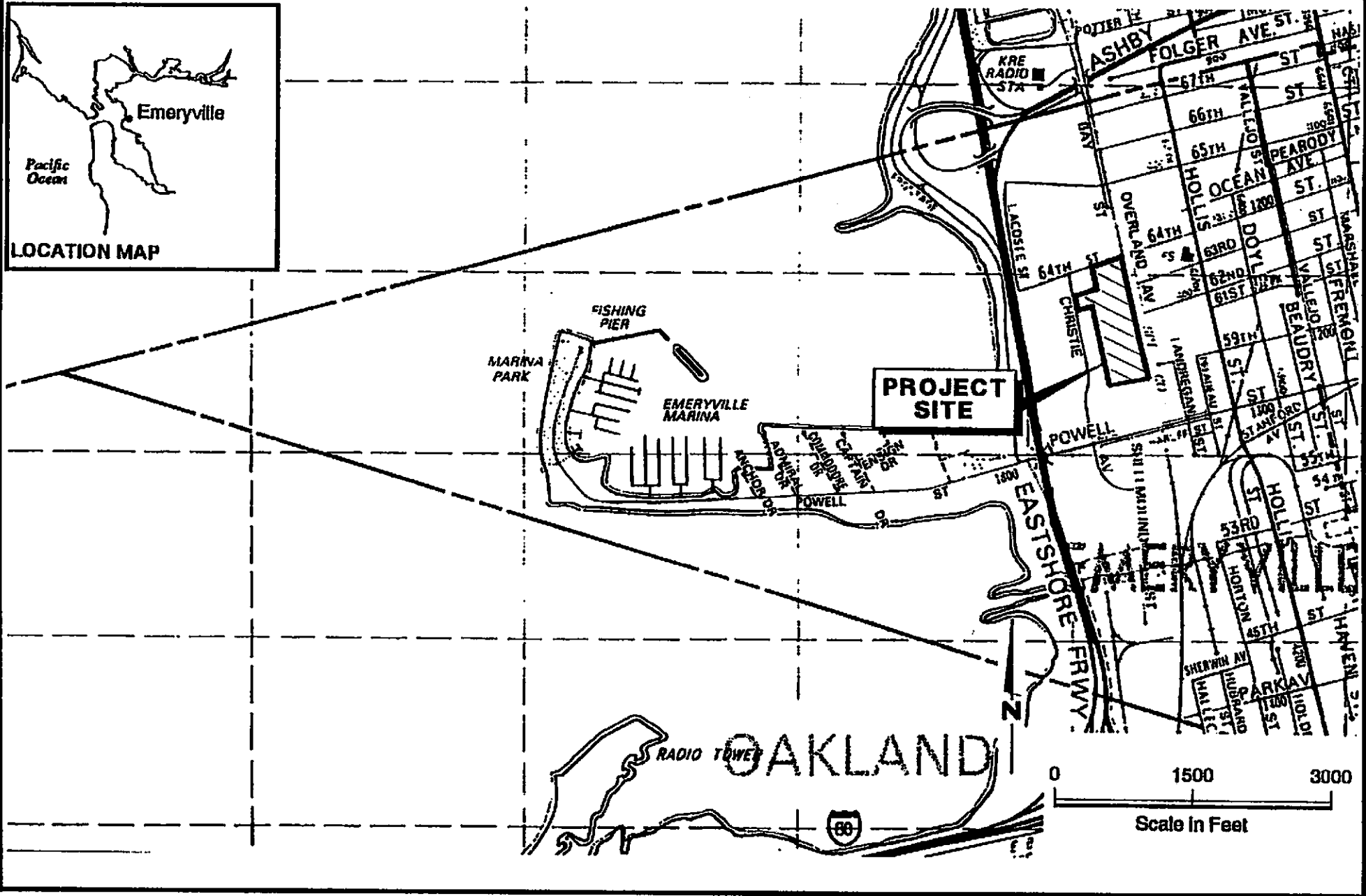
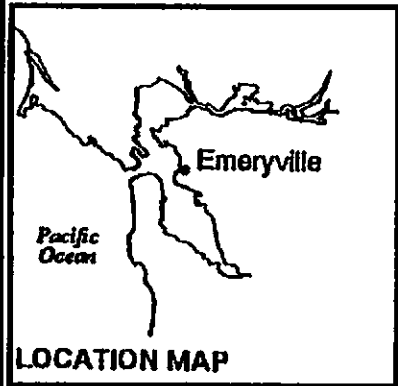
**Kyle S. Flory, R.G.**  
**Senior Geologist**



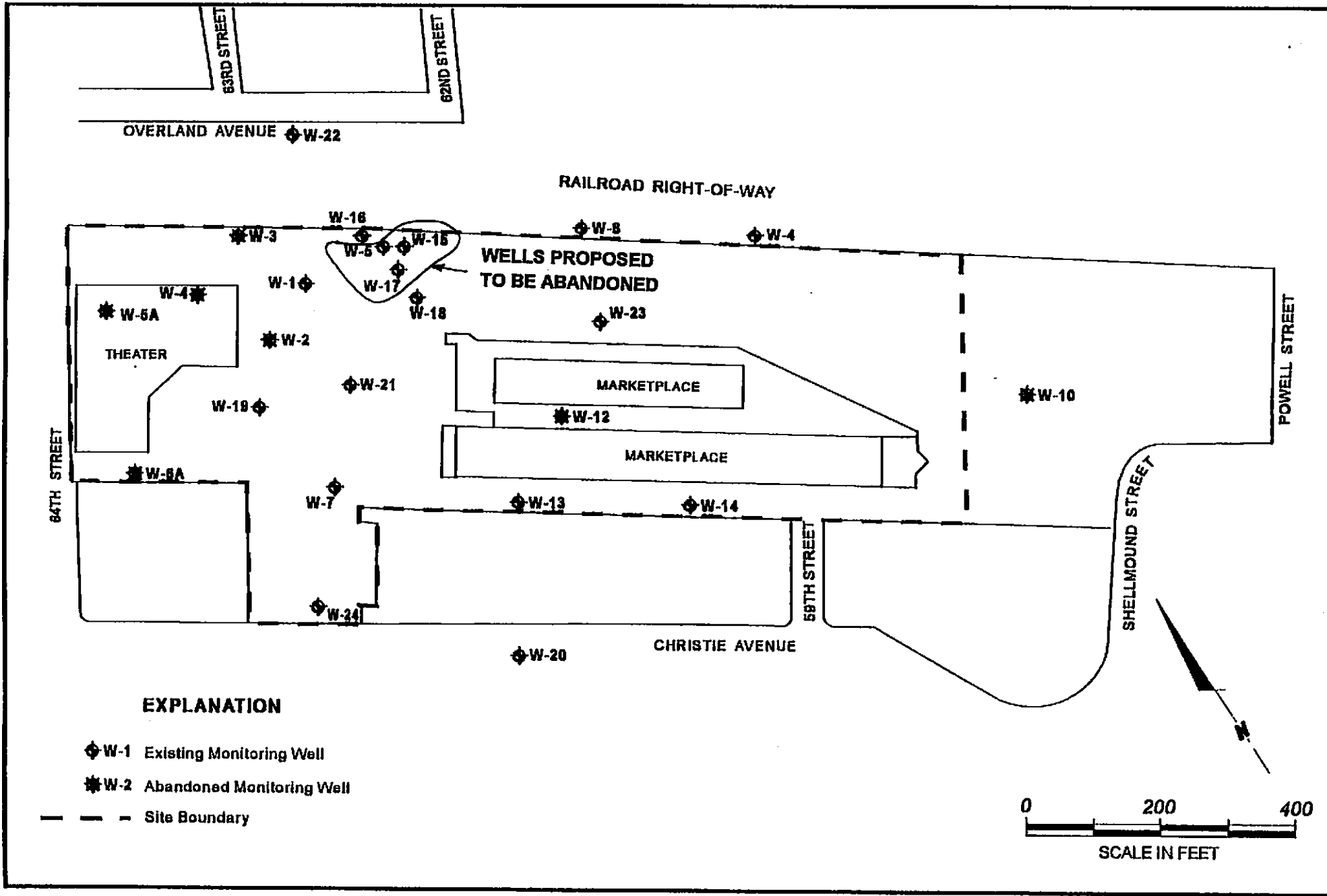
**Andrew A. Briefer, P.E.**  
**Associate Engineer**

**Attachments: Plate 1 - Site Location Map**  
**Plate 2 - Site Plan**  
**Appendix A - Well Abandonment Permit**

**cc: Lynn Tolin, Christie Avenue Partners**



*jh*



**EXPLANATION**

- ◆ W-1 Existing Monitoring Well
- ★ W-2 Abandoned Monitoring Well
- - - Site Boundary

**APPENDIX A**

**WELL ABANDONMENT PERMIT**



October 3, 1996

**131.0200.001**

Zone 7 Water Agency  
5997 Parkside Drive  
Pleasanton, California 94588

Attention: Wyman Hong or Craig Mayfield

**GROUNDWATER MONITORING WELL  
DESTRUCTION PROCEDURES  
EMERY BAY MARKETPLACE  
EMERYVILLE, CALIFORNIA**

Dear Wyman/Craig:

This letter presents PES Environmental Inc. (PES) proposed methods of destruction for three groundwater monitoring wells (W-5, W-15, and W-17) at the Emery Bay Marketplace which are scheduled for destruction due to impending road construction activities. The attached Plate 2 shows the locations of wells scheduled for destruction. Wells W-5, W-15, and W-17 have a total casing depths of 14 feet below ground surface (ft bgs), 20 ft bgs, and 25 ft bgs, respectively. All three wells are composed of 2-inch diameter polyvinyl chloride (PVC) casing in 8-inch diameter boreholes.

The three groundwater monitoring wells will be destroyed by first removing the protective well vault boxes. The individual PVC well casings will then be removed from each well, and the sanitary seal and filter pack will be overdrilled, using hollow-stem auger drilling equipment, to a depth of one half foot below the bottom of each well. The boreholes will be grouted to within 12 inches of the surface with neat cement, which will be pumped through the hollow stem augers as they are pulled up from the borehole. Fluids displaced from the grout installation will be contained in labeled 55-gallon drums and stored onsite pending disposal options. Surface completions for the former monitoring wells will be performed by filling the upper 12 inches of each individual borehole with quick setting concrete.

Drilling equipment will be decontaminated with a high pressure steam cleaner before and after each use. Soil cuttings and decontamination rinsate will be placed in labeled 55-gallon drums and stored onsite pending disposal options.

**Wyman Hong or Craig Mayfield**

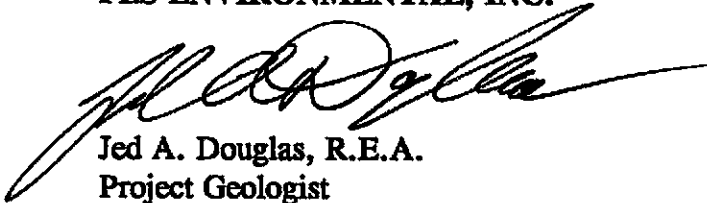
**October 3, 1996**

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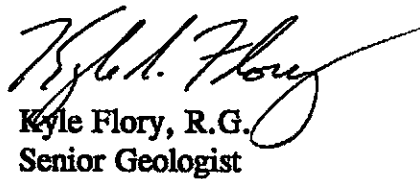
PES hopes this letter provides you with the information you require at this time. If you have any questions, please feel free to contact either of the undersigned.

Yours very truly,

**PES ENVIRONMENTAL, INC.**



Jed A. Douglas, R.E.A.  
Project Geologist



Kyle Flory, R.G.  
Senior Geologist





# ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600

FAX (510) 462-3914

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

### LOCATION OF PROJECT

EMERY BAY MARKET PLACE  
EMERYVILLE, CA.

PERMIT NUMBER \_\_\_\_\_

LOCATION NUMBER \_\_\_\_\_

### CLIENT

Name CHRISTIE AVENUE PARTNERS - J.S.  
Address 5800 STELLMOUND, STR 210 Voice \_\_\_\_\_  
City EMERYVILLE, CA Zip 94608

### PERMIT CONDITIONS

Circled Permit Requirements Apply

### APPLICANT

Name PES ENVIRONMENTAL, INC.  
Address 1682 NOVATO BLVD, STE 100 Voice (415) 899-1600  
City NOVATO, CA Zip 94947

### A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

### TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Cathodic Protection _____	General _____
Water Supply _____	Contamination _____
Monitoring _____	Well Destruction <input checked="" type="checkbox"/>

### B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

### PROPOSED WATER SUPPLY WELL USE

Domestic _____	Industrial _____	Other _____
Municipal _____	Irrigation _____	

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

### DRILLING METHOD:

Mud Rotary _____	Air Rotary _____	Auger <input checked="" type="checkbox"/>
Cable _____	Other _____	

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. 177681

E. WELL DESTRUCTION. See attached.

### WELL PROJECTS

Drill Hole Diameter _____ in.	Maximum _____ ft.
Casing Diameter _____ in.	Depth _____ ft.
Surface Seal Depth _____ ft.	Number _____

### GEOTECHNICAL PROJECTS

Number of Borings _____	Maximum _____ ft.
Hole Diameter _____ in.	Depth _____ ft.

ESTIMATED STARTING DATE 10/8/96

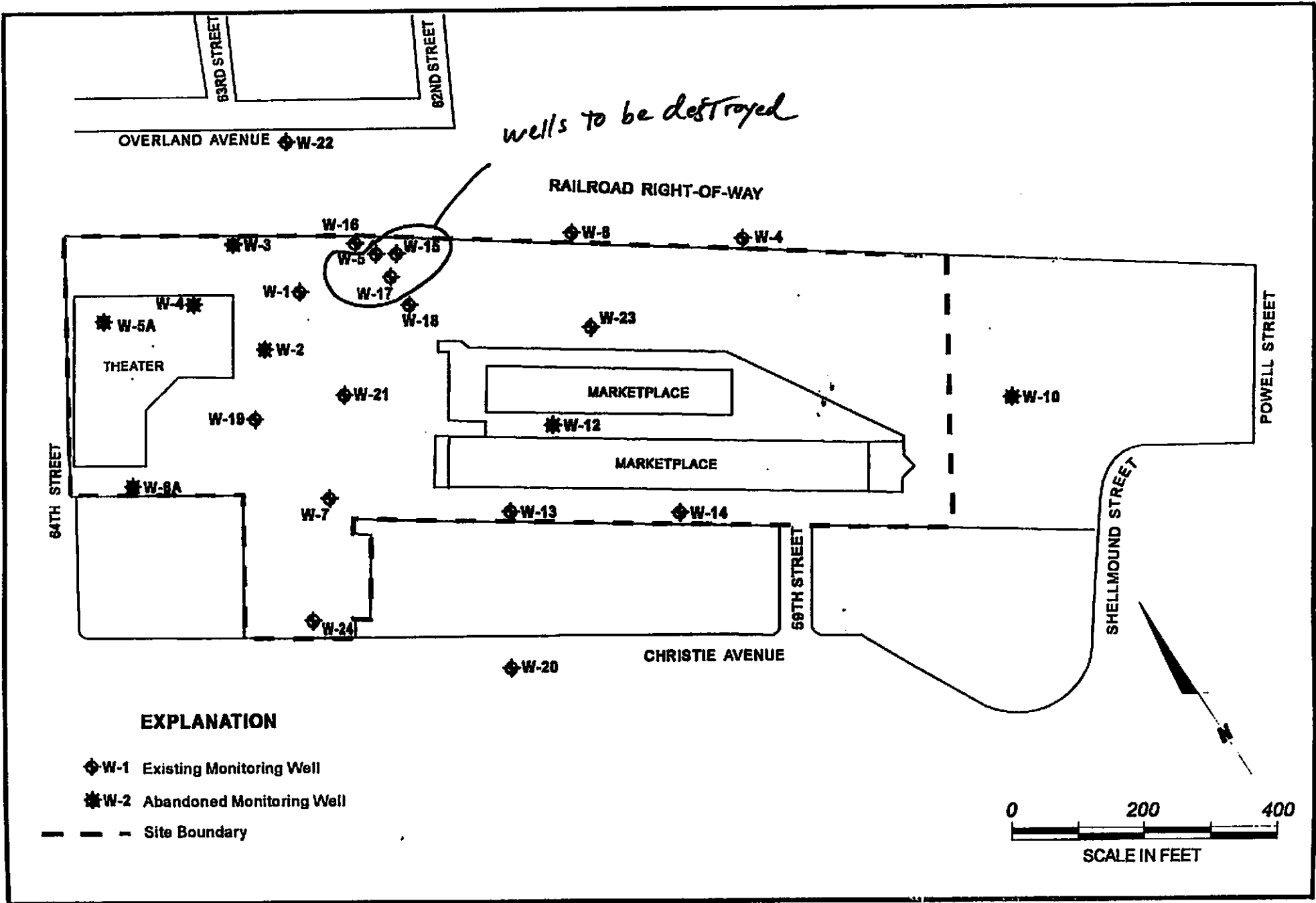
ESTIMATED COMPLETION DATE 10/8/96

Approved \_\_\_\_\_ Date \_\_\_\_\_

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Kyle H. Flay, R.G. Date 10-3-96

*wells to be destroyed*



**EXPLANATION**

- ◆ W-1 Existing Monitoring Well
- ★ W-2 Abandoned Monitoring Well
- - - Site Boundary

