

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING ORDER NO. R5-2009-0819
CALIFORNIA WATER CODE SECTION 13267
FOR

LAKE BERRYESSA ENTERPRISES, INC. II, MR. NICK PETSAS,
AND THE UNITED STATES BUREAU OF RECLAMATION

FORMER PUTAH CREEK RESORT
7600 KNOXVILLE ROAD, NAPA
NAPA COUNTY

This Order is issued to Lake Berryessa Enterprises, Inc. II, the United States Bureau of Reclamation (Bureau), and Mr. Nick Petsas (hereafter Discharger) pursuant to California Water Code section 13267, which authorizes the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board) to issue a Monitoring and Reporting Order (Order).

The Executive Officer finds:

INTRODUCTION

1. Lake Berryessa Enterprises, Inc. II is subject to this order because the corporation owned and operated the tank system and leased the property at the time of the release. Mr. Nick Petsas is subject to this order because he was the owner of Lake Berryessa Enterprises, Inc. II, and he exercised substantial control over the day-to-day operations of the corporation. The U. S. Bureau of Reclamation is subject to this Order because it owns the property, has knowledge of the discharge and the ability to control it, and has the ability to control access to the property. Lake Berryessa Enterprises, Inc. II, Mr. Nick Petsas, and the Bureau (collectively referred to as "Dischargers") are jointly responsible for the tasks described herein.
2. The Former Putah Creek Resort at 7600 Knoxville Road, Napa, Napa County (Site), is located on the western shore of Lake Berryessa (Figure 1). The Site was used as a marina and operated an underground storage tank (UST) system until 1995 when the USTs were removed and an above ground storage tank (AST) system was installed. A petroleum discharge from the former underground storage tank system occurred while the UST system was owned and operated by Mr. Nick Petsas (the corporate officer) and Lake Berryessa Enterprises, Inc. II. At the time the contamination leaked from the tanks, Lake Berryessa Enterprises, Inc. II leased the property from the United States Bureau of Reclamation (Bureau). The Bureau is the current property owner, and the discharge occurred during its ownership of the property.
3. Depth to groundwater ranges from 2 to 25 feet below ground surface (bgs). Groundwater samples have contained petroleum hydrocarbon constituents at maximum concentrations of: TPH-G 380,000 micrograms per liter (ug/l), benzene 84,000 ug/l, toluene 79,000 ug/l, ethylbenzene 16,000 ug/l, xylenes 42,000 ug/l, methyl tert butyl ether (MTBE) 10,000 ug/l, tert butyl alcohol (TBA) 3,000 ug/l, and 1,2-dichloroethane (1,2-DCA) 18 ug/l.

4. During the second quarter 2007 groundwater monitoring event, concentrations of petroleum constituents were detected at maximum concentrations of: TPH-G 83,000 ug/l, benzene 37,000 ug/l, toluene 23,000 ug/l, ethylbenzene 2,700 ug/l, total xylenes 11,600 ug/l, MTBE 2,300 ug/l. This pollution has impaired the beneficial uses of the underlying water resource.
5. An ozone injection system operated from October 2002 to April 2003, and was shut down due to iron fouling of the ozone sparge points. A groundwater extraction (GWE) system has operated from March 2004 through February 2009.
6. This Monitoring and Reporting Program (MRP) is issued by the Central Valley Water Board, pursuant to California Water Code (CWC) section 13267 and is necessary to delineate waste discharged from the former underground storage tank (UST) system, to characterize groundwater pollutant plumes, and to determine whether remediation efforts are effective.
7. Existing data and information about the Site show the presence of various chemicals, including TPH-G; TPH-D; benzene, toluene, ethylbenzene, and xylenes (BTEX); and MTBE, emanating from the property resulting from past operations of the former UST system.
8. The Dischargers (Lake Berryessa Enterprises, Inc. II, Mr. Nick Petsas, Ms. Helen Petsas, Ms. Melpo Petsas, and United States Bureau of Reclamation) shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer of this Regional Water Board.
9. Prior to construction of any new groundwater monitoring or extraction wells, and prior to destruction of any groundwater monitoring or extraction wells, the Dischargers shall submit plans and specifications to the Regional Water Board staff for review and written approval. Once installed, all new wells shall be added to this monitoring program and shall be sampled and analyzed according to the schedule below.
10. The California State Water Resources Control Board (State Water Board) Resolution No. 2009-0042 requires reduction from quarterly groundwater monitoring to semi-annual or less frequent monitoring at all sites, unless site-specific needs warrant otherwise, and requires notification to all responsible parties and the State Water Board of the new requirements by 1 August 2009. MRP R5-2009-0819 complies with State Board Resolution No. 2009-0042.

LEGAL PROVISIONS

11. CWC section 13267 states, in part:

(b)(1) In conducting an investigation . . . , the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board

shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The reports required herein are necessary for the reasons described in this Order, to assure protection of waters of the state, and to protect public health and the environment.

12. CWC section 13268 states, in part:

(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

Failure to submit the required reports to the Central Valley Water Board according to the schedule detailed herein may result in enforcement action(s) being taken against you, which may include the imposition of administrative civil liability pursuant to CWC section 13268. Administrative civil liability of up to \$1,000 per violation per day may be imposed for non-compliance with the directives contained herein.

13. Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

REQUIRED ACTIONS

IT IS HEREBY ORDERED by the Executive Officer, the **Discharger** shall:

1. Conduct monitoring and reporting in compliance with the following specifications.
2. As shown on Figure 1, there are 15 groundwater monitoring wells, MW-1 through MW-15, associated with the Site. The groundwater monitoring program for the 15 monitoring wells, and any wells installed subsequent to the issuance of this MRP, shall follow the schedule below.
3. Monitoring wells with free phase petroleum or visible sheen shall be monitored, at a minimum, for product thickness and depth to water. Sample collection and analysis shall follow standard Environmental Protection Agency (EPA) protocol. The volume of extracted groundwater also shall be provided in quarterly monitoring reports.

SAMPLING FREQUENCY ¹											
	Semi-annually ²				Annually ³				Gauge ⁴		
Wells	MW-2	MW-4	MW-8	MW-9	MW-1	MW-3	MW-5	MW-7	MW-6	MW-13	MW-15
	MW-12	MW-14	New Wells		MW-10	MW-11	Lake 1 ⁵	Lake 2 ⁵			

1 All wells shall be monitored quarterly for water levels and the presence and thickness of free product.

2 Wells shall be sampled semi-annually during the first and third quarters.

3 Wells shall be sampled annually during the third quarter.

4 These wells shall be gauged annual, but not sampled, unless requested by Regional Water Board staff

5 Lake 1 collected near boat docks, Lake 2 collected just off shore southwest and near MW-14

Constituents	EPA Analytical Method ⁷	Maximum Practical Quantitation Limit (ug/l) ⁵
TPH-G	8015M	50
Benzene	8020 or 8260B	0.5
Toluene	8020 or 8260B	0.5
Ethylbenzene	8020 or 8260B	0.5
Xylenes	8020 or 8260B	0.5
MTBE	8260B	0.5
TBA	8260B	5.0
TAME	8260B	0.5
DIPE	8260B	0.5
ETBE	8260B	0.5
1,2-Dichloroethane	8260B	0.5
Hexavalent Chromium ⁶	7196A	1.0
Ethanol ⁶	8260B	50
Methanol ⁶	8260B	100
Total Lead ^{6, 7}	7421/6010B	0.5
Naphthalene ⁶	8260B	0.5

5 All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

6 Analysis for hexavalent chromium, ethanol, methanol, total lead, and naphthalene may be discontinued after two consecutive monitoring events of non-detect results with Regional Water Board staff concurrence.

7 If total lead is detected, groundwater samples must be analyzed for tetraethyl lead.

8 Report all peaks identified by EPA Method 8260B within the normal course of analysis for chemicals of concern.

REPORTING

4. When reporting the data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly compliance with this Order.

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5. The Dischargers shall notify the Regional Water Board staff within 48 hours of any unscheduled shutdown of any soil vapor and/or groundwater extraction system.

6. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

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7. The Discharger shall submit a paper copy of all semi-annual reports to this Regional Water Board office and submit the electronic data reports, which conform to the

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requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30, electronically over the Internet to the State Water Board's GeoTracker database system. Both the paper copy and the electronic submittals are due by the 1st day of the second month following the end of each second and fourth calendar quarter, by **1 August** (1st ½ of the year), **and 1 February** (2nd half of the year), until such time as the Executive Officer determines that the reports are no longer necessary. Each semi-annual report shall include the following minimum information:

- (a) A description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated to EPA method detection limits.
- (b) Field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, depth of pump placement, etc.
- (c) Groundwater elevation contour maps for all groundwater zones, if applicable.
- (d) Concentration contour maps for all groundwater zones for TPH-G, benzene, and MTBE.
- (e) A table showing well construction details such as well number, groundwater zone being monitored, ground surface elevation, screen interval, bentonite interval, filter pack interval, and total depth of the well.
- (f) A table showing historical horizontal and vertical (if applicable) gradient directions and magnitudes.
- (g) Cumulative data tables containing the water quality analytical results and depth to groundwater.
- (h) A copy of the laboratory analytical data report.
- (i) If applicable, the status of any ongoing remediation, including cumulative mass of pollutant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.
- (j) If applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.

8. The Second Semi-Annual Groundwater Monitoring Report, due **1 February** of each year shall be an expanded report and will include the following additional information/items:

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- (a) Tabular summaries of all data obtained during the last year.

- (b) Graphical summaries, of TPH-G, benzene, and MTBE concentrations, groundwater elevation data, and remediation system operation versus time for wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-9, MW-12, MW-14, and additional wells as request by Regional Water Board staff.
- (c) A rose diagram presenting groundwater flow direction and magnitude.
- (d) Contaminant concentration contour maps for TPH-G, benzene, and MTBE for each monitoring event from the previous year.
- (e) A discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells.
- (f) An analysis of whether the pollutant plume is being captured by an extraction system or is continuing to migrate.
- (g) A description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness.
- (h) An identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
- (i) If desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

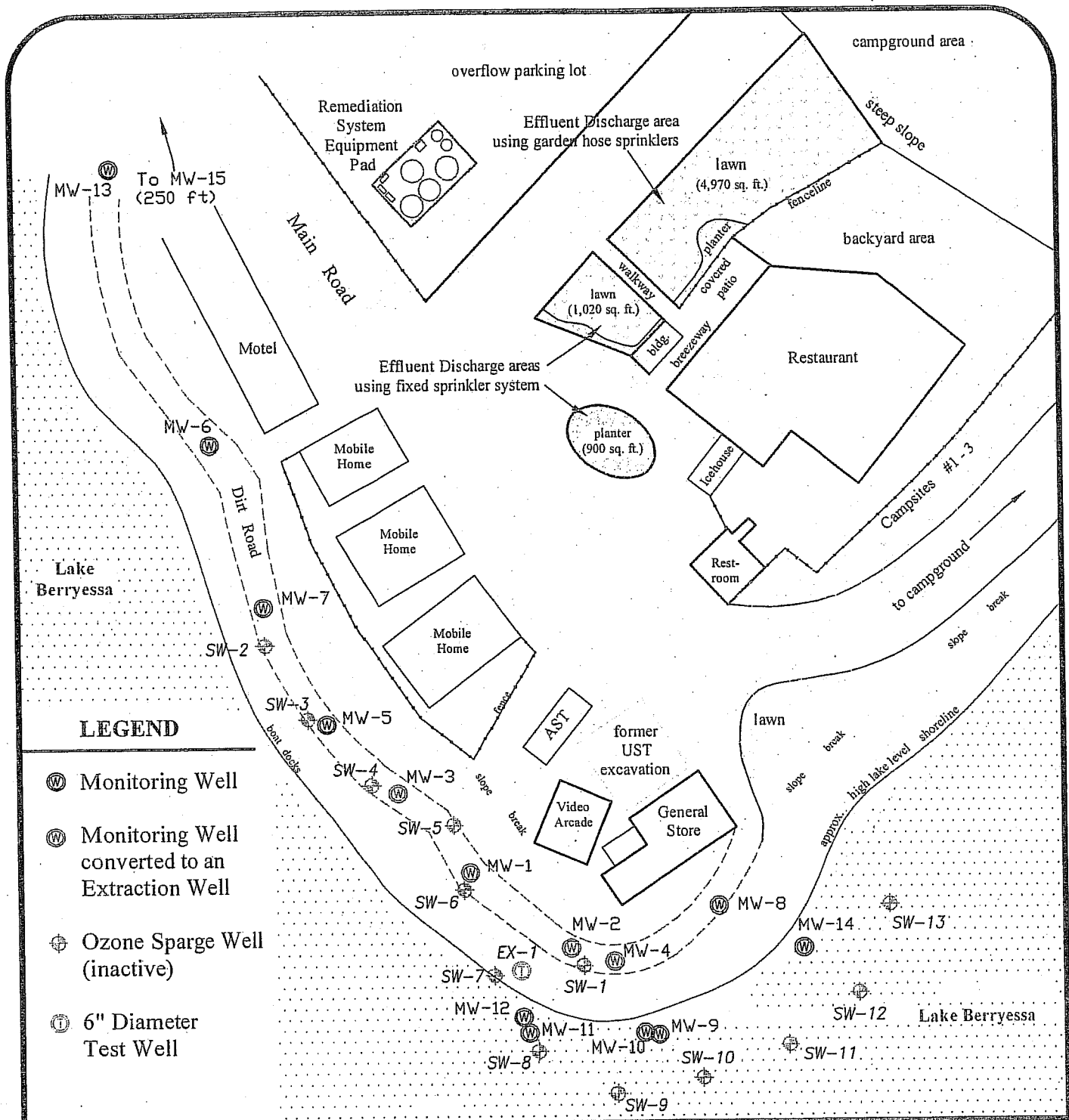
9. The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Regional Water Board staff.

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This Order is effective upon the date of signature.

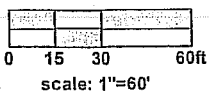
Ordered by: original signed by
PAMELA C. CREEDON
Executive Officer

6 July 2009
(Date)



LEGEND

- Monitoring Well
- Monitoring Well converted to an Extraction Well
- Ozone Sparge Well (inactive)
- 6" Diameter Test Well



Site Plan

Putah Creek Resort
7600 Knoxville Road
Napa, California

NORTH



W.A. Craig, Inc.

6940 Tremont Road Lic. No. 455752
Dixon, California 95620-9603
(707) 693-2929 Fax (707) 693-2922

Project #: 3501

Date: 10/25/04

Scale: 1"=60'

Figure:

1