

Lahontan Regional Water Quality Control Board

August 1, 2014

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NOTICE OF APPLICABILITY OF WASTE DISCHARGE REQUIREMENTS FOR AGRICULTURAL TREATMENT UNITS (WDID 6B361403002, BOARD ORDER NO. R6V-2014-0023), PACIFIC GAS AND ELECTRIC COMPANY COMPRESSOR STATION, HINKLEY, SAN BERNARDINO COUNTY

Lahontan Water Board staff received several submittals to apply for coverage under the subject line Waste Discharge Requirements (WDRs).

1. Report of Waste Discharge (ROWD) for Proposed Agricultural Treatment Units (ATUs), dated April 4, 2014 (revised May 28, 2014)
2. Addendum 1, Biological and Cultural Resources Mitigation Submittals, dated April 21, 2014 (revised June 4 and 10, 2014)
3. Addendum 2: Pre-construction Mitigation Submittals, dated May 15, 2014 (revised June 10, 2014)
4. Addendum 3: Groundwater Modeling Evaluating Existing Nitrate and Total Dissolved Solids, dated July 18, 2014
5. California Department of Fish and Wildlife concurrence letter on biological resource mitigation measures, dated June 19, 2014
6. County of San Bernardino concurrence letter on greenhouse gas mitigation measures, dated July 17, 2014
7. Addition to Addendum 3: Groundwater Modeling Evaluating Existing Total Dissolved Solids, dated July 29, 2014

The ROWD and addenda include information required by the WDRs, including monitoring and information consistent with mitigation measures contained in the Environmental Impact Report (EIR) completed for chromium remediation activities such as the proposed ATUs. Based on the information provided in your submittals, the proposed activities qualify for coverage under the subject line WDRs.

This notice authorizes the ATUs described in the ROWD under the WDRs. It also provides comments on the ROWD, and describes a minor change to the monitoring and reporting program.

I. PROJECT DESCRIPTION AND LOCATION

The proposed project involves constructing and operating two new ATUs known as the Community East and Fairview ATUs and expanding the existing Ranch ATU. The ATUs are proposed to treat hexavalent chromium in groundwater and provide enhanced hydraulic containment of the chromium plume. Also, the irrigation system at the existing Desert View Dairy (DVD) ATU will be converted from subsurface drip irrigation to drag-drip irrigation (or equivalent method to prevent aerial spraying of groundwater).

All existing ATUs (Desert View Dairy, Gorman North and South, Cottrell, and Yang ATUs) are currently covered under the WDRs, which were adopted March 12, 2014. The total amount of new, expanded and existing ATUs covered under the WDRs is 321 acres. The maximum acreage of ATUs allowed under the WDRs is 500 acres.

The new Community East and Fairview ATUs are located in Operable Unit (OU) 1 (a term defined in the EIR), north of the compressor station in the area bounded by Community Boulevard, Fairview, Frontier and Summerset Roads. The expanded Ranch ATU is located north of Highway 58 and south of Santa Fe Avenue, in both OUs 1 and 2. The existing Desert View Dairy (DVD) is located in OU 2 north of Santa Fe Avenue and east of Hinkley Road. Existing Gorman North and South, Cottrell, and Yang ATUs are located in OU 2, east of the Desert View Dairy. Attachment 1 shows the new, existing and expanded ATUs covered under the WDRs.

II. COMMENTS ON ROWD

1. Section 4.2.1.1

a. Applicability of Receiving Water Limit 3 to Existing ATUs

In Section 4.2.1.1 of the ROWD (p. 35), PG&E provides its interpretation regarding the applicability of receiving water limit 3 to the Ranch and DVD ATUs:

"While the nitrate and TDS concentrations will be monitored, as required by the MRP, evaluation of TDS, under receiving water limit 3, and nitrate under receiving water limit 4, is not applicable to and will not be performed for the existing ATUs (including Ranch expansion and DVD conversion). Receiving water limit 3, which applies to ATUs located in OU1 and OU3, does not apply because each of these ATUs are located in OU2."

Water Board staff response: The intent of receiving water limit 3 is to limit TDS increases in receiving waters in OUs 1 and 3 to the extent practicable. Therefore, receiving water limit 3 will be evaluated at monitoring wells located in OUs 1 and 3, but not in those located in OU2, where TDS concentrations are already exceeding drinking water standards due to legacy dairy and agricultural operations and ongoing animal confinement and agricultural operations.

The DVD ATU and its associated monitoring wells are located in OU2; therefore, Water Board staff concur that receiving water limit 3 does not apply to OU2 monitoring wells associated with the DVD.

The Ranch ATU is located in both OU1 and OU2; however, the monitoring wells that measure the Ranch ATU's impacts on receiving waters are located **solely** in OU2. At this time, no monitoring wells are located in OU1 beneath or downgradient of the Ranch ATU, so staff concurs with PG&E's interpretation. To clarify, TDS will be measured in all monitoring wells regardless of location, but the evaluation for the purposes of receiving limit 3 will not apply to Ranch ATU monitoring wells MW-22A1/B or MW-28A/B, located in OU2.

b. Applicability of Receiving Water Limit 4 to Existing ATUs

PG&E interprets receiving water limit 4 as not applying to existing ATUs because it "addresses management of nitrate per mitigation measure WTR-MM-6, which . . . applies to new ATUs."

Water Board staff response: Staff's review of EIR mitigation measure WTR-MM-6 (Attachment F of the WDRs) indicates that the mitigation measure applies to new ATUs only (for this ROWD, new ATUs are the Fairview, Community East and Ranch Expansion ATUs). Therefore, PG&E's interpretation is correct. To clarify, nitrate will be measured in all monitoring wells regardless of location, but the evaluation and action plan trigger will not apply unless the monitoring well is measuring the discharge from new ATUs.

It is important to note that the Water Board's Executive Officer retains the authority to require PG&E to take actions to address increases of pollutants in receiving waters caused by its discharge of waste whether or not EIR mitigation measures apply.

2. Section 4.2.1.2

In this section, PG&E proposes revisions to the Monitoring and Reporting Program (MRP) contained in the WDRs attachment E, Tables E-2 and E-6. PG&E requests that monitoring wells (MWs) designated as "domestic well protection" locations be sampled quarterly, and that MWs designated as chromium remediation and byproduct monitoring MWs be sampled yearly. Further, PG&E points out that the monitoring frequency for aquifer characteristics should match up with the specified sampling frequency for the MW.

Water Board staff response: Water Board staff does not agree that yearly sampling is appropriate at this time. More frequent monitoring is needed to characterize effectiveness of chromium remediation and byproduct generation and movement. **Therefore, no changes to the frequencies specified in the WDRs MRP Table E-2 are made.** Proposed changes to monitoring and reporting may be considered once full-scale operation of all remedial actions is occurring and potential impacts have stabilized.

However, staff does agree that the aquifer characteristics monitoring (e.g., groundwater levels, pH, temperature) should match up with the frequency for each MW sampled (e.g., either twice yearly or quarterly). Therefore, requirement for monitoring frequency/duration shown in Table E-6 is changed to state:

"Aquifer characteristics shall be measured each time a MW is sampled."

3. Section 4.2.3

Monitoring for the newly proposed southern ATUs (Community East and Fairview) is discussed in this section, and also presented in Figures 4-1 and 4-3. As discussed with PG&E staff at a meeting on June 6, 2014, Water Board staff does not agree with the monitoring well locations proposed. PG&E will submit a new proposed monitoring well network for the southern ATUs prior to discharges commencing. The new proposed network will include upgradient, mid-field and downgradient locations that adequately characterize chromium remediation efficiency, byproduct generation, and domestic well protection. Discharge to southern ATUs **may not commence** until the new proposed monitoring plan is accepted in writing by Water Board staff.

4. Table 4-1, Analytical Methods and Reporting Limits

Hexavalent Chromium

For groundwater samples taken from domestic wells, the reporting limit for hexavalent chromium shall be 0.06 micrograms per liter. For all other groundwater samples, the reporting limit for hexavalent chromium shall be 0.1 micrograms per liter.

III. REPORTING DUE DATES

Refer to Attachment E, WDRs Monitoring and Reporting Program, for specific details on reporting requirements.

ATU Byproducts Investigation Report

- Report due within 3 months of investigation completion. Please notify Water Board staff via email **within 2 weeks** of completion of the ATU Byproducts investigation.

Annual Reports

- EIR mitigation measures compliance: report due **February 20** of each year
- Agronomic rate performance: report due **February 20** of each year

Quarterly Reports

Quarterly reports are due according to the following schedule:

- 1st Quarter (January through March): report due date **May 20**
- 2nd Quarter (April through June): report due date **August 20**
- 3rd Quarter (July through September): report due date **November 20**
- 4th Quarter (October through December): report due date **February 20**

Quarterly monitoring reports must contain the information as applicable in the WDRs Monitoring and Reporting Program Tables E-1, E-2, E-3, E-4, E-5, E-6, and E-7; and MRP section V.1 and V.2 (Quarterly Reports).

IV. GENERAL REQUIREMENTS

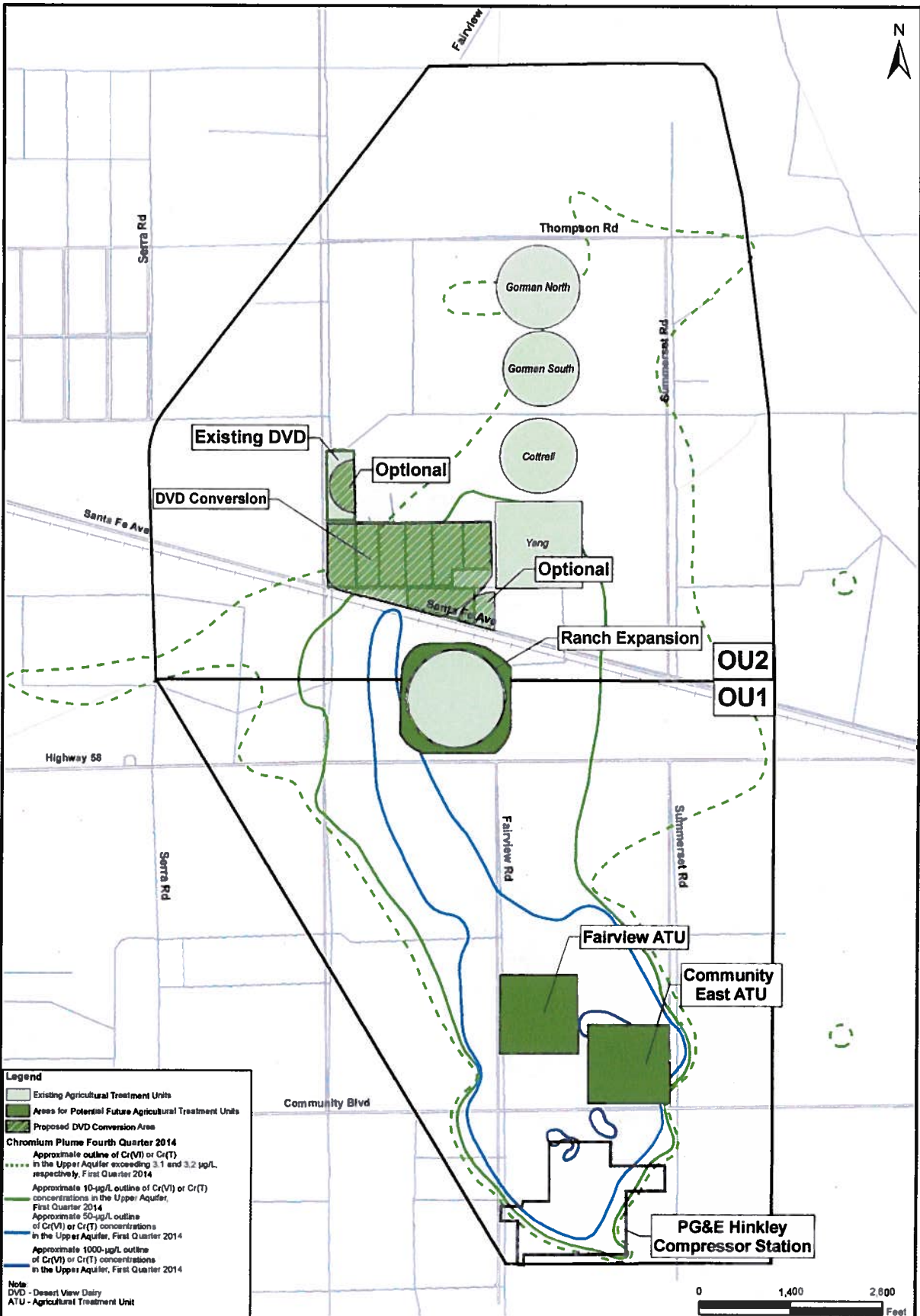
1. The project shall be implemented in accordance with the requirements contained in the WDRs and this Notice of Applicability.
2. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this Notice of Applicability is officially revoked. Water Board staff have determined that the annual fee for these WDRs will be calculated based on a "threat to water quality" and "complexity" rating of 2C, pursuant to the criteria outlined in the 2013-14 Fee Schedules (Title 23, Division 3, Chapter 9, California Code of Regulations), available at http://www.waterboards.ca.gov/resources/fees/docs/fy13_14_fee_schedule.pdf.
3. One hard copy of technical reports must be submitted to each of the Water Board's South Lake Tahoe office and Victorville office by the due date. Include the WDID number on all technical reports and correspondence related to the project.
4. All technical reports, workplans, proposals, and correspondence associated with the project must be uploaded to Geotracker by the due date.
5. Failure to abide by the conditions of the WDRs and this Notice of Applicability may result in an enforcement action as authorized by provisions of the California Water Code.

Please contact Anne Holden at (530) 542-5450 if you have any questions.


PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Attachment 1: ATU Map

cc: Margaret Gentile, PE, PhD, Arcadis (via email Margaret.Gentile@arcadis-us.com)
Iain Baker, PG&E (via email IxBi@pge.com)
PG&E Lyris List



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Legend

- Existing Agricultural Treatment Units
- Areas for Potential Future Agricultural Treatment Units
- Proposed DVD Conversion Area

Chromium Plume Fourth Quarter 2014

- Approximate outline of Cr(VI) or Cr(T) in the Upper Aquifer exceeding 3.1 and 3.2 µg/L, respectively, First Quarter 2014
- Approximate 10-µg/L outline of Cr(VI) or Cr(T) concentrations in the Upper Aquifer, First Quarter 2014
- Approximate 50-µg/L outline of Cr(VI) or Cr(T) concentrations in the Upper Aquifer, First Quarter 2014
- Approximate 1000-µg/L outline of Cr(VI) or Cr(T) concentrations in the Upper Aquifer, First Quarter 2014

Note
 DVD - Desert View Dairy
 ATU - Agricultural Treatment Unit

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**Existing and Proposed
 Agricultural Treatment Units**
 Pacific Gas and Electric Company
 Hinkley, California

Project Number
 RC000699 0099
 Date
 6/16/2014
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