

James W. Babcock, PhD, PG  
Consulting Geologist

1335 American Way  
Nipomo, CA 93444  
510-301-5063

[JBabcock356@gmail.com](mailto:JBabcock356@gmail.com)

**TRANSMITTED BY ELECTRONIC MAIL**

Kristen S. Gomes ([Kristen.Gomes@waterboards.ca.gov](mailto:Kristen.Gomes@waterboards.ca.gov))

Elizabeth Welch ([elizabeth.welch@waterboards.ca.gov](mailto:elizabeth.welch@waterboards.ca.gov))

Amina Flores-Becker ([afloresbecker@fresnocountyca.gov](mailto:afloresbecker@fresnocountyca.gov))

Daniel J. Amann ([damann@fresnocountyca.gov](mailto:damann@fresnocountyca.gov))

N. Curtis Larkin ([CLarkin@fresnocountyca.gov](mailto:CLarkin@fresnocountyca.gov))

May 5, 2021

Ms. Elizabeth Welch, Water Resource Control Engineer, MSCE  
**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD –  
CENTRAL VALLEY REGION**

1685 E Street  
Fresno, CA 93721

Subject: Comments on Tentative Waste Discharge Requirements for Blue Hills Disposal Facility, located within the Coalinga Oil & Gas Field, Fresno County, California

Dear Ms. Welch:

On behalf of the Fresno County Department of Public Works and Planning, Resources Division (Fresno County) James W. Babcock, Consulting Geologist (Babcock) is pleased to provide comments on the [Tentative] Waste Discharge Requirements for Blue Hills Disposal Facility, Fresno County.

We appreciate the opportunity to review and provide comments on the Tentative Waste Discharge Requirements (WDRs) issued on April 20, 2021 with comments due by May 20, 2021.

Fresno County as the only designated party anticipates being available to answer questions from the Central Valley Water Board if the item is not on the consent calendar.

**FINDINGS**

We understand that the Findings are the foundational facts that guide the WDRs and the Monitoring & Reporting Program. Therefore, our comments in part are to expand and elucidate critical issues that we believe are fundamental to the successful environmental management of this closed waste disposal site.

The historical siting decisions in the late 1960s and early 1970s were founded on pre-landfill technologies, pre-environmental laws and the encouragement of State and federal agencies that needed a limited use pesticide container disposal site to eliminate the dumping of pesticide containers along roadways. Siting of the Blue Hills Disposal Facility (BHDF) in an oil field, on the arid hills of the western San Joaquin Valley that had no viable water supply wells and groundwater with high dissolved natural minerals seemed the correct decision when a reported State Water Resources Control Board (SWRCB) geologist and a Chevron geologist recommended the site to Fresno County.

## DESCRIPTION

### Finding 1:

The County of Fresno (Discharger) owns and maintains the Blue Hills Disposal Facility (Facility), which is located approximately 9 miles northeast of the City of Coalinga in Fresno County, in the SE ¼ of the NE ¼ of Section 3, Township 19 South, Range 15 East, Mount Diablo Base and Meridian (MDB&M). The Facility is within the Coalinga Oil Field as they are defined by the California Geologic Energy Management Division (CalGEM), formerly known as the Division of Oil, Gas, and Geothermal Resources (DOGGR). The Facility's location is depicted on the Site Location Map in **Attachment A**.

**Comment: Line 5** – Please change “they are” to “it is”

## WASTE CLASSIFICATION & PERMITTING

### Findings 16:

The geologic material immediately underlying the WMUs does not meet the Chapter 15 prescriptive permeability criterion for Class I units. (See Title 23, § 2531, subd. (b)(1).) The WMUs also lack a liner system. (See *id.*, § 2542.) Therefore, Order 90-254 classified the WMUs as “existing” Class III WMUs containing hazardous waste.

**Comment: Line 1** Please change “The geologic material immediately underlying...” to “The geologic material, known as the Etchegoin Formation, immediately underlying...”

## SITE CONDITIONS

### Findings 22:

According to the Central Valley Water Board's *Water Quality Control Plan for the Tulare Lake Basin* (Basin Plan), the designated beneficial uses of surface waters of the Juniper Hydrologic Area include: agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and ground water recharge (GWR).

**Comment: Line 3** Please add the word “Ridge” following “Juniper”

### Finding 26:

The background perched groundwater is poor quality, and according to the criteria contained in the Basin Plan, meets the criteria for consideration of an exemption from the MUN beneficial use designation. Naturally occurring organic hydrocarbons have been detected in monitoring well No. E-01 A. The concentrations of total dissolved solids (TDS) range from 2,500 to greater than 11,000 mg/l. Electrical Conductance of the groundwater ranges from 2,800 to 8,500 µmhos/cm. Elevated concentrations of sulfates, which range from 1,300 to 9,000 mg/l, also contribute to poor background water quality.

**Comment: Line 4** Please change :”well No. E-01 A” to “wells E-1A and E-6” to update and present consistent well designations as shown in Finding 33 on page 6.

**Finding 33:**

The Etchegoin Formation is known to have crude oil bearing zones within the Coalinga oil field. During groundwater sampling, field notes from Facility groundwater monitoring well network well have noted the presence of hydrogen sulfide (H<sub>2</sub>S) odors and crude oil. Specifically wells E-1A and E-6 were abandoned because of crude oil entering their well screens at depths of 82-112 feet and 136-201 feet, respectively. H<sub>2</sub>S odors have been noted from wells E-1A, E-7, E-9, E-10, and B-207.

**Comment: Line3** Please change “well network well” to “well network wells”

**Finding 38:**

Historically, localized groundwater degradation had occurred within the northeast area of the site in the vicinity of monitoring well E-03. The herbicide dicamba had been detected in groundwater samples collected from monitoring well E-3. Mecoprop (MCP) has also been found in samples collected from groundwater monitoring well E-3 and sporadically in samples from well B-204B. Other chlorophenyl herbicides and chlorinated pesticides have occasionally been detected at low concentrations in monitoring wells. The last detections of dicamba and MCP in well E-3 were in April 2016; and the last detection of MCP from well B-204B was in October 2015. Neither MCP nor Dicamba have a federal or California MCL.

**Comment: Line 2** Please change “well E-03” to “well E-3” to be consistent.

**Finding 39:**

Historically, the corrective action program for groundwater at the Facility consisted of bioremediation, which utilized an oxygen-releasing compound in monitoring well E-03. The Facility is currently using monitored natural attenuation as their form of corrective action.

**Comment: Line 3** Please change “well E-03” to “well E-3”

**INFORMATION SHEET**

**PAGE 1 second paragraph, last line:**

“the non-hazardous portion of WMU 3. These wastes are classified as non-hazardous.”...

**Comment:** Please change the last line to:

“the non-hazardous portion of WMU 3, designated WMU-3NH. These wastes are classified as non-hazardous.”

If you have any questions regarding this letter or need any additional information, please call Curtis Larkin at (559) 600-4306.

Very truly yours,



James W. Babcock, Ph.D., P.G.  
Consulting Geologist  
PG (CA-4515)