

VALLEY WATER MANAGEMENT COMPANY7500 MEANY AVE.
BAKERSFIELD, CALIFORNIA 93308

May 11, 2015

Ronald E. Holcomb PG, CEG, CHG
Engineering Geologist
Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, CA 93706
Ronald.Holcomb@waterboards.ca.gov

Re: Valley Water Management Company's Comments on Draft CDO/MRP
Fee 34 Facility and Race Track Hill Facility, Edison, Kern County

Dear Mr. Holcomb:

Valley Water Management Company (VWMC) is in receipt of the draft Cease and Desist Order (CDO) and Monitoring and Reporting Program (MRP) sent via email on April 30, 2015, and respectfully submits the following comments.

VWMC's Race Track Hill Facility is currently regulated by Resolution No. 58-349, which was adopted by the Central Valley Regional Water Quality Control Board (Regional Board) on September 18, 1958, and has not been updated for 56 ½ years. This permit authorizes the discharge of produced water to the ground surface, into natural drainage channels, and into percolation sumps in Section 24, T298, R29E, MDB&M, with no waste constituent limitations. The permit also allows the discharge of oil field produced water to the ground surface, into natural drainage channels, or into unlined surface impoundments *other than those constructed in the areas of Section 24 described above*, provided the water conforms to the certain specified criteria. The Regional Board has no evidence that VWMC has ever discharged at this facility outside of Section 24, so there are no applicable waste constituent limitations on this discharge within Section 24.

VWMC's Fee 34 Facility is currently regulated by WDR No. 92-11037, which represents a Notice of Applicability for coverage under general Order No. 92-110, a permit which has not been updated for nearly 23 years, since May 29, 1992. Order 92-110 at Discharge Specification B.1. includes requirements for "[w]astewater effluent discharge to sumps that do not meet the prescriptive construction criteria for classified waste management units as specified in Chapter 15." WDRs at Specification B.1. (emphasis added). For these discharges, the permit specified limits for specific electrical conductance, chloride, and boron. However, Order 92-110 at Provision B.2. also recognizes that some dischargers may

have wastewater effluent *in excess of the permit's specified levels*¹ and expressly provided a time schedule to "submit a plan for achieving compliance" in one of four (4) ways, subject to the concurrence of the Executive Officer of the Regional Board, including one option to:

- 2.c. Demonstrate to the Board in public hearing that the proposed discharge will not substantially affect water quality or cause a violation of water quality objectives in accordance with Resolution No. 82-136.²

On May 24, 1996, Valley Waste Disposal Company, the predecessor of VWMC, submitted a "*Drilling and Data Acquisition Report, Race Track Hill District, Edison Oil Field, Kern County, California*" to the Regional Board pursuant to Order No. 92-110, Discharge Specification B.2.c. The report and transmittal letter specified that this facility "does not pose a threat to ground water quality and that no further action should be required for continued operation of the site." That same transmittal letter stated "[i]f a public hearing is necessary to demonstrate that this facility does not pose a threat to ground water quality, then please consider this letter to be a request for that hearing." (Emphasis added.)

The Regional Board's June 13, 1996 Inspection Report for this facility at page 2 acknowledged that "Valley Waste Disposal recently submitted a report, *Drilling and Data Acquisition Report*, to demonstrate that C-Plant (Fee 34) will not affect water quality." Notwithstanding this acknowledgement and the clear request made for a hearing, no hearing was ever held to discuss the findings of this report and no technical response letter was ever provided by the Regional Board. (See August 21, 2013 email from Ryan K. West, Engineering Geologist, Regional Board, to Pam Ashby, VWMC.) Therefore, even though VWMC fulfilled the permit's requirements regarding actions to be taken if wastewater effluent exceeded the permit's specified salinity limitations, the Regional Board failed to undertake its responsibility to hold a public hearing to timely effectuate the intent of the time schedule in the permit.

In addition, none of the inspections of either of the facilities from 1959 through 2011 indicates violations of the permits. That all changed in 2012, when Notices of Violation (NOVs) began to be issued by the Regional Board. VWMC immediately responded to the

¹ Order 92-11037, the Notice of Applicability, which applied the general WDRs to the Fee 34 Facility and included a chemical analysis of the produced wastewater at that time, permitted the discharge with the following characteristics: 7,900 micromhos per centimeter ($\mu\text{mhos/cm}$) electrical conductivity (EC), 4,450 milligrams/liter (mg/l) chloride, and 15.6 mg/l boron. These are substantially higher than current levels.

² Resolution No. 82-136, a Basin Plan amendment for discharge of oil field wastewater, allows salinity concentrations in excess of the Basin Plan effluent limitations for discharges to surface waters. (Tulare Lake Basin Plan at p. IV-15.) The Basin Plan's applicable water quality objectives for salinity "control the rate of increase" and "maintain beneficial uses as long as possible" because "[n]o proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin." Basin Plan at III-8 and IV-20. "Controlled ground water degradation by salinity is the most feasible and practical short-term management alternative for the Tulare Lake Basin." Basin Plan at IV-1 and IV-20.

NOVs, fixing the issues raised with netting the sumps, and addressing concerns about freeboard requirements.³

To avoid additional NOVs on the freeboard issue, VWMC formally requested in a letter sent to the Regional Board on November 7, 2013 that the 1992 permit or the Notice of Applicability be immediately modified to adjust the freeboard requirements. VWMC has received no response to its 2013 modification request even though almost a year and a half have passed. Instead, the Regional Board continues to allege new violations of these unsupported and unnecessary freeboard provisions.

VWMC also began to voluntarily undertake site investigations at both sites. The Regional Board staff is clearly opposed to continuing this voluntary approach even though this approach was encouraged by Legislators and even though VWMC has been meeting with Regional Board staff regularly to discuss the results and the planned next phases of the investigation. Instead, the Regional Board issued an unnecessary 13267 letter, which was appealed by VWMC, and now proposes a similarly unnecessary CDO and MRP even though VWMC is just about to present its Phase 2 report, including the deep aquifer investigation, to the Regional Board, and had previously submitted Phase 1 information in August of 2014 and shallow aquifer investigation information under Phase 2 earlier this year.

VWMC believes that it has demonstrated its willingness and commitment to undertake all necessary investigations without the need for a heavy handed enforcement action. For this reason, VWMC asks that the Regional Board staff exercise their enforcement discretion to defer issuance of the proposed CDO and MRP until after the Phase II results can be submitted to and reviewed by Regional Board staff. The results of that report will provide significant additional data relative to many of the allegations contained in the CDO and will render many of the dates, requirements, and deliverables in the CDO/MRP irrelevant.

³ These sumps at the Fee 34 Facility are operated by a weir system that doesn't allow for overflows. The whole system would have to be entirely revamped to consistently maintain 2 feet of freeboard throughout the system, when this level of freeboard is not needed at this facility. The requirements for the Fee 34 Facility should match those contained in VWMC's other permits, which state:

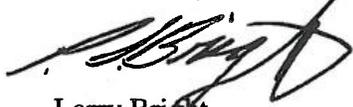
"The Discharger shall maintain the surface impoundments at all times to have sufficient freeboard to prevent overtopping due to conditions such as: heavy successive precipitation events, high velocity winds, or an increased volume of wastewater discharge."

(See *accord* Order No. R5-2002-0223 at pg. 7, Discharge Specification B.2; Order No. 5-01-024 at pg. 5, Discharge Specification B.2; Order No. 5-01-026 at pg. 5, Discharge Specification B.2; Order No. 5-01-028 at pg. 5, Discharge Specification B.2; Order No. 5-01-029 at pg. 6, Discharge Specification B.2.) The requirements in these other permits are more consistent with the Basin Plan's policy that "[s]umps adjacent to natural drainage courses shall be protected from inundation or washout." Basin Plan at IV-15. Although this Basin Plan provision is not directly applicable because this facility is *not* adjacent to a natural drainage course, this provision is more appropriate than a 2 foot freeboard requirement that is only applicable to drilling mud sumps. See Basin Plan at IV-27. No other provision of the Basin Plan requires 2 feet of freeboard, so that requirement is inapplicable to VWMC's facility.

If the Regional Board staff ignores this reasonable request, then VWMC has provided redline versions of the CDO and MRP along with this letter that include modifications and comments that should be considered by staff. VWMC requests that the CDO and MRP be corrected as suggested in these documents before being issued for public notice and comment. The most problematic parts of the CDO are the currently proposed deadlines and the requirements to cease certain discharges that are not realistic or achievable, and are contrary to the rule of reasonableness contained in California Water Code section 13000. At the very least, these requirements must be modified.

VWMC would be happy to meet with you and others at the Regional Board to further discuss our concerns and comments, and to provide additional reasons why the time schedule and other requirements proposed are unreasonable and impracticable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Larry Bright", written over a horizontal line.

Larry Bright

cc: Clay Rodgers, Asst. Executive Officer
Gary Carlton, Kennedy-Jenks

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2015-XXXX

FOR
VALLEY WATER MANAGEMENT COMPANY
RACE TRACK HILL FACILITY AND
FEE 34 FACILITY, EDISON
KERN COUNTY

WATER CODE SECTION 13301 ORDER
TO COMPLY WITH RESOLUTION 58-349 AND
ORDERS 92-110 AND 92-11037

The California Regional Water Quality Control Board, Central Valley Region (hereafter referred to as "Central Valley Water Board" or "Board") finds that:

1. Valley Water Management Company (hereinafter referred to as Valley Water), owns and operates two oil well production wastewater disposal facilities under the names of "Fee 34 Facility" and "Race Track Hill Facility" in the Edison area of Kern County. Since these two facilities are parts of a single produced water processing and disposal operation, and despite the fact that each has been issued an individual Waste Discharge Requirements (WDRs) order for operation, the two facilities are jointly treated-addressed in this Order as a single wastewater processing facility

Commented [A1]: Valley Water requests that the term "produced water" be used throughout as was used in the MRP.

FEE 34 FACILITY

2. The Fee 34 Facility (also known as the C-Plant Facility) is on 3.4 acres (Assessor's Parcel Number 388-050-254) in the SW ¼ of the SW ¼ of Section 34, T29S, R29E, MDB&M. The Fee 34 Facility is approximately one mile northeast of the community of Edison in the Edison Oil Field (see Attachment A, which is attached hereto and made part of this Order) Discovered in 1928, the Edison Oil Field as of 2008 had a cumulative production of over 150 million barrels of oil, over 5.5 million barrels in reserve, 932 producing wells, and was ranked 38th among California's largest and most productive oil fields by total ultimate recovery.¹ In the year 2013, the Edison Oil Field produced 790,130 barrels of oil and 12,107,770 barrels of water.²
3. The Fee 34 Facility contains six surface impoundments. ~~Wastewater-Produced water is~~ transported to the facility by pipeline from various small, independent oil company leases throughout the Edison Oil Field. ~~Crude oil skimmed from the produced waters is stored~~ flows into two ~~netted, unlined oil recovery impoundments until shipped~~ offsite. ~~The produced wastewater is flows through~~ stored in three gunite-lined impoundments equipped with skimmers and

¹ "2009 Report of the State Oil & Gas Supervisor," Department of Oil, Gas, and Geothermal Resources (DOGGR), California Department of Conservation, 2009, accessible at http://ftp.consrv.ca.gov/pub/oil/annual_reports/2009/PR06_Annual_2009.pdf at p. 65.

² "2013 Report of the State Oil & Gas Supervisor," Department of Oil, Gas, and Geothermal Resources (DOGGR), California Department of Conservation, 2013, accessible at http://ftp.consrv.ca.gov/pub/oil/annual_reports/2013/PR03_PreAnnual_2013.pdf at p. 9.

~~eventually is then~~ pumped via pipeline to Valley Water's Race Track Hill Facility for disposal. There is one unlined contingency impoundment ~~that is rarely used~~ for temporary ~~secondary~~ storage of ~~excess waste water in the instance of power failure or other emergency event~~. Dimensions of the impoundments range from approximately 30 feet (ft.) x 50 ft. to 120 ft. x 180 ft., and are approximately 10 ft. to 15 ft. deep. An aerial photograph of the Fee 34 Facility is attached hereto as Attachment B and made part of this Order.

4. The Fee 34 Facility is regulated by Central Valley Water Board Order Nos. 92-110 and 92-11037. Order 92-110 sets forth general ~~Waste Discharge Requirements (WDRs)~~ for the discharge of oil field produced ~~waste waters~~ from Edson Oil Field operations, including the Fee 34 Facility. Order 92-11037 ~~is was~~ the Notice of Applicability ~~of applying~~ the general WDRs to the Fee 34 Facility, and ~~included~~s a chemical analysis of the ~~produced waste water at that time, which was permitted~~ with the following characteristics: 7,900 micromhos per centimeter ($\mu\text{mhos/cm}$) electrical conductivity (EC), 4,450 milligrams/liter (mg/l) chloride, and 15.6 mg/l boron.
5. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
6. Surface drainage is toward the East Side Canal in the Arvin-Wheeler Ridge Hydrologic Area (557.30) of the Tulare Lake Basin. Surface waters in the Arvin-Wheeler Ridge Hydrologic Area are designated as "Valley Floor Waters." The designated surface water beneficial uses of Valley Floor Waters, as specified in the Basin Plan, are agricultural supply; industrial service and process supply; water contact and non-contact water recreation; warm fresh water habitat; wildlife habitat; preservation of rare, threatened, and endangered species; and groundwater recharge. The Basin Plan's applicable water quality objectives for salinity "control the rate of increase" and "maintain beneficial uses as long as possible" because "[n]o proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin." Basin Plan at III-8 and IV-20. "Controlled ground water degradation by salinity is the most feasible and practical short-term management alternative for the Tulare Lake Basin." Basin Plan at IV-1 and IV-20.
7. The Fee 34 Facility is in the Kern County Basin Hydrologic Unit, Detailed Analysis Unit (DAU) 258. The designated beneficial uses of the groundwater, as specified in the Basin Plan for DAU 258, are municipal and domestic water supply, agricultural supply, industrial service, and process supply. "Due to the size of the DAUs, however, the listed uses may not exist throughout the DAU." Basin Plan at II-2.
8. Information obtained from the California Department of Water Resources identified 36 groundwater supply wells within about one-mile of the Fee 34 Facility. The groundwater is primarily used for agricultural supply. Driller's reports for 19 of the wells identify six domestic supply wells, twelve agricultural supply wells, and one industrial supply well.

Commented [A2]: Where is the evidence to support these findings? One cannot draw any conclusions from these statements without evidence as to actual use, yield, and location of these wells in relation to the facility. See Basin Plan at IV-1 ("The impact a discharge may have is relative to the volume, quality and use of the receiving waters.")

9. The Race Track Hill Facility is located on 338.4 acres in the western half of Section 24, T29S, R29E, MDB&M. The Facility is about fifteen miles east of Bakersfield in Kern County on Assessor's Parcel Number 387-060-031 (see Attachment A).
10. The Race Track Hill Facility contains 27 unlined surface impoundments and approximately 94 acres of land, a portion of which that is used for surface sprinkler irrigation disposal. Wastewater-Produced water discharge began 56 years ago, in approximately December of 1958 Wastewater is transported to the Facility by pipeline from Valley Water's Fee 34 Facility, which is about four miles to the southwest in the Edson Oil Field. The wastewater-produced water is flows discharged into the impoundments for percolation and evaporation. Excess wastewater that does not percolate or evaporate is sprayed onto the irrigated portions of the 94 acres for disposal by evapotranspiration. (A color aerial photograph of the Valley Water Race Track Hill Facility is attached hereto as Attachment C and made part of this Order.) Attachment C indicates that the irrigation provides water increases the growth of salt and boron tolerant vegetation at the Facility.
11. The Race Track Hill Facility is in an area of rolling topography and a portion of the site may drain toward Cottonwood Creek, about one-half mile northeast of the Facility. Cottonwood Creek is tributary to the Kern River. The designated beneficial uses of the Kern River below the southern California Edison Kern River Powerhouse Number One, as specified in the Basin Plan, are municipal and domestic supply, agricultural supply, industrial service and process supply, hydropower generation, water contact and non-contact recreation, warm fresh water habitat, wildlife habitat, preservation of rare, threatened and endangered species, and groundwater recharge.
12. The Race Track Hill Facility is in the Kern County Basin Hydrologic Unit, DAU 257. The designated beneficial uses of the groundwater for DAU 257, as specified in the Basin Plan, are municipal and domestic water supply, agricultural supply, and industrial service and process supply, and water-contact recreation.
- 12-13. The Race Track Hill Facility is underlain by unconsolidated sediments of the Kern River-Chanac Series. The consolidated sediments of the Santa Margarita Formation conformably underlie the Kern River-Chanac Series. The top of the Santa Margarita Formation and the overlying sediments dip to the southwest at an angle of approximately five degrees.
- 13-14. The Race Track Hill Facility's WDRs, Resolution No. 58-349, (WDRs) was adopted by the Central Valley Water Board on 5-December or September 18, 1958, and set forth Waste-Discharge the requirements for the discharge of oil field-produced waste water at the Facility. The site was selected and approved by the Regional Board based upon technical documents available at that time indicating this was the best location for this facility, the unlikely probability of degradation, and "there are no fresh water producing wells in the vicinity." Res. No. 58-349 at p. 1.
- 14-15. The WDRs allow the discharge of oil field-produced waste water to the ground surface, into natural drainage channels, and into surface impoundments percolation sumps in Section 24, T29S, R29E, MDB&M, with no waste constituent limitations. The WDRs also allow the discharge of oil field produced waste water to the ground surface, into natural drainage channels, or into unlined surface impoundments other than those constructed in the areas of Section 24 described above, provided the wastewater conforms to the following criteria:

Commented [A3]: Attachment C does not indicate anything except the location of the facility and its ponds.

Commented [A4]: It is unclear how groundwater can support water contact recreation.

Commented [A5]: This is incorrect.

- a. Total dissolved solids shall not exceed 1,000 parts per million.

- b. Chlorides shall not exceed 150 parts per million.
- c. Boron shall not exceed 1.0 part per million.

~~16-16.~~ The WDRs predate the Basin Plan, which was first adopted in 1975 and the State's 1969 antidegradation policy, Resolution No. 68-16. The WDRs and do not contain the limitations on the discharge of oil field-produced wastewater to the ground, drainage channels or surface impoundments outside of Section 24 that are the same or more stringent than those contained in the Basin Plan. The discharges in Section 24 are consistent with the Basin Plan's provision that "[d]ischarges of oil field wastewater that exceed the above maximum salinity limits may be permitted to unlined sumps, stream channels, or surface waters if the discharger successfully demonstrates to the Regional Water Board in a public hearing that the proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives." Basin Plan at IV-15. In 1958, the Regional Water Board determined, after a public hearing, that the percolation sumps at the Race Track Facility represented "a satisfactory method for protecting the local ground water." Res. No. 58-349 at p. 2.

~~16-17.~~ Although Resolution 58-349 found "no freshwater producing wells in this vicinity," in 1958, more recent information obtained from the California Department of Water Resources identified six groundwater supply wells within one-mile of the Facility. Groundwater from these wells may have been used for domestic water supply, agriculture supply, and industrial service supply. The current status of these wells is not clear and some may have been destroyed. In addition, there is no evidence that these wells were or are influenced by the facility.

Commented [A6]: The Phase 2 final report will provide water quality data for several domestic and irrigation wells in the vicinity of Race Track Hill.

WASTE-PRODUCED WATER DISPOSAL OPERATIONS AND COMPLIANCE

~~17-18.~~ Discharge of Waste to Land: This information is based upon the 27 November 2012 and 18 September 2013 Central Valley Water Board inspections of the Fee 34 Facility and Race Track Hill Facility, and based upon Valley Water's wastewater-produced water analysis lab report dated 23 July 2013 for the Fee 34 Facility regarding concentrations of specific electrical conductivity (EC) in micromhos/centimeter (µmhos/cm), chloride in milligrams/liter (mg/l), and boron in mg/l. The Basin Plan and Order 92-110 for Edison Oil Field Operators, and Resolution 58-349 set forth the following waste constituent limitations for the discharge of oil-field-waste produced water:

	Units:	Basin Plan & Order 92-110 Limitation Value:	Res. 58-349 Limitation Value:
Specific EC:	µmhos/cm	1,000	None
Total Dissolved Solids:	mg/l (ppm)	NA	1,000 (outside Section 24)
Chloride:	mg/l	200	150 (outside Section 24)
Boron:	mg/l	1	1 (outside Section 24)

The Basin Plan allows discharges of oil field wastewater that exceed the above maximum salinity limits to unlined sumps, stream channels, or surface waters if the Discharger successfully demonstrates to the Central Valley Water Board in a public hearing that the proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives.

Commented [A7]: This is included in Finding 16 above.

The 23 July 2013 ~~wastewater- produced water~~ analytical results at Fee 34 Facility were measured at the following values and are compared to 1992 levels and the presumptive Basin Plan limits:

	Units:	1992 Value	2013 Measured Value:	Basin Plan Limits:
Specific EC:	µmhos/cm	7,900	5,700	1,000
Chloride:	mg/l	4,450	1,800	200
Boron:	mg/l	15.6	14	1

Commented [A5]: All of this information should be provided to show that the Regional Board knew that there were high levels when the permit was issued in 1992 and that levels are actually lower now. Annual inspections have been conducted from 1992 to present. None of the inspections for twenty years noted any violations of the WDRs.

19. Additional sampling in 2015 found the following constituents at even lower levels: 4,500 µmhos/cm electrical conductivity (EC); 1,200 mg/l chloride; and 12 mg/l boron.

18-20. The Fee 34 Facility and Race Track Hill Facility were also inspected on 27 March 2015. Violations of the WDRs for both facilities were noted during the inspections. At the Fee 34 Facility, ~~wastewater- produced water~~ with EC, chloride, and boron values greater than the Basin Plan limits was being discharged to the ponds ~~in violation of the WDRs~~. Also, the ~~inspection report alleged that the ponds at the Fee 34 Facility had insufficient freeboard and were not adequately netted or covered to preclude access by wildlife to the oily scum floating on some of the produced wastewater.~~ The inspection report noted that the Race Track Hill Facility had insufficient freeboard on two ponds and insufficient netting on three ponds.

Commented [A9]: A violation has not yet been proven since there are arguments that these limits did not and should not apply.

Commented [A10]: The Basin Plan contains no requirement for the 2 feet of freeboard alleged needs to be maintained. The Basin Plan merely requires that "[s]umps adjacent to natural drainage courses shall be protected from inundation or washout." Basin Plan at IV-15. Neither facility is adjacent to a natural drainage course so there is little risk of inundation or washout. Further, the Basin Plan only requires 2 feet of freeboard for ~~drilling mud sumps~~, not sumps for produced water. Basin Plan at IV-27.

19-21. On 24 May 1996, Valley Waste Disposal Company, the predecessor of Valley Water, submitted the report *Drilling and Data Acquisition Report, Race Track Hill District, Edison Oil Field, Kern County, California*. The report was submitted pursuant to Discharge Specification B.2.c. of Order 92-110. The report and transmittal letter stated that the Fee 34 Facility "... does not pose a threat to ground water quality and that no further action should be required for continued operation of the site." The transmittal letter also requested a hearing if necessary to demonstrate that the facility does not pose a threat to groundwater quality. There is no record of a response nor an evaluation of the report in the site files, and a hearing before the Central Valley Water Board was not held. Current Central Valley Water Board staff reviewed the report and transmittal letter and found it inadequate to demonstrate that there have been no impacts, or that there is no threat, to groundwater.

Commented [A11]: These findings have not been provided to Valley Water and are 20 years too late. The Phase 2 investigation results will confirm that there is no threat to groundwater at the Fee 34 or Racetrack facility. In addition to the Phase 2 results, the results of the Phase 1 report submitted in August 2014 provided no indication of impacts to the subsurface.

20-22. On 9 October 2013, the Central Valley Water Board issued a Notice of Violation (NOV) to Valley Water (see Attachment D, which is attached hereto and made part of this Order). ~~The NOV alleged~~ that Valley Water's discharge was in violation of Discharge Specifications B.1 and B.6 of Order 92-110, and that Valley Water was discharging ~~wastewater- produced water~~ in excess of the numerical limitations specified in Discharge Specification B.1 (see Finding No. 18), which is causing, or is threatening to cause a condition of pollution,³ contamination or nuisance.⁴ In

Commented [A12]: Valley Water's responses to the NOV's need to be made part of the record as well.

Commented [A13]: The Regional Board has failed to demonstrate how each of these definitions have been met in this case.

³ "Pollution" is defined by Water Code section 13050, subdivision (l)(1) as, an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses; (B) Facilities which serve these beneficial uses." Water Code §13050(l).

⁴ "Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon

addition, the NOV alleged Valley Water also failed to maintain the minimum freeboard of two feet in two of the impoundments as specified in Discharge Specification B.6, which is causing, or is threatening to cause, a condition of pollution, contamination, or nuisance caused by overtopping the impoundments. The NOV also alleged that Valley Water was discharging wastewater-produced water to the ground surface that contained waste constituents in excess of the numerical limitations specified in Requirements 3.A., B., and C of Resolution 58-349 (see Finding Nos. 15 and 18), which is causing, or is threatening to cause, a condition of pollution,⁵ contamination or nuisance.⁶ Valley Water submitted a response to the NOV on 8 November 2013 addressing each allegation.

Commented [A14]: See previous comment 10 about freeboard. In addition, Valley Water asked that the permit be modified in 2013, but this request has been ignored.

Commented [A15]: As stated above, Valley Water's response to the NOV's need to be made part of the record as well.

24-23. Section 13301 of the Water Code provides in pertinent part that:

When a regional board finds that a discharge of waste is taking place, or ~~is~~ threatening to take place, in violation of requirements of discharge prohibitions prescribed by the regional board ~~of or~~ the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. ~~in the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to that system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. ... Cease and desist orders may be issued direct by a board, after notice and hearing.~~

Commented [A16]: This is irrelevant to this matter and should be excerpted out.

22-24. The unauthorized discharge of waste-produced water with high salinity and boron concentrations to the ground, surface water, and/or groundwater may create, or threatens to create, a condition of pollution in surface and groundwater, and may result in the degradation of water quality.

23-25. Land around the Fee 34 Facility is being used for agricultural production, primarily citrus and grapes. Land around the Race Track Hill Facility has been used for open stock grazing. A five-acre vineyard is located approximately 3,000 feet southwest of the facility. Other crops are grown in the area beginning about one mile south of the Race Track Hill Facility. Many of the crops are irrigated with groundwater from local supply wells. Irrigation water with a chloride concentration above 350 mg/l can cause severe crop problems. Boron toxicity can occur on sensitive crops at concentrations less than 1 mg/l in irrigation water.

Commented [A17]: There is no evidence of groundwater used for these crops being affected by the facilities or reduced yields due to salinity.

Commented [A18]: This is duplicative of the statements in the next paragraph and there is no citation to any authority for these allegations or evidence to show that the crops near the facilities are salt-insensitive or adversely affected.

24. ~~Land around the Race Track Hill Facility has been used for open stock grazing. A five-acre vineyard is located approximately 3,000 feet southwest of the facility. Other crops are grown in the~~

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Individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes." Water Code §13050(m).

⁵ "Pollution" is defined by Water Code section 13050, subdivision (l)(1) as, an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses; (B) Facilities which serve these beneficial uses." Water Code §13050(l).

⁶ "Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes." Water Code §13050(m).

~~area beginning about one mile south of the Race Track Hill Facility. Many of the crops are irrigated with groundwater from local supply wells. Irrigation water with a chloride concentration above 350 mg/l can cause severe crop problems. Boron toxicity can impair crops sensitive to boron at concentrations less than 1 mg/l in irrigation water.~~

25-26 Underlying groundwater may be degraded if mixed with ~~oil field waste produced~~ water. Elevated EC, chloride, and boron levels could impair groundwater for municipal and domestic supply and agricultural supply uses.

Commented [A19]: Although this could be true in the abstract, there is no evidence that this is true in this case.

26-27 Due to the topographic relief at the Race Track Hill Facility and the relatively close proximity (one-half mile) to Cottonwood Creek, a major storm ~~theoretically~~ has the potential to flush a portion of the accumulated salts discharged to the spray field. ~~However, there is no evidence from the past 50-60 years that produced water has been transported into Cottonwood Creek, which could be transported to the Kern River 2.5 miles downstream. This has~~ Because this would require such a large rain event with high amounts of dilution, there is little the potential to result in a temporary salt and boron loading of water in the Kern River, and to increase salt and boron loading to groundwaters at the terminus of Kern River flow where groundwater is recharged. ~~In fact, during the highest monthly rainfall measured in recorded history, which occurred in 2010, there was no evidence of discharges from the facility (and in turn no impacts) to the Kern River.~~

HYDROGEOLOGICAL INVESTIGATION

27-28 On 1 July 2014, the Central Valley Water Board issued an Order pursuant to Section 13267 of the California Water Code to Valley Water requiring preparation and submission of work plans for hydrogeologic site characterizations for each facility and technical reports presenting their findings. ~~This order was petitioned to the State Water Board by Valley Water due to the unreasonable deadlines contained therein.~~

28-29 ~~Even before the issuance of the 13267 order, Valley Water~~ ~~MC has~~ agreed to assess ~~and began~~ assessing the potential impacts of produced waste water discharges at the Racetrack and Fee 34 facilities. To date, the approach has been to conduct the work in phases with preparation of a work plan containing a specific scope of work, implementation of the work, followed by reporting. Based on the results of each phase, additional work is proposed.

29-30 As of 1 May 2015, two phases of field work have been completed, including:

- Soil borings at both Facilities;
- Soil sampling and analysis;
- Shallow and deep monitoring well installations at both facilities;
- Groundwater sampling and analysis; and
- Leak-testing the lined ponds at the Fee 34 Facility.

30-31 As of 1 May 2015, the results of the Phase 1 field work and parts of the Phase 2 field work have been formally reported. The conclusions include:

- At the Fee 34 Facility, a soil boring was advanced to 200 feet below ground surface (bgs) at a location 10 feet from the unlined skimmed oil ponds and within 30 feet of the produced water treatment ponds. At depths between 10 and 200 feet, Total Petroleum Hydrocarbons as crude oil (TPHc) concentrations were below detection limits. No perched water was encountered while advancing the boring. Soil moisture analyses indicated that soil moisture was very low in all samples taken in the 200 foot depth and there was no indication of subsurface movement of water in the unsaturated zone;
- There are waste Produced water salinity constituents (boron and chloride) have been found in the near surface soils at the Race Track Hill Facility. For all other constituents and all depths below 20 feet, the natural variability of EC, boron, and chloride profiles in the borings makes any identification of elevated levels due to produced water discharge impossible;
- Shallow groundwater at the Race Track Hill Facility occurs approximately at depths ranging from 48 to 80 feet below ground surface at the Race Track Hill Facility;
- There is groundwater mounding was observed beneath the Race Track Hill Facility;
- None of the four soil borings at Race Track Hill encountered saturated or near-saturated conditions above the capillary fringe near the groundwater surface. There was no indication of lateral movement away from the adjacent percolation ponds and no indication of water moving through the unsaturated zone. Groundwater beneath the Racetrack Hill Facility flows to the southwest,
- Groundwater Shallow groundwater beneath the Racetrack Hill Facility has may have been impacted by mixed with the wastewater produced water disposed to the ponds at three locations: RTH-1, RTH-4, and RTH-6. The specific conductance of the groundwater and the concentrations of boron and chloride in these limited locations are similar to indicative of mixing with oil field wastewater at the Race Track Hill Facility; and
- The seepage rates of the North Pond and the South Pond at the Fee 34 Facility are 4.4 millimeters per day and 1.8 millimeters per day, respectively. Those rates translate to approximately 500 gallons per day from the North Pond and approximately 200 gallons per day from the South Pond.

31-32. The shallow groundwater investigations conducted by Valley Water have determined indicate that the discharge of wastewater produced water in excess of Basin Plan limitations and water quality objectives has not caused a condition of pollution to groundwater beyond that directly under at the Racetrack Hill Facility. Because the wastewater discharge occurs near a tributary to the Kern River, Best Management Practices (BMPs) during remedial action are necessary to prevent further conditions that threaten the beneficial uses of Cottonwood Creek and the Kern River.

Commented [A20]: The Basin Plan limits don't apply at that facility and the water quality objective is narrative, restricting salinity increases over time. There is no evidence to support the allegation in the last sentence.

32-33. The direction of groundwater flow beneath the Racetrack Hill Facility is could be towards residential water supply wells immediately to the southwest, but this direction of groundwater flow

Commented [A21]: The Phase 2 Final Report will provide data to address the apparent groundwater flow direction.

~~has not been documented and towards Edison and Bakersfield, five to ten miles to the southwest. However, there is no evidence that these wells have been or soon will be affected.~~

~~33-34. Based on a review of the site conditions, wastewater produced water quality and volumes, and the results of the field investigations, spraying wastewater onto the ground surface and into natural drainages may affect exacerbates the pollution of the underlying shallow groundwater and creates a potential for waste constituents to drain into Cottonwood Creek and the Kern River. This Order requires the Discharger to cease all discharge of wastewater other than to established impoundments within two weeks of adoption. Additional characterization of the site is necessary to reach any final conclusions.~~

REGULATORY CONSIDERATIONS

34-35. General Waste Discharge Requirements for the discharge of oil field produced wastewater are anticipated to be considered by the Central Valley Water Board in the spring or summer of 2016.

~~35-36. This Order requires the discharges at Once a new WDRs are adopted applicable to these sites, both the Fee 34 Facility and Race Track Hill Facility to be allowed by required to comply with one of the those WDRs-General Waste Discharge Requirements, or the discharges shall cease and residual liquid wastes shall be removed and disposed of at an appropriately regulated discharge facility~~

~~36-37. The deadlines set forth herein are not reasonable given time needed to the need to comprehensively investigate the potential threat to groundwater and surface water quality.~~

37-38. In accordance with Water Code section 13267(b) these findings provide Valley Water with a written explanation with regard to the need for remedial action and reports, and identify the evidence that supports the requirement to implement investigative activities, to implement cease and desist activities if needed, and to submit the reports. Valley Water owns and operates the Fee 34 Facility and Race Track Hill Facility, which are subject to this Cease and Desist Order. The technical and monitoring reports required by this Order are necessary to determine compliance with this Cease and Desist Order. The actions and reports required by this Order are needed to provide information to provide information to the Central Valley Water Board regarding (a) the nature and extent of the discharge, (b) the nature and extent of pollution in waters of the State and/or U.S. created by the discharge, (c) the threat to public health posed by the discharge; and (d) appropriate cease and desist measures. Based on the nature and possible consequences of the discharges, including the contamination of surface water, groundwater, or impacts to groundwater recharge areas, the burden of the required tasks, including the costs, bears a reasonable relationship to the need for the tasks and reports, and the benefits to be obtained from the tasks and information.

38-39. Issuance of this Cease and Desist Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Cease and Desist Order generally requires Valley Water to submit plans for approval prior to implementation of cleanup activities at the Fee 34 Facility and Race Track Hill Facility. Mere submission of plans is exempt from CEQA as submission will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time

Commented [A22]: Findings 35 to 40 should be included in the Regulatory considerations section

Commented [A23]: This Order cannot require compliance with a permit that has yet to be adopted, and that may never be adopted.

Commented [A24]: The dates imposed are wholly unreasonable and unattainable for the reasons set forth herein. These dates must consider the realities of accomplishing the tasks requested and provide realistic timeframes for successfully completing these tasks.

Commented [A25]: This Order is not needed because Valley Water was already conducting an investigation under the watchful eye of Regional Board staff.

Commented [A26]: There is no evidence to support any impacts from the facilities to surface waters or areas designed for groundwater recharge.

would be premature and speculative, as there is simply not enough information concerning Valley Water's proposed remedial activities and possible associated environmental impacts.

39-40. If the Regional Board determines that implementation of any plan required by this Cease and Desist Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to the Assistant Executive Officer's approval of the applicable plan. The Discharger will bear the costs, ~~including the Regional Board's costs,~~ of determining whether implementation of any plan required by this Cease and Desist Order will have a significant effect on the environment and, if so, in preparing, handling, and providing any documents necessary for environmental review. If necessary, the Discharger and a consultant acceptable to the Regional Board shall enter into a memorandum of understanding with the Regional Board regarding such costs prior to undertaking any environmental review.

REGULATORY CONSIDERATIONS

40-41. As a result of the events and activities described in this Order, the Central Valley Water Board finds that a discharge of ~~waste produced water in violation of the Basin Plan~~ has ~~polluted mixed with shallow~~ groundwater. This Order requires Valley Water to take appropriate remedial action and to comply in accordance with the time schedule set forth below.

Commented [A27]: There is no evidence to support this finding

Commented [A28]: It has not been proven that Valley Water has exceeded acceptable levels of degradation of water resources. The applicable water quality objectives for salinity "control the rate of increase" and "maintain beneficial uses as long as possible" because "[n]o proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin." Basin Plan at III-8 and IV-20 "Controlled ground water degradation by salinity is the most feasible and practical short-term management alternative for the Tulare Lake Basin." Basin Plan at IV-1 and IV-20

41-42. This Cease and Desist Order is based upon: 1) Chapter 5, Enforcement and Implementation commencing with section 13300, of the Porter-Cologne Water Quality Control Act (Water Code Division 7, commencing with section 13000); 2) Water Code section 13267, Investigations; Inspections, Chapter 4, Regional Water Quality Control; 3) all applicable provisions of the Basin Plan including beneficial uses, water quality objectives, and Implementation plans; 4) California State Water Resources Control Board (State Water Board) Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*); 5) State Water Board Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code section 13304*); and 6) all other applicable legal authority.

42-43. Water Code section 13267 subdivision (b)(1) states, in relevant part:

In conducting an investigation specified in subdivision (a), 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.

Commented [A29]: The Regional Board has not determined or considered the costs so it cannot find that the costs bear a reasonable relationship to the need and benefits of the reports

Commented [A30]: The Regional Board has not adequately explained the need for these reports when Valley Water is already undertaking an investigation. The Regional Board also has not identified the evidence as required in this section.

43-44. On 30/31 July 2015, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received ~~from Valley Water and other interested persons and~~ ~~is~~ ~~considered~~ ~~adoption~~ ~~of this an~~ Order under Water Code section 13301 ~~to establish~~ ~~that includes~~ a time schedule to achieve compliance with the Basin Plan or ~~to~~ cease discharge.

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13301 and 13267, Valley Water Management Company shall implement the following measures necessary in order to comply with the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition*, and this Order.

This Order requires the submission of technical reports. These technical reports shall contain the information and decisions required by the following paragraphs. If a report is submitted without the required information or decision, then the Discharger ~~is~~ may be held to be in violation of this Order and subject to additional enforcement.

1. **By 31 July 2015**, Valley Water shall submit a report that contains the amount of ~~wastewater~~ produced water discharged to the Facility for the period from ~~1 January-June 2010-2012~~ through **31 December 2014**. The report shall tabulate the volume on a monthly and annual basis, provide the average monthly discharge per year, and the average annual discharge for each year.
2. ~~By 15 August 2015~~, Valley Water shall cease all discharge other than to established impoundments.
3. **By 15 August 2015**, Valley Water shall prepare and submit to the Central Valley Water Board a report containing the results of the entire Phase 2 Subsurface Investigation for the impacts or threatened impacts of ~~wastewater~~ produced water discharges at the Fee 34 Facility and Race Track Hill Facility to the groundwater, soils, and surface water.
4. **Beginning 1 September 2015**, or a date approved by the Assistant Executive Officer (or his/her delegate), and quarterly thereafter until all Work Plan activities are complete, Valley Water shall submit technical reports that provide information to document the Work Plan activities completed to date and to ultimately document that all elements of the Work Plan have been completed. Corrective actions shall be proposed and included in these technical reports when Work Plan activities fail to satisfy any interim or final success criteria.
5. **By 30 September 2015**, Valley Water shall submit the Phase 3 Work Plan for the Race Track Hill Facility. The Work Plan shall be complete and approvable by the Assistant Executive Officer (or for his/her delegate's approval) and shall detail the following activities and shall include a time schedule detailing the sequence of the work plan activities and the time frame for completing each activity:
 - (a) Continue the hydrogeological site characterization to determine the nature and extent of the release of waste constituents consistent with the evaluation monitoring program requirements contained in Title 27;
 - (b) Prepare and submit a Water Quality Protection Standard Report proposing statistical data analysis methods to calculate concentration limits for each Constituent of Concern specified in Monitoring and Reporting Program R5-2015-XXXX.
 - (c) Identify and sample water supply wells located within one-mile of the Race Track Hill Facility and analyze the samples for waste constituents of concern;

Commented [A31]: This may be the date of the hearing on this Order, so this date is not reasonable

Commented [A32]: The Regional Board has not explained why this data is necessary for this time frame as there were no problematic inspections prior to June of 2012

Commented [A33]: This requirement is unreasonable and unnecessary. This will shut down the independent operators that use this site because over 50% of the produced water is disposed of through evapotranspiration.

Commented [A34]: This will be provided to the Regional Board before this date so this does not need to be included in this Order. In fact, this Order is wholly unnecessary, as discussed in the cover letter, because Valley Water has been cooperative and is willing to continue to undertake the needed investigations voluntarily.

Commented [A35]: This due date is too close to the hearing date. In addition, quarterly reports are excessive for a discharge that has been ongoing for more than a half century.

Commented [A36]: What is the work plan referenced here?

Commented [A37]: It is unclear what this is referring to.

- (d) Analyze groundwater, surface water, and soil samples at a California certified laboratory in accordance with the SAP submitted as part of the Phase I Work Plan (see Finding No. 28) and approved by the Assistant Executive Officer (or his/her delegate);
- (e) Following the characterization of the nature and extent of the release, a groundwater, ~~surface water,~~ and/or soil remediation program shall be submitted for Assistant Executive Officer (or his/her delegate) review and approval that is consistent with the corrective action program requirements contained in Title 27. This will entail the preparation of an engineering feasibility study followed by a proposed corrective action program;
- (f) Implementation of BMPs to minimize further discharges of waste to groundwater, ~~surface waters,~~ or soils;
- (g) Based on information acquired during the hydrogeological site characterization, submit a revised report of waste discharge, if appropriate, for revision of the waste discharge requirements consistent with current regulations and policies;

6.5. By 31 October 2015, Valley Water shall submit the Phase 3 Work Plan for the Fee 34 Facility. The Work Plan shall be complete and approvable by the Assistant Executive Officer (or for his/her delegate's approval) and shall detail the following activities and shall include a time schedule detailing the sequence of the work plan activities and the time frame for completing each activity:

- (a) Conduct a hydrogeological site characterization to determine any wastewater-produced water impacts to the unsaturated zone and the groundwater underlying the Fee 34 Facility.
- (b) Prepare and submit a Water Quality Protection Standard Report proposing statistical data analysis methods to calculate concentration limits for each Constituent of Concern specified in Monitoring and Reporting Program R5-2015-XXXX.
- (c) Identify and sample water supply wells located within one-mile of the Fee 34 Facility and analyze the samples for waste constituents of concern;
- (d) Analyze groundwater, surface water, and soil samples at a California certified laboratory in accordance with the SAP submitted as part of the Phase I Work Plan (see Finding No. 28) and approved by the Assistant Executive Officer (or his/her delegate);
- (e) Following the characterization of the nature and extent of the release, a groundwater, surface water, and/or soil remediation program shall be submitted for Assistant Executive Officer (or his/her delegate) review and approval that is consistent with the corrective action program requirements contained in Title 27. This will entail the preparation of an engineering feasibility study followed by a proposed corrective action program;
- (f) Implementation of BMPs to minimize further discharges of waste to groundwater, surface waters, or soils; and
- (g) Based on information acquired during the hydrogeological site characterization, submit a revised report of waste discharge, if appropriate, for revision of the waste discharge requirements consistent with current regulations and policies.

~~7-6~~ If the release of waste constituents has impacted the unsaturated zone or the groundwater underlying the Fee 34 Facility, then Valley Water shall complete the following as part of a Phase 4 investigation:

Commented [A38]: This section needs to be differentiated more clearly from the previous paragraph.

- (a) Conduct a hydrogeological site characterization to determine the nature and extent of any release of waste constituents consistent with the evaluation monitoring program requirements contained in Title 27;
- (b) Following the characterization of the nature and extent of the release, a groundwater, ~~surface-water~~, and/or soil remediation program shall be submitted for Assistant Executive Officer (or his/her delegate) review and approval that is consistent with the corrective action program requirements contained in Title 27. This will entail the preparation of an engineering feasibility study followed by a proposed corrective action program;
- (c) Implement BMPs to minimize further discharges of waste to groundwater, ~~surface-water~~, or soils;
- (d) Based on information acquired during the hydrogeological site characterization, submit a revised ~~R~~ report of ~~W~~aste ~~D~~ischarge, if appropriate, for revision of the waste discharge requirements consistent with current regulations and policies.

~~8-7~~ Valley Water shall implement the Phase 3 Work Plans ~~and any additional work required as approved by the Assistant Executive Officer (or his/her delegate)~~. In accordance with the approved time schedule included in the Work Plan and the deadlines indicated in Monitoring and Reporting Program No. XXXXX.

~~9-8~~ ~~By 31 December 2015, the discharge of wastewater to land outside of the surface impoundments shall cease.~~

Commented [A39]: There is not adequate justification for discontinuing the land application practice. This will unreasonably shut down the independent operators that use this site because without this site's irrigation they cannot dispose of all of the produced water. Ceasing oil production is not in the best interest of the state.

~~10-9~~ By 31 December 2016, discharges at both the Fee 34 Facility and Race Track Hill Facility shall be able to comply with ~~one of the General then applicable~~ Waste Discharge Requirements ~~that are anticipated to be considered by the Central Valley Water Board in the spring or summer of 2016~~, or Valley Water shall submit a time schedule for when the discharges shall cease and residual liquid wastes shall be removed and disposed of at an appropriately regulated discharge facility.

~~11-10~~ If it is determined that discharges from the Fee 34 Facility or Race Track Hill Facility have impaired ~~the any identified user's~~ beneficial use of water, Valley Water can be further required upon notification by the Assistant Executive Officer (or his/her delegate) to provide a replacement water supply or treat ~~the that~~ water to allow continued use.

Other Requirements

~~12-11~~ **Electronic and Paper Media Reporting Requirements.** Valley Water shall submit both electronic and paper copies of all reports required under this Cease and Desist Order including work plans, technical reports, and monitoring reports. Larger documents shall be divided into separate files at logical places in the report to keep file sizes under 150 megabytes. Valley Water

shall continue to provide a paper transmittal letter, a paper copy of all figures larger than 8.5 inches by 14 inches (legal size), and an electronic copy (on Compact Disc [CD] or other appropriate media) of all reports to the Central Valley Water Board. All paper correspondence and documents submitted to the Central Valley Water Board shall include the following identification numbers in the header or subject line: Fee 34 Facility Geotracker Site ID: T1000005197; and Race Track Hill Facility Geotracker Site ID: T1000005199. Valley Water shall comply with the following reporting requirements for all reports and plans (and amendments thereto) required by this Order:

- (a) Reports and Plans Required by this Order. Valley Water shall submit one paper and one electronic, searchable Portable Document Format (PDF) copy of all technical reports, monitoring reports, progress reports, and plans required by this Order. The PDF copy of all the reports shall also be uploaded into the Geotracker database, as required by Reporting Requirement 2.(b)(iv) below.
- (b) Electronic Data Submittals to the Central Valley Water Board in compliance with the Cease and Desist Order are required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Fee 34 Facility Geotracker Site ID: T1000005197; and Race Track Hill Facility Geotracker Site ID: T1000005199). The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the Cease and Desist Order or addenda thereto. To comply with these requirements, Valley Water shall upload to the Geotracker database the following minimum information:
 - (1) Laboratory Analytical Data: Analytical data (including geochemical data) for all ~~waste~~produced water, soil, and ~~ground~~ water samples shall be submitted in Electronic Deliverable Format (EDF), which facilitates the transfer of data from the laboratory to the end user. ~~Waste~~Produced water, soil, and ~~ground~~ water include analytical results of samples collected from the following locations and devices: surface samples, equipment, monitoring wells, boreholes, ~~gas and vapor wells or other~~ collection devices, surface water, groundwater, piezometers, and stockpiles.
 - (2) Locational Data: All permanent monitoring locations (monitoring wells, sediment sampling locations, surface water sampling locations, etc.) shall be surveyed with latitude and longitude coordinates in a decimal degree format based on the North American Datum 1983 ellipsoid, and accurate to within one meter (3 feet) and elevation data accurate to 0.01 feet.
 - (3) Site Maps: Site maps which display discharge locations, streets bordering the Facilities, and sampling locations for all ~~waste~~produced water, soil, and water samples. A site map is a stand-alone document that may be submitted in various electronic formats. Site maps must also be uploaded to show the maximum extent of any soil impact and water pollution. An update to the site maps may be uploaded at any time.
 - (4) Electronic Report: A complete copy (in character searchable PDF) of all work plans, work plan modifications, assessment, cleanup, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.

Field Code Changed

13.12. Duty to Use Qualified Professionals. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision

of, a California Registered Engineer or Professional Geologist and signed by the registered professional. Each technical report submitted by Valley Water shall contain the professional's signature and/or stamp of the seal.

~~14-13~~ **Signatory Requirements.** All reports required under this Cease and Desist Order shall be signed and certified by Valley Water or by a duly authorized representative and submitted to the Central Valley Water Board. A person is a duly authorized representative only if: 1) The authorization is made in writing by Valley Water; and 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may ~~thus~~ be either a named individual or any individual occupying a named position.)

~~15-14~~ With each report required by this Cease and Desist Order, Valley Water shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Pursuant to Water Code section 13350, any person who violates a cease and desist order may be liable administratively or civilly in an amount up to fifteen thousand dollars (\$15,000) for each day in which the cease and desist order is violated.

~~16-15~~ All monitoring and technical reports required under this Cease and Desist Order shall be submitted to:

California Regional Water Quality Control Board
Central Valley Region
1685 E Street, Suite 200
Fresno, CA 93706
Attn: Ron Holcomb
Geotracker Site ID No.: ~~T10000005197~~ or T10000005199

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Failure to comply with this Order, ~~or with~~ Order 92-110, Order 92-11037, or Resolution 58-349 may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, ~~and~~ 13350 ~~and~~

CEASE AND DESIST ORDER R5-2015-XXXX
RACE TRACK HILL FACILITY
FEE 34 FACILITY
KERN COUNTY

-16-

~~13395~~. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Commented [A40]: This is for NPDES permits

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 Water Code section 13320 and California Code of Regulations, title 23, sections 2050, ~~et seq 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, 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.

Field Code Changed

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX July 2015.

PAMELA C. CREEDON, Executive Officer

(Date)

REH: 30 April 2015

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2015-XXXX

FOR
VALLEY WATER MANAGEMENT COMPANY
RACE TRACK HILL FACILITY AND
FEE 34 FACILITY, EDISON
KERN COUNTY

Compliance with this Monitoring and Reporting Program is required pursuant to Water Code section 13267 as ordered by Cease and Desist Order R5-2015-XXXX (the "CDO"). Failure to comply with this program constitutes noncompliance with the CDO and the Water Code, which can result in the imposition of civil liability. All sampling and analyses shall be by United States Environmental Protection Agency (USEPA) approved methods. The test methods chosen for detection of the constituents of concern shall be subject to review and concurrence by the California Regional Water Quality Control Board, Central Valley Region ("Central Valley Water Board").

A complete list of substances ~~which are~~ tested for and reported on by the testing laboratory shall be provided to the Central Valley Water Board. All peaks must be reported. In addition, both the method detection limit and the practical quantification limit shall be reported. Detection limits shall equal or be more precise than USEPA methodologies. Water samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All quality assurance/quality control (QA/QC) samples must be run on the same dates when samples were actually analyzed. Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report. All analyses must be performed by a California Department of Public Health certified laboratory.

Commented [A1]: This is an unexplained and confusing requirement.

The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Central Valley Water Board.

HYDROGEOLOGICAL INVESTIGATIONS

The CDO requires the Discharger to conduct hydrogeological investigations at each facility. The hydrogeological investigation reports shall be submitted according to the schedule below.

REPORT	DUE DATE
Race Track Hill Phase 3 Investigation	1 October 2016
Fee 34 Phase 3 Investigation	1 May 2016
Fee 34 Phase 4 Investigation (if required)	1 November 2016

Commented [A2]: It is unclear how these dates relate to those in the CDO? The deadlines prescribed are unreasonable.

GROUNDWATER MONITORING

The Discharger shall operate and maintain a groundwater monitoring system at the Fee 34 Facility and at the Race Track Hill Facility that complies with the requirements of the CDO and is consistent with the detection monitoring requirements of section 20420 et seq. of Title 27, CCR, section 20005 et seq. (Title 27). The monitoring system shall be certified by a California-licensed professional civil engineer or geologist as being consistent with the detection monitoring requirements of Title 27. The Discharger shall revise the groundwater monitoring system (after review and approval by Central Valley Water Board staff) as needed to characterize the groundwater and to delineate the nature and extent of any release of waste constituents due to the operation of each facility.

Commented [A3]: Which section is this supposed to be referring to since two are mentioned?

Groundwater samples shall be collected from groundwater monitoring wells and other sampling points established in accordance with the hydrogeological characterization required by the CDO. The samples shall be collected at the specified frequencies and analyzed for the parameters and constituents listed in Table I. The Discharger shall collect, preserve, and transport groundwater samples in accordance with the Sample Collection and Analysis Plan approved by the Assistant Executive Officer.

The Discharger is required to submit a Water Quality Protection Standard (WQPS) Report that proposes statistical data analysis methods to calculate concentrations limits for each Monitoring Parameter and Constituent of Concern.

The report shall:

- a. Identify all distinct ~~bodies of surface and groundwater~~ aquifers or zones that have been or could be affected by a release from a ~~waste management unit or portion of a waste management unit~~ surface impoundment or land application activities. This list shall include any permanent or ephemeral zones of perched groundwater underlying the facility.
- b. Include a map showing all monitoring points (monitoring points within ~~the any~~ degradation plume and monitoring points hydraulically downgradient and outside of the degradation plume) for the groundwater monitoring program for each groundwater zone that has been or could be affected by a release.
- c. Evaluate the perennial direction(s) of groundwater movement within the identified groundwater zone(s).
- d. Include a proposed statistical method for calculating concentration limits for Monitoring Parameters and Constituents of Concern that are detected in 10% or greater of the background data (naturally-occurring constituents) using a statistical procedure from Section 20415(e)(8)(A-D)] or Section 20415(e)(8)(E) of Title 27.

- e. include a retesting procedure to confirm or deny measurably significant evidence of a release pursuant to Section 20415(e)(8)(E) and Section 20420(j)(1-3) of Title 27.

Any proposed changes to the WQPS, other than an annual update of the concentration limits, shall be submitted in a report for review and approval.

INFLUENT MONITORING

Produced water samples shall be collected at a point in the system before discharge to the ponds. Time of collection of the sample shall be recorded. The collected produced water samples shall be analyzed for the parameters and constituents listed in Table 1 in accordance with the specified methods and frequencies. The Discharger shall collect, preserve, and transport produced water samples in accordance with the approved Sample Collection and Analysis Plan.

Commented [A4]: Quarterly sampling is inappropriate for a number of constituents listed in Table 1 that do not vary with time, such as radionuclides and stable isotopes. A number of other constituents, which are only in solution at low pH levels, should not be measured more than annually unless sample pH is low.

FACILITY MONITORING

Permanent markers shall be in place in each pond with calibrations indicating the water level at design capacity and available operational freeboard. The freeboard shall be monitored on all ponds to the nearest tenth of a foot monthly.

Commented [A5]: This is burdensome and unnecessary for the 27 ponds at Race Track Hill. As discussed with Regional Board staff last week, VWMC may request that an engineering evaluation be used to determine which ponds should be instrumented. VWMC also takes issue with the 2 feet freeboard issue as set forth in more detail in other comments.

Annually, prior to the anticipated rainy season, but no later than 30 September, the Discharger shall conduct an inspection of the facility. The inspection shall assess repair and maintenance needed for: drainage control systems; slope failure; groundwater monitoring wells, or any change in site conditions that could impair the integrity of the waste management unit surface impoundment or precipitation and drainage control structures; and shall assess preparedness for winter conditions including, but not limited to, erosion and sedimentation control. The Discharger shall take photos of any problem areas before and after repairs. Any necessary construction, maintenance, or repairs shall be completed by 31 October. Annual facility inspection reporting shall be submitted by 30 November.

The Discharger shall inspect all precipitation, diversion, and drainage facilities for damage within 7 days following major storm events (e.g., a storm that causes continual runoff for at least one hour) capable of causing flooding, damage, or significant erosion. The Discharger shall take photos of any problem areas before and after repairs. Necessary repairs shall be completed within 30 days of the inspection. Notification and reporting requirements for major storm events shall be conducted as required in Reporting Requirements 2. of this MRP.

The Discharger shall monitor and record on-site rainfall data using an automated rainfall gauge. Data shall be used in establishing the severity of storm events and wet seasons for comparison with design parameters used for waste management unit design and conveyance and drainage design. Daily data and on-site observation shall be used for establishing the need for inspection and repairs after major storm events. Rainfall data shall be reported in the quarterly monitoring reports as required by this MRP.

Commented [A6]: It is unclear why this is an issue as no NOV has been issued in relation to precipitation events. This level of specificity is also unnecessary given that there are no data suggesting that precipitation-related pond failures have ever occurred. Given this, the use of periodic inspections and publicly available precipitation data are more appropriate.

REPORTING REQUIREMENTS

1. The Discharger shall report all monitoring data and information as specified herein. Reports that do not comply with the required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with this Monitoring and Reporting Program.
2. Quarterly groundwater monitoring and remediation system reports shall be submitted to the Central Valley Water Board according to the schedule below.

Commented [A7]: It is unclear why monitoring needs to be quarterly for discharges that have gone on for more than 50 years.

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	April 30
April – June	July 31
July – September	October 31
October – December	January 31

Each quarterly report shall include the following minimum information:

- (a) a description and discussion of the groundwater sampling event(s) and results, including trends in the concentrations of waste constituents and groundwater elevations in the wells. If there are any deficiencies during the sampling event or if impacts to groundwater extend beyond recent historical boundaries, the report shall include an explanation and/or evaluation and propose options for addressing or correcting the deficiencies;
- (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, etc.;
- (c) groundwater contour maps for all groundwater zones, if applicable;
- (d) waste constituent isoconcentration maps for all groundwater zones, if applicable;
- (e) a table showing well construction details that shall include, at a minimum, well number, groundwater zone being monitored, measuring point elevation, depth to top and bottom of screen, water level elevation, and depth to water;
- (f) cumulative data tables containing all historical water quality analytical results and depth to groundwater;
- (g) a copy of all laboratory analytical data reports;
- (i) results of any monitoring done more frequently than required at the locations specified in this Monitoring and Reporting Program or at other locations at the site shall be reported to the Central Valley Water Board;

- (j) a summary of any spills/releases that occurred during the quarter and tasks undertaken in response to the spills/releases;
 - (k) an update and status on each of the outstanding tasks required by the CDO or Assistant Executive Officer;
 - (l) a map showing all wells on the facility;
3. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements. All data shall be submitted in an electronic form acceptable to the Assistant Executive Officer.
4. The Discharger shall submit an **annual report by 31 January** of each year for the preceding year. The report can be combined with the Discharger's fourth quarter report. The report shall contain:
- a. Both tabular and graphical summaries of all data obtained during the year;
 - b. An in-depth evaluation of groundwater conditions at the site including short and long-term trends of the constituents of concern in each area of the site;
 - c. An evaluation of the effectiveness of the groundwater monitoring network in delineating the lateral and vertical extent of impacts to groundwater in all affected areas of the site. This needs to include an identification of any data gaps and potential deficiencies in the monitoring system or reporting program. The report shall include recommendations to address any deficiencies in the monitoring and report program;
 - d. An evaluation of the effectiveness of each of the remediation systems. The evaluation shall include the effectiveness of the systems in remediating impacted groundwater and each of the source areas or suspected source areas. The report shall include recommendations for improving or expanding the systems, if necessary;
 - e. A summary of the performance of each remediation system including the amount and percentage of operating and downtime, and the amount of petroleum hydrocarbons removed; and
 - f. A summary of all spills/releases, if any, that occurred during the year, tasks undertaken in response to the spills, the results of the tasks undertaken.
5. For each required quarterly and annual report, one report shall be submitted containing all monitoring data collected at the site by the Discharger and include all information cited in the above sections. A hard copy of all required reports on/or responses shall be submitted by the due date unless otherwise arranged with Central Valley Water Board staff.
6. The Discharger may request that the Assistant Executive Officer change the monitoring frequency or constituents of concern after the first year of monitoring. The request needs to include a

demonstration that adequate data has been collected to determine background groundwater conditions and a justification for the change.

6. The Discharger shall maintain a data base containing historical and current monitoring data in an electronic form acceptable to the Assistant Executive Officer. The data base shall be updated quarterly and provided to the Central Valley Water Board in electronic format.
7. The Discharger shall submit electronic copies of all workplans, reports, analytical results, and groundwater elevation data over the internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Water Board's web site. Uploads to Geotracker shall be completed on or prior to the due date. In addition, a hardcopy of each document shall be submitted to:

Commented [A8]: This is not clear, and per paragraph 1, the report can be rejected for any reason. The requirements need to be clear so compliance can be accomplished.

California Regional Water Quality Control Board
Central Valley Region
1685 E Street, Suite 200
Fresno, CA 93706
Attn: Ron Holcomb
Geotracker Site ID: [110000005197](#) or [T10000005189](#)

8. A transmittal letter explaining the essential points shall accompany each report. At a minimum, the transmittal letter shall identify any potential violations found since the last report was submitted, and ~~if the violations were any corrected~~ corrective actions. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. The transmittal letter shall also state that a discussion of any potential violations found since the last report was submitted, and a description of the corrective actions taken or planned ~~for correcting these violations~~, including any references to previously submitted time schedules, is contained in the accompanying report. The transmittal letter shall contain a statement identical to that required by the CDO by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

Commented [A9]: Violations can only be determined after a public hearing and consideration of all evidence

The Discharger shall implement the above monitoring program on the effective date of this Program.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

(Date)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

**CALIFORNIA WATER CODE SECTION 13267 ORDER FOR TECHNICAL
REPORTS CLEANUP AND ABATEMENT ORDER NO. R5-2014-00xx
FOR VALLEY WATER MANAGEMENT COMPANY
RACE TRACK HILL FACILITY, EDISON
KERN COUNTY**

**YOU ARE LEGALLY OBLIGATED TO RESPOND TO THIS ORDER.
PLEASE READ THIS ORDER CAREFULLY**

This California Water Code (CWC) section 13267 Order (Order) describes the Race Track Hill Facility, and requires the submittal of technical reports that are necessary to characterize the releases and potential impacts to groundwater from this facility.

The Assistant Executive Officer for the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board), finds that:

1. Valley Water Management Company (hereinafter Valley Water), operates an oil production wastewater disposal facility (Race Track Hill Facility) on 338.4 acres (Assessor's Parcel Number 387-060-031) in the W ½ of Section 24, T29S, R29E, MDB&M. The Race Track Hill Facility is about fifteen miles east of Bakersfield (see Attachment A).
2. The Race Track Hill Facility is in an area of rolling topography. Surface drainage is generally flows toward Cottonwood Creek, which is tributary to the Kern River. Cottonwood Creek is about one-half mile northeast of the Race Track Hill Facility.
3. The Race Track Hill Facility contains 27 unlined surface impoundments and approximately 94 acres of land used for surface sprinkler irrigation disposal. Wastewater is transported to the facility by pipeline from Valley Water's Fee 34 Facility (C-Plant), which is about four miles to the southwest in the Edison oil field. The wastewater is discharged to the impoundments for percolation and evaporation. Excess wastewater which that does not percolate or evaporate is sprayed onto 94 acres for disposal further evapotranspiration. A color aerial photograph of the Valley Water Race Track Hill Facility is attached hereto as Attachment B and indicates that the irrigation does beneficially increase vegetative growth at the site.
4. The Race Track Hill Facility is regulated by Central Valley Water Board Resolution 58-349. Resolution 58-349 sets forth Waste Discharge Requirements for the discharge of oil field produced wastewater at the Race Track Hill Facility.
5. Resolution 58-349 allows the discharge of oil field produced wastewater to the ground, natural drainage channels, unlined sumps, or other surface impoundments in Section 24, T29S, R29E, MDB&M, with no waste constituent limitations so long as the discharges do not result in the pollution of surface or underlying ground water, or create a public nuisance. Resolution 58-349 also allows the discharge of wastewater to the ground

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- surface, ~~or into~~ natural drainage channels, or into unlined impoundments ~~other than those in/outside of~~ Section 24, provided the wastewater ~~meets the limitations~~ conforms to the criteria listed in Section 3.A.-B. of that Resolution, as repeated in Finding No. 11 below.
6. Resolution 58-349 predates the current Water Quality Control Plan for the Tulare Lake Basin, Second Edition (hereafter Basin Plan) ~~Basin Plan~~ and does not contain the limitations on the discharge of oil field produced wastewater to surface impoundments ~~which that are/is contained~~ in the Basin Plan.
 7. The ~~Water Quality Control Plan for the Tulare Lake Basin, Second Edition (hereafter Basin Plan)~~ designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. The Salinity objective states: "All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources. No proven means exists at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels throughout the Basin. Accordingly, the water quality objectives for ground water salinity control the rate of increase." Then the Basin Plan sets Maximum Annual Average Increases in Electrical Conductivity (µmhos/cm) of 1 to 6 per year, depending on the location.
 8. The Race Track Hill Facility is in the Kern County Basin Hydrologic Unit, Detailed Analysis Unit (DAU) 257. The designated beneficial uses of the groundwater, as specified in the Basin Plan for DAU 257, are municipal and domestic water supply, agricultural supply, industrial service supply, and recreation-1 supply.
 9. Although Resolution 58-349 found "no freshwater producing wells in this vicinity," more recent information obtained from the California Department of Water Resources identified six potential groundwater supply wells within one-mile of the facility. Groundwater from these wells may have been used for domestic water supply, agriculture supply, and industrial service supply. The current status of these wells is not clear and some may have been destroyed.
 10. This ~~Cleanup and Abatement~~ Order is based upon: 1) Chapter 5, Enforcement and Implementation commencing with section 13300, of the Porter-Cologne Water Quality Control Act (Water Code Division 7, commencing with section 13000); 2) Water Code section 13267,¹ Investigations; inspections, Chapter 4, Regional Water Quality Control;

¹ Water Code section 13267, subdivision (b)(1) states: "In conducting an investigation specified in subdivision (a), 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, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters 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

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3) all applicable provisions of the Basin Plan including beneficial uses, water quality objectives, and implementation plans; 4) California State Water Resources Control Board (State Water Board) Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*); ~~5) State Water Board Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code section 13304*); and 6) and~~ all other applicable legal authority.

11. Discharge of Waste to Land: This information is based upon the 18 September 2013 Central Valley Water Board inspection of the Race Track Hill Facility, and based upon Valley Water's wastewater analysis lab report dated 23 July 2013 for the Fee 34 Facility regarding concentrations of specific electrical conductivity (EC) in micromhos/centimeter ($\mu\text{mhos/cm}$), chloride in milligrams/liter (mg/l), and boron in mg/l. The Basin Plan and Resolution 58-349 sets forth the following general waste constituent limits for the discharge of oil field wastewater:

	<u>Units:</u>	<u>Basin Plan Limitation Value:</u>	<u>Res. 58-349 Limitation Value:</u>
<u>Specific EC:</u>	$\mu\text{mhos/cm}$	1000	
<u>Total Dissolved Solids:</u>	mg/l (ppm)		1000
<u>Chloride:</u>	mg/l	200	150
<u>Boron:</u>	mg/l	1	1

However, the Basin Plan at page IV-15 recognizes that "Discharges of oil field waste that exceed the above maximum salinity limits may be permitted to unlined sumps, stream channels, or surface waters if the discharger successfully demonstrates to the Regional Water Board in a public hearing that the proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives." Similarly, Order No. 92-110 at Provision B.2.c. allows dischargers to make a similar demonstration to avoid application of the general limitations.

The 23 July 2013 wastewater analytical results at Fee 34 Facility were measured at the following levels, which are below those measured for this facility in the WDRs for that facility, Order No. 92-11037:

:

	<u>Units:</u>	<u>2013 Measured Value:</u>	<u>1992 Measured Value:⁽¹⁾</u>
<u>Specific EC:</u>	$\mu\text{mhos/cm}$	5,700	7,900
<u>Chloride:</u>	mg/l	1,800	4,450
<u>Boron:</u>	mg/l	14	15.6

(1) Reported in Order 92-11037, Finding 3

12. On 9 October 2013, the Central Valley Water Board issued a Notice of Violation (NOV) to Valley Water (see Attachment C). The NOV alleged that ~~Valley Water's discharge~~

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

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~~was in violation of Resolved 3.A., B., and C. of Resolution 58-349.~~ Valley Water was discharging wastewater effluent to the ground surface in excess of the numerical limitations specified in Resolved 3.A., B., and C. of Resolution 58-349 (see Finding No. 11), which is causing, or is threatening to cause, a condition of pollution,² contamination or nuisance.³ Valley Water filed its response to the NOV on November 8, 2013 addressing each of the allegations and its interpretation of the WDRs' provisions.

13. 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 failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, 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.

- ~~14. Section 13304(a) of the Water Code provides that:~~

~~Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the~~

² "Pollution" is defined by Water Code section 13050, subdivision (l)(1) as, an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses; (B) Facilities which serve these beneficial uses." Water Code §13050(l).

³ "Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes." Water Code §13050(m).

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~~superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.~~

~~15.14.~~ The ~~unauthorized~~ discharge of waste with high levels of salinity to the ground, surface water, and/or groundwater may create, ~~and-or~~ threatens to create, a condition of pollution in surface and groundwater, and may result in the degradation of water quality.

~~16.15.~~ Land around the Race Track Hill Facility has been used for open stock grazing. Crops are grown in the area beginning about three miles southwest (~~downgradient~~) of the Race Track Hill Facility. Many of the crops are irrigated with groundwater from local supply wells. Irrigation water with a chloride concentration above 350 mg/l can cause severe crop problems. Boron toxicity can occur on sensitive crops at concentrations less than 1 mg/l in irrigation water.

~~16.~~ Underlying groundwater ~~will-may~~ be degraded over time if mixed with high salinity oil field wastewater. Elevated EC, chloride, and boron levels could impair groundwater for municipal and domestic supply and agricultural supply uses. An investigation of the salinity levels of ground water surrounding the Race Track Facility needs to be conducted to determine current salinity levels.

~~Due to the topographic relief at the Race Track Hill Facility and the relatively close proximity (one-half mile) to Cottonwood Creek, a major storm could flush a portion of the accumulated non-sequestered salts discharged to the spray field over the past 50-60 years into Cottonwood Creek, which could then be transported to Cottonwood Creekthe Kern River 2.5 miles downstream. This could result in a temporary salt and boron loading of water in the Kern River, and increase salt and boron loading to groundwaters at the terminus of Kern River flow where groundwater is recharged.~~

17. ~~Cleanup and abatement~~ A 13267 Order is necessary to ~~ensure that the unauthorized investigate whether continued discharge in excess of general water quality objectives ceases to limitations for oilfield waste causes~~ a threat or condition of pollution or nuisance to groundwater and/or surface water. ~~Because cleanup and abatement activity will occur near a tributary to the Kern River, Best Management Practices (BMPs) during remedial action are necessary to prevent further conditions that threaten the beneficial uses of Cottonwood Creek and the Kern River.~~

18. The following actions will ~~reduce the threat~~ determine the impact, if any, of discharges to groundwater and Cottonwood Creek ~~as a result of the improper discharges~~ at the Race Track Hill Facility:

- a. Development of a phased work plan to conduct a hydrogeological site characterization and assess potential groundwater degradation by more than 50 years of discharges;
- b. Revision of WDRs to be consistent with current Basin Plan, regulations, industry standards, water quality objectives, and to reasonably protect water supply,

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quality and use ~~issues~~,

- c. Implementation of temporary best management practices (BMPs) to minimize further discharges of water and/or waste to groundwaters or surface waters of the State; and
 - d. If a release of wastewater to groundwater beneath the spray fields, or surface water or soils outside of ~~the spray fields~~ Section 24 is documented to be adversely affecting groundwater and applicable beneficial uses, then develop another phase of the work plan to delineate the nature and extent of the release and a plan to remediate the effects of the release.
19. The deadlines set forth herein are reasonable given the need to investigate the potential threat to groundwater and surface water quality.
20. In accordance with Water Code section 13267(b) these findings provide Valley Water with a written explanation with regard to the need for remedial action and reports, and identify the ~~evidence that supports the requirement need~~ to implement cleanup and abatement investigative activities and to submit the reports. The Discharger owns and operates the Facility that is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the WDRs and with this Order.
21. Issuance of this Cleanup and Abatement Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. This Order generally requires Valley Water to submit plans for approval prior to implementation of cleanup activities at the Race Track Hill Facility. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning Valley Water's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to the Executive Officer's approval of the applicable plan. The Discharger will bear the costs, including the Regional Board's costs, of determining whether implementation of any plan required by this Order will have a significant effect on the environment and, if so, in preparing and handing any documents necessary for environmental review. If necessary, the Discharger and a consultant acceptable to the Regional Board shall enter into a memorandum of understanding with the Regional Board regarding such costs prior to undertaking any environmental review. Issuance of this Order is also exempt from CEQA pursuant to Water Code section 13389 as it serves to implement a WDR Order (*Pacific Water Conditioning Assn., Inc. v. City Council* (1977) 73 Cal.App.3d 546, 555-556).

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IT IS HEREBY ORDERED that, pursuant to section ~~43304 and section~~ 13267 of Division 7 of the Water Code, Valley Water Management Company ~~shall cease the discharge of waste water to the spray fields that exceed the waste constituent concentration limits contained in Resolution No. 58-349, and clean up and abate the condition of unauthorized discharge~~ is hereby ordered to submit the following reports in accordance with the time schedule below:

1. ~~By 3 March 2014, (Within~~ 30 days following ~~CAO~~ issuance) of this Order, Valley Water shall prepare and submit to the Central Valley Water Board the First Phase of a Work Plan for the ~~cleanup and abatement investigation of potential impacts~~ of discharges to the Race Track Hill Facility. The First Phase Work Plan shall be complete and approvable by the Assistant Executive Officer (or for his/her delegate's approval) and shall detail the following activities and shall include a time schedule detailing the sequence of the First Phase Work Plan activities and time frame for completing each activity:
 - a. Conduct a hydrogeological site characterization to assess the effects if any, of the discharge of high salinity wastewater on underlying groundwater and Cottonwood Creek. The characterization ~~may will~~ be conducted in phases to utilize acquired information to further assess the impacts of the wastewater discharge on the groundwater. The phasing approach will require that, once technical evaluation results from a previous phase are available, the findings will be used to develop a detailed scope for the next phase of work. This approach will require timely communications to Regional Board staff so that review and requested amendments can be provided prior to the next phase,
 - b. The hydrogeological characterization, and a determination whether there has been a release of waste constituents ~~to that has adversely impacted~~ groundwater or surface water, shall be consistent with the detection monitoring requirements of Title 27, CCR, section 20005 et seq. (Title 27). This includes the location and installation of groundwater monitoring wells; surface water and soil sampling locations; and the sampling and analysis ~~ies~~ methods for groundwater, surface water, and soil samples;
 - c. Monitoring wells installed for the hydrogeological characterization need to be installed at appropriate depths that will allow the collection of representative groundwater samples. Existing groundwater wells documented to be in appropriate locations, where well depth and construction details can be provided, may be proposed as sampling points;
 - d. Collect and submit representative groundwater and soil samples for laboratory analysis ~~from each monitoring well~~ for waste constituent parameters in accordance with an approved sampling and analysis plan;
 - e. Conduct a well survey to identify water supply wells within one-mile of the facility. Based on the results of the hydrogeologic characterization, Valley Water may be required by the Assistant Executive Officer to sample the identified wells and analyze the samples for waste constituents of concern;

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- f. Analyze ~~all~~ groundwater, local surface water and soil samples at a California certified laboratory in accordance with the sampling and analysis plan (SAP) submitted as part of the First Phase Work Plan. For initial or preliminary sampling to screen sample locations, a subset of analytical parameters will be proposed. Once a sample location has been evaluated, additional sampling and testing will be conducted as another phase of investigations in accordance with the First Phase Work Plan and SAP and depending on the preliminary results for EC, total dissolved solids (TDS), boron, general minerals, total petroleum hydrocarbons (TPHc), and benzene, toluene, ethylbenzene and xylene (BTEX). Table 1 contains a list of the parameters, and constituents, and reporting units that may be necessary for site characterization (including the general minerals) to be analyzed and the units to be reported.
- g. If a release of wastewater to groundwater, surface water, or soils outside of the ~~spray fields~~ Section 24 is documented to be adversely affecting beneficial uses or causing exceedance of an applicable water quality objective, the hydrogeological characterization shall include a characterization of the nature and extent of the release consistent with the evaluation monitoring program requirements contained in Title 27;
- h. If a release of wastewater to groundwater, surface water, or soils outside of ~~the spray fields~~ Section 24 is documented, then ~~following~~ the characterization of the nature and extent of the release and a determination of the potential impacts to beneficial uses shall be submitted, a groundwater remediation program shall be submitted consistent with the corrective action program requirements contained in Title 27. This will entail the preparation of an engineering feasibility study followed by a proposed corrective action program;
- i. Implementation of BMPs to minimize further discharges of waste to groundwaters or surface waters of the State; and
- j. Based on information acquired during the hydrogeological site characterization, submit a revised report of waste discharge for revision of the waste discharge requirements consistent with current regulations and policies.

2. Because Valley Water has already met with Regional Water Board staff on the First Phase Work Plan, upon submittal of that Work Plan to Within 30 days of approval of the Work Plan by the Assistant Executive Officer (or his/her delegate), Valley Water shall begin implementing the First Phase Work Plan tasks contained in the Work Plan in accordance with the approved-proposed time schedule. The Assistant Executive Officer may request modifications to the First Phase Work Plan as necessary.

2.3. Beginning 1 May 2014, or another date proposed in the First Phase Work Plan and approved by the Assistant Executive Officer or his/her delegate, and ~~monthly~~ quarterly thereafter until all work plan activities are complete, Valley Water shall submit technical reports that provide information to document the work plan activities completed to date

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and to ultimately document that all elements of the Work Plan have been completed.

~~Corrective actions shall be proposed and included in these technical reports when work plan activities fail to satisfy any interim or final success criteria.~~

~~3.4.~~ All ~~First Phase W~~work ~~P~~lan activities shall be completed in accordance with time frames included in the ~~First Phase~~ Work Plan as ~~approved by submitted to~~ the Assistant Executive Officer (or his/her delegate).

~~4.5.~~ With each report required by this ~~Cleanup and Abatement~~ Order, Valley Water shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Pursuant to Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.

~~5.6.~~ If it is determined that discharges from this facility have impacted the beneficial uses of water, Valley Water can be ~~further~~ required upon ~~notification order~~ by the Assistant Executive Officer to provide a replacement water supply or treat the water to allow continued use.

NOTIFICATIONS

- 1. Applicability.** Requirements established pursuant to Water Code sections ~~13304 and~~ 13267(b) are enforceable when signed by the Assistant Executive Officer of the Central Valley Water Board.
- 2. Enforcement Actions.** The Central Valley Water Board reserves its right to take any enforcement action authorized by law for violations, including but not limited to, violations of the terms and conditions of this ~~Cleanup and Abatement Order (i.e., implementation and maintenance of BMPs, and mitigation for impacts).~~
- 3. Inspection and Entry.** Valley Water shall allow the Central Valley Water Board, State Water Board, ~~United States Environmental Protection Agency (USEPA), the County of Kern,~~ and/or their authorized representatives (including an authorized contractor acting

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as their representative), upon the presentation of credentials and other documents, as may be required by law, to at reasonable times do the following:

- a. Enter upon the properties;
- b. Access and copy any records related to this ~~Cleanup and Abatement~~ Order;
- c. Inspect and photograph any facilities, equipment, practices, or operations regulated or required by this ~~Cleanup and Abatement~~ Order; and
- d. Sample or monitor any substances or parameters onsite for the purposes of assuring ~~Cleanup and Abatement~~ Order compliance or as otherwise authorized by the ~~federal Clean Water Act or the~~ Porter-Cologne Water Quality Control Act.

4. **Potential Liability.** ~~Pursuant to Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.~~ Pursuant to Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports as required by section 13267, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

5. ~~**Cost Reimbursement.** Pursuant to Water Code section 13304, the Central Valley Water Board is entitled to, and may seek reimbursement for, all reasonable costs it actually incurs to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Cleanup and Abatement Order. Valley Water shall reimburse the State of California for all reasonable costs actually incurred by the Central Valley Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Cleanup and Abatement Order, according to billing statements prepared from time to time by the State Water Board.~~

6. ~~**Waste Management.** Valley Water shall properly manage, store, treat, and dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of soil containing waste constituents and polluted groundwater shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050(m). Valley Water shall, obtain, or apply for coverage under waste discharge requirements or a conditional waiver of waste discharge requirements for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the State.~~

6.5. **Requesting Administrative Review by the State Water Board.** Any person aggrieved by an action of the Central Valley Water Board that is subject to review as set forth in Water Code section 13320(a), may petition the State Water Board to review the action. Any petition must be made in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition within thirty (30) days of the date the action was taken, except that if the thirtieth day following the date the action was taken falls on a Saturday,

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Sunday, or state holiday, then the State Water Board must receive the petition by 5:00 p.m. on the next business day. Copies of the laws and regulations applicable to filing petitions may be found on the internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml or will be provided upon request.

7.6. Modifications. Any modification to this ~~Cleanup and Abatement~~ Order shall be in writing and approved by the Assistant Executive Officer, including any extensions. Any written extension request by Valley Water shall include justification for the ~~delay extension~~.

8.7. No Limitation of Water Board Authority. This ~~Cleanup and Abatement~~ Order in no way limits the authority or ability of the Central Valley Water Board to institute additional enforcement actions or to require additional investigation and any necessary cleanup of the property yes consistent with the Water Code. This ~~Cleanup and Abatement~~ Order may be revised as additional information becomes available.

REPORTING REQUIREMENTS

1. **Duty to Use Qualified Professionals.** Valley Water shall provide documentation that plans and reports required under this ~~Cleanup and Abatement~~ Order are prepared under the direction of appropriately qualified professionals. Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals. Valley Water shall include a statement of qualifications and license numbers, if applicable, of the responsible lead professionals in all plans and reports required under this ~~Cleanup and Abatement~~ Order. The lead professional shall sign and affix their license stamp, as applicable, to the report, plan, or document.
2. **Electronic and Paper Media Reporting Requirements.** Valley Water shall submit both electronic and paper copies of all reports required under this ~~Cleanup and Abatement~~ Order including work plans, technical reports, and monitoring reports. Larger documents shall be divided into separate files at logical places in the report to keep file sizes under 150 megabytes. Valley Water shall continue to provide a paper transmittal letter, a paper copy of all figures larger than 8.5 inches by 14 inches (legal size), and an electronic copy (on Compact Disc [CD] or other appropriate media) of all reports to the Central Valley Water Board. All paper correspondence and documents submitted to the Central Valley Water Board must include the following identification numbers in the header or subject line: Geotracker Site ID: T1000005199. Valley Water shall comply with the following reporting requirements for all reports and plans (and amendments thereto) required by this ~~Cleanup and Abatement~~ Order:
 - a. **Reports and Plans Required by this ~~Cleanup and Abatement~~ Order.** Valley Water shall submit one paper and one electronic, searchable Portable Document Format (PDF) copy of all technical reports, monitoring reports, progress reports, and plans required by this ~~Cleanup and Abatement~~ Order. The PDF copy of all the reports shall also be uploaded into the Geotracker database, as required by

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Reporting Requirement 2.(b)(iv) below.

- b. Electronic Data Submittals to the Central Valley Water Board in compliance with the ~~Cleanup and Abatement~~ Order are required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Geotracker Site ID: T1000005199). The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the ~~Cleanup and Abatement~~ Order or addenda thereto. To comply with these requirements, Valley Water shall upload to the Geotracker database the following minimum information:
 - i. Laboratory Analytical Data: Analytical data (including geochemical data) for all waste, soil, and water samples shall be submitted in Electronic Deliverable Format (EDF), which facilitates the transfer of data from the laboratory to the end user. Waste, soil, and water include analytical results of samples collected from the following locations and devices: surface samples, equipment, monitoring wells, boreholes, gas and vapor wells or other collection devices, surface water, groundwater, piezometers, and stockpiles.
 - ii. Locational Data: All permanent monitoring locations (monitoring wells, sediment sampling locations, surface water sampling locations, etc.) shall be surveyed with latitude and longitude coordinates in a decimal degree format basin on the North American Datum 1983 ellipsoid, and accurate to within one meter (3 feet).
 - iii. Site Map: Site map or maps which display discharge locations, streets bordering the facility, and sampling locations for all waste, soil, and water samples. The site map is a stand-alone document that may be submitted in various electronic formats. A site map must also be uploaded to show the maximum extent of any soil impact and water pollution. An update to the site map may be uploaded at any time.
 - iv. Electronic Report: A complete copy (in character searchable PDF) of all work plan modifications, assessment, ~~cleanup~~, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.

~~3. **Oversight Reimbursement.** Reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the Site, as provided in Water Code section 13304(c) (1). **By 3 March 2014**, provide the name and address where the invoices shall be sent. Failure to provide a name and address for invoices and/or failure to reimburse the Central Valley Water Board's reasonable oversight costs shall be considered a violation of this Order.~~

~~4.3. **Signatory Requirements.** All reports required under this ~~Cleanup and Abatement~~ Order shall be signed and certified by Valley Water or by a duly authorized representative and submitted to the Central Valley Water Board. A person is a duly authorized representative only if: 1) The authorization is made in writing by Valley~~

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Water; and 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.).

5.4. All monitoring and technical reports required under this ~~Cleanup and Abatement~~ Order shall be submitted to:

California Regional Water Quality Control Board
Central Valley Region
1685 E Street, Suite 200
Fresno, CA 93706
Attn: Ryan West
Geotracker Site ID No.: T10000005199

6.5 FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ~~CLEANUP AND ABATEMENT~~ ORDER MAY SUBJECT YOU TO FURTHER ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO, ASSESSMENT OF CIVIL LIABILITY UNDER SECTIONS ~~S 13268 AND 13350~~ OF THE WATER CODE AND REFERRAL TO THE DISTRICT ATTORNEY OR ATTORNEY GENERAL FOR INJUNCTIVE RELIEF AND CIVIL OR CRIMINAL LIABILITY.

Ordered by:

CLAY L. RODGERS
Assistant Executive Officer

Date

DRAFT

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TABLE 1

REQUIRED WATER ANALYSES -- POTENTIAL PARAMETERS AND CONSTITUENTS

General Minerals

Electrical Conductivity (EC)	µmhos/cm (1)
Total Dissolved Solids (TDS)	mg/L (2)
Chloride	mg/L
Boron	mg/L
Carbonate	mg/L
Bicarbonate	mg/L
Nitrate - Nitrogen	mg/L
Sulfate	mg/L
Calcium	mg/L
Magnesium	mg/L
Potassium	mg/L
Sodium	mg/L

(Analyses need to be accompanied by an anion-cation balance)

Petroleum Hydrocarbons of Concern

Total Petroleum Hydrocarbons as Crude Oil (TPHc)	µg/L (3)
(USEPA Method 8015B fuel finger print [FFP])	
Benzene	µg/L
(USEPA Method 8260)	
Toluene	µg/L
(USEPA Method 8260)	
Ethylbenzene	µg/L
(USEPA Method 8260)	
Xylene (Total)	µg/L
(USEPA Method 8260)	

(1) Micromhos per centimeter.
(2) Milligrams per liter.
(3) Micrograms per liter.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

**CLEANUP AND ABATEMENT CALIFORNIA WATER CODE SECTION 13267 ORDER
FOR TECHNICAL REPORTS ORDER NO. R5-2014-00xx
FOR VALLEY WATER MANAGEMENT COMPANY
FEE 34 FACILITY, EDISON OIL FIELD
KERN COUNTY**

**YOU ARE LEGALLY OBLIGATED TO RESPOND TO THIS ORDER.
PLEASE READ THIS ORDER CAREFULLY**

This California Water Code (CWC) section 13267 Order (Order) describes the Fee 34 Facility, and requires the submittal of technical reports that are necessary to characterize the releases and potential impacts to groundwater from this facility.

The Assistant Executive Officer for the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board), finds that:

1. Valley Water Management Company (hereinafter Valley Water) operates an oil production wastewater discharge-storage facility (Fee 34 Facility) on 3.4 acres (Assessor's Parcel Number 388-050-254) in the SW ¼ of the SW ¼ of Section 34, T29S, R29E, MDB&M. The Fee 34 Facility is approximately one mile northeast of the community of Edison in the Edison oil field (see Attachment A).
2. The Fee 34 Facility contains of six surface impoundments. Wastewater is transported to the facility by pipeline from various small, independent oil company leases throughout the Edison oil field. Crude oil is stored in two unlined oil recovery impoundments until shipment offsite. The wastewater is stored in three gunite-lined impoundments and eventually pumped via pipeline to Valley Water's Race Track Hill Facility for disposal. There is one unlined and rarely utilized contingency impoundment for temporary storage of excess wastewater. Dimensions of the impoundments range from approximately 30 feet (ft.) x 50 ft. to 120 ft. x 180 ft., and are approximately 10 ft. to 15 ft. deep. An aerial photograph of the Fee 34 Facility is attached hereto as Attachment B.
3. The Fee 34 Facility is regulated by Central Valley Water Board Order Nos. 92-11037 and 92-110. Order 92-110 sets forth general Waste Discharge Requirements (WDRs) for the discharge of oil field produced wastewaters from Edison Oil Field operations, including the Fee 34 Facility. Order No. 92-11037 is the Notice of Applicability of the general WDRs to this facility, which recognized that the chemical analysis of facility's wastewater "indicates the following characteristics: 7900 µmhos/cm electrical conductivity, 4450 mg/L chloride, and 15.6 mg/L boron."
4. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. The Salinity objective states: "All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources. No proven means exists at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels

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throughout the Basin. Accordingly, the water quality objectives for ground water salinity control the rate of increase.” Then the Basin Plan sets Maximum Annual Average Increases in Electrical Conductivity (µmhos/cm) of 1 to 6 per year, depending on the location.

5. The Fee 34 Facility (also known as the C-Plant Facility) is in the Kern County Basin Hydrologic Unit, Detailed Analysis Unit (DAU) 258. The designated beneficial uses of the groundwater, as specified in the Basin Plan for DAU 258, are municipal and domestic water supply, agricultural supply, industrial service, and process supply.
6. ~~Information obtained from the California Department of Water Resources identified six groundwater supply wells within one mile of the facility. The Local~~ groundwater is primarily used for agricultural irrigation.
7. This ~~Cleanup and Abatement~~ Order is based upon: 1) Chapter 5, Enforcement and Implementation commencing with section 13300, of the Porter-Cologne Water Quality Control Act (Water Code Division 7, commencing with section 13000); 2) Water Code section 13267,¹ Investigations; inspections, Chapter 4, Regional Water Quality Control; 3) all applicable provisions of the Basin Plan including beneficial uses, water quality objectives, and implementation plans; 4) California State Water Resources Control Board (State Water Board) Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*); ~~5) State Water Board Resolution No. 92-49 (Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code section 13304); and~~ 6) ~~and~~ all other applicable legal authority.
8. Discharge of Waste to Land: This information is based upon the 27 November 2012 and 18 September 2013 Central Valley Water Board inspections of the Fee 34 Facility, and based upon Valley Water’s wastewater analysis lab report dated 23 July 2013 regarding concentrations of specific electrical conductivity (EC), chloride, and boron. The Basin Plan and Order 92-110 for Edison Oil Field Operators sets forth the general the following waste constituent limits for discharges of oil field wastewater to unlined sumps:

	<u>Units:</u>	<u>Limitation Value:</u>
<u>Specific EC:</u>	micromhos/centimeter (µmhos/cm)	1000
<u>Chloride:</u>	milligrams/liter (mg/l)	200
<u>Boron:</u>	mg/l	1

¹ Water Code section 13267, subdivision (b)(1) states: "In conducting an investigation specified in subdivision (a), 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, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters 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."

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However, the Basin Plan at page IV-15 recognizes that "Discharges of oil field waste that exceed the above maximum salinity limits may be permitted to unlined sumps, stream channels, or surface waters if the discharger successfully demonstrates to the Regional Water Board in a public hearing that the proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives." Similarly, Order No. 92-110 at Provision B.2.c. allows dischargers to make a similar demonstration to avoid application of the general limitations.

The 23 July 2013 wastewater analytical results at the Fee 34 Facility were measured at the following levels, which are below those measured for this facility in Order No. 92-11037:

	<u>Units:</u>	<u>2013 Measured Value:</u>	<u>1992 Measured Value:⁽¹⁾</u>
<u>Specific EC:</u>	<u>µmhos/cm</u>	<u>5,700</u>	<u>7,900</u>
<u>Chloride:</u>	<u>mg/l</u>	<u>1,800</u>	<u>4,450</u>
<u>Boron:</u>	<u>mg/l</u>	<u>14</u>	<u>15.6</u>

(1) Reported in Order 92-11037, Finding 3

9. On May 24, 1996, Valley Waste Disposal Company, the predecessor of Valley Water, submitted a "Drilling and Data Acquisition Report, Race Track Hill District, Edison Oil Field, Kern County, California" to the Central Valley Water Board pursuant to Order No. 92-110, Discharge Specification B.2.c. The report and transmittal letter specified that this facility "does not pose a threat to ground water quality and that no further action should be required for continued operation of the site." That same transmittal letter stated "[i]f a public hearing is necessary to demonstrate that this facility does not pose a threat to ground water quality, then please consider this letter to be a request for that hearing." (Emphasis added.)
10. The Central Valley Water Board's June 13, 1996 Inspection Report for this facility at page 2 acknowledged that "Valley Waste Disposal recently submitted a report, Drilling and Data Acquisition Report, to demonstrate that C-Plant (Fee 34) will not affect water quality." Notwithstanding this acknowledgement and request for a hearing, no hearing was ever held and no technical response letter was ever provided to Valley Water by the Central Valley Water Board. (See August 21, 2013 email from Ryan K. West, Engineering Geologist, Central Valley Water Board to Pam Ashby, Valley Water.)
- 9-11. On 9 October 2013, the Central Valley Water Board issued a Notice of Violation (NOV) to Valley Water (see Attachment BC). The NOV alleged that Valley Water's discharge was in violation of Discharge Specifications B.1 and B.6 of Order 92-110 and that Valley Water was discharging wastewater effluent in excess of the numerical limitations specified in Discharge Specification B.1 (see Finding No. 8), which is causing, or is threatening to cause a condition of pollution,² contamination or nuisance.³ In addition,

² "Pollution" is defined by Water Code section 13050, subdivision (l)(1) as, an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses; (B) Facilities which serve these beneficial uses." Water Code §13050(l).

³ "Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with

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the NOV alleged Valley Water also failed to maintain the minimum freeboard of two feet in two of the impoundments as specified in Discharge Specification B.6, which ~~is~~ may be causing, or is threatening to cause, a condition of pollution, contamination, or nuisance caused by overtopping the impoundments. Valley Water filed its response to the NOV on November 8, 2013 addressing each of the allegations.

~~10. Section 13304(a) of the Water Code provides that:~~

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 failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, 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.

~~11. Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.~~

13. The unauthorized discharge of waste with high levels of salinity to ground and/or groundwater may creates, and or threatens to create, a condition of pollution in groundwater, and may result in the degradation of water quality.

~~12.~~

~~13.~~

the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes." Water Code §13050(m).

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~~14.~~

~~14.~~ Land around the Fee 34 Facility is being used for agricultural production, primarily grapes. Many of the crops are irrigated with groundwater from local supply wells. Irrigation water with a chloride concentration above 350 mg/l can cause severe crop problems. Boron toxicity can occur on sensitive crops at concentrations less than 1 mg/l in irrigation water.

~~15.~~

~~15.~~ Underlying groundwater ~~will~~ may be degraded ~~over time~~ if mixed with high salinity oil field wastewater. Elevated EC, chloride, and boron levels could impair the groundwater for municipal and domestic supply and agricultural supply uses. An investigation of the salinity levels of ground water surrounding the Fee 34 Facility needs to be conducted to determine current salinity levels.

~~15.16.~~ Cleanup and abatement A 13267 Order is necessary to ~~ensure that the unauthorized investigate whether continued~~ discharge in excess of ~~general~~ water quality objectives ~~limitations for oilfield waste discharges ceases to~~ cause a threat or condition of pollution or nuisance to groundwater.

~~16.17.~~ The following actions will ~~reduce the threat determine the impact, if any,~~ of discharges to groundwater ~~as a result of the improper discharges~~ at the Fee 34 Facility:

- a. Development of a phased work plan to conduct a hydrogeological site characterization and assess potential groundwater degradation by more than 20 years of discharges;
- b. Revision of WDRs to be consistent with current Basin Plan, regulations, industry standards, water quality objectives, and to reasonably protect water supply, quality and use ~~issues~~,
- c. Implementation of temporary best management practices (BMPs) to minimize further discharges of water and/or waste to groundwaters ~~of the State~~, and
- d. If a release of wastewater to groundwater is documented to be adversely affecting groundwater and applicable beneficial uses, then develop another phase of the work plan to delineate the nature and extent of the release and a plan to remediate the effects of the release.

~~17.18.~~ The deadlines set forth herein are reasonable given the need to investigate the potential threat to groundwater quality.

~~18.19.~~ In accordance with Water Code section 13267(b), these findings provide Valley Water with a written explanation with regard to the need for remedial action and reports, and identify ~~the evidence that supports the~~ need requirement to implement ~~cleanup and abatement~~ investigative activities and to submit the reports. The Discharger owns and operates the Facility which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the WDRs and with this

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Order.

~~19-20.~~ Issuance of this ~~Cleanup and Abatement~~ Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061(b)(3), 15306, 15307, 15308, and 15321. ~~This Order generally requires Valley Water to submit plans for approval prior to implementation of cleanup activities at the Fee 34 Facility. Mere submittal of plans is exempt from CEQA as submittal will not cause a direct or indirect physical change in the environment and/or is an activity that cannot possibly have a significant effect on the environment. CEQA review at this time would be premature and speculative, as there is simply not enough information concerning Valley Water's proposed remedial activities and possible associated environmental impacts. If the Regional Board determines that implementation of any plan required by this Order will have a significant effect on the environment, the Regional Board will conduct the necessary and appropriate environmental review prior to the Executive Officer's approval of the applicable plan. The Discharger will bear the costs, including the Regional Board's costs, of determining whether implementation of any plan required by this Order will have a significant effect on the environment and, if so, in preparing and handing any documents necessary for environmental review. If necessary, the Discharger and a consultant acceptable to the Regional Board shall enter into a memorandum of understanding with the Regional Board regarding such costs prior to undertaking any environmental review. Issuance of this Order is also exempt from CEQA pursuant to Water Code section 13389 as it serves to implement a WDR Order (*Pacific Water Conditioning Assn., Inc. v. City Council* (1977) 73 Cal.App.3d 546, 555-556).~~

IT IS HEREBY ORDERED that, pursuant to section ~~13304 and section~~ 13267 of Division 7 of the Water Code, Valley Water Management Company ~~shall cease the discharge of waste water that exceeds the concentration limits contained in Order 92-110 and Order 92-11037 the Basin Plan, and clean up and abate the condition of unauthorized discharge~~ is hereby ordered to submit the following reports in accordance with the time schedule below:

1. ~~By 3 March 2014, (Within 30 days following CAO issuance) of this Order,~~ Valley Water shall prepare and submit to the Central Valley Water Board ~~a the First Phase of a Work Plan for the cleanup and abatement investigation of the potential impacts~~ of discharges to the Fee 34 Facility. The First Phase Work Plan shall be complete and approvable by the Assistant Executive Officer (or for his/her delegate's approval) and shall detail the following activities and shall include a time schedule detailing the sequence of the First Phase Work Plan activities and time frame for completing each activity:
 - a. Conduct a hydrogeological site characterization to assess the effects, if any, of the discharge of high salinity wastewater on underlying groundwater. The characterization ~~may will~~ be conducted in phases to utilize acquired information to further assess the impacts of the wastewater discharge on groundwater. The phasing approach will require that, once technical evaluation results from a previous phase are available, the findings will be used to develop a detailed scope for the next phase of work. The approach will require timely

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communications to Board staff so that their approval can be given for the specific details of the next investigation phase,

- b. The hydrogeological characterization, and a determination whether there has been a release of waste constituents ~~to that has adversely affected~~ groundwater, ~~or surface water~~ shall be consistent with the detection monitoring requirements of Title 27, CCR, section 20005 et seq. (Title 27). This includes the location and installation of groundwater monitoring wells; ~~surface water and~~ soil sampling locations; and the sampling and analyses methods for groundwater, ~~surface water,~~ and soil samples;
- c. Monitoring wells installed for the hydrogeological characterization need to be installed at appropriate depths that will allow the collection of representative groundwater samples. Existing groundwater wells documented to be in appropriate locations, where well depth and construction details can be provided, may be proposed as sampling points;
- d. Collect and submit representative groundwater and soil samples for laboratory analysis ~~from each monitoring well~~ for waste constituent parameters in accordance with an approved sampling and analysis plan (SAP),
- e. Conduct a well survey to identify water supply wells within one-mile of the facility. Based on the results of the hydrogeologic characterization, Valley Water may be required by the Assistant Executive Officer to sample the identified wells and analyze the samples for waste constituents of concern;
- f. Analyze all groundwater, ~~surface water~~ and soil samples at a California certified laboratory in accordance with the SAP submitted as part of the First Phase Work Plan. For initial or preliminary sampling to screen sample locations, a subset of analytical parameters will be proposed. Once a sample location has been evaluated, additional sampling and testing will be conducted as another phase of investigation in accordance with the Work Plan and SAP and depending on the preliminary results for EC, total dissolved solids (TDS), boron, general minerals, total petroleum hydrocarbons (TPHc), and benzene, toluene, ethylbenzene and xylene (BTEX). Table 1 contains a list of the parameters, and constituents, and reporting units that may be necessary for complete site characterization (including the general minerals) to be analyzed and the units to be reported;
- g. If a release of wastewater to groundwater, ~~surface water,~~ or soils ~~outside of the spray fields~~ is documented to be adversely affecting beneficial uses or causing exceedance of an applicable water quality objective, the hydrogeological characterization shall include a characterization of the nature and extent of the release consistent with the evaluation monitoring program requirements contained in Title 27;
- h. If a release of wastewater to groundwater, ~~surface water,~~ or soils ~~outside of the spray fields~~ is documented, then following the characterization of the nature and extent of the release and a determination of potential impacts to beneficial uses,

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~~a groundwater remediation program shall be submitted consistent with the corrective action program requirements contained in Title 27. This will entail the preparation of an engineering feasibility study followed by a proposed corrective action program,~~

- i. Implementation of BMPs to minimize further discharges of waste to ground waters ~~of the State~~, and
 - j. Based on information acquired during the hydrogeological site characterization, submit a revised report of waste discharge for revision of the waste discharge requirements consistent with current regulations and policies.
2. ~~Within 30 days of approval of the Work Plan by~~ Because Valley Water has already met with Regional Water Board staff on the First Phase Work Plan, upon submittal of that Work Plan to the Assistant Executive Officer (or his/her delegate), Valley Water shall begin implementing the First Phase Work Plan tasks contained in the Work Plan in accordance with the approved-proposed time schedule. The Assistant Executive Officer may request modifications to the Work Plan as necessary.
 3. ~~The Work Plan shall provide technical rationale and management practices that meet the guidelines of State Water Board Resolution 92-49 and are approved before implementation by Central Valley Water Board staff prior to installation.~~
 4. Beginning **1 May 2014**, or ~~another~~ date proposed in the First Phase Work Plan approved by the Assistant Executive Officer or his/her delegate, and monthly quarterly thereafter until all work plan activities are complete, Valley Water shall submit technical reports that provide information to document the work plan activities completed to date and to ultimately document that all elements of the Work Plan have been completed. ~~Corrective actions shall be proposed and included in these technical reports when work plan activities fail to satisfy any interim or final success criteria.~~
 5. All First Phase Work Plan activities shall be completed in accordance with time frames included in the First Phase Work Plan as approved by submitted to the Assistant Executive Officer (or his/her delegate).
 6. With each report required by this ~~Cleanup and Abatement~~ Order, Valley Water shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including

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the possibility of fine and imprisonment for knowing violations. Pursuant to Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.

7. If it is determined that discharges from this facility have impacted the beneficial uses of water, Valley Water can be further required upon ~~notification order~~ by the Assistant Executive Officer to provide a replacement water supply or treat the water to allow continued use.

NOTIFICATIONS

1. **Applicability.** Requirements established pursuant to Water Code sections ~~13304 and 13267(b)~~ are enforceable when signed by the Assistant Executive Officer of the Central Valley Water Board.
2. **Enforcement Actions.** The Central Valley Water Board reserves its right to take any enforcement action authorized by law for violations, including but not limited to, violations of the terms and conditions of this ~~Cleanup and Abatement Order (i.e., implementation and maintenance of BMPs, and mitigation for impacts).~~
3. **Inspection and Entry.** Valley Water shall allow the Central Valley Water Board, ~~or State Water Board, United States Environmental Protection Agency (USEPA), the County of Kern,~~ and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to at reasonable times do the following:
 - a. Enter upon the properties;
 - b. Access and copy any records related to this ~~Cleanup and Abatement~~ Order;
 - c. Inspect and photograph any facilities, equipment, practices, or operations regulated or required by this ~~Cleanup and Abatement~~ Order; and
 - d. Sample or monitor any substances or parameters onsite for the purposes of assuring ~~Cleanup and Abatement~~ Order compliance or as otherwise authorized by the ~~federal Clean Water Act or the~~ Porter-Cologne Water Quality Control Act.
4. **Potential Liability.** ~~Pursuant to Water Code section 13350, any person who intentionally or negligently violates a cleanup and abatement order may be liable civilly in an amount which shall not exceed five thousand dollars (\$5,000), but shall not be less than five hundred dollars (\$500), for each day in which the cleanup and abatement order is violated.~~ Pursuant to Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports as required by section 13267, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in an amount which shall not exceed one thousand dollars (\$1,000) for each day in

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which the violation occurs.

5. ~~**Cost Reimbursement.** Pursuant to Water Code section 13304, the Central Valley Water Board is entitled to, and may seek reimbursement for, all reasonable costs it actually incurs to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Cleanup and Abatement Order. Valley Water shall reimburse the State of California for all reasonable costs actually incurred by the Central Valley Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Cleanup and Abatement Order, according to billing statements prepared from time to time by the State Water Board.~~
6. ~~**Waste Management.** Valley Water shall properly manage, store, treat, and dispose of contaminated soils and ground water in accordance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of soil containing waste constituents and polluted groundwater shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050(m). Valley Water shall, obtain, or apply for coverage under waste discharge requirements or a conditional waiver of waste discharge requirements for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the State.~~
5. **Requesting Administrative Review by the State Water Board.** Any person aggrieved by an action of the Central Valley Water Board that is subject to review as set forth in Water Code section 13320(a), may petition the State Water Board to review the action. Any petition must be made in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition within thirty (30) days of the date the action was taken, except that if the thirtieth day following the date the action was taken falls on a Saturday, Sunday, or state holiday, then the State Water Board must receive the petition by 5:00 p.m. on the next business day. Copies of the laws and regulations applicable to filing petitions may be found on the internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml or will be provided upon request.
6. **Modifications.** Any modification to this ~~Cleanup and Abatement~~ Order shall be in writing and approved by the Assistant Executive Officer, including any extensions. Any written extension request by Valley Water shall include justification for the delay.
7. **No Limitation of Water Board Authority.** This ~~Cleanup and Abatement~~ Order in no way limits the authority or ability of the Central Valley Water Board to institute additional enforcement actions or to require additional investigation and any necessary cleanup of the property~~ies~~ consistent with the Water Code. This ~~Cleanup and Abatement~~ Order may be revised as additional information becomes available.

REPORTING REQUIREMENTS

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1. **Duty to Use Qualified Professionals.** Valley Water shall provide documentation that plans and reports required under this ~~Cleanup and Abatement~~ Order are prepared under the direction of appropriately qualified professionals. Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals. Valley Water shall include a statement of qualifications and license numbers, if applicable, of the responsible lead professionals in all plans and reports required under this ~~Cleanup and Abatement~~ Order. The lead professional shall sign and affix their license stamp, as applicable, to the report, plan, or document.

2. **Electronic and Paper Media Reporting Requirements.** Valley Water shall submit both electronic and paper copies of all reports required under this ~~Cleanup and Abatement~~ Order including work plans, technical reports, and monitoring reports. Larger documents shall be divided into separate files at logical places in the report to keep file sizes under 150 megabytes. Valley Water shall continue to provide a paper transmittal letter, a paper copy of all figures larger than 8.5 inches by 14 inches (legal size), and an electronic copy (on Compact Disc [CD] or other appropriate media) of all reports to the Central Valley Water Board. All paper correspondence and documents submitted to the Central Valley Water Board must include the following identification numbers in the header or subject line: Geotracker Site ID: T10000005197. Valley Water shall comply with the following reporting requirements for all reports and plans (and amendments thereto) required by this ~~Cleanup and Abatement~~ Order:
 - a. Reports and Plans Required by this ~~Cleanup and Abatement~~ Order. Valley Water shall submit one paper and one electronic, searchable Portable Document Format (PDF) copy of all technical reports, monitoring reports, progress reports, and plans required by this ~~Cleanup and Abatement~~ Order. The PDF copy of all the reports shall also be uploaded into the Geotracker database, as required by Reporting Requirement 2.(b)(iv) below.

 - b. Electronic Data Submittals to the Central Valley Water Board in compliance with the ~~Cleanup and Abatement~~ Order are required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Geotracker Site ID: T10000005197). The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the ~~Cleanup and Abatement~~ Order or addenda thereto. To comply with these requirements, Valley Water shall upload to the Geotracker database the following minimum information:
 - i. Laboratory Analytical Data: Analytical data (including geochemical data) for all waste, soil, and water samples shall be submitted in Electronic Deliverable Format (EDF), which facilitates the transfer of data from the laboratory to the end user. Waste, soil, and water include analytical results of samples collected from the following locations and devices: surface samples, equipment, monitoring wells, boreholes, gas and vapor wells or other collection devices, ~~surface water~~, groundwater, piezometers, and stockpiles.

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- ii. Locational Data: All permanent monitoring locations (monitoring wells, sediment sampling locations, ~~surface water sampling locations,~~ etc.) shall be surveyed with latitude and longitude coordinates in a decimal degree format basin on the North American Datum 1983 ellipsoid, and accurate to within one meter (3 feet).
- iii. Site Map: Site map or maps which display discharge locations, streets bordering the facility, and sampling locations for all waste, soil, and water samples. The site map is a stand-alone document that may be submitted in various electronic formats. A site map must also be uploaded to show the maximum extent of any soil impact and water pollution. An update to the site map may be uploaded at any time.
- iv. Electronic Report: A complete copy (in character searchable PDF) of all work plan modifications, assessment, ~~cleanup,~~ and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.

3. ~~Oversight Reimbursement. Reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation and remediation of the Site, as provided in Water Code section 13304(c) (1). By 3 March 2014, provide the name and address where the invoices shall be sent. Failure to provide a name and address for invoices and/or failure to reimburse the Central Valley Water Board's reasonable oversight costs shall be considered a violation of this Order.~~

4. **Signatory Requirements.** All reports required under this ~~Cleanup and Abatement~~ Order shall be signed and certified by Valley Water or by a duly authorized representative and submitted to the Central Valley Water Board. A person is a duly authorized representative only if: 1) The authorization is made in writing by Valley Water; and 2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.).

5. All monitoring and technical reports required under this ~~Cleanup and Abatement~~ Order shall be submitted to:

California Regional Water Quality Control Board
Central Valley Region
1685 E Street, Suite 200
Fresno, CA 93706
Attn: Ryan West
Geotracker Site ID: T10000005197

6. FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ~~CLEANUP AND ABATEMENT~~ ORDER MAY SUBJECT YOU TO FURTHER ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO, ASSESSMENT OF CIVIL LIABILITY UNDER SECTIONS 13268 ~~AND 13350~~ OF THE WATER CODE AND REFERRAL TO THE

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DISTRICT ATTORNEY OR ATTORNEY GENERAL FOR INJUNCTIVE RELIEF AND
CIVIL OR CRIMINAL LIABILITY.

Ordered by:

CLAY L. RODGERS
Assistant Executive Officer

Date

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TABLE 1

REQUIRED WATER ANALYSES -- POTENTIAL PARAMETERS AND CONSTITUENTS

General Minerals

Electrical Conductivity (EC)	µmhos/cm ⁽¹⁾
Total Dissolved Solids (TDS)	mg/L ⁽²⁾
Chloride	mg/L
Boron	mg/L
Carbonate	mg/L
Bicarbonate	mg/L
Nitrate - Nitrogen	mg/L
Sulfate	mg/L
Calcium	mg/L
Magnesium	mg/L
Potassium	mg/L
Sodium	mg/L

(Analyses need to be accompanied by an anion-cation balance)

Petroleum Hydrocarbons of Concern

Total Petroleum Hydrocarbons as Crude Oil (TPHc)	µg/L ⁽³⁾
(USEPA Method 8015B fuel finger print [FFP])	
Benzene	µg/L
(USEPA Method 8260)	
Toluene	µg/L
(USEPA Method 8260)	
Ethylbenzene	µg/L
(USEPA Method 8260)	
Xylene (Total)	µg/L
(USEPA Method 8260)	

(1) Micromhos per centimeter.

(2) Milligrams per liter.

(3) Micrograms per liter.