

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

[STIPULATED] CEASE AND DESIST ORDER NO. R5-2025-0025

FOR
E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or Board) finds that:

Summary:

This Order is issued to E. & J. Gallo Winery (Discharger) for violations of Waste Discharge Requirements (WDRs) Order R5-2015-0040 (WDRs) for the Fresno Winery (Facility). The Discharger's violations include but are not limited to applying waste constituents to land in excess of reasonable agronomic rates, threatening to adversely impact groundwater beneath the Facility. The Discharger's wastewater disposal practices include the application of wastewater to land. Periodically, the wastewater is applied to land at rates that exceed crop demand and/or crop removal rates which cause or threaten to cause nitrate as N in groundwater to exceed the primary maximum contaminant level (MCL) of 10 milligrams per liter (mg/L). The application of wastewater at excessive rates threatens to exacerbate existing groundwater pollution for constituents including nitrate, electrical conductivity, and total dissolved solids (TDS). The Discharger has stated it plans to cease all wastewater discharges to land within approximately five years. This Order requires the Discharger to cease discharge of wastewater to land application areas (LAAs) within five years unless the discharge complies with the WDRs. This Order further requires the Discharger to cease and desist from violating its WDRs in accordance with a time schedule and to complete several tasks, including: 1) submitting a workplan and implementation schedule for ensuring compliance with the WDRs, 2) submitting a workplan for moving and reducing the size of the byproducts storage area at the Facility and installing an engineered pad beneath the area, which is designed to eliminate to the extent practical the threat to beneficial uses of waters of the State posed by the byproducts storage area, and 3) implementing items 1 and 2 above in compliance with the deadlines set forth in this Order. Failure to comply with this Order may subject the Discharger to additional enforcement action, including the Central Valley Water Board issuing an Administrative Civil Liability Complaint (ACLC) and/or issuing a curtailment order for all future discharges of waste to land.

Facility and Regulatory Background

1. Discharger owns and operates the Fresno Winery (Facility) at 5610 East Olive Avenue in Fresno, California as shown in the Site Map included as Attachment

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

A-1 (attached hereto and incorporated by this reference). The Facility property consists of about 700 acres in portions of Sections 28 and 33, T13S, R21E, Mount Diablo Base & Meridian. Winery wastewater is discharged to crops in 4 LAAs (LAAs 1 - 4) totaling about 409 of the 700 acres. LAA No. 1 is a 46.4-acre parcel south of Olive Avenue; LAA No. 2 is an 11-acre parcel south of Olive Avenue; LAA No. 3 is a 203-acre parcel north of Olive Avenue; and LAA No. 4 is a 148.6-acre parcel north of Olive Avenue. In the past, LAAs 1 and 4 have been double-cropped with Sudan grass and winter forage crops, and LAAs 2 and 3 were planted with vineyards. The vineyards have been removed and all the LAAs are now double cropped with Sudan grass and winter forage crops. The four LAAs are further divided into 19 fields or blocks as also shown in Attachment A-1, Site Map. Discharger also operates a composting facility on 85 acres of the 700-acre property.

2. Facility discharges are regulated by *Order R5-2015-0040, Waste Discharge Requirements for E. & J. Gallo Winery, Fresno Winery* (WDRs), adopted by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 17 April 2015. The WDRs acknowledge that, at the time of adoption, historic discharges to the LAAs caused legacy groundwater pollution with nitrate as N, chloride, sulfate, electrical conductivity (EC), and total dissolved solids (TDS). The Discharger installed its Fresno Anerobic Treatment System (FATS) in 2007 to reduce the biochemical oxygen demand (BOD) of its discharges, reducing the BOD loading on the LAAs and allowing it to discharge more of its wastewater to the Fresno-Clovis Regional Wastewater Treatment Facility (Fresno WWTF).
3. The composting facility is also regulated by Time Schedule Order (TSO) R5-2022-0901.
4. Wine making and distillation activities have taken place at the Winery since the 1930s. Discharger purchased the property in 1953. Winery wastewater has been discharged to surrounding farmlands, including the LAAs, since at least 1959.
5. The Facility property is approximately one mile wide (east/west), one and one-half miles in length, and is generally bounded by Belmont Avenue to the south, Clovis Avenue to the west, Clinton Avenue to the north, and Fowler Avenue to the east. Attachment A-1 shows the configuration of the Winery and LAAs.
6. The *United States Department of Agriculture, Natural Resources Conservation Service, National Cooperative Soil Survey* (United States Department of Agriculture, Natural Resources Conservation Service, n.d.) indicates that upper soils in the LAAs are predominately relatively coarse-grained Atwater Loamy Sands and Atwater Sandy Loams (60%) and Ramona Sandy Loams and Ramona Loams (32%). The remaining soils in the LAAs are largely comprised of

Delhi Loamy Sands.

7. Finding 78 of Order R5-2015-0040 indicates the City of Fresno depends on groundwater as its drinking water source and the area downgradient of the Facility is supplied with municipal drinking water from the City of Fresno and Bakman Water Company (Bakman). Water quality data provided in Discharger's self-monitoring reports (SMRs) for numerous City of Fresno supply wells (including wells 155-1, 155-2, 253-1, 289-2) and water quality data from the State Water Resources Control Board (State Water Board) Groundwater Ambient Monitoring and Assessment Program (GAMA) database for Bakman supply wells (including wells B-2, B-6, B-8, and B-14), including both recent water quality data and historical trends, show nitrate concentrations that have exceeded and in other cases closely approached the nitrate as nitrogen maximum contaminant level (MCL) of 10 milligrams per liter (mg/L).

Facility Regulation

8. To ensure ongoing Facility discharges do not exacerbate legacy groundwater pollution issues, WDRs Order R5-2015-0040 includes the following prohibitions, discharge specifications, land application requirements, groundwater limitations, and provisions:

- a. Discharge Prohibition A.4., which states:

Discharge of wastewater in a manner or location other than that described in the report of waste discharge and herein is prohibited.

- b. Discharge Specification C.1., which states:

No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.

- c. Discharge Specification C.2., which states:

Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.

- d. Land Application Area (LAA) Specification D.1., which states:

For the purposes of this Order, "land application areas" refers to the discharge areas described in Finding 14.

Finding 14 of the WDRs states:

The land application areas are comprised of 19 parcels or blocks that are east of the Winery and either north or south of Olive Avenue, as shown in Attachment C, which is attached hereto and made part of this Order by reference. The RWD indicates that wastewater is reused at four distinct areas and loading estimates are provided for each of the four areas (two south and two north of Olive Avenue). Crusher/press wastewater is discharged to 71 acres of farmland south of Olive Avenue. The 71 acres are split into two areas designated land application area No. 1 and land application area No. 2. Land application area No. 1 is identified as a 59-acre parcel that is double cropped with Sudan grass and winter forage. Land application area No. 2 is identified as a 12-acre parcel cropped with vineyards. General process wastewater and stillage wastewater treated by the anaerobic treatment system are discharged to land application areas containing 362 acres north of Olive Avenue. These land application areas are divided into two areas designated land application areas No. 3 and No. 4. Land application area No. 3 is a 273 acre parcel planted with vineyards, and Land application area No. 4 is an 89-acre parcel double cropped with Sudan grass and winter forage crops. The 85-acre composting facility is not included in 362 acres of land application areas situated north of Olive Avenue.

- e. LAA Specification D.2. which states:

Application of waste constituents to the land application areas shall be at reasonable agronomic rates to preclude creation of a nuisance and unreasonable degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the land application areas, including the nutritive value of organic and chemical fertilizers and of the wastewater and nutrients in applied irrigation water and available in the root zone shall not exceed the annual crop demand.

- f. LAA Specification D.4., which states:

Crops shall be grown within the land application areas. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake of waste constituents.

- g. LAA Specification D.6., which states:

The Discharger shall maximize the use of available land application areas to minimize waste constituent loading rates.

- h. LAA Specification D.9., which states:

The volume of wastewater applied to the land application area on any single day shall not exceed reasonable agronomic rates based on the vegetation grown, pre-discharge soil moisture conditions, and weather conditions.

- i. LAA Specification D.10., which states:

Hydraulic loading of wastewater and supplemental irrigation water including precipitation shall be at reasonable agronomic rates designed to: a. Maximize crop nutrient uptake; b. Maximize breakdown of organic waste constituents in the root zone; and c. Minimize the percolation of waste constituents below the root zone.

- j. Solids Specifications E.1., which states:

Any handling and storage of residual solids shall be temporary, and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate Groundwater Limitations of this Order.

- k. The Groundwater Limitations in the WDRs, section F, which states:

Release of waste constituents from any treatment unit, delivery system, storage areas, or Land Application Area associated with the Facility shall not cause or contribute to groundwater containing concentrations of constituents identified below, or natural background quality, whichever is greater.

- 1. Nitrate as nitrogen of 10 mg/L.*
- 2. EC of 900 umhos/cm.*
- 3. For constituents identified in Title 22, the MCLs established therein.*

- l. Provision G.2, which states:

The Discharger shall comply with Monitoring and Reporting Program (MRP) R5-2015-0040, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.

9. The Facility and LAAs are in Detailed Analysis Unit (DAU) No. 233, within the Kings Basin hydrologic unit. The *Water Quality Control Plan for the Tulare Lake Basin* (Basin Plan) identifies the beneficial uses (BUs) of groundwater in DAU

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

No. 233 as municipal and domestic supply (MUN), agricultural supply, industrial service supply, and industrial process supply.

10. The Basin Plan includes a water quality objective for chemical constituents that, at a minimum, requires waters designated as MUN to meet the State drinking water MCLs specified in Title 22 of the California Code of Regulations (CCR) section 64431. The Basin Plan recognizes the Central Valley Water Board may apply limits more stringent than MCLs to ensure waters do not contain chemical constituents in concentrations that adversely affect BUs. The application of wastewater greater than agronomic rates has caused or threatens to cause nitrate concentrations in groundwater to exceed the MCLs.
11. On 20 September 2022, Central Valley Water Board staff (Staff) inspected the Facility. During the inspection, Staff observed wastewater being applied to what appeared to be a fallow LAA. Discharger clarified that the LAA was not fallow, as there was a crop in place, and the appearance was misleading because the crop had just been through a cutting. Staff also observed that wastewater was pooled in the byproducts storage area and stem area and that the asphalt liner had multiple cracks. Staff also reviewed Discharger's SMRs and observed a significant increase in the rate of groundwater pollution associated with nitrate as N and electrical conductivity (EC) and total dissolved solids (TDS). On 28 October 2022, Staff issued a Notice of Violation (NOV) finding Discharger in violation of WDRs R5-2015-0040 **LAA Specification D.2** for applying waste constituents in excess of reasonable agronomic rates, **LAA Specification D.9** for applying a volume of wastewater on any single day in excess of reasonable agronomic rates, and Groundwater **Limitation F.1** for causing or contributing to nitrate as N in groundwater to exceed the primary MCL of 10 milligrams per liter (mg/L).
12. On 14 December 2022, Discharger submitted its *Response to Notice of Violation Dated October 2022 for E & J Gallo Fresno Winery* (NOV Response). The NOV Response indicated:
 - There was little or no wastewater percolation beneath the land application areas between 2018 and 2021. As a result, nitrogen was sequestered in the surface soils during the summer months and taken up, in part, by winter forage during the fall and winter.
 - Total nitrogen expressed as nitrogen (total nitrogen as N) loading was less than annual agronomic rates for LAA-1 and LAA-4, but that LAA-2 and LAA-3 exceeded their annual agronomic rate for 2018 and 2021.

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

- Infiltrating surface water discharges take decades to reach the water table, thus, current groundwater conditions represent legacy conditions from past regional and local practices, which have been discontinued or improved.
- Discharger repaired the byproducts storage area and stem area, including by (1) annual cleaning, inspection, and coating of sumps, and (2) installation of an automated leachate collection and recovery system that sends its output to the FATS for treatment or to the Fresno WWTF. In light of these measures, the Discharger made a determination that additional efforts to investigate the byproducts storage area were not warranted.

Wastewater Discharges and Characteristics

13. The Facility has six discharges, which are described below:
 - a. EFF-01: treated process water that is discharged from the FATS to the Fresno WWTF except during the crush season when process water is generated at a rate that exceeds the capacity of the sewer connection to the Fresno WWTF and a portion of the discharge is diverted to the LAAs. The “crush” refers to the season when grapes are crushed, generally August through November.
 - b. EFF-02: effluent from the crusher/press area that is not treated by the FATS and is directly discharged to the LAAs.
 - c. EFF-03: untreated stillage and distillation wastewater that is typically discharged to the FATS but is directly discharged to the LAAs when the FATS is offline for maintenance.
 - d. EFF-04: wine ion exchange regenerant (IER), a wine purification waste product, is discharged to the compost facility, where it is mixed with compost.
 - e. CMP-01 and -02: leachate and/or stormwater generated by the compost area, which is usually treated by the FATS and discharged to the Fresno WWTF or the LAAs unless direct discharge is required to alleviate flooding.
 - f. CMP-03, -04, and -05: leachate and/or stormwater generated from the byproducts storage area and stem area, usually treated by the FATS and discharged to Fresno WWTF or the LAAs unless direct discharge is required to alleviate flooding.
14. Combined Facility waste streams generate approximately 400 million gallons of wastewater annually. WDRs Effluent Limitation B.1. limits the discharge of wastewater to the LAAs from all sources listed above to 54.2 million gallons per year. The remainder is discharged to the Fresno WWTF. Discharger and the City of Fresno have a contract allowing the Facility to discharge an average of 1.37 million gallons per day (mgd) of wastewater to the Fresno WWTF on a 30-day rolling average.

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

15. Discharger treats all its general process wastewater and most of its stillage wastewater in the FATS, with exceptions described in Finding 13. As described above, crusher press wastewater is discharged directly to the LAAs.
16. Discharger has communicated to Staff that discharges to the LAAs will continue for another five years, after which time all the Facility's wastewater will be diverted to the City of Fresno WWTF or other permitted off-Facility destination. Until that time, the discharge will continue as authorized by WDRs R5-2015-0040.
17. Staff reviewed SMRs from 2015 to 2023 that indicate wastewater was discharged to the LAAs almost exclusively during the "crush" season (August-November). During the period of review, approximately 41% (155 million gallons "Mgal") of the discharge was from EFF-01 (FATS), 53% (200 Mgal) from EFF-02, and 3% (12 Mgal) has been from other sources.
18. EFF-01 and EFF-02 contain elevated average total nitrogen as N concentrations at 281 and 140 mg/L, respectively. For EFF-01, the total nitrogen as N in the discharge consists of approximately 65% ammonia as nitrogen. Ammonia in wastewater applied to land can convert to nitrate as N. In addition, TDS and chloride are present at elevated concentrations in EFF-01, EFF-02, and EFF-03. EC and TDS values are higher than their respective MCLs.
19. Nitrogen applied in excess of crop demand and/or uptake rates may eventually convert to nitrate as N and migrate to groundwater, where it can cause unreasonable degradation or pollution. A "reasonable agronomic" rate is one that is based on crop demand, results in nutrient applications when crops can utilize the nutrients, maximizes crop uptake, minimizes the percolation of waste constituents below the root zone, and precludes the creation of nuisance conditions and the unreasonable degradation of groundwater.
20. Discharger's annual discharge reports and other correspondence for the period 2015 through 2023 indicate that Discharger applied total nitrogen at rates exceeding crop demand/removal rates on multiple occasions. Total nitrogen application rates that exceed crop demand and/or crop removal **violate and/or threaten to violate LAA Specification D.2 and Discharge Specifications C.1 and C.2.**
21. The total nitrogen as N application rates described in Finding 20 are of particular concern because Discharger's applications of wastewater and the nitrogen therein also occur right before or during the Central Valley's wet season (November through January), during which, according to the National Weather Service, Fresno averages 4.82-inches of rain. This amounts to about 44% of the annual average. This precipitation occurs just after application of wastewater

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

containing high concentrations of mobile forms of nitrogen (including ammonia as N and nitrate as N) before any significant uptake of nitrogen by the winter forage crop. Rainwater falling on and percolating through the site's coarse-grained surface soils threatens to wash the nitrogen in the soil to groundwater before the winter forage crops are developed enough to take up significant amounts of nitrogen. This process with current land application practices threatens to exacerbate legacy groundwater pollution with nitrate as N beneath the Facility and is a **violation and/or threatened violation of Discharge Specifications C.1 and C.2 and LAA Specifications D.2, D.9, and D.10.**

Composting Operations and Winery Byproducts Storage Area

22. As described in Finding 1, Discharger operates an 85-acre composting facility on the Winery property, where green waste from the community and stems from the Winery are composted. Composting activities have been conducted since 1975. According to the WDRs, Discharger produces up to 378,000 cubic yards of compost annually, and up to 250,000 cubic yards of finished compost is present onsite at any given time.
23. Pomace (residual solids from pressing grapes, such as stems, seeds, skins, etc.) and spent diatomaceous earth¹ is staged in a 10-acre, asphalt-paved winery byproducts storage area and stem area on the south side of the composting facility.
24. During inspections in 2022 and 2024, Staff observed numerous cracks on the asphalt surface of the byproducts storage area and stem area. Following the 2022 inspection, Central Valley Water Board staff issued a 28 October 2022 NOV, along with the 2022 Inspection Report. Following the 2024 inspection, Central Valley Water Board staff issued a 26 August 2024 Staff Enforcement Letter along with a 2024 Facilities Inspection Report. The 2022 and 2024 inspection photographs show the byproducts storage area and numerous surface-level cracks in the pavement. During the inspections, Staff also observed stormwater and leachate pooled in the byproducts storage area immediately after a storm event. The cracks in the pavement may allow the stormwater and leachate that pools in the byproducts storage area and stem area to percolate below the pavement to underlying soil and potentially to groundwater.
25. The locations of CMP-01 through CMP-05 are shown in Figure A-2 in Attachment A (Figure 5 from Gallo's 2022 4th Quarter SMR). Sumps CMP-01 and CMP-02 primarily collect storm water runoff from the composting pad. CMP-03 through

¹ Naturally occurring sedimentary deposit consisting mostly of silica used as a media for filtering wine.

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

CMP-05 collect a mixture of storm water and leachate (that drains primarily from the spent diatomaceous earth and pomace that is temporarily stored at the byproducts storage area and stem area). The mixture of leachate and stormwater is then pumped to the FATS for treatment.

26. Based on Discharger's SMRs from 2015 to 2023, the average total nitrogen (N) concentrations reported for CMP-01 and -02 are 217 mg/L and 268 mg/L, respectively, and maximums reported are 1,900 mg/L for both. The average ammonia as N concentrations of these waste streams is 109 mg/L and 127 mg/L, respectively and maximums reported are 1,100 mg/L for both. Average EC of these waste streams are 5,003 $\mu\text{S}/\text{cm}$ and 4,714 $\mu\text{S}/\text{cm}$, respectively and maximums reported are 23,000 $\mu\text{S}/\text{cm}$ and 20,000 $\mu\text{S}/\text{cm}$, respectively. The average TDS concentrations of these waste streams are 10,239 mg/L and 13,343 mg/L, respectively and maximums reported are 79,000 mg/L for both. If applied to land, the respective loadings are quantified and reported.
27. As mentioned above, CMP-03, -04, and -05 collect leachate and/or stormwater generated by the byproducts storage area and stem area. The following summarizes the quality of the leachate and/or stormwater generated in the byproducts storage area and stem area and captured by CMP -03, -04, and -05, which is sent to FATS for treatment:
 - a. The average total nitrogen as N concentrations of these waste streams are 1,355 mg/L, 1,085 mg/L, and 559 mg/L, respectively and maximums reported are 5,100 mg/L, 4,600 mg/L, and 2,100 mg/L, respectively.
 - b. The average ammonia as N concentrations of these waste streams are 242 mg/L, 221 mg/L, and 137 mg/L, respectively and maximums reported are 1,300 mg/L, 909 mg/L and 580 mg/L, respectively.
 - c. The average EC of these waste streams are 12,125 $\mu\text{S}/\text{cm}$, 20,242 $\mu\text{S}/\text{cm}$, and 8,313 $\mu\text{S}/\text{cm}$, respectively and maximums reported are 42,000 $\mu\text{S}/\text{cm}$, 388,000 $\mu\text{S}/\text{cm}$, and 25,000 $\mu\text{S}/\text{cm}$, respectively.
 - d. The average TDS concentrations of these waste streams are 47,447 mg/L, 38,697 mg/L, and 19,772 mg/L, respectively and maximums reported are 120,000 mg/L, 140,000 mg/L, and 90,000 mg/L, respectively.
 - e. The average FDS concentrations of these waste streams are 16,308 mg/L, 14,411 mg/L, and 8,193 mg/L, respectively and maximums reported are 54,000 mg/L, 67,000 mg/L, and 40,000 mg/L, respectively.
28. The levels of EC, TDS, and FDS in the stormwater/leachate associated with the byproducts storage area and stem area exceed applicable MCLs. The

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

stormwater and leachate mixture is pumped to FATS for treatment. However, the cracked asphalt may allow for percolation of the stormwater and leachate mixture which represents a discharge or threatened discharge and is a violation of and/or threatened violation of **Discharge Specifications C.1 and C.2., Solids Specifications E.1, and Groundwater Limitations F.**

29. It is appropriate to require Discharger to construct an engineered pad that will eliminate to the extent practical the possible threat posed by byproducts storage at the Facility to the beneficial uses of the waters of the State. This Order directs Discharger to design and build a new pad for byproducts storage that is protective of beneficial uses of waters of the State. The new pad will be referred to as the byproducts transfer station. Staff recognize that there are many engineering options and constraints for the design of the new pad. To protect groundwater, the design should include engineered elements that will minimize/prevent percolation of the stormwater and leachate mixture.
30. On 25 July 2022, the Executive Officer issued Time Schedule Order (TSO) R5-2022-0901. The TSO requires, among other things, that Discharger submit a Notice of Intent (NOI)/application by 2 January 2030 (if composting activities are still occurring at the Winery) for enrollment under General Waste Discharge Requirements for Commercial Composting Operations, State Water Resources Control Board Order WQ 2020-0012-DWQ (Composting General Order) or subsequently revised Composting General Order.

Groundwater

31. Discharger maintains a groundwater monitoring well network at the Winery. The locations of the groundwater monitoring wells are shown on Attachment A-1. MW-1 through MW-3 (upgradient monitoring wells) provide upgradient groundwater monitoring along the eastern property boundary. MW-4 through MW-8 provide onsite groundwater monitoring along the western and downgradient edge of the Winery LAAs. MW-9 and MW-10 monitor groundwater quality within the Winery property. MW-9 is located downgradient of the Composting Facility, and MW-10 is located in the central portion of the northern LAAs. MW-6 is downgradient of LAA-4. MW-B-18-1, MW-11OS, MW-12OS, and MW-12AOS provide off-site downgradient groundwater monitoring. Groundwater conditions are summarized in more detail in the Findings below.
32. SMRs from 2001 to 2023 indicate the direction of groundwater flow is typically to the west to west-southwest. Groundwater depth has ranged from 77.5 to 114.95 feet below ground surface. Following the wet winter of 2022/2023, the groundwater elevations in all the monitoring wells rose approximately five to ten feet within a few months.

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

33. Attachment B summarizes concentrations of various constituents detected in Discharger's groundwater monitoring wells sampled between 2001 and 2024. Concentrations of nitrate as N, sulfate, and TDS increased in on-site monitoring wells MW-04, MW-05, MW-06, and MW-09 from at least 2001 through 2022, with nitrate levels as much as 13 times higher than the MCL in MW-6. Upgradient wells MW-1, MW-2 and MW-3 do not have the same degree of increases in N, sulfate, and TDS in onsite wells, with relatively minor increases in these constituents in the upgradient wells. There appears to be a decreasing trend in the concentration of these constituents beginning in about 2022.

Legal Authority & Regulatory Framework

34. This Order is issued pursuant to Water Code section 13301, which provides in relevant part:

When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional 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. ... Cease and desist orders may be issued directly by a board, after notice and hearing.

35. Water Code section 13267, which provides:

- (a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within this region.
- (b) (1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges [...] waste [...] 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.

36. Staff have considered the cost of compliance with this order and concluded that the cost of compliance bears a reasonable relationship to the need for the reports and the benefits that will be obtained from the reports.
37. The technical reports required by this Cease and Desist Order (CDO) are necessary to ensure compliance with both the CDO and WDRs, which will help protect public health and safety and the environment.
38. The ability to continue discharging waste to land is a privilege and not a vested right and may be revoked by the Central Valley Water Board. (Wat. Code, §13263(g).)
39. This Order does not specify the particular manner in which the Dischargers shall achieve compliance with the provisions of the existing WDRs. (Wat. Code, §13360(a).)
40. The issuance of this Order constitutes an enforcement action, which is categorically exempt from procedural requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 *et seq.*), in accordance with the CEQA Guidelines. (14 CCR §15321.)
41. 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 to consider this Cease and Desist Order under Water Code section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.

REQUIRED ACTIONS

IT IS HEREBY ORDERED, pursuant to sections 13301 and 13267 of the Water Code, that the Discharger, including its agents, employees, and corporate affiliates, shall comply with the following:

1. Cease all discharge of waste to the LAAs on **30 June 2030** unless those discharges are in full compliance with WDRs Order No. R5-2015-0040.
2. Cease and desist discharging in violation of WDRs Order No. R5-2015-0040, Prohibition A.4, Discharge Specifications C.1 and C.2, Land Application Area Specifications D.2, D.4, D.6, D.9, and D.10, and Solids Specification E.1 in accordance with the following compliance schedule:

<u>Task</u>	<u>Task Description</u>	<u>Due date</u>
a.	Submit a work plan and implementation schedule that identifies the specific control measures Discharger will employ to ensure compliance with the following requirements of WDRs Order R5-2015-0040: Prohibition A.4, Discharge Specifications C.1 and C.2, Land Application Area Specifications D.2, D.4, D.6, D.9, and D.10. The work plan and implementation schedule shall be subject to the approval of the Executive Officer.	3 months from the date of adoption of this Order
b.	Begin implementation of the approved work plan.	1 month following Executive Officer approval of the work plan required by 2.a.
c.	Submit a technical report demonstrating complete implementation of the approved work plan in compliance with Prohibition A.4, Discharge Specifications C.1 and C.2, and Land Application Area Specifications D. 2, D.4, D.6, D.9, and D.10 in WDRs Order R5-2015-0040. Upon receipt of written concurrence by the Executive Officer, this task shall be considered complete.	12 months from Executive Officer approval of Task 2.a.

3. The Discharger shall construct an engineered pad for the byproducts transfer station in accordance with the following schedule:

<u>Task</u>	<u>Task Description</u>	<u>Due date</u>
a.	<p>Prepare and submit a work plan and installation schedule for review and concurrence of the Executive Officer to install an engineered pad for the byproducts transfer station that is protective of beneficial uses of waters of the State. The work plan shall be in the form of a design report including:</p> <ul style="list-style-type: none">i. Design calculations demonstrating adequate containment will be achieved and beneficial uses of groundwater will be protected,ii. Details on the engineered pad and leachate/stormwater collection and removal system materials,iii. A construction quality assurance plan describing testing and observations needed to document construction of the pad,iv. An operations, monitoring, and maintenance plan for the engineered pad; andv. A description of efforts to be taken to prevent nuisance conditions (including flies and odors) when byproducts are stored on the engineered pad.	5 months from the date of adoption of this Order
b.	<p>Submit an interim construction report for the approved engineered pad demonstrating installation of the pad is underway.</p>	12 months from Executive Officer approval of Task 3.a., but not longer than 18 months from the adoption of this Order.
c.	<p>Submit a post-construction report prepared by, or under the direct supervision of, and certified by, a Civil Engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the Business</p>	24 months following Executive Officer approval of Task 3.a.

<u>Task</u>	<u>Task Description</u>	<u>Due date</u>
	and Professions Code to assume responsible charge of such work. Waste shall not be placed on the engineered pad until the Executive Officer notifies the Discharger in writing that the post-construction report is acceptable. At a minimum, the report must include: (1) documentation of the results of the construction quality assurance testing and observations; (2) as-built diagrams; and (3) certification that the pad was constructed in accordance with design specifications.	
d.	Begin using the byproducts transfer station and discontinue use of the existing pad.	Upon Executive Officer approval of Task 2.c

4. **Curtailment of Discharges** – In the event Discharger fails to comply with any of the requirements of this Order or the Executive Officer determines discharges to the LAAs are continuing to cause or threaten to cause degradation of groundwater at an unreasonable rate, the Executive Officer has the discretion to direct in writing that all further wastewater discharges to the LAAs be curtailed within fifteen (15) calendar days (or a later date selected by the Executive Officer). Upon curtailment, the Discharger shall only recommence such discharges upon written approval by the Executive Officer.

5. **General Reporting Provisions** – All documents submitted pursuant to this Order shall comply with the following provisions:

- a. In accordance with the Business and Professions Code, all technical reports and workplans that involve planning, investigation, evaluation, design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by, or under the supervision of, a California-licensed civil engineer or professional geologist (Licensed Professional), and shall be signed and stamped by the same individual. Information in technical reports and/or workplans shall be presented in a manner that clearly attributes it to the responsible Licensed Professional.

E. & J. GALLO WINERY
FRESNO WINERY
FRESNO COUNTY

- b. All documents submitted under this Order shall be signed by a duly authorized representative (senior Facility manager or corporate officer), and include the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

- c. All documents submitted under this Order shall be submitted electronically via e-mail to: centralvalleyfresno@waterboards.ca.gov. The following information shall be included in the body of the e-mail: Attention Omar Mostafa, E. & J. Gallo Winery, Fresno Winery, CDO R5-2025-0025, CIWQS Place ID 225456.

6. Extensions – Except as provided herein, the submittal deadlines in this Order shall not be extended.

- a. If, for any reason, Discharger is unable to perform an activity or submit a report required by this Order (and materials incorporated herein), Discharger must submit a written request for an extension to the Executive Officer.
- b. To be considered, an extension request must set forth a definite period of extension (no indefinite extensions) and include justification for the delay.
- c. Any extension request shall be submitted as soon as the situation is recognized and no later than the applicable compliance date. Untimely requests may be disregarded.
- d. An extension is not valid unless granted by means of a revision to this Order, or a letter from either the Executive Officer or those granted written signature authority therefrom. All requests not approved in writing with reference to this Order are denied. Central Valley Water Board technical staff lack authority to approve any extensions under this Order.

7. Duration of Order – This Order shall remain in effect until it is rescinded by the Central Valley Water Board.

ENFORCEMENT

If Discharger fails to comply with the provisions of this Order, the Central Valley Water Board may refer this matter to the Attorney General for judicial enforcement, issue a complaint for administrative civil liability, or take other enforcement actions as necessary. Failure to comply with this Order 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, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement action authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and 23 CCR section 2050 *et seq.* The State Water Board must receive the petition by 5:00 PM on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 PM on the next business day. [Copies of the laws and regulations applicable to filing petitions](#) are available on the Internet (at the address below) and will be provided upon request.

(https://www.waterboards.ca.gov/public_notices/petitions/water_quality)

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, do hereby certify that 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 20 June 2025.

PATRICK PULUPA
Executive Officer

Attachments: Attachment A-1 and A-2 – Site Maps
Attachment B – Monitoring Well Analytical Data Summary

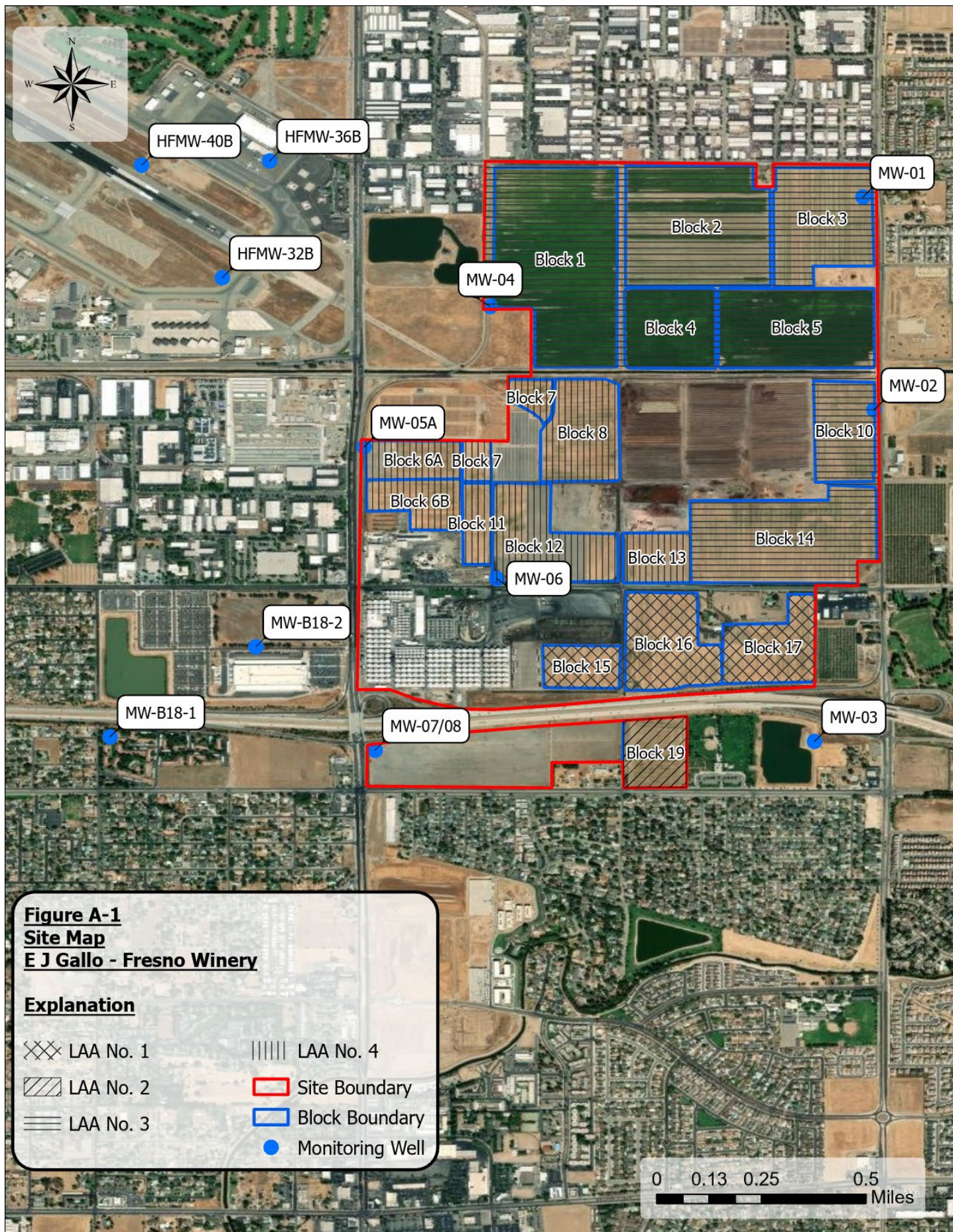
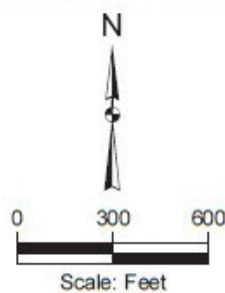


Figure A-2



Legend:

- ⊕ Monitoring Well (Gallo)
- Sump
- Stormwater Pump
- - - - - Stormwater Drainage Way
- Property Boundary
- Compost Facility Boundary



Kennedy/Jenks Consultants

E. & J. Gallo Winery
Fresno, California

Compost Facility

KJ 1665010*07

Figure 5

ATTACHMENT B
Monitoring Well Analytical Data Summary

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (μS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
<u>Background Monitoring Wells</u>								
MW-1	On-site on Upgradient Edge of Gallo Site (LAA No. 3)	Shallow	85 (2001 - 2023)	380 - 840	514 - 1300	8.6 - 82	19 - 110	1.9 - 25
MW-2	On-site on Upgradient Edge of Gallo Site (LAA No. 3)	Shallow	94 (2001 - 2024)	120 - 230	140 - 720	2.2 - 50	5.7 - 110	2 - 32
MW-3	Off-site Crossgradient (South East) of Gallo	Shallow	90 (2001 - 2024)	260 - 830	370 - 1200	5.1 - 48	22 - 100	3.9 - 43
<u>Crossgradient Monitoring Wells</u>								
CFMW-289-2 (1)	Off-site Crossgradient (South) of Gallo	Intermediate	3 (2013 - 2020)	140 - 220	200 - 260	2.7 - 5.5	4.6 - 6.5	0.66 - 3.8
CFMW-289-2 (2)	Off-site Crossgradient (South) of Gallo	Deep	3 (2013 - 2020)	260 - 310	400 - 480	9.5 - 11	13 - 17	8.1 - 11

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (µS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
CFMW-166 (1)	Off-site Crossgradient (South-Southeast) of Gallo	Intermediate	2 (2013 - 2020)	170 - 190	270 - 270	4.1 - 4.8	7.3 - 12	3.3 - 3.5
CFMW-166 (2)	Off-site Crossgradient (South-Southeast) of Gallo	Deep	2 (2013 - 2020)	170 - 170	260 - 260	3.3 - 3.7	7 - 9.2	2.6 - 2.7
<u>On-site Monitoring Wells</u>								
MW-10	On-site (LAA No. 3)	Shallow	34 (2016 - 2024)	820 - 1100	1300 - 1700	26 - 45	69 - 130	23 - 41
MW-9	On-site (LAA No. 3)	Shallow	35 (2016 - 2024)	470 - 860	770 - 1300	10 - 88	24 - 57	18 - 60
MW-4	On-site (Western Edge of LAA No. 3)	Shallow	78 (2001 - 2024)	400 - 1400	630 - 1900	6.2 - 55	24 - 140	9.5 - 80
MW-4A	On-site (Western Edge of LAA No. 3)	Shallow	32 (2017 - 2024)	330 - 1200	470 - 1800	3 - 64	13 - 110	4.3 - 74
MW-5	On-site (Western Edge of LAA No. 4)	Shallow	64 2001 - 2024)	500 - 1300	800 - 2000	26 - 91	25 - 100	19 - 91
MW-5A	On-site (Western Edge of LAA No. 4)	Shallow	49 (2012 - 2024)	620 - 1100	580 - 1500	15 - 41	17 - 45	17 - 55
MW-5B	On-site (Western Edge of LAA No. 4)	Intermediate	49 (2012 - 2024)	280 - 540	440 - 840	5.3 - 24	12 - 53	5 - 22

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (µS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
MW-6	On-site (Southern Edge of LAA No. 4)	Shallow	91 (2001 - 2024)	700 - 1500	992 - 2000	20 - 130	32 - 120	14 - 140
MW-6B	On-site (Southern Edge of LAA No. 4)	Intermediate	19 (2020 - 2024)	240 - 350	42 - 430	4 - 7.1	22 - 44	10 - 12
MW-7/MW-8	On-site (Western Edge of Former Block 18 of LAA)	Shallow	76 (2001 - 2024)	460 - 3400	760 - 4000	22 - 270	69 - 1400	11 - 32
MW-8A	On-site (Western Edge of Former Block 18 of LAA)	Shallow	32 (2016 - 2024)	560 - 890	840 - 1100	18 - 32	40 - 77	12 - 28
<u>Off-site Monitoring Wells</u>								
MW-B18-1	Off-site Downgradient (West-Southwest) of Gallo	Shallow	71 (2007 -2024)	260 - 980	410 - 1300	8.3 - 100	11 - 230	1.1 - 25
MW-110S	Off-site Downgradient (West) of Gallo	Shallow	19 (2020 - 2024)	550 - 820	880 - 1100	18 - 61	24 - 52	11 - 27
MW-120S	Off-site Downgradient (West) of Gallo	Shallow	19 (2020 - 2024)	410 - 560	640 - 860	18 - 44	22 - 43	7.2 - 14
MW-12AOS	Off-site Downgradient (West) of Gallo	Intermediate	19 (2020 - 2024)	460 - 780	690 - 940	29 - 46	30 - 50	14 - 22

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (µS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
HFMW-50C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	400 - 560	610 - 820	24 - 34	33 - 41	6.7 - 8.9
HFMW-50D	Off-site Downgradient (West) of Gallo	Deep	3 (2013 - 2020)	550 - 590	820 - 860	37 - 40	59 - 71	11 - 12
HFMW-50E	Off-site Downgradient (West) of Gallo	Deep	3 (2013 - 2020)	460 - 580	670 - 840	27 - 38	24 - 72	9.8 - 13
HFMW-51C	Off-site Downgradient (West) of Gallo	Intermediate	2 (2013 - 2020)	400 - 610	670 - 990	17 - 34	26 - 35	16 - 23
HFMW-22C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	260 - 380	410 - 560	9.7 - 12	20 - 23	8.1 - 10
HFMW-22E	Off-site Downgradient (West) of Gallo	Deep	3 (2013 - 2020)	300 - 550	400 - 870	10 - 36	14 - 31	6.3 - 18
HFMW-25C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	250 - 310	380 - 450	7.1 - 14	7.7 - 20	2.4 - 4.8
HFMWBP-06C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	230 - 300	400 - 400	7.9 - 8.2	14 - 17	3.3 - 4

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (µS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
HFMW-36B	Off-site Downgradient (West) of Gallo	Shallow	3 (2013 - 2020)	300 - 340	430 - 460	11 - 11	19 - 33	5.7 - 7.5
HFMW-40B	Off-site Downgradient (West) of Gallo	Shallow	3 (2013 - 2020)	280 - 330	330 - 460	7.2 - 13	12 - 21	3.9 - 12
HFMW-40C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	160 - 210	200 - 240	5.7 - 7	4.5 - 6.3	0.99 - 1.1
HFMW-32B	Off-site Downgradient (West) of Gallo	Shallow	3 (2013 - 2020)	280 - 340	330 - 470	6.5 - 9.7	11 - 21	7.4 - 11
HFMW-21C	Off-site Downgradient (West) of Gallo	Intermediate	3 (2013 - 2020)	480 - 600	730 - 870	21 - 27	33 - 37	8.3 - 8.8
CFMW-055	Off-site Crossgradient (North) of Gallo	Intermediate	3 (2013 - 2020)	260 - 310	450 - 500	11 - 12	14 - 18	6.5 - 8.9
CFMW-145	Off-site Crossgradient (North) of Gallo	Intermediate	3 (2013 - 2020)	160 - 170	170 - 200	3.5 - 4.4	2.8 - 4.3	0.62 - 0.86
CFMW-155 (1)	Off-site Downgradient (West) of Gallo	Deep	3 (2013 - 2020)	300 - 400	440 - 630	11 - 19	14 - 22	5.8 - 8.9

Well ID	Location In Relation to Gallo	Aquifer Zone	Number of Results & (Date Range)	TDS (mg/L) Min - Max	EC (µS/cm) Min - Max	Chloride (mg/L) Min - Max	Sulfate (mg/L) Min - Max	Nitrate as N (mg/L) Min - Max
Maximum Contaminant Level (MCL)				500/1000 ¹	900/1600 ¹	250/500 ¹	250/500 ¹	10 ²
CFMW-155 (2)	Off-site Downgradient (West) of Gallo	Deep	3 (2013 - 2020)	180 - 220	290 - 340	4.9 - 6.6	11 - 13	2.3 - 3.4
CFWM-253-1	Off-site Distant Downgradient (West-Southwest) of Gallo	Deep	3 (2013 - 2020)	360 - 400	570 - 610	18 - 21	18 - 22	5.7 - 11

Notes:

mg/L = milligrams per liter

µS/cm = microsiemens per centimeter which is equivalent to micromhos per centimeter.

¹. Secondary MCL, lower limit/upper limit

². Primary MCL.