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WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-0059



ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Adopted
Program:	Non-15
Region 5 Office:	Fresno
Discharger(s):	Lamont Public Utility District and Recology Blossom Valley Organics South
Facility:	Lamont Wastewater Treatment Facility
Address:	15308 Wildman Road, Bakersfield, CA 93307
County:	Kern County
Parcel Nos.:	185-300-14, 185-350-53, 185-350-54, and 185-350-55
Prior Orders:	WDRs Order R5-2012-0043 & CDO R5-2012-0044

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 14 October 2022.

PATRICK PULUPA,
Executive Officer

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Kern County

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GLOSSARY

Antidegradation Policy.....	Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16
Basin Plan	Water Quality Control Plan for [BASIN]
bgs	Below Ground Surface
BOD[5]	[Five-Day] Biochemical Oxygen Demand at 20° Celsius
BPTC.....	Best Practicable Treatment and Control
CEQA.....	California Environmental Quality Act, Public Resources Code section 21000 et seq.
CEQA Guidelines	California Code of Regulations, Title 14, section 15000 et seq.
C.F.R.....	Code of Federal Regulations
COC[s]	Constituent[s] of Concern
DO.....	Dissolved Oxygen
DTSC	California Department of Toxic Substances Control
DWR.....	California Department of Water Resources
EC	Electrical Conductivity
EIR	Environmental Impact Report
FDS	Fixed Dissolved Solids
FEMA	Federal Emergency Management Agency
IPP	Industrial Pretreatment Program
LAA	Land Application Area
lbs/ac/yr.....	Pounds per Acre per Year
µg/L	Micrograms per Liter
µmhos/cm.....	Micromhos per Centimeter

MG[D]	Million Gallons [per Day]
mg/L	Milligrams per Liter
msl	Mean Sea Level
MRP	Monitoring and Reporting Program
MW	Monitoring Well
MCL	Maximum Contaminant Level per Title 22
mJ/cm ²	Millijoules per Square Centimeter
ORP	Oxygen Reduction Potential
N	Nitrogen
ND	Non-Detect
NE	Not Established
NM	Not Monitored
Recycled Water Policy	<i>Policy for Water Quality Control for Recycled Water</i> , State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057
R[O]WD	Report of Waste Discharge
RCRA	Resource Conservation and Recovery Act
SPRRs	Standard Provisions and Reporting Requirements
SERC	State Emergency Response Commission
TDS	Total Dissolved Solids
Title 22	California Code of Regulations, Title 22
Title 23	California Code of Regulations, Title 23
Title 27	California Code of Regulations, Title 27
TKN	Total Kjeldahl Nitrogen

Lamont Public Utility District and
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GLOSSARY

Unified Guidance..... Statistical Analysis of Groundwater Monitoring Data at
RCRA Facilities, Unified Guidance (USEPA, 2009)

USEPA..... United States Environmental Protection Agency

VOC[s]..... Volatile Organic Compound[s]

WDRs..... Waste Discharge Requirements

WQO[s] Water Quality Objective[s]

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

Introduction

1. Lamont Public Utility District (District) owns and operates the Lamont Wastewater Treatment Facility (WWTF), which is located approximately three miles southwest of the Community of Lamont in Kern County, Sections 24 and 25, Township 31 South, Range 28 East, Mount Diablo Base and Meridian (MDB&M). The District also owns Use Area (see Finding 22) and land currently occupied by a composting facility on Section 25, Township 31 South, Range 28 East, MDB&M.
2. The Composting Facility was originally leased to Community Recycling and Resource Recovery Inc. (Community Recycling). In 2015, Recology Blossom Valley Organics South (Recology) entered into an agreement with Community Recycling to purchase certain assets and take over the lease agreement Community Recycling had with the District. The District and Recology have since entered into a new lease agreement (2021 lease agreement) with an effective date of 27 April 2021 and expiration date of 30 June 2043. The Composting Facility is regulated under separate Waste Discharge Requirements (WDRs) Order 5-01-091.
3. The Lamont WWTF, Use Areas, and Composting Facility are comprised of the following Kern County Assessor Parcel Numbers (APNs), which are all owned by the District:
 - 185-300-14 (130-acre Use Area and WWTF),
 - 185-350-53 (WWTF and Compost Facility),
 - 185-350-54 (Compost Facility and 130-acre Use Area), and
 - 185-350-55 (160-acre Use Area).

The WWTF, Use Areas, and Composting Facility are depicted on the Site Location Map in **Attachment A**. The District, as owner of the WWTF, Use Areas properties (including the Compost Facility) and Recology Blossom Valley Organics South, as the operator of the Compost Facility and Use Areas, are collectively referred to as Discharger[s]. The District is primarily responsible for compliance with the WDRs prescribed herein. The District is solely responsible for compliance with requirements related to all operations outside the areas of

Recology's leasehold as well as requirements related to managing all byproducts of its WWTF other than the treated wastewater not released for use within Recology's leasehold. Recology is responsible only for compliance (and certification of compliance) with requirements of the WDRs arising from its use, distribution, or application of treated wastewater within its leasehold received from the WWTF, other than the Compost Facility, which is regulated under separate WDRs.

4. The following materials are attached and incorporated as part of this Order:
 - a. Attachment A – Site Location Map
 - b. Attachment B—Flow Schematic
 - c. Attachment C—Recycled Water Signage
 - d. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs)
 - e. Information Sheet
5. Also attached is **Monitoring and Reporting Program R5-2022-0059** (MRP), which requires monitoring and reporting for discharges regulated under these WDRs. The Discharger shall comply with the MRP and subsequent revisions thereto as ordered by the Executive Officer.

Regulatory History

6. In November 2011, Kern County revoked the Conditional Use Permit (CUP) issued to Community Recycling. Without the CUP, Community Recycling could not conduct composting operations, and therefore, could not properly dispose of the District's wastewater. Consequently, the District claimed it only had 46 days of effluent storage available, after which its ponds would overtop resulting in uncontrolled discharges to the surrounding community. Community Recycling was able to obtain a stay of the County revocation action, and the threat of uncontrolled discharges was temporarily abated. However, the risk to the District from the arrangement of relying on Community Recycling for disposal of all its wastewater remained.
7. WDRs Order R5-2012-0043, adopted by the Central Valley Water Board on 8 June 2012, currently regulates the Lamont WWTF. WDRs Order R5-2012-0043 authorizes a discharge of 2.0 mgd (monthly average dry weather flow) of undisinfected secondary wastewater to 130 acres of Use Areas (APNs 185-300-14 [50 acres] and 185-350-54 [80 acres]) and to the Composting Facility.

8. In addition, the Central Valley Water Board issued Cease and Desist Order (CDO) R5-2012-0044 on 8 June 2012. The CDO required the District to address ongoing effluent BOD and TSS exceedances and for the District to secure adequate, reliable effluent disposal capacity for a planning period of no less than 20 years.
9. On 25 August 2015, the District submitted a Report of Waste Discharge (RWD) for the expansion of the District's Use Area by an additional 160 acres (APN 185-350-55) of land for a total of 290 acres (130 acres currently permitted plus 160 acres proposed) and to acknowledge Recology as the new operator of the composting facility. According to the RWD, Recology will take all of the wastewater generated at the District's WWTF and apply it to the composting facility and any remainder wastewater will be applied to the 290 acres of Use Areas to irrigate fiber and fodder crops for non-human consumption. Recology will act as the operator responsible for managing the 290 acres of Use Areas. The District is not proposing to increase flows as part of the Use Area expansion.
10. The WDRs for the District's WWTF are being updated to ensure the discharge is consistent with water quality plans, policies and to reflect the changes to the Use Areas. WDRs Order R5-2012-0043 and CDO Order R5-2012-0044 will be revoked and replaced with this Order.

Facility and Discharges

Existing Facility and Discharges

11. The District's WWTF serves the communities of Lamont and Weedpatch. The WWTF receives wastewater from residential and commercial sources. Currently, there are no significant industrial wastes being discharged, and/or proposed for discharge to the WWTF. Consequently, an Industrial Pretreatment Program will not be required at this time (see Industrial Pretreatment Considerations section below for more discussion).
12. Based on 2020 Census data, the Community of Lamont serves an estimated population of about 14,049 people. Lamont is a severely disadvantaged community with a median household income (in 2020) of \$42,948, according to the United States Census Bureau.
13. The existing WWTF consists of a headworks, two aeration ponds with a 2-foot-thick clay liner, two high-density polyethylene (HDPE) lined facultative ponds, two HDPE lined storage ponds on the north side of East Bear Mountain Boulevard, six unlined storage ponds, and two unlined irrigation ponds on the south side of East Bear Mountain Boulevard. **Attachment A** also identifies the pond locations. Treated wastewater produced at the District's WWTF is stored in

the storage ponds prior to being used by Recology's composting operations and/or applied as irrigation water to the Use Area to grow fodder crops. A treatment process flow schematic is in **Attachment B**.

14. The Discharger's self-monitoring reports (SMRs) from January 2021 through March 2022 show the monthly average influent flow rates range from 1.00 mgd to 1.19 mgd and are below the permitted monthly average limit of 2.0 mgd.

Table 1—Monthly Average Influent Flow (mgd)

Month	Minimum	Maximum	Average
January 2021	0.20	1.24	1.00
February 2021	0.82	1.21	1.07
March 2021	0.87	1.36	1.08
April 2021	0.92	1.47	1.14
May 2021	0.89	1.55	1.14
June 2021	0.96	1.39	1.17
July 2021	1.08	1.35	1.17
August 2021	1.09	1.35	1.19
September 2021	1.03	1.38	1.16
October 2021	1.01	1.22	1.14
November 2021	0.95	1.24	1.09
December 2021	0.66	1.29	1.06
January 2022	0.84	1.23	1.06
February 2022	0.90	1.19	1.03
March 2022	0.84	1.30	1.05

15. WDRs Order R5-2012-0043 prescribes BOD and TSS limits of 40 mg/L (monthly average) and 80 mg/L (daily maximum) and a minimum of 80 percent removal.

January 2021 through March 2022 monitoring data shows the Facility currently provides 87 to 99 percent removal for BOD with the exception of October 2021. However, the 12 October 2021 result of 150 mg/L appears to be a statistical outlier. During this monitoring period, the Facility provided 91 to 99 percent removal for TSS. The discharge generally meets the effluent BOD and TSS limits of 40 mg/L (monthly average) and 80 mg/L (daily maximum) with the exception of the 12 October 2021 BOD result as aforementioned. Based on this information, the Discharger has achieved compliance with Task 2 of CDO R5-2012-0044.

Table 2—Monthly Average BOD and TSS Data

Date	BOD Influent (mg/L)	BOD Effluent (mg/L)	BOD Removal (%)	TSS Influent (mg/L)	TSS Effluent (mg/L)	TSS Removal (%)
January 2021	400	5.1	98.7	743	5.5	99.3
February 2021	300	5.0	98.3	1,045	4.2	99.6
March 2021	316	4.6	98.5	406	4.0	99.0
April 2021	265	7.9	97.0	276	6.1	97.8
May 2021	278	15.7	94.4	418	15.0	96.4
June 2021	236	9.5	96.0	1,256	17.4	98.6
July 2021	239	31.3	86.9	675	13.5	98.0
August 2021	223	28.9	87.0	270	15.8	94.2
September 2021	218	17.8	91.8	188	16.8	91.1
October 2021	230	63.5	72.4 (see 1 below)	1,175	14.8	98.7
November 2021	253	6.5	97.4	328	8.7	97.4
December 2021	283	25.1	94.6	980	7.2	99.3
January 2022	298	13.1	95.6	1,343	11.4	99.2
February 2022	280	5.5	98.0	373	5.2	98.6
March 2022	256	6.8	97.3	940	6.5	99.3

1. Number in bold does not meet the 80 percent removal effluent limit for BOD. However, the 12 October 2021 effluent BOD sample of 150 mg/L appears to be a statistical outlier.

16. MRP R5-2012-0043 required the Discharger to monitor the Facility's effluent, but not influent, for nitrogen. Effluent nitrogen concentrations based on data from January 2021 through March 2022 is presented below.

Table 3—Monthly Average Effluent Nitrogen

Month	Total Kjeldahl Nitrogen (mg/L)	Nitrate as Nitrogen (mg/L)	Total Nitrogen (mg/L)
January 2021	12.0	4.9	17.0
February 2021	15.0	3.6	18.0
March 2021	19.0	4.3	23.0
April 2021	13.0	6.8	19.0
May 2021	8.7	6.6	15.0
June 2021	6.6	7.3	14.0
July 2021	2.5	8.4	11.0
August 2021	1.8	8.2	10.0
September 2021	5.4	2.7	8.1
October 2021	20.0	0.14	2.0
November 2021	2.5	5.8	8.3
December 2021	3.5	9.0	12.0
January 2022	3.2	11	14.0
February 2022	6.5	7.8	14.0
March 2022	9.9	5.0	15.0

17. Effluent EC monitoring data from 2020 through 2022 is shown below in Table 4. As discussed in greater detail in the Salt and Nitrate Control Programs section of these WDRs, the Discharger selected to participate in the Prioritization and Optimization (P&O) Study for the Salt Control Program. Therefore, these WDRs include an effluent Salinity Action Level of 1,300 $\mu\text{mhos/cm}$.

Table 4—Effluent EC (in $\mu\text{mhos/cm}$)

	2020 (See 1 below)	2021 (See 2 below)	2022 (See 3 below)
Minimum	1,094	1,015	1,030
Maximum	1,156	1,104	1,108
Annual Average	1,120	1,054	1,084

- 1 Analytical data from March through December 2020.
- 2 Analytical data from January through May 2021 and July through December 2021.
- 3 Analytical data from January through June 2022.

Changes to Facility

18. On 22 June 2018, the District submitted a technical report that included water balances for the scenario where the Compost Facility could not take any of the WWTF's wastewater. According to the water balances, all treated wastewater will either be stored in the WWTF's storage ponds or applied to a total of 450 acres of Use Areas. This scenario shows the District can adequately store and dispose of 2.0 mgd of wastewater with 450 acres of Use Areas without relying on the Compost Facility to take its wastewater.
19. As part of its effluent disposal plan ("Plan B") as required by Task 3 of CDO R5-2012-0044, the District proposes to use the existing Use Area (130 acres), the 160-acre Use Area once remediated, and the 190 acres occupied by the Compost Facility. The 2021 lease agreement between the District and Recology stipulates that if Recology voluntarily ceases operating the Compost Facility, it will vacate the property within 30 days and surrender this property to the District. The acreage totals 480 as shown in Table 5, below. Therefore, the District has demonstrated it has adequate, reliable disposal capacity if the Compost Facility ceases operations.

Table 5—Acreage Proposed for "Plan B"

APN	Acreage	Existing Use	Owner
185-300-14	50	Permitted Use Area	District
185-350-54	80	Permitted Use Area	District
185-350-55	160	Vacant (See 1 below)	District
185-350-54	130	Compost Operations (See 2 below)	District
185-350-54	30	Compost – Unused (See 2 below)	District
185-350-53	30	Compost Operations (See 2 below)	District
Total	480	---	---

- 1 Pending remediation as outlined in the 2015 *Site Suitability Analysis Report*. If Recology builds the proposed offices on the 32 acres of the 160-acre parcel as described in the May 2018 *Draft Environmental Impact Report (EIR) for the Recology Blossom Valley Organics-South*, only 128 will be available as Use Areas.
- 2 The 2021 lease agreement stipulates that if Recology voluntarily ceases operating the Compost Facility, it will vacate the property within 30 days and surrender this property to the District.

20. On 25 August 2015, the District submitted both a Soil Reclamation Report and Site Suitability Analysis Report. According to the Soil Reclamation Report, soils on the 160-acre parcel (APN 185-350-55) have high pH (approximately 10.0 pH units), salts concentrations (sodium and chloride), and boron concentrations, making the land unsuitable to farm. The Site Suitability Analysis Report describes the feasibility of converting the 160-acre parcel into farmland. The proposed remediation project includes flushing salts and boron below the root zone, applying gypsum, and compost to the 160-acre parcel. According to the 2021 lease agreement, Recology will take the lead in completing the remediation work on the 160 acres as outlined in the Site Suitability Analysis Report. It is anticipated that the remediation work will begin in Summer 2022. Per the 2021 lease agreement, the remediation work shall be completed on or by 31 December 2022.
21. The District has made significant progress to comply with CDO R5-2012-0044. As discussed in Finding 15, the Discharger is generally complying with the BOD and TSS effluent limits in WDRs Order R5-2012-0043. With regards to securing adequate effluent disposal capacity, the Discharger worked with Recology to have a plan for disposing the wastewater from the District's WWTF if the Composting Facility is shutdown. As discussed in Finding 20, the remediation project at the 160-acre parcel (APN 185-350-55) is planned to be completed in 2022. This Order requires the Discharger to submit a report confirming the soil remediation project has been completed and that the additional parcel has been incorporated into the Facility's Use Area and is being farmed. This Order also includes water recycling requirements for the application of treated wastewater generated from the District's WWTF to Use Areas. Furthermore, these WDRs include a provision that requires the Discharger to submit an implementation plan, within 30 days of notification that the Composting Facility has ceased operation, that describes how the District will convert the Composting Facility property to recycled Use Areas.

Use Areas

22. The District's Use Area will consist of a total of 290 acres (130 acres currently and 160 proposed) as well as the Composting Facility. Effluent from the irrigation ponds is currently conveyed to the existing 130 acres of Use Area by gravity flow via a 15-inch pipeline. The District is responsible for metering the effluent while Recology is responsible for the distribution of the effluent on the Use Area. The boundaries of the existing Use Area (130 acres) are graded to control runoff. The boundaries of the additional Use Area (160 acres) will also be graded to control runoff. All Use Areas will be flood irrigated. Crops grown consist of fodder, fiber, and seed crop for non-human consumption. The public has limited access to the Uses Are. Signs are posted on all entrance roads to the Use Area and along the property boundary to alert the public that reclaimed water is used.

23. According to the 2021 lease agreement, Recology will be responsible for providing all work equipment and labor that may be necessary to make the property suitable for commercial farming, including ripping, leveling, grading, disking, as well as the installation and maintenance of the necessary irrigation pipelines on the 160-acre parcel.

Industrial Pretreatment Considerations

24. Certain industrial wastes, when discharged to wastewater treatment facilities without adequate controls, may cause one or more of the following problems:
- a. **Interference or Upset.** Discharges of high volumes or concentrations of certain waste constituents can inhibit or interfere with proper operations, thereby impairing the WWTF's ability to treat wastewater—and potentially preventing compliance with WDRs.
 - b. **Sludge Management.** Industrial wastes, particularly metals and other toxic constituents, can limit available sludge management alternatives, thereby increasing the cost of sludge management and disposal. Contaminated biosolids may also be unsuitable as a soil amendment.
 - c. **Pass-Through.** Some industrial wastes may not receive adequate treatment and pass through the treatment system in concentrations that can could unreasonably degrade groundwater quality and/or prevent recycling of domestic wastewater.
 - d. **Other Hazards.** Additionally, the discharge of explosive, reactive, or corrosive wastes can cause damage to the wastewater collection system or the treatment works, as well as threaten the safety of workers and/or the general public.
25. Currently, there are no significant industrial wastes discharged to the Facility. Consequently, an Industrial Pretreatment Program will not be required at this time. However, this Order requires the Discharger to report any proposed new industrial discharges and, if directed by the Executive Officer, to develop an Industrial Pretreatment Program regulating such discharges. Additionally, this Order also may be subsequently revised to require compliance with an approved program, if necessary.

Water Recycling Considerations

26. Undisinfected domestic wastewater contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms.

27. The State Water Board, Division of Drinking Water (DDW), which is charged with establishing drinking water quality standards for the protection of public health, has promulgated criteria for the use of recycled water throughout California, codified as California Code of Regulations, title 22 (Title 22), section 60301 et seq.
28. On 12 February 2015, the District submitted a Title 22 Engineering Report to the Central Valley Water Board describing the reclamation of undisinfected secondary treated wastewater to an additional 160 acres (APN 185-350-55) of land owned by the District. On 26 January 2016, DDW approved the February 2015 Title 22 Engineering Report for the use of undisinfected secondary treated wastewater on the additional 160 acres of land.
29. As per the 2021 lease agreement, Recology will remediate the 160-acres parcel (APN 185-350-55) and will farm all of the District's farmland (130 acres plus 160 acres after remediation) collectively defined as Use Area (including the adjacent Composting Facility) and described in Table 5 in a year-round with fodder crops and will keep the Use Area free of noxious weeds and other improper growth.
30. The discharges of authorized herein are consistent with the State Water Board's *Policy for Water Quality Control for Recycled Water* (Recycled Water Policy), Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057; and Central Valley Water Board Resolution R5-2009-0028 (*Resolution in Support of Regionalization, Reclamation, Recycling and Conservation for WWTPs*).

Site-Specific Conditions

Topography, Climate and Land Use

31. The soils below the WWTF and Use Areas are primarily Kimberlina fine sandy loam, followed by Calflax loam and Wasco sandy loam, according to the United States Department of Agriculture, Natural Resources Conservation Service [Web Soil Survey](https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx) (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>). Kimberlina fine sandy loam, Calflax loam, and Wasco sandy loam have irrigated land capabilities classifications of 1, 3s, and 2s, respectively. Soils with "Class 1" have few limitations that restrict their use. Soils with "Class 2" have moderate limitations that reduce the choice of plant or require moderate conservation practices. Soils with "Class 3" have severe limitations that reduce the choice of plants or require special conservation practices, or both. Soils with subclass "s" have limitations within the root zone, such as shallowness of the root zone, a

high content of stones, a low available water capacity, low fertility, and excessive salinity or sodicity. Overcoming these limitations is difficult.

32. The WWTF is in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from November through April. The average annual precipitation in the area is about 5.83 inches, according to the [Western Regional Climate Center](https://wrcc.dri.edu/Climate/west_coop_summaries.php) (https://wrcc.dri.edu/Climate/west_coop_summaries.php). Average annual pan evaporation in the area is about 87.47 inches, according to the data in the *National Oceanic and Atmospheric Administration Technical Report NWS 34, Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States*, published by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration.
33. According to the Federal Emergency Management Agency's (FEMA) [Flood Insurance Rate Map](https://msc.fema.gov/portal) (<https://msc.fema.gov/portal>), the WWTF and Use Areas are in Zone X. Areas in Zone X are outside of the 1 percent annual chance of flood with average depth less than one foot.
34. Land uses in the vicinity of the WWTF are primarily agricultural and includes vineyards, deciduous fruits and nuts, field crops, truck crops, and pasture according to the California Department of Water Resources Land Use Viewer, [Statewide Crop Mapping 2016](https://gis.water.ca.gov/app/CADWRLandUseViewer/?page=home) (<https://gis.water.ca.gov/app/CADWRLandUseViewer/?page=home>). There are two dairies to the west of the WWTF and a composting facility to the south of the WWTF.

Groundwater and Subsurface Conditions

35. The District currently uses six water supply wells (Well-5, Well-11, Well-15, Well-17, Well-18, and Well-19) out of eight water supply wells. Supply wells Well-12 and Well-13 are no longer in service. The construction date and well depth are as follows: Well-5 (10 June 1967, 750 ft bgs), Well-11 (6 June 1967, 800 ft bgs), Well-15 (3 December 1992, 880 ft bgs), Well-17 (18 March 2004, 725 ft bgs), Well-18 (1 December 2005, 735 ft bgs), and Well-19 (24 June 2014, 850 ff bgs). Table 6 below summarizes the January 2021 through March 2022 monthly flow-weighted source water EC values.

Table 6—Monthly Flow-Weighted Source Water EC

Date	EC (µmhos/cm)
January 2021	549

Date	EC (µmhos/cm)
February 2021	548
March 2021	553
April 2021	546
May 2021	547
June 2021	546
July 2021	667
August 2021	632
September 2021	576
October 2021	625
November 2021	651
December 2021	647
January 2022	635
February 2022	698
March 2022	650

36. The WWTF has a groundwater monitoring well network of seven wells MW-1 through MW-7A, summarized in Table 7 below. Monitoring wells MW-1 to MW-3 were installed by the District in 1996 and monitoring wells MW-4 to MW-7 were installed by Community Recycling in 2002. In June 2018, Recology installed two new groundwater monitoring wells (MW-5A and MW-7A) to replace existing groundwater monitoring wells (MW-5 and MW-7) that had declining water levels making it difficult to collect groundwater samples over the years. The two replacement groundwater monitoring wells were installed adjacent to MW-5 and MW-7. According to the July 2018 Groundwater Monitoring Well Installation Report, groundwater monitoring wells MW-5 and MW-7 were abandoned in place and filled with neat cement grout.

Table 7—Monitoring Well Locations

Monitoring Well	Well Depth (ft bgs)	Location
MW-1	81	Adjacent to storage ponds and downgradient of Composting Facility
MW-2	87.4	Downgradient of storage ponds
MW-3	87	Upgradient and adjacent to recycled water Use Area
MW-4	70	Upgradient and adjacent to Compost Facility
MW-5A	93	Downgradient of Compost Facility and Use Area
MW-6	60	Adjacent to Compost Facility and use Area
MW-7A	87	Downgradient of Compost Facility

37. Groundwater depth below the WWTF is found between 56 and 77 feet bgs and flows in the northeast or southeast direction based on data from the 2022 First Quarter SMR, but predominantly to the east. The Corcoran clay layer is found below the WWTF at a depth of about 300 feet bgs. The groundwater quality based on data from January 2021 through March 2022 is shown below.

Table 8—Groundwater Monitoring Network Data (January 2021 to March 2022)

Parameter	Units	MW-1	MW-2	MW-3	MW-4	MW-5A	MW-6	MW-7A	MCL
Gradient	Up/Down/ Cross	Down	Down	Up	Up	Cross	Down	Down	n/a
Well Depth	feet bgs	81	86.5	86.3	68.3	87	59.9	93	n/a
EC	µmhos/cm	1,446	1,476	2,544	2,692	1,508	1,856	1,662	900/1,600
TDS	mg/L	846	854	1,680	1,740	882	1,098	976	500/1,000
Total Nitrogen	mg/L	1.9	0.7	9.7	6.4	10.3	13.2	0.70	---
Nitrate (as N)	mg/L	1.6	0.6	9.5	6.2	9.8	12.5	0.22	10
TKN	mg/L	0.21	0.18	0.30	0.30	0.42	0.80	0.53	n/a
Arsenic	µg/L	15.3	14.5	20	10	17	19	19	10
Calcium	mg/L	65	78	186	232	56	172	130	n/a
Magnesium	mg/L	11	16	49	36	10	30	22	n/a
Sodium	mg/L	234	226	294	278	264	192	196	n/a
Potassium	mg/L	2.7	3.3	4.7	5	2.5	2.8	4.5	n/a
Chloride	mg/L	174	146	344	494	146	220	222	250/500
Sulfate	mg/L	109	136	514	466	83	228	190	250/500
Chromium	µg/L	1.2	<1.0	<1.0	1	2.15	<1.1	<1.1	5

Numbers in bold exceed their respective primary or secondary MCL.

38. A Kern County Health Department (KCHD) study showed that in the 1970's the TDS concentrations in the unconfined aquifer underlying portions of the District property were as high as 1,500 mg/L (EC of 2,308 µmhos/cm). The study indicates that groundwater salinity generally improves to the east. The study contains an additional map (Plate 18) that depicts a groundwater modeling effort conducted at the time of the study. The effort depicts TDS concentrations in groundwater through 2000. The model results indicate that the area of poor-quality groundwater will move to the east over the years.
39. MRP R5-20120-0043 does not require groundwater monitoring for arsenic and iron. However, the District has been monitoring groundwater arsenic semi-annually since 2016. As shown in Table 8, groundwater arsenic concentrations exceed the primary MCL of 10 µg/L, in both upgradient and downgradient wells. Limited groundwater data obtained from the National Water Information System: Web Interface shows one nearby well that is 600 feet bgs

with an arsenic concentration of 19 µg/L (sampled in July 1986). Based on the limited data, it appears that arsenic is a regional groundwater issue. The MRP will require regular arsenic monitoring to continue to evaluate the WWTF's impact on groundwater.

40. Based on the available data, groundwater does not appear to be of high quality with respect to salinity and arsenic and has not been high quality with respect to salinity since at least the early 1970's. Current upgradient concentrations for arsenic, chloride, sulfate, EC, and TDS generally exceed their respective MCLs. The salinity of the groundwater is likely due, in part, to the migration of salts from the saline area soils as well as an adjacent dike.

Statutory Authority

41. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed.

42. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.
43. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)
44. This Order and its associated MRP are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

[T]he 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 ... 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.

45. The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

Basin Plan Implementation

46. Pursuant to Water Code section 13263, subdivision (a), WDRs must “implement any relevant water quality control plans..., and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.”

Beneficial Uses of Water

47. This Order implements the Central Valley Water Board’s Water Quality Control Plan for the Tulare Lake Basin (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)
48. Local drainage is to Valley Floor Waters. The beneficial uses of Valley Floor Waters within the subject hydrologic area (Kern Delta Hydrologic Area No. 557.10) include the following: agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE), and groundwater recharge (GWR).
49. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility include the following: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1), and wildlife habitat (WILD).

Water Quality Objectives

50. The numeric WQO for bacteria is expressed as the most probable number (MPN) of coliform organisms per 100 mL of water. For MUN-designated groundwater, the objective is an MPN of 2.2 organisms over any seven-day period.
51. The narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. For MUN-designated waters, the Basin Plan further provides that water, at a minimum, meet the primary and secondary maximum

contaminant levels (MCLs) specified in California Code of Regulations, title 22 (Title 22).¹ (See Title 22, §§ 64431, 64444, 64449.)

52. The narrative WQO for toxicity provides that groundwater shall be maintained free of toxic substances in concentrations producing detrimental physiological responses in human, animal, plant or aquatic life associated with designated beneficial uses.
53. To the extent necessary, narrative WQOs are quantified, on a site-specific basis, as numeric limits for constituents with potential to adversely impacted designated uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria.
54. In determining a numeric limit for salinity protective of agricultural supply (AGR), the Central Valley Water Board is relying on general salt tolerance guidelines, which indicate that although yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) of less than 700 $\mu\text{mhos/cm}$, there is an eight- to ten-fold range in salt tolerance for agricultural crops. (See, e.g., Ayers & Westcot, *Water Quality for Agriculture* (1985), § 2.3.) For this reason, appropriate salinity values are considered on a case-by-case basis. It is possible to achieve full yield potential with groundwater EC up to 3,000 $\mu\text{mhos/cm}$, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.
55. Section 4.1.11.5 of the Basin Plan specifies the level of treatment required for domestic wastewater facilities with land disposal. The Basin Plan states that for domestic wastewater discharges precluded from public access, with design flows in excess of 1 million gallons per day (e.g., Lamont WWTF), the wastewater facility must provide removal of 80% or reduction to 40 mg/L (whichever is more stringent) for both BOD and suspended solids. The BOD and TSS effluent limitations included in this Order are based on these Basin Plan limitations.

Salt and Nitrate Control Programs

56. As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new Salt and Nitrate Control Programs to address ongoing salt and nitrate accumulation in the Central

¹ Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Board adopted Resolution No. 2019-0057 conditionally approving the Basin Plan amendments. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03), which became effective on 17 January 2020.

57. For the Salt Control Program, dischargers that are unable to comply with the stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. The Discharger was issued a Notice to Comply letter under the Salt Control Program on 5 January 2021 (**CV-SALTS ID: 2716**). In response, the Discharger elected to participate in the P&O Study. In the interim, to maintain existing salt discharges and minimize salinity impacts, this Order does the following:
- a. Requires the discharger to continue efforts to control salinity in its discharge to the extent feasible; and
 - b. Sets a Salinity Action Level of 1,300 $\mu\text{mhos/cm}$ for the discharge of wastewater to lined and unlined storage ponds, a compost operation, and Use Areas. The Salinity Action Level was set based on the 2021 annual average effluent EC of 1,054 $\mu\text{mhos/cm}$ plus 25 percent (approximately) to allow some flexibility for water conservation efforts.
58. For the Nitrate Control Program, the Discharger is located within Groundwater Sub-Basin 5-22.14 (San Joaquin Valley – Southeastern Kern County), a non-prioritized basin. Implementation of the Nitrate Control Program in non-prioritized basins and sub-basins will occur as directed by the Central Valley Water Board’s Executive Officer.
59. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs. As such this Order may be amended or modified to incorporate any newly applicable requirements to ensure that the goals of the Salt and Nitrate Control Programs are met.

Antidegradation Policy

60. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in

water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger's best practicable treatment or control (BPTC).

61. Groundwater quality monitoring at the Facility dates to 1996 and historic regional groundwater dates back to the 1970's. Given the unavailability of pre-1968 water quality information, compliance with the Antidegradation Policy will be determined based on existing background water quality (Antidegradation Baseline).
62. Constituents of concern (COCs) for the WWTF's discharge that have the potential to degrade groundwater include salt, nitrate, and total coliform as discussed below and in Table 9. Table 9 does not include total coliform data since the Discharger is not currently required to monitor the WWTF's discharge for total coliform.

Table 9—Constituents with Potential for Degradation

Constituent	Units	Effluent	Upgradient (Background) (see 1 below)	Down-gradient (see 2 below)	WQOs
EC	µmhos/cm	1,054 (See 3 below)	2,544 – 2,692	1,446 – 1,856	700
Nitrate (as N)	mg/L	5.6 (See 4 below)	6.2 – 9.5	0.22 – 12.5	10
Total Nitrogen (as N)	mg/L	13.1 (See 4 below)	6.4-9.7	0.7-13.2	--

- 1 Upgradient groundwater quality based on quarterly groundwater data from January 2021 through March 2021 for MW-3 and MW-4.
- 2 Downgradient groundwater quality based on quarterly groundwater data from January 2021 through March 2021 for MW-1, MW-2, MW-6, and MW-7A.
- 3 Average effluent EC based on data from January through May 2021 and July through December 2021.
- 4 Average effluent nitrate as nitrogen and total nitrogen concentrations based on data from January through December 2021.

- a. **Salinity (EC and TDS).** Based on available data, underlying groundwater is not of good quality with regards to salinity. Groundwater EC has exceeded the upper secondary MCL of 1,600 µmhos/cm since at least the early 1970's. Current upgradient groundwater quality is around 2,500 to 2,700 µmhos/cm. The WWTF's annual average effluent EC was 1,120 µmhos/cm in 2020 and 1,054 µmhos/cm in 2021, below the upper secondary MCL of 1,600 µmhos/cm, but above the 700 µmhos/cm water quality objective for the agricultural supply beneficial use. The Facility's effluent and downgradient groundwater quality data indicates that the Facility's discharge is not

significantly contributing to further salinity degradation. The salinity in groundwater is also likely due, in part, to the migration of salts from saline area soils to groundwater as well as the nearby dairies, as described in Finding 31 above. In 2012, the District submitted a Salinity Management Plan required per WDRs Order R5-2012-0043. According to the 2012 Salt Management Plan, the maximum salt loading to single crop and double crops should be 2,000 lbs/acre and 3,000 lbs/acre, respectively. This Order requires the Discharger to continue to implement the 2012 Salinity Management Plan. In addition, to help ensure that the discharge continues to implement salinity reduction measures as part of the Discharger's participation in the P&O Study, this Order includes a Salinity Action Level.

Nitrate (as Nitrogen). Groundwater data from the onsite groundwater monitoring network indicates upgradient groundwater is below the nitrate MCL of 10 µg/L. However, there are two dairies to the west of the WWTF and a composting facility to the south of the WWTF. The groundwater monitoring data from the onsite monitoring network is likely at least partially influenced by two nearby dairies and the adjacent Composting Facility. The Facility's total nitrogen averages around 13.1 mg/L. In 2019, the Discharger submitted a Nutrient Management Plan per WDRs Order R5-2012-0043. The Nutrient Management Plan shows that nitrogen loading rates to the Use Areas will be less than the nitrogen uptake rates for corn and wheat. To protect the MUN-designated beneficial use, this Order includes a groundwater limitation stating that the Facility's discharge cannot cause underlying groundwater to exceed the primary MCL for nitrate (i.e., 10 mg/L).

- b. **Total Coliform.** MRP R5-2012-0043 did not require the Discharger to monitor groundwater for total coliform. As discussed in Finding 37, groundwater is found between 56 and 77 feet bgs. Prior to effluent reaching groundwater, effluent percolates through at least 55 feet of soil, which is expected to be sufficient to filter out coliform organism and to prevent groundwater degradation. Therefore, it does not appear the Facility's discharge will have a significant impact on underlying groundwater with respect to total coliform. Nevertheless, this Order requires the Discharger to monitor groundwater for total coliform to evaluate any potential impacts to groundwater related to the Facility's discharge.
- 63. This Order establishes terms and conditions to ensure that the authorized discharge from the Facility will not excessively degrade groundwater quality, contribute to existing pollution, or unreasonably affect present and anticipated future beneficial uses.
 - 64. Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) released with the discharge from a

municipal wastewater utility after effective source control, and treatment is consistent with maximum benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. The degradation will not unreasonably affect present and anticipated beneficial uses of groundwater or result in water quality less than water quality objectives.

65. The Discharger implements, or will implement as required by this Order the following BPTC measures, which will minimize the extent of water quality degradation resulting from the Facility's continued operation:
- a. Secondary treatment of wastewater;
 - b. Treatment of wastewater in two clay lined aeration ponds and two high-density polyethylene (HDPE) lined facultative ponds, and storage of treated wastewater in two HDPE lined storage ponds;
 - c. Recycling of wastewater for crop irrigation and reuse at a composting operation;
 - d. Compliance with flow, BOD, and TSS effluent limitations;
 - e. Groundwater monitoring to monitor the potential impacts of the Facility's discharge on underlying groundwater;
 - f. Compliance with the Salt and Nitrate Control Programs;
 - g. Implementation of a Salinity Management Plan;
 - h. Implementation of Nutrient Management Plan;
 - i. Compliance with a Salinity Action Level of 1,300 $\mu\text{mhos/cm}$; and
 - j. Use of certified operators to ensure proper operation and maintenance of the WWTF.
66. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act

67. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., the Lamont Public Utility District filed a

Mitigated Negative Declaration (SCH# 2014091064) on 25 September 2014 to include an additional 200 acres for wastewater reclamation. Of the 200 acres, 160 acres (APN 185-350-55) are owned by the District and 40 acres (APN 185-350-16) are owned by Fry T & R Family Trust. The listed mitigation measures relate to impacts the project might have on biological resources and were not water quality related.

Other Regulatory Considerations

Human Right to Water

68. Pursuant to Water Code section 106.3, subdivision (a), it is “the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt or establish a policy, regulation or grant criterion, (see §106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet maximum contaminant levels (MCLs) for drinking water, which are designed to protect human health and ensure that water is safe for domestic use.

Threat-Complexity Rating

69. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-B.
- a. Threat Category “2” reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
 - b. Complexity Category “B” reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

Title 27 Exemption

70. This Order, which prescribes WDRs for discharges of domestic sewage or treated effluent from a municipal treatment plant, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (b).)

Stormwater

71. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act’s National Pollution Discharge Elimination System (NPDES).

Because all storm water at the WWTF is collected in a storm water pond located on five acres of APN 185-350-54, the Discharger is not required to obtain coverage under the statewide General Permit for *Storm Water Discharges Associated with Industrial Activities*, State Water Board Order 2014-0057 DWQ, NPDES General Permit CAS000001 (Industrial General Permit).

Sanitary Sewer Overflows

72. The sanitary sewer system collects wastewater and consists of sewer pipes, manholes, and/or other conveyance system elements that direct raw sewage to the Facility.
73. Sanitary Sewer Overflows² (SSO), which typically consist of a mixture of domestic and commercial wastewater, often contain pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, suspended solids and other pollutants. When an SSO results in a discharge to surface water, it can cause temporary exceedances of water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair recreational use and aesthetic enjoyment of surface waters in the area. The most common causes are grease blockages, root blockages, debris blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and/or contractor-caused blockages.
74. On 2 May 2006, the State Water Board adopted *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, WQ Order 2006-0003 (SSO General Order), which requires that all public agencies owning or operating sanitary sewer systems with total system lengths in excess of one mile enroll under the SSO General Order. The District's collection system exceeds one mile in length, and the District is enrolled under the SSO General Order.

Biosolids

² For the purposes of this Order, a “**Sanitary Sewer Overflow**” is a discharge to ground or surface water from the sanitary sewer system at any point upstream of the treatment facility. Temporary storage and conveyance facilities (e.g., wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system and discharges to these facilities are not considered SSOs, provided that the waste is fully contained within these temporary storage/conveyance facilities.

75. The United States Environmental Protection Agency (US EPA) has promulgated biosolids reuse regulations in Code of Federal Regulations (CFR), title 40, part 503, Standards for the Use or Disposal of Sewage Sludge (Part 503), which establishes management criteria for protection of ground and surface waters, sets limits and application rates for heavy metals, and establishes stabilization and disinfection criteria. The Central Valley Water Board is not the implementing Agency for Part 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to the US EPA.

Scope of Order

76. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.
77. Pursuant to Water Code section 13264, subdivision (a), the Dischargers are prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260.
78. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.
79. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as “Dischargers,” subject only to the discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

80. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.
81. The Dischargers, interested agencies and other interested persons were notified of the Central Valley Water Board’s intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)
82. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
83. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

It is Hereby Ordered, pursuant to Water Code sections 13263 and 13267: that Orders R5-2012-0043 and R5-2012-0044 are revoked (except for enforcement purposes); and that the Dischargers and their agents, employees and successors shall comply with the following. CDO R5-2012-0044 was revoked as a separate Board Meeting item at the 14 October 2022 Central Valley Water Board Meeting (Order R5-2022-0056).

A. Standard Provisions

1. Except as expressly provided herein, the Dischargers shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein.

B. Discharge Prohibitions

1. Waste classified as “hazardous” (per Cal. Code Regs., tit. 22, §66261.1 et seq.), shall not be discharged at the Facility under any circumstance.
2. Waste constituents shall not be discharged or otherwise released from the Facility (including during treatment and storage activities) in a manner that results in:
 - a. Violations of the Groundwater Limitations of this Order; or
 - b. Conditions of “nuisance” or “pollution,” as defined per Water Code section 13050.
3. Except as otherwise expressly authorized in this Order, sewage and other waste shall not be discharged to surface waters or surface water drainage courses (including irrigation ditches outside of Dischargers' control).
4. Except as provided in Section E.2 of the SPRRs, incorporated herein, untreated wastes and partially treated wastes shall not bypass the treatment system (including treatment ponds).
5. Waste shall not be discharged from the Facility in a manner other than as described in this Order.
6. Discharge of treated effluent to any site other than the treatment and/or storage ponds, compost facility, or the recycled water Use Area described in the Findings is prohibited.

7. Toxic substances shall not be discharged into the wastewater treatment system such that biological treatment mechanisms are substantially disrupted.

C. Influent Flow Limitation

1. Influent flows to the Facility, monitored at Monitoring Location INF-001 (as defined in the MRP), shall not exceed a monthly average dry weather flow of 2.0 mgd.

D. Effluent Limitations

1. Effluent discharged to the storage ponds monitored at Monitoring Location EFF-001 (as defined in the MRP), shall not exceed the limits specified Table 10 below.

Table 10—Effluent Limits

Constituent	Monthly Average	Daily Maximum
BOD ₅	40 mg/L	80 mg/L
TSS	40 mg/L	80 mg/L

2. The arithmetic mean of BOD₅ and TSS in effluent samples (EFF-001) collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples (INF-001) collected at approximately at the same time during the same period (i.e., minimum of 80 percent removal).

E. Salinity Action Level

1. To comply with the Salt Control Program, the District selected the Alternative Salinity Permitting Approach (i.e., participate in the Prioritization and Optimization [P&O] Study). Therefore, as discussed in Finding 57, these WDRs establish a **Salinity Action Level of 1,300 µmhos/cm**. As part of the Fourth Quarter Monitoring Report required in the MRP, the District shall evaluate the Facility's annual average effluent EC (monitored at EFF-001) to the Salinity Action Level. If the Facility's discharge exceeds the Salinity Action Level, the District shall submit a **Salinity Action Level Report by 1 March** of the year following the exceedance of the Salinity Action Level. The Salinity Action Level Report shall, at a minimum, include the following:

- a. An evaluation of the WWTF's salinity effluent levels. This evaluation shall discuss any changes to the source water for the area served by the WWTF, any new industrial dischargers discharging to the WWTF, any increased conservation efforts implemented within the WWTF service area (with flow data demonstrating decreased flows to the WWTF), and any other changes to the WWTF's collection or treatment system that could be contributing to the increased salinity concentrations.
- b. If additional time is needed to investigate the source(s) of the salinity in the Facility's discharge, the Salinity Action Level Report shall include a detailed work plan describing what actions the District will conduct (with completion dates) to investigate the source(s) of salinity and report its findings to the Central Valley Water Board. The findings from the investigation shall be submitted to the Central Valley Water board **no later than October 1st** of the year following the exceedance of the Salinity Action Level.
- c. The Salinity Action Level Report shall evaluate the potential impacts the increased salinity concentrations could have on underlying groundwater and downgradient users. If additional time is needed for this evaluation, the Salinity Action Level Report shall propose a submittal data (no later than October 1st of the year following the exceedance of the Salinity Action Level).

F. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.
2. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
3. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.
4. The discharge shall remain within the permitted wastewater ponds, conveyance structures at all times.
5. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

6. Public contact with wastewater at the Facility shall be prevented through such means as fences, signs, or acceptable alternatives.
7. Objectionable odors shall not be perceivable beyond the limits of the WWTF property at an intensity that creates or threatens to create nuisance conditions.
8. As a means of ensuring compliance with Discharge Specification F.7, the dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if the DO in any single pond is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring (excluding weekends and holidays) of that pond until the minimum DO concentration is achieved for at least three consecutive days. If the DO in any single pond is below 1.0 mg/L for three consecutive days, the District shall report the findings to the Central Valley Water Board in accordance with **Section B.1** of the SPRRs. The written notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.
9. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
10. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
11. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications F.9 and F.10.

12. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
13. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:
 - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
 - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
14. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years beginning in 2022 and shall periodically remove sludge as necessary to maintain adequate storage capacity.

G. Groundwater Limitations

Release of waste constituents from any treatment, reclamation, or storage component associated with the WWTF shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or in excess of natural background quality, whichever is greater:

1. Nitrate (as N) of 10 mg/L.
2. Exceed a total coliform organism level of 2.2 MPN/100 mL, over any seven-day period.
3. Constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, excluding salinity.

4. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

H. Water Recycling Specifications

1. All recycled water generated by the Facility shall be produced, distributed and used in accordance with the Engineering Report, as referenced in Findings 28-29, or alternative Engineering Report subsequently approved by DDW. (See Title 22, § 60323.)
2. The quality of recycled water generated by the Facility and applied to the permitted Use Areas³ shall at least be equivalent to undisinfected secondary recycled water, as defined by Title 22, section 60301.900. This includes the Use Area used for growing crops and the Composting Facility.
3. Recycled water shall be used for irrigation at the Use Areas in accordance with subdivision (d) of Title 22, section 60304, excluding the reuse at the Composting Facility.
4. Tailwater runoff and spray of recycled water shall not be discharged outside of Use Areas. (See Title 22, § 60310, subd. (e)(1).)
5. Application rates of recycled water to the Use Area shall be reasonable and shall consider soil, climate, and plant demand. In addition, application of recycled water and use of fertilizers shall be at a rate that takes into consideration nutrient levels in recycled water and nutrient demand by plants.⁴ As a means of discerning compliance with this requirement:
 - a. Crops or landscape vegetation shall be grown on Use Areas (except the Composting Facility), and cropping activities shall be

³ For the purpose of this Order, “**Use Area**” means an area with defined boundaries where recycled water is used or discharged. (Cal. Code Regs., tit. 22, § 60301.920.)

⁴ The Central Valley Water Board recognizes that some leaching of salts is necessary to manage salt in the root zone of crops for production. Such leaching shall be managed to minimize degradation of groundwater, maintain compliance with the groundwater limitations of this Order, and prevent pollution.

- sufficient to take up the nitrogen applied, including any fertilizers and manure.
- b. Hydraulic loading of recycled water and supplemental irrigation water (if any) shall be managed to:
 - i. Provide water only when water is needed and in amounts consistent with that need,
 - ii. Maximize crop nutrient uptake;
 - iii. Maximize breakdown of organic waste constituents in the root zone; and
 - iv. Minimize the percolation of waste constituents below the root zone.
- 6. Recycled water used for irrigation, or soil that has been irrigated with recycled water, shall not come into contact with edible portions of food crops that may be eaten raw by humans. (Title 22, § 60304, subd. (e).)
 - 7. Use Areas shall only be irrigated with recycled water when appropriately trained personnel are on duty.
 - 8. The Discharger shall conduct periodic inspections of the recycled water Use Area to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop recycled water use immediately and implement corrective actions to ensure compliance with this Order.
 - 9. Grazing of milking animals within the Use Area is prohibited.
 - 10. Discharge to the Use Area shall not be performed during rainfall or when the ground is saturated.
 - 11. Discharge of storm water runoff from the Use Area to off-site land or surface water drainage courses is prohibited
 - 12. The irrigation with recycled water shall be managed to minimize erosion within the use areas.
 - 13. The Use Area shall be managed to prevent breeding of mosquitoes or other vectors.

14. Use Area and recycled water impoundments shall be designed, maintained, and operated to comply with the following setback requirements:

Table 11—Minimum Setbacks for Recycled Water Use Areas and Impoundments

Setback	Distance (ft.)
Edge of Use Area to Domestic Water Supply Well	150
Toe of Recycled Water Impoundment Berm to Domestic Water Supply Well	150
Edge of Use Area to Residence	100
Edge of Use Area Using Spray Irrigation to Public Park, Playground, School Yard, Or Similar Place of Potential Public Exposure	100

15. Recycled water shall not be applied with spray irrigation when wind gusts exceed 30 mph.
16. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities. (See Title 22, § 60310, subd.(e)(2).)
17. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff. (Title 22, § 60310, subd. (e)(3).)
18. Public contact with recycled water shall be controlled using fences, signs, and other appropriate means.
19. Use Areas that are accessible to the public shall be posted with signs that are visible to the public and no less than four inches high by eight inches wide. Signs shall be placed at all areas of public access and around the perimeter of all use areas and at above-ground portions of recycled water conveyances to alert the public of the use of recycled water. All signs shall display an international symbol similar to that shown in **Attachment C**, which is attached and forms part of this Order, and shall include the following wording:

“RECYCLED WATER – DO NOT DRINK” “AGUA DE DESPERDICIO RECLAMADA – NO TOME”

Alternative language will be considered by the Executive Officer if approved by DDW. (See Title 22, § 60310, subd. (g).)

20. All recycling equipment, pumps, piping, valves, and outlets shall be marked to differentiate them from potable water facilities. Quick couplers, if used, shall be different than those used in potable water systems. (See Title 22, § 60310, subd. (i).)
21. Recycled water controllers, valves, and similar appurtenances shall be equipped with removable handles or locking mechanisms to prevent public access or tampering.
22. Hose bibs and unlocked valves, if used, shall not be accessible to the public. (See Title 22, § 60310, subd. (i).)
23. No physical connection shall exist between recycled water piping and any potable water supply system (including domestic wells), or between recycled water piping and any irrigation well that does not have an approved air gap or reduced pressure principle device. (See Title 22, § 60310, subd. (h).)
24. Horizontal and vertical separation between pipelines transporting recycled water and those transporting potable water shall comply with Title 22, section 64572, except to the extent that DDW has specifically approved a variance.
25. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water or auxiliary water source system.
26. A public water supply shall not be used as backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of California Code of Regulations, title 17, sections 7602(a) and 7603(a).
27. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with Health and Safety Code section 116815.
28. Any backflow prevention device installed to protect a public water system shall be inspected and maintained in accordance with Title 17, section 7605.

I. Solids Disposal Specifications

1. Sludge⁵ and Solid Waste⁶ shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal plant operation.
2. Onsite handling and storage of Residual Sludge,⁷ Solid Waste, and Biosolids⁸ shall be temporary (2 years or less); 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 the Groundwater Limitations of this Order.
3. Residual sludge, biosolids, and solid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for further treatment, disposal, or reuse at disposal sites (i.e., landfills, WWTFs, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a Regional Water Board will satisfy this specification.
4. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements issued by a regional water board or the State Water Board except in cases where a local (e.g., county) program has been authorized by a regional water board. In most cases, this will mean the General Biosolids Order (State Water Resources Control Board Water Quality Order 2004-12-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in

⁵ For the purposes of this section, "**sludge**" means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes.

⁶ For the purposes of this section, "**solid waste**" includes grit and screenings generated during preliminary treatment at the Facility.

⁷ For the purposes of this section, "**residual sludge**" means sludge that will not be subject to further treatment at the Facility.

⁸ For the purposes of this section, "**biosolids**" refers to sludge that has been treated and tested and shown to be capable of being beneficially used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.

Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities”). For a biosolids use project to be covered by Order 2004-12-DWQ, the Discharger must file a complete Notice of Intent and receive a Notice of Applicability for each project.

5. Use and disposal of biosolids shall comply with the self-implementing federal regulations of 40 Code of Federal Regulations part 503, which are subject to enforcement by the U.S. EPA, not the Central Valley Water Board. If during the life of this Order, the State accepts primacy for implementation of part 503, the Central Valley Water Board may also initiate enforcement where appropriate.
6. Any proposed change in sludge use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

J. Provisions

1. The Discharger shall comply with **Monitoring and Reporting Program R5-2022-0059**, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
2. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the WWTF and Compost Facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
3. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Program) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.
4. The reports/submittals required in this section shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision J.5.
5. By **1 March 2023**, the Discharger shall submit a report confirming that the soil remediation of the 160-acre parcel (APN 185-350-55), as discussed in Finding 21, has been completed and that the parcel is (or will be) actively farmed.

6. **Within 30 days** of being notified that the Composting Facility has ceased operations, the Discharger shall submit a work plan that describes how the District will convert the Composting Facility property to Use Areas (i.e., farmland where treated wastewater can be reclaimed) to ensure the Facility maintains sufficient land application area to treat and discharge domestic wastewater at the permitted flow limit of 2.0 mgd. This Work Plan should discuss specific steps and time schedule for completing the tasks.
7. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
8. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer, and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Dischargers shall proceed with all work required by the foregoing provisions by the due dates specified.
9. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
10. The Discharger shall provide certified wastewater treatment plant operators in accordance with Title 23, division 3, chapter 26.

11. The Discharger shall implement the 12 August 2012 Salinity Management Plan and 19 December 2019 Nutrient Management Plan. The Discharger shall conduct periodic reviews of the plans to determine compliance with the plans and to ensure the plans are up-to-date and reflect the current Facility and Use Area operations.
12. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
13. A Discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by 31 January.
14. The Discharger shall continue to comply with the requirements of the Statewide General Waste Discharge Requirements (General WDRs) for Sanitary Sewer Systems (Water Quality Order 2006-0003), the Revised General WDRs Monitoring and Reporting Program (Water Quality Order 2008-0002-EXEC), and any subsequent revisions thereto. Water Quality Order 2006-0003 and Order 2008-0002-EXEC require the Discharger to notify the Central Valley Water Board and take remedial action upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow.
15. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
16. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.

17. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
18. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
19. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and ensure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to ensure full compliance with this Order.
20. In the event of any change in control or ownership of the WWTF, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
21. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
22. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

ENFORCEMENT

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

or may take other enforcement actions. 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 actions 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 California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. 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 p.m. on the next business day. Copies of [the law and regulations applicable to filing petitions](#) are available on the Internet (at the address below) and will be provided upon request.

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

ATTACHMENTS

ATTACHMENT A—Site Location Map

ATTACHMENT B—Flow Schematic

ATTACHMENT C—Recycled Water Signage

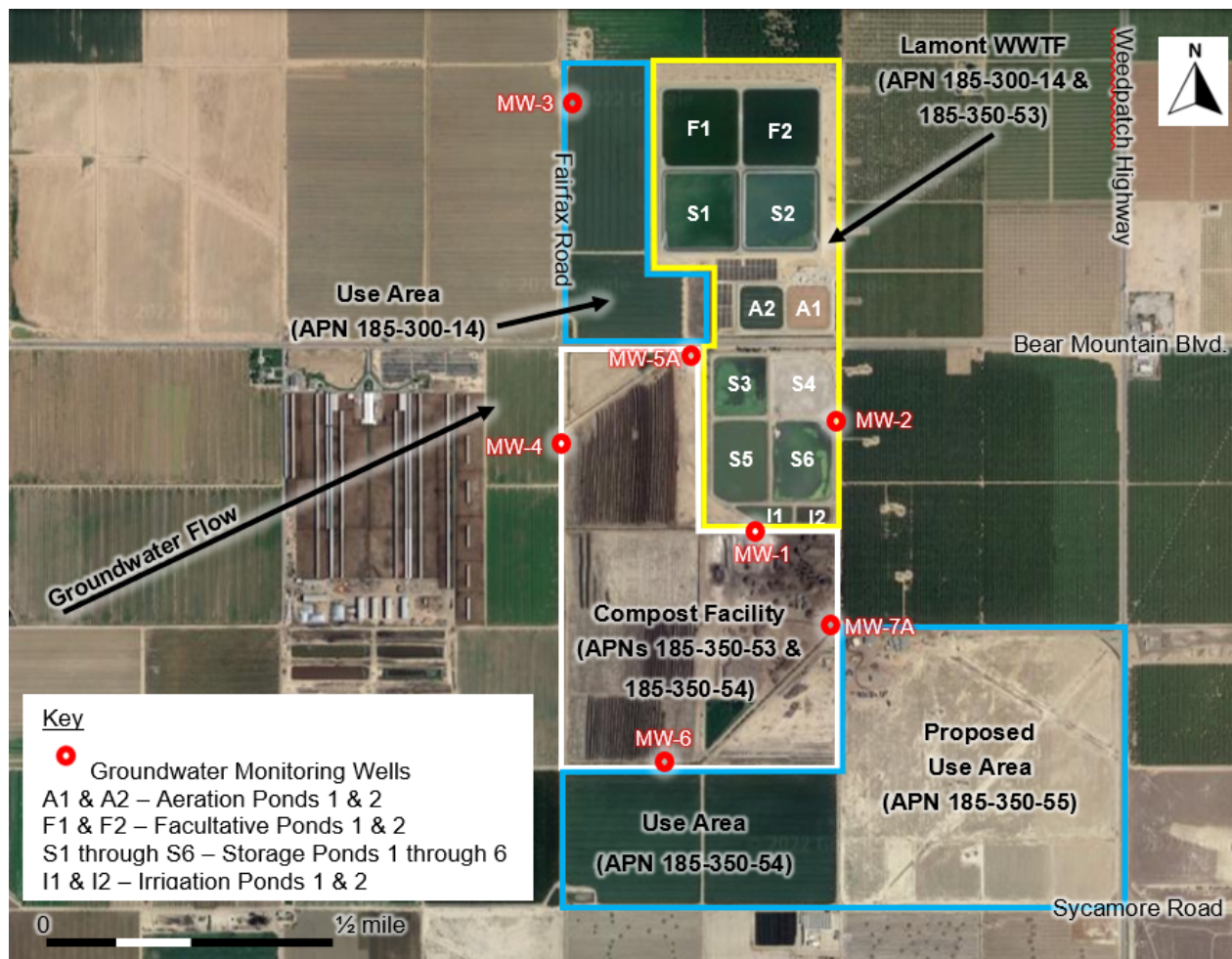
Standard Provisions & Reporting Requirements

Information Sheet

Monitoring and Reporting Program R5-2022-0059

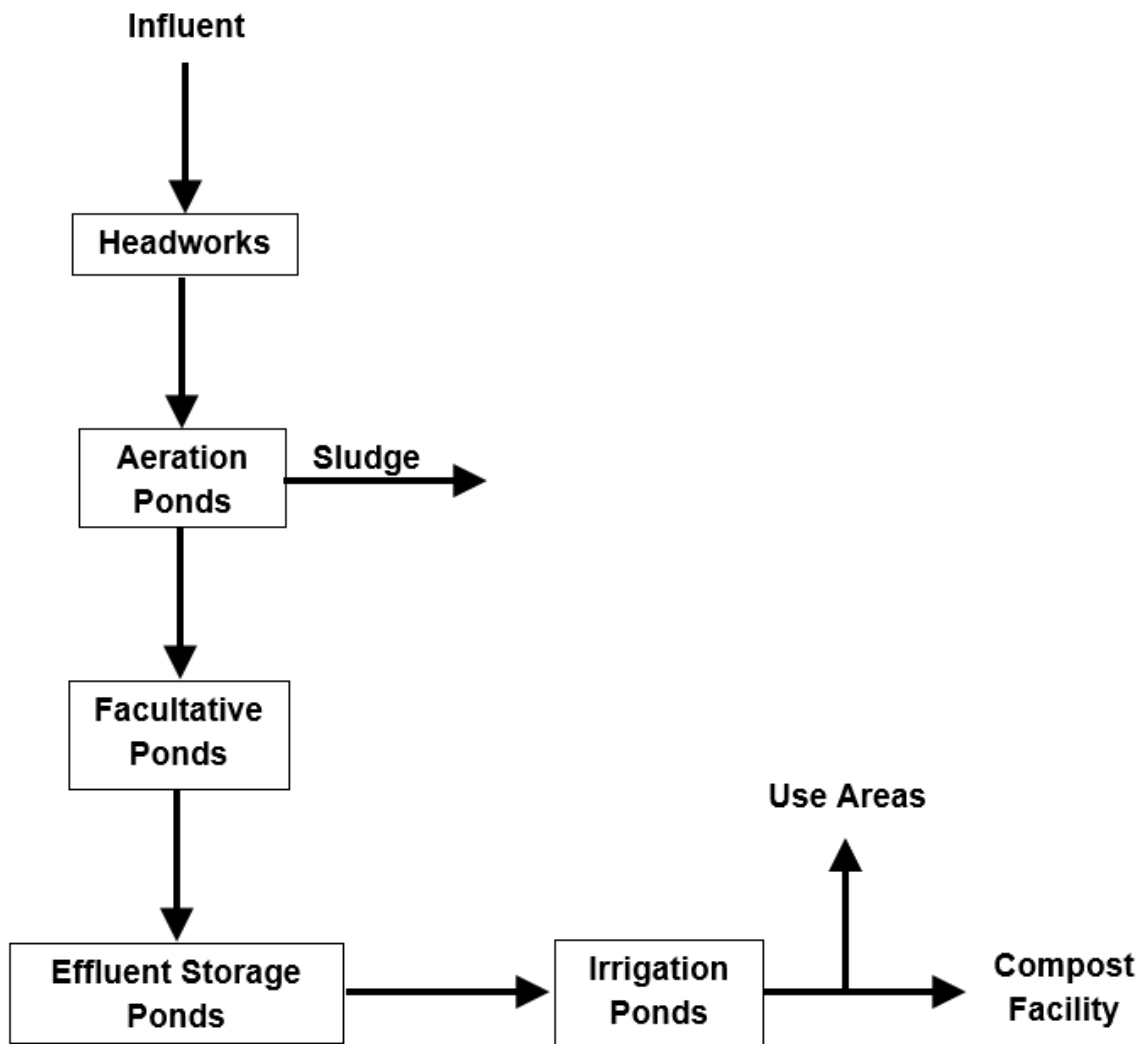
Waste Discharge Requirements Order R5-2022-0059
Lamont Public Utility District and
Recology Blossom Valley Organics South
Lamont Wastewater Treatment Facility
Kern County

ATTACHMENT A—Site Location Map



Waste Discharge Requirements Order R5-2022-0059
Lamont Public Utility District and
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ATTACHMENT B—Flow Schematic



Waste Discharge Requirements Order R5-2022-0059
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Kern County

ATTACHMENT C—Recycled Water Signage



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Waste Discharge Requirements Order R5-2022-0059
for

Lamont Public Utility District and
Recology Blossom Valley Organics South
Lamont Wastewater Treatment Facility
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BACKGROUND

Waste Discharge Requirements (WDRs) Order R5-2012-0043 authorizes a discharge of up to 2.0 million gallons per day (mgd) of undisinfected secondary wastewater from the Lamont Public Utility District (District) Wastewater Treatment Facility (WWTF) to a Composting Facility on District owned land and 130 acres of Use Areas. The Composting Facility was originally leased to Community Recycling and Resource Recovery Inc. (Community Recycling). In 2015, Recology Blossom Valley Organics – South (Recology), entered into an agreement with Community Recycling to purchase certain assets and take over the lease agreement Community Recycling had with the District. The District and Recology have since entered into a new lease agreement (2021 lease agreement) with an effective date of 27 April 2021 and expires on 30 June 2043. Recology's composting operations are regulated under separate WDRs Order 5-01-091.

Cease and Desist Order (CDO) R5-2012-0044 was issued to the District and required the District to develop adequate, reliable disposal capacity due to Tulare County temporarily revoking the former Composting Facility operator (Community Recycling) Conditional Use Permit in 2011. Without the Conditional Use Permit, the Facility's effluent could not be recycled at the Composting Facility, which threatened the District's ability to adequately store and dispose of the Facility's. The COD also required the District to address the ongoing effluent biochemical oxygen demand (BOD) and total suspended solids (TSS) exceedances.

On 25 August 2015, the District submitted a Report of Waste Discharge for the expansion of the District's Use Area by an additional 160 acres (APN 185-350-55) of land for a total of 290 acres (130 acres of currently permitted plus 160 acres proposed) and to acknowledge Recology as the new operator of the Composting Facility. According to the RWD, Recology will take all the wastewater generated at the WWTF and apply it to the composting operation and any remainder will be applied to the 290 acres of Use Areas to irrigate fiber and fodder crops for non-human consumption. Recology will act as the operator responsible for managing the 290 acres of Use Areas.

The 2021 lease agreement stipulates that if Recology voluntarily ceases operating the Compost Facility (APNs 185-350-53 and 185-350-54), it will vacate the property within 30 days and surrender the property to the District. Collectively, the existing 130 acres of

Use Areas (APNs 185-300-14 and 185-350-54), the 160-acre parcel (APN 185-350-55) to be remediated, and the 190 acres of the Compost Facility (APNs 185-350-53 and 185-350-54) totals 480 acres (close to the approximate 450 acres needed per the 2018 water balances for the District to accommodate a flow of 2.0 mgd without relying on the Compost Facility to take its wastewater).

WDRs R5-2012-0043 prescribes BOD and TSS limits of 40 mg/L (monthly average) and 80 mg/L (daily maximum) and 80 percent removal. In 2017, the District completed the removal of 3,800 tons of sludge from aeration pond 1 and hauled it off-site to the Liberty Composting Facility regulated by WDRs Order 2009-0018. It appears that the removal of sludge from aeration pond 1 improved the performance of the WWTF. The WWTF's discharge now generally meets the effluent BOD and TSS limits of 40 mg/L (monthly average) and 80 mg/L (daily maximum).

Figures 1 and 2, depict the monthly average effluent TSS concentrations and percent removal, respectively, based on data from January 2021 through March 2022. During this monitoring period, the Facility met the effluent TSS limit of 40 mg/L and provided 91 to 99 percent removal for TSS.

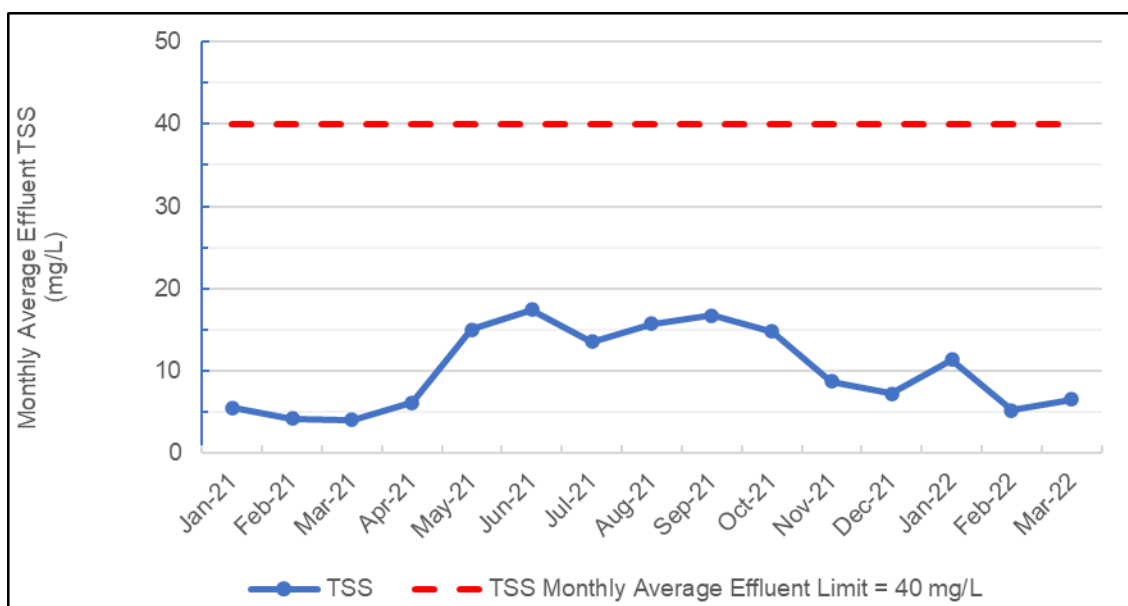


Figure 1. Monthly Average Effluent TSS

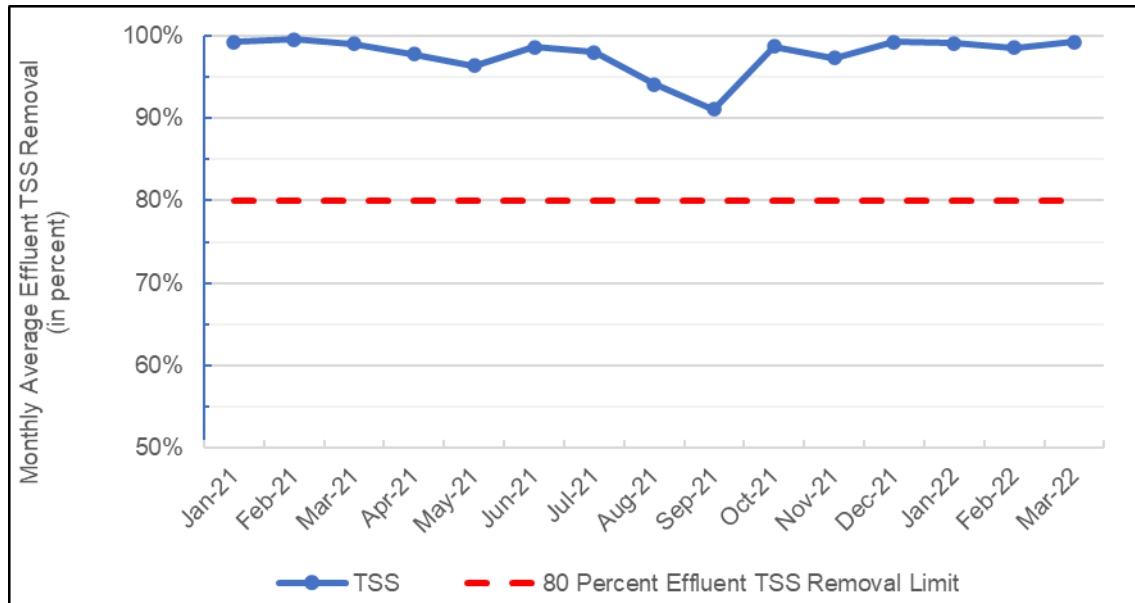


Figure 2. Monthly Average Effluent TSS Percent Removal

Figures 3 and 4, depict the monthly average effluent BOD concentrations and percent removal, respectively, based on data from January 2021 through March 2022. The January 2021 through March 2022 monitoring data shows the Facility currently meets the monthly average BOD effluent limit of 40 mg/L with the exception of the 12 October 2021 effluent result of 150 mg/L, which appears to be a statistical outlier as discussed in the Order Findings. The Facility also provides 87 to 99 percent removal for BOD as shown in Figure 4.

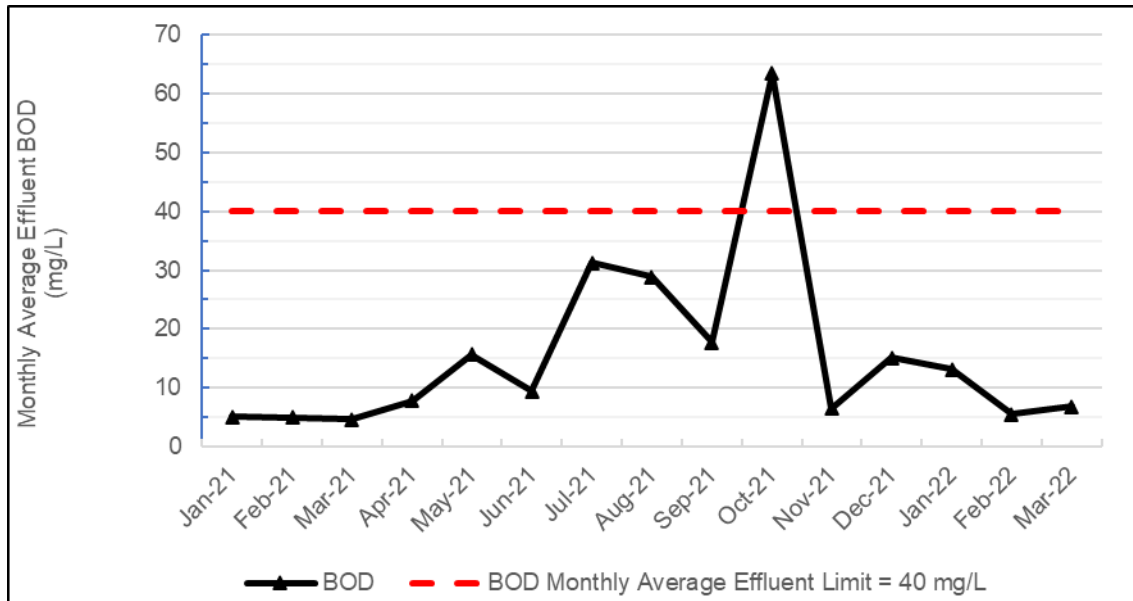


Figure 3. Monthly Average Effluent BOD

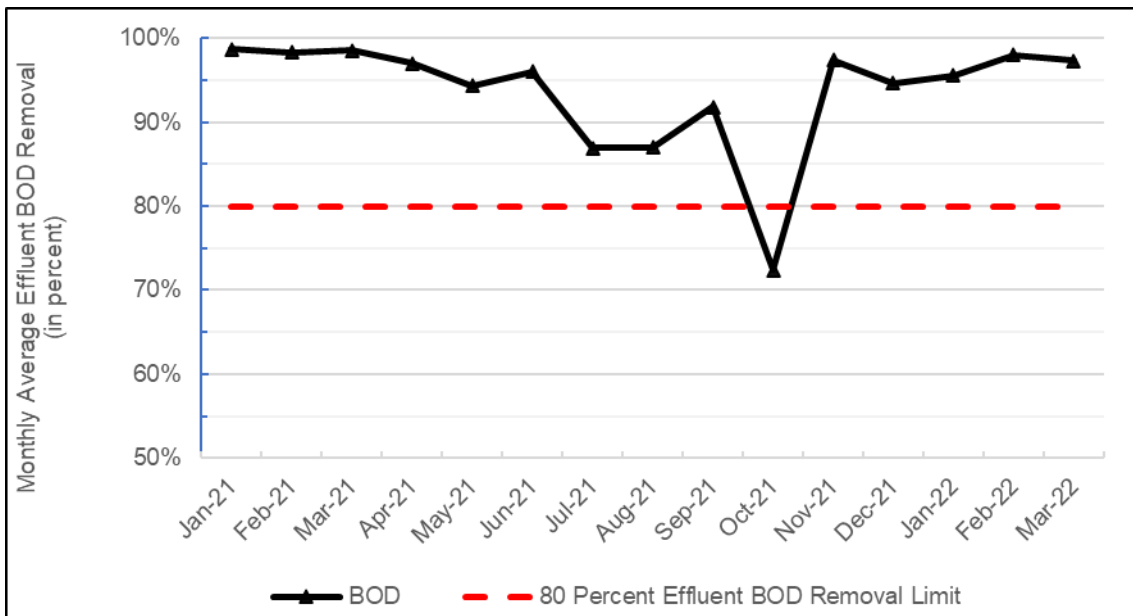


Figure 4. Monthly Average Effluent BOD Percent Removal

WASTEWATER GENERATION AND DISPOSAL

The WWTF consists of a headworks, two aeration ponds with a 2-foot-thick clay liner, two HDPE lined facultative ponds, two HDPE lined storage ponds on the north side of

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East Bear Mountain Boulevard, and six unlined storage ponds and two unlined irrigation ponds on the south side of East Bear Mountain Boulevard. Treated wastewater produced at the District's WWTF is stored in the storage ponds prior to being used by Recology's Composting Facility and/or applied as irrigation water to farmland to grow fodder crops within the Use Area.

In 2013, in accordance with Provision G.27 of R5-2012-0043, the Discharger installed an effluent flow meter at the end of irrigation ponds. In July 2022, the Discharger replaced the effluent flow meter due to wear and tear. Monthly average influent and effluent flows at the WWTF as well as the percentage of wastewater used by Recology are shown below. MRP R5-2012-0043 does not require the Discharger to report the effluent flow specifically used on the compost operation versus the effluent flow used for irrigation of crops on the Use Area. The MRP requires more detailed effluent flow monitoring to better characterize wastewater use.

Table 12—Monthly Average Influent and Effluent Flows (mgd)

Month	Average Influent Flow	Average Effluent Flow	Percentage of Lamont's Effluent Used by Recology
January 2021	1.00	0.50	50%
February 2021	1.07	0.25	23%
March 2021	1.08	0.49	46%
April 2021	1.14	0.57	50%
May 2021	1.14	0.22	19%
June 2021	1.17	0.57	48%
July 2021	1.17	0.77	66%
August 2021	1.19	0.09	8%
September 2021	1.16	0	0%
October 2021	1.14	0	0%
November 2021	1.09	0.23	21%
December 2021	1.06	0	0%
January 2022	1.06	0.04	3%

Month	Average Influent Flow	Average Effluent Flow	Percentage of Lamont's Effluent Used by Recology
February 2022	1.03	0.47	45%
March 2022	1.05	0.36	34%

GROUNDWATER CONSIDERATIONS

Groundwater conditions are discussed in Findings 35 through 40 of the Order.

The receiving water is first encountered groundwater that occurs at a depth of 50 to 60 feet. A Kern County Health Department (KCHD) study shows that in the 1970's the TDS concentrations in the unconfined aquifer underlying portions of the District property were as high as 1,500 mg/L (EC of 2,308 μ mhos/cm). The study indicates that groundwater salinity generally improves to the east. The study contains an additional map (Plate 18) that depicts a groundwater modeling effort conducted at the time of the study. The effort projects TDS concentrations in groundwater through 2000. The model results indicate that the area of poor-quality groundwater will move east over the years.

Land uses in the vicinity of the WWTF are primarily agricultural. There are two dairies to the west of the WWTF and a composting facility to the south of the WWTF. MW-3 and MW-4 appear to be upgradient wells. However, given the general groundwater gradient, groundwater quality in MW-3 may be influenced by dairy discharges. MW-4 is adjacent to the Composting Facility and downgradient of a dairy and may be impacted by the dairy and/or composting operations.

Figures 5 through 7 show the groundwater trend for EC, total nitrogen, and nitrate (as N) for the seven monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5A, MW-6, and MW-7A) at the WWTF based on data from March 2017 through June 2022 (with the exception of the 3rd Quarter 2017 and 1st Quarter 2020 groundwater data).

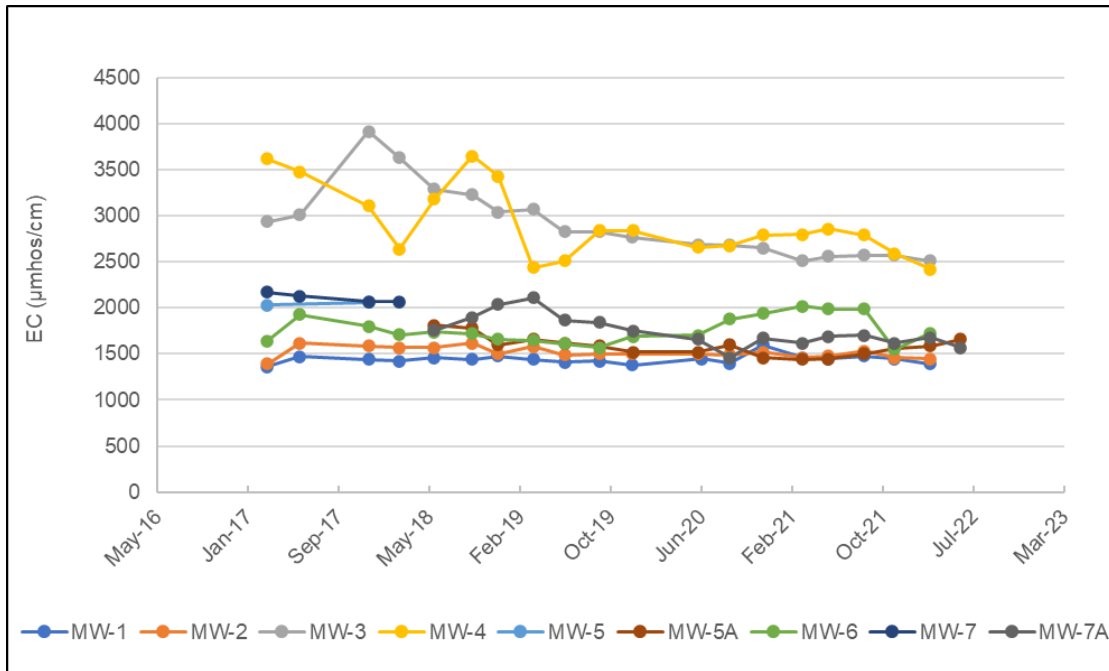


Figure 5. Groundwater EC

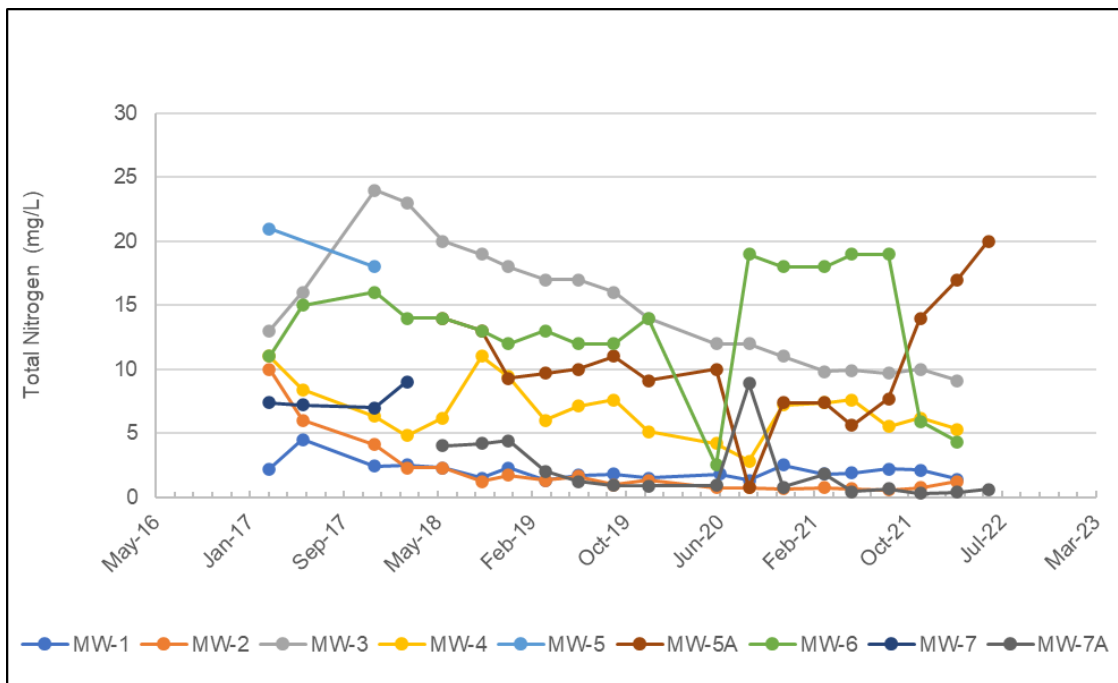


Figure 6. Groundwater Total Nitrogen

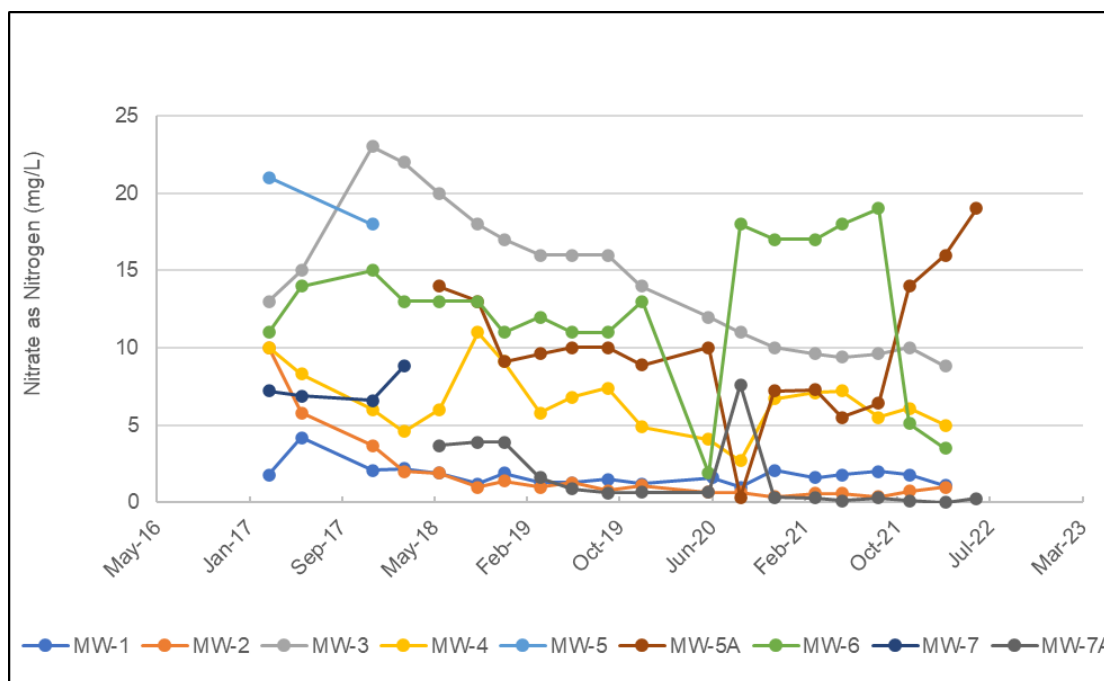


Figure 7. Groundwater Nitrate as Nitrogen

ANTIDEGRADATION

State Water Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; (2) will be consistent with the maximum benefit to the people of the State; and (3) is minimized through the discharger’s best practicable treatment or control (BPTC).

Antidegradation analysis and conclusions are discussed in Findings 60 through 66 of the Order.

DISCHARGE PROHIBITIONS, LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS

The proposed Order prohibits the discharge of waste to surface water and to surface water drainage courses. This Order includes a flow limit of 2.0 mgd and sets an effluent limit for 5-day BOD and TSS of 40 mg/L as a monthly average and 80 mg/L as a daily maximum. For salinity, this Order sets an effluent Salinity Action Level of 1,300 μ mhos/cm. This Order also prescribes groundwater limitations that ensure the discharge does not affect present and anticipated beneficial use of groundwater.

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MONITORING REQUIREMENTS

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impacts of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes influent, effluent, pond, source water, groundwater, sludge/biosolids monitoring, and use area requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications in the Order.

SALT AND NITRATE CONTROL PROGRAMS REGULATORY CONSIDERATIONS

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

On 5 January 2021, the Central Valley Water Board issued the District (CV-SALTS ID: 2716) a Notice to Comply letter under the Salt Control Program. On 13 March 2021, the Discharger paid its P&O fees. On 13 April 2021, the Central Valley Water Board received a Salt Control Program Notice of Intent stating the District has selected to participate in the P&O Study.

For the Nitrate Control Program, the Discharger is located in Groundwater sub-basin 5-22.14 (San Joaquin Valley – Southern Kern County), a non-prioritize basin.

REOPENER

The conditions of discharge in the Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

LEGAL EFFECT OF RESCISSION OF PRIOR WDRS OR ORDERS ON EXISTING VIOLATIONS

The Central Valley Water Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect.

Lamont Public Utility District and
Recology Blossom Valley Organics South
Lamont Wastewater Treatment Facility
Kern County

INFORMATION SHEET

The Central Valley Water Board reserves the right to take enforcement action to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of revoked waste discharge requirements or orders as allowed by law.