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CENTRAL VALLEY REGION

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WASTE DISCHARGE REQUIREMENTS ORDER
R5-2022-####



ORDER INFORMATION

Order Type(s): Waste Discharge Requirements (WDRs)
Status: **Agenda Draft**
Program: Non-15 Discharge to Land
Region 5 Office: Sacramento (Rancho Cordova)
Discharger(s): Pilot Travel Centers, LLC
Facility: Pilot Travel Center No. 168
Address: 30035 County Road 8, Dunnigan
County: Yolo
Parcel Nos.: 52-050-80
CIWQS Place ID: 248404
Prior Order(s): 05-01-266

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 DD Month Year.

PATRICK PULUPA, Executive Officer

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GLOSSARY

ac	Acre
ac-ft	Acre-feet
Antidegradation Policy	<i>Statement of Policy with Respect to Maintaining High Quality Water in California</i> , State Water Board Resolution 68-16.
Basin Plan	Water Quality Control Plan for Sacramento and San Joaquin River Basins
bgs	Below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylene
BOD₅	Five-day biochemical oxygen demand
BPTC	Best practicable treatment and control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 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 at 25° C
EIR	Environmental Impact Report
FDS	Fixed dissolved solids
FEMA	Federal Emergency Management Agency
ft	Feet
gpd	Gallons per day
HAL	EPA Health Advisory Level.
I/I	Inflow and infiltration
MRP	Monitoring and Reporting Program
MW	Monitoring well
MCL	Maximum Contaminant Level per Title 22
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
MG[D]	Million Gallons [per Day]
mg/L	Milligrams per liter

MTBE	methyl tert-butyl ether
N	Nitrogen
ND	Non-detect
NA	Not available
PQL	Practical Quantitation Limit
R[O]WD	Report of Waste Discharge
SERC	State Emergency Response Commission
SPRRs	Standard Provisions and Reporting Requirements
SSGL	Site-Specific Groundwater Limitation
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
T&O	Taste & Odor Threshold
TPH	total petroleum hydrocarbons
TTHMs	Trihalomethanes
TSS	Total suspended solids
<i>Unified Guidance</i>	<i>Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)</i>
USEPA	United States Environmental Protection Agency
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. Pilot Travel Centers, LLC owns and operates the Pilot Travel Center No. 168 wastewater treatment facility (Facility). Hereafter, Pilot Travel Centers, LLC is referred to as the Discharger. The Facility is located at 30035 County Road 8 in Dunnigan; Assessor Parcel Number (APN) 052-050-080; Section 26, T12N, R1W, MDB&M (38°51'45.14"N, 121°57'5.10"W). The Facility's location is depicted in **Attachment A** (Vicinity Map).
2. Waste Discharge Requirements (WDRs) Order 5-01-266, adopted on 7 December 2001 by the Central Valley Water Board, prescribed requirements for wastewater discharges to percolation disposal ponds. Separate monthly average and daily maximum influent flow limits were prescribed for the travel center, former truck wash facility, and stand-alone restaurant.
3. On 20 May 2019, the Discharger submitted a Report of Waste Discharge (RWD) for regulatory coverage under the State Water Resources Control Board Order WQ 2014-0153-DWQ requesting a combined flow limit in lieu of separate flow limits as prescribed in WDRs Order 5-01-266. Additional information was submitted on 31 January 2020. The Facility does not meet the conditions of WQ 2014-0153-DWQ because the Facility receives wash water generated by activities conducted at the former truck wash facility maintenance bays.
4. The WDRs are being updated to ensure the discharge is consistent with water quality plans and polices and to reflect current treatment operations. WDRs Order 5-01-266 will be rescinded and replaced with this Order.
5. As the owner and operator, the Discharger is responsible for compliance with the waste discharge requirements prescribed in this Order.
6. Also attached is **Monitoring and Reporting Program (MRP) R5-2022-XXXX**, which requires monitoring and reporting for the discharge regulated under these WDRs.

Existing Facility and Discharge

7. The Facility serves a travel center, stand-alone diner-style restaurant, and a truck care service building (former truck wash facility).
 - a. The travel center and truck care service building are located on property owned by Pilot Travel Centers, LLC. The travel center houses a convenience store, a fuel sales counter, a fast-food restaurant, showers, and restrooms. The former truck wash facility was reconfigured into a truck care service building with a service maintenance bay, providing light

mechanical services such as fluids and filter replacements. There have been no truck washing activities since June 2018.

- b. The stand-alone restaurant is located on property owned by Dunnigan Co Brands, Inc. Contractual agreements between the Discharger and Dunnigan Co Brands, Inc are in place to allow wastewater discharges from the restaurant into the treatment and disposal ponds.
8. Wastewater is generated from the following:
 - a. Travel Center: toilet facilities, showers, food preparation kitchen, and fast-food restaurant.
 - b. Stand-alone restaurant: toilet facilities and food preparation kitchen.
 - c. Truck care service building: single restroom and floor drains located at the maintenance bays.
 9. Pretreatment consists of grease traps for the kitchens and an oil/water separator for the truck care service building.
 10. The collection system is comprised of gravity sewer piping and three lift stations.
 - a. One lift station receives wastewater from the travel center,
 - b. Second lift station receives wastewater from the stand-alone restaurant, and
 - c. Third lift station receives wastewater from the truck care service building.
 11. The Facility consists of five unlined ponds for treatment and disposal. At the time WDRs Order 5-01-266 was adopted, there were only Ponds 1, 2, and 3. Ponds 4 and 5 were installed in January 2002 to operate as emergency overflow ponds. Treatment is achieved by stabilization of the organic matter by algae and bacteria. Wastewater from the travel center and stand-alone restaurant is pumped through separate metering stations, then combined prior to discharge into any one of the five ponds. Wastewater from the truck care service building is pumped only to Pond 1. Ponds 1, 2, and 3 are interconnected to ensure 2 feet (ft) of freeboard. Ponds 2 and 3 overflows into Ponds 4 and 5. A site map and process flow schematic is shown in **Attachment B** (Site Plan and Monitoring Well Location Map) and **Attachment C** (Flow Schematic), respectively.
 12. Pond characteristics are summarized in **Table 1**. Pond depth and capacity estimated at 2 ft of freeboard from the top of berm.

Table 1. Pond Characteristics

Parameters	Pond 1	Pond 2	Pond 3	Pond 4	Pond 5
Surface Area, sq-ft	11,000	10,000	6,000	31,000	35,000
Depth, ft	7	7	7	7	7
Capacity, MG	0.4	0.34	0.21	1.4	1.6

13. Influent flows from the travel center from 2017 through 2020 as provided in the RWD and in the monthly monitoring reports are shown in **Table 2**. Wastewater flow from the travel center is metered prior to discharge into the ponds. Flows are shown as a monthly average in gallons per day (gpd).

Table 2. Historical Average Travel Center Influent Flows, gpd

Month	2017	2018	2019	2020
Jan	11,580	12,780	14,764	14,575
Feb	12,073	13,025	15,066	13,565
Mar	12,582	12,845	16,895	13,175
Apr	12,320	13,265	16,955	12,763
May	13,525	13,562	17,699	12,242
Jun	14,422	14,391	18,907	14,415
Jul	13,513	14,455	21,271	13,403
Aug	13,782	15,753	18,501	12,818
Sep	12,400	19,105	17,814	13,452
Oct	13,120	20,424	18,083	14,343
Nov	12,427	26,928	15,927	11,703
Dec	12,711	15,914	17,604	12,636

14. Influent flows from the stand-alone restaurant and truck care service building from 2017 through 2020 as provided in the RWD and in the monthly monitoring reports are shown in **Table 3**. Wastewater flow from the stand-alone restaurant is metered prior to discharge into the ponds. Wastewater flow from the truck care service building is estimated based on flow metered measurements of water into the building from the supply well. Flows are shown as a monthly average in gallons per day (gpd). The previous restaurant (Oasis Grill) was replaced with a Denny's restaurant that began operations in late 2017. Due to tenant occupancy, flows from the truck care service building have historically been intermittent. There were no discharges from the truck care service building in 2017 and 2020. Based on the available flow data, wastewater from the truck care service building is less than 1 percent of the total flow discharged to the ponds.

Table 3. Historical Average Restaurant and Truck Care Service Building Influent Flows, gpd

Month	2017	2018		2019		2020
	Restaurant	Restaurant	Truck Care	Restaurant	Truck Care	Restaurant
Jan	0	2,376	0	2,026	35	1,248
Feb	0	2,149	0	2,309	28	1,195
Mar	0	1,884	0	1,640	88	705
Apr	0	2,172	0	1,359	39	182
May	0	2,262	0	1,755	35	550
Jun	0	2,654	184	1,738	58	899
Jul	0	3,027	94	1,691	45	484
Aug	0	2,058	80	1,702	48	302
Sep	664	1,182	105	1,629	44	289
Oct	2,992	1,152	43	1,577	38	1,044
Nov	2,705	1,543	47	1,651	67	502
Dec	2,422	1,479	27	1,474	45	36

15. Source water is provided from two water supply wells: potable water supply well (WSW) and truck wash well (TWW). WSW is the primary source water. WSW is reported to be approximately 400 ft deep, sealed to a depth of 200 ft below ground surface (bgs), and the screened interval unknown. TWW is reported to be approximately 285 ft deep, sealed to a depth of 105 feet bgs, and screened from 200 to 210 ft and from 260 to 280 ft. The water supply wells are sampled annually. Water quality data from WSW is summarized in **Table 4** for select parameters. In accordance with revised Monitoring and Reporting Program (MRP) 5-01-266, source water is also analyzed for TPH-diesel, TPH-gasoline, benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether (MTBE), which have been non-detect and are not included in **Table 4** below. Average concentrations were calculated based on available data collected between February 2010 through September 2019 as provided in the annual reports. Units are in mg/L, unless shown otherwise. ND denotes non-detect with the Reporting Limit shown.

Table 4. Average Supply Water Quality, 2010-2019

Parameter/Constituent	Average Concentration	Min/Max Concentration
EC, μ mhos/cm	548	136 / 639
TDS	318	260 / 390
Nitrate as N	2.2	1.1 / 2.7

Parameter/Constituent	Average Concentration	Min/Max Concentration
TKN	0.39	0.3 / 0.47
Total Coliform, MPN/100mL	1.6	ND, <2 / 6.8
Sodium	31	28 / 34
Chloride	20	15 / 25
Chromium, Total	0.04	ND, <0.01 / 0.05
Chromium, Hexavalent	0.04	0.03 / 0.05

16. Wastewater quality data submitted in the monitoring reports from 2017 through 2019 are shown in **Table 5** for select parameters. Concentrations below are measured in mg/L, unless otherwise shown. Parameters that have historically been detected at very low concentrations or below their respective reporting limits were omitted from the table. Annual average concentrations are shown. The maximum concentration is in parenthesis. pH is a range of data.

Table 5. Average Wastewater Quality, 2017-2019

Parameter/Constituents	2017 Avg (Max) Concentrations	2018 Avg (Max) Concentrations	2019 Avg (Max) Concentrations
pH, std units	8.0 – 9.6	7.5 – 9.5	8.6 – 9.8
BOD ₅	606 (1,090)	638 (1,140)	512 (890)
EC, µmhos/cm	1,449 (1,634)	1,395 (1,698)	1,156 (1,676)
TDS	768 (885)	977 (3,990)	1,104 (3,170)
Nitrate as N	< 0.02	< 0.05	< 0.05
TKN	136 (249)	108 (142)	101 (157)
Sodium	196 (222)	230 (541)	223 (396)
Chloride	101 (217)	308 (2,490)	387 (442)
Chromium, Total	0.0304 (0.0344)	0.0298 (0.0325)	0.0255 (0.0288)

17. Wastewater is primarily domestic waste from commercial sources, including kitchen waste and nondomestic flows from the truck care service maintenance bay. Majority of the flow from the truck care service building is domestic waste from the single restroom. Overall, the wastewater is similar in character to municipal wastewater. Based on the available data, the wastewater is considered medium to strong domestic waste (Metcalf & Eddy, 3rd Ed, Table 3-16).
18. Based on available data shown in the above **Table 5**:

- a. Average Biochemical Oxygen Demand (BOD₅) concentrations range from 500 to 640 mg/L. Sporadic BOD₅ concentrations up to 1,200 mg/L were reported and likely from the food preparation kitchens.
 - b. The average EC and TDS concentration is approximately 1,340 µmhos/cm and 950 mg/L, respectively.
 - c. Wastewater consists of primarily organic nitrogen and ammonia.
 - d. Wastewater consists of elevated sodium concentrations. Based on laboratory data sheets, samples were diluted due to sample matrix, resulting in elevated reporting limits.
19. WDRs Order 5-01-266 required wastewater monitoring for the following constituents: MTBE; BTEX; TPH-gasoline; TPH-diesel; metals (antimony, barium, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc); and minerals (barium, calcium, magnesium, and potassium). For the most part, these parameters have historically been detected at very low concentrations or below their respective reporting limits and therefore omitted from **Table 5**.

Changes to Facility

20. No changes to the treatment and disposal ponds are being proposed. The Discharger is requesting a combined flow limit in lieu of separate flow limits for the travel center, restaurant, and truck care service building. The water balance submitted with the RWD demonstrated a pond disposal capacity of approximately 45,900 gpd based on pond dimensions; influent flows (ranging from 17,100 to 20,580 gpd) and measurements of freeboard obtained between March 2018 through March 2019; and reasonable estimates of precipitation, evaporation, and percolation rates. A maximum influent flow not to exceed 31,000 gpd and an annual total flow of 11.3 million gallons will be prescribed to allow some flexibility of higher flows during the year.

Compliance History

21. The Travel Center has been investigated for leaking underground storage tanks, Regional Board Case Number 570254. Site remediation activities began in 1981 and have included removing liquid-phase hydrocarbons (LPH) with a recovery pump in a monitoring well, using passive skimmers in monitoring wells to remove LPH, operating a soil vapor extraction system to remove total petroleum hydrocarbons (TPH), and using vacuum trucks for periodic groundwater extraction events to remove LPH and impacted groundwater. No remediation has occurred since 2009. A separate network of monitoring wells and monitoring and reporting program is used to monitor groundwater conditions associated with residual hydrocarbons that have been historically observed on the site. On 24 March 2022, a letter to the Discharger from the Central Valley Regional Water Board was issued confirming completion of the site investigation and corrective

actions for the underground storage tank(s) at the site and that no further action was required. Site remediation activities are not regulated under these WDRs.

Site Specific Conditions

22. The Facility is located on relatively flat terrain. Based on boring logs, soils in the area of the ponds primarily consist of a silty clay with varying minor amounts of sand. Near surface soils in the vicinity of the Facility are generally comprised of Rg Rincon silty clay loam.
23. The Federal Emergency Management Agency (FEMA) designates the location of the Facility as an "Area of Minimal Flood Hazard", Flood Zone X.
24. The nearest California Irrigation Management Information System (CIMIS) station is the Zamora CIMIS Station (#27), approximately 6 miles to the southeast of the Facility. Based on data from the Zamora CIMIS Station, the annual average precipitation in the area is approximately 33.66 inches per year and the reference evapotranspiration is approximately 53.39 inches per year. The 100-year total annual precipitation is approximately 37.32 inches per year.
25. Local land use is primarily agricultural, rural residences, and mobile home parks. Commercial businesses, typically consisting of gas stations, restaurants, motels, and convenience stores are found along the Interstate 5 corridor. To the northeast, east of County Road 99W is the Dunnigan Wastewater Treatment Facility consisting of two lined treatment ponds and two disposal ponds.

Groundwater Conditions

26. In September 1999, three groundwater monitoring wells ATC-1, ATC-2, and ATC-3 were installed to a depth of approximately 45 ft bgs to monitor groundwater near the treatment and disposal ponds. Well ATC-3 is located adjacent to a stormwater detention basin, which could influence water quality near this well. A fourth well, ATC-4, was installed in October 2000. Groundwater flow was known to fluctuate from the south-southeast to north-northwest, with a gradient of about 0.0001 ft/ft. Prior to 2013, available data showed groundwater at approximately 25 to 30 ft bgs with an occasional rise to 15 bgs. These wells were dry by the end of 2013. Groundwater data based on samples obtained from September 2009 through August 2013 are shown in **Table 6** for select parameters. Monitoring parameters that have historically been non-detect have been omitted from this table. Average concentrations are shown with maximum concentrations in parentheses. One half of the Reporting Limit was used to substitute non-detect results to calculate average concentrations. Units are mg/L, unless shown otherwise.

Table 6. Groundwater Quality, Pre-2013

Constituent	ATC-1	ATC-2	ATC-3	ATC-4	WQO (Reference)
EC, μ mhos/cm	1,411 (1,480)	1,093 (1,190)	960 (1,040)	1,730 (2,043)	700 (AG), 900 (sMCL recommended)
TDS	899 (1,530)	646 (833)	613 (833)	1,057 (1,780)	500 (sMCL recommended), 1,000 (sMCL upper)
Sodium, total	72 (170)	29 (35)	26 (22)	174 (260)	69 (AG)
Nitrate as N	9.3 (15)	15 (23)	16 (20)	4 (8)	10 (MCL)
TKN	0.7 (5.4)	0.4 (1.3)	0.5 (5.0)	4 (26)	none
Iron, total	20 (120)	7.5 (78)	10 (67)	22 (150)	0.3 (sMCL)
Manganese, total	0.4 (3.5)	0.1 (0.2)	0.1 (1.3)	1.0 (4.1)	0.05 (sMCL)
Total Coliform Organisms, MPN/100mL	2 (17)	4.4 (50)	0.9 (1.0)	3.2 (33)	2.2 (MUN)

27. EC is an indicator of salinity in groundwater. EC concentrations in all the wells are above the agricultural (AG) water quality goal of 700 μ mhos/cm. Based on available data between 1999 and 2013, concentrations were trending upwards in wells ATC-2 and ATC-4.
28. TDS concentrations in all the wells are above the recommended secondary maximum contaminant level (MCL) of 500 mg/L. Concentrations in ATC-1, ATC-3, and ATC-4 were trending downwards, while ATC-2 remain stable.
29. Nitrate as N concentrations above 10 mg/L, the primary MCL for nitrate, were observed in wells ATC-1, ATC-2, and ATC-3 with concentrations trending upwards.
30. Concentrations for sodium, iron, and manganese represent total metals. Elevated concentrations were observed and likely due to unfiltered samples being analyzed.
 - a. Sodium concentrations above the AG water quality goal of 69 mg/L were observed in wells ATC-1 and ATC-4.
 - b. Iron and manganese concentrations above the secondary MCL (sMCL) of 0.3 mg/L and 0.05 mg/L, respectively were observed in all the wells with concentrations trending upwards.
31. The Discharger does not provide active disinfection and must rely on site conditions (climate and soils) to control the persistence and transport of

pathogens into the aquifer. For the most part, total coliform organisms were non-detect, and the data shown in the above **Table 6** represent an occasional detection greater than 2.2 MPN/100mL, the water quality objective for groundwater used for domestic or municipal supply (MUN). A summary of the coliform detections based on data pre-2013 is shown in **Table 7** below.

Table 7. Total Coliform Detection Summary, Pre-2013

Well	Number of Data Points	Number of Non-detections	Minimum Concentration, MPN/100mL	Maximum Concentration, MPN/100mL
ATC-1	17	14	2	17
ATC-2	14	13	-	50
ATC-3	16	16	-	-
ATC-4	16	14	5	33

32. In accordance with Provision E.5.B of WDRs Order 5-01-266, the Discharger submitted a *Waste Stream and Groundwater Characterization Report* (Report). The report was to summarize analytical data of each waste stream and shallow groundwater and to indicate whether the ponds threaten or have impacted groundwater quality. If a threat to groundwater was identified, specified plans and an implementation time schedule was to be provided in a *Wastewater Facility Expansion/Pond Mitigation Plan*. The Report presented the following:
- a. Waste character was based on two waste streams: (1) a combined waste stream from the travel center and stand-alone restaurant and (2) waste stream from the former truck wash facility.
 - b. Gradient changes without clear seasonal patterns, and therefore difficult to determine if any well represents background groundwater quality.
 - c. Two approaches were used to evaluate existing groundwater quality:
 - i. The first approach compared upgradient to downgradient data results for each monitoring event based on the gradient direction on the day of sampling (event-by-event comparison, with upgradient and downgradient wells changing with each event). Discharger concluded that groundwater may have been degraded with respect to TDS, pH, and barium, and that copper and zinc have the potential to degrade groundwater quality.
 - ii. The second approach compared data results from the presumptive upgradient well ATC-2 to the presumptive downgradient well ATC-4. Based on this comparison, the Discharger concluded that groundwater quality has been degraded with respect to TDS, barium, chromium, copper, nickel, vanadium, and zinc.

- d. The Discharger speculated that previous soil contamination was from historical land uses, stormwater discharges from the adjacent freeway, and adjacent agricultural land uses have contributed to the degradation of groundwater.
 - e. The Discharger concluded that there is no evidence that the wastewater was causing degradation of the shallow groundwater.
33. In early 2018, four replacement groundwater wells ATC-1D, ATC-2D, ATC-3D, and ATC-4D were constructed to approximately 60 ft bgs. More recent data show depth to groundwater at approximately 40 to 50 ft bgs and groundwater flow to the northwest, with a gradient of about 0.001 to 0.002 ft/ft.
34. Well ATC-1D appears to be down-gradient of the ponds; well ATC-3 is up-gradient of the ponds; and wells ATC-2 and ATC-4 are cross-gradient. Groundwater data based on samples obtained from March 2018 through December 2020 are shown in **Table 8** below. Average concentrations are shown with maximum concentrations in parentheses. One half of the Reporting Limit was used to substitute non-detect results. Units are mg/L unless shown otherwise.

Table 8. Groundwater Quality, 2018-2020

Constituent	Down-gradient ATC-1D	Cross-gradient ATC-2D	Up-gradient ATC-3D	Cross-gradient ATC-4D	WQO (Reference)
EC, µmhos/cm	2,273 (2,560)	1,997 (2,320)	923 (1,090)	1,375 (1,530)	700 (AG), 900(sMCL recommended)
TDS	1,400 (1,500)	1,205 (1,800)	584 (820)	934 (1,000)	500 (sMCL recommended), 1,000 (sMCL upper)
Sodium	353 (390)	183 (200)	28 (35)	226 (239)	69 (AG)
Nitrate as N	0.2 (0.3)	4.3 (9.9)	13 (15)	13 (19)	10 (MCL)
TKN	0.7 (2.3)	1.0 (5.5)	0.8 (3.2)	1.1 (4.6)	None
Iron, total	71 (253)	246 (619)	168 (535)	94 (352)	0.3 (sMCL)
Manganese, total	1.0 (3.7)	3.6 (11.7)	3.4 (12)	2.8 (11)	0.05 (sMCL)
Total Coliform Organisms, MPN/100mL	18 (72)	3.6 (17)	13 (60)	152 (1,600)	2.2 (MUN)

35. EC concentrations in all the wells were above the AG water quality goal of 700 µmhos/com with downgradient EC concentrations noticeably higher than

upgradient groundwater quality. Concentrations in wells ATC-1D and ATC-3D show an increasing trend, while concentrations in ATC-2D and ATC-4D remain steady.

36. TDS concentrations in all the wells were above the recommended secondary maximum contaminant (sMCL) level of 500 mg/L with downgradient TDS concentrations noticeably higher than upgradient groundwater quality. Concentrations in wells ATC-1D and ATC-3D show an increasing trend, while concentrations in ATC-2D and ATC-4D are trending downward.
37. Nitrate as N concentrations in well ATC-1D are steady and below 10 mg/L, the primary MCL for nitrate. Concentrations in ATC-2D are below 10 mg/L and trending downward. Concentrations in ATC-3D are above 10 mg/L and trending downward. Concentrations in ATC-4D are above 10 mg/L and trending upwards. Upgradient nitrate concentrations exceed downgradient concentrations.
38. Frequent detections of total coliform above 2.2 MPN/100mL were observed in all the wells. A summary of the coliform detections based on data between 2018 through 2020 is shown in **Table 9** below.

Table 9. Total Coliform Detection Summary, 2018 - 2020

Well	Number of Data Points	Number of Non-detections	Minimum Concentration, MPN/100mL	Maximum Concentration, MPN/100mL
ATC-1D	11	2	2	72
ATC-2D	11	8	7	17
ATC-3D	11	5	2	17
ATC-4D	11	4	2	1,600

39. Elevated iron and manganese concentrations were observed in all the wells and trending upwards. Analysis was based on unfiltered samples and representative of total metals. Elevated concentrations are likely the result of insoluble metals present in the samples.
40. The Discharger has been monitoring groundwater for MTBE, BTEX, TPH-gasoline, and TPH-diesel on a quarterly basis since 2009. Based on available data, low concentrations or concentrations below their respective Reporting Limit have been observed since 2010.

Legal 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. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonable required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

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, section 13263, subd. (g).)
44. This Order and its associated Monitoring and Reporting Program (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.”

47. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basin* (hereafter 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 Section 13241 et seq.).
48. Local surface water drainage is to the Colusa Basin Drainage Canal, which is tributary to the Sacramento River at Knights Landing. The beneficial uses of the Colusa Basin Drain are agricultural supply (AGR); water contact recreation and canoeing and rafting (REC-1); warm and cold freshwater habitat (WARM and COLD); warm water migration (MIGR); warm water spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD).
49. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), and industrial process supply (PRO).
50. The Basin Plan establishes narrative WQOs for chemical constituents, taste and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
51. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.
52. The Basin Plan's narrative WQOs for chemical constituents require MUN-designated water to at least meet the MCLs specified in California Code of Regulations, title 22 (Title 22). The Basin Plan recognizes that the 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.
53. 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.
54. Quantifying a narrative WQO requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations to implement the narrative objective.
55. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality of Agriculture* by Ayers and Westcott and similar references indicate that 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, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley 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.

Salt and Nitrate Control Programs

56. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan Amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03).
57. For the Salt Control Program, the Central Valley Water Board issued the Discharger a Notice to Comply (**CVSALTS ID: 2372**). The Discharger submitted a Notice to Intent and elected to participate in the Prioritization and Optimization Study (P&O Study) under Pathway Option 2, Alternative Salinity Permitting Approach. 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 discharges to the extent feasible; and
 - b. Sets a **Salinity Action Level of 1,700 $\mu\text{mhos/cm}$** for the discharge of wastewater to the treatment and disposal ponds.
58. For the Nitrate Control Program, the Facility falls within the Yolo Sub-basin of the Sacramento Valley Groundwater Basin 5-021.67, a Priority 2 Basin. Notices to Comply for Priority 2 Basins will be issued within two to four years after the effective date of the Nitrate Control Program, between late 2022 and late 2024.
59. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. This Order may be amended or modified to incorporate any newly applicable requirements. More information regarding this regulatory planning process can be found on the Central Valley [Water Board's CV-SALTS website](https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).
(https://www.waterboards.ca.gov/centralvalley/water_issues/salinity)

Antidegradation Policy

60. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (Antidegradation Policy) prohibits the Central Valley water board from authorizing degradation of "high quality water" 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. Monitoring of the shallow groundwater began late 1999 with four groundwater monitoring wells. The groundwater monitoring wells have since dried and replaced with deeper wells installed in 2018. Given the unavailability of pre-1968 water quality information, compliance with the Antidegradation Policy will be determined on current groundwater quality.
62. Based on the data presented in **Table 4** (supply well), **Table 5** (wastewater quality), and **Table 8** (groundwater quality), constituents of concern (COCs) that have the potential to degrade groundwater underlying the ponds include salts (EC, TDS, sodium), nitrate as N, iron, and manganese.
63. A summary of the data as an average concentration is summarized in **Table 10** below. Effluent is shown as a range of data. Units are in mg/L unless shown otherwise. Potential Water Quality Objectives (WQO) are based on the Maximum Contaminant Level (MCL), Secondary MCL (sMCL), or Agricultural Water Quality Goals (AG). DG denotes down-gradient. CG denotes cross-gradient. UG denotes up-gradient. NA denotes not analyzed. ND denotes non-detect.

Table 10. Wastewater and Groundwater Quality Comparison

Parameters	Potential WQO (reference)	Supply Water	Wastewater	ATC-1D (DG)	ATC-2D (CG)	ATC-3D (UG)	ATC-4D (CG)
EC, μ mhos/cm	700 (AG), 900 (sMCL recommended)	548	1,156-1,449	2,273	1,997	923	1,375
TDS	500 (sMCL recommended), 1,000 (sMCL upper)	318	768-1,140	1,400	1,205	584	934
Sodium, total	69 (AG)	31	196-230	353	183	28	226
Nitrate as N	10 (MCL)	2.2	ND	0.2	4.3	13	13
TKN	none	NA	101-136	0.7	1.0	0.8	1.1
Iron, total	0.3 (sMCL)	NA	NA	71	246	168	94
Manganese, total	0.05 (sMCL)	NA	NA	1.0	3.6	3.4	2.8

64. **Salinity (EC and TDS).** For the purpose of evaluation, EC and TDS are representative of overall salinity. Based on available data, EC and TDS concentrations in the wastewater have been relatively stable, however they are above the AG water quality goal of 700 $\mu\text{mhos/cm}$ and recommended sMCL of 500 mg/L, respectively. In comparison to the source water quality, the discharge of wastewater has the potential to degrade groundwater with respect to salinity. Wastewater treatment and disposal is via a pond system and therefore relies on site conditions (climate and soils) to control the persistence and transport of constituents into the aquifer.

Groundwater EC and TDS concentrations are generally higher in the downgradient well in comparison to the upgradient well. However, upgradient well ATC-3D is located near a stormwater basin, which may influence water quality. Historically, EC and TDS concentrations in groundwater have exceeded their respective AG water quality goal and recommended sMCL. Based on available data in the new deeper wells, EC and TDS concentrations are trending upwards in wells ATC-1D (downgradient) and ATC-3D (up-gradient). This Order requires continued groundwater monitoring and a BPTC evaluation on improvements to the Facility.

The Discharger has elected to participate in the P&O Study under Pathway Option 2. For the protection of groundwater from discharges of wastewater, this Order establishes a **Salinity Action Level of 1,700 $\mu\text{mhos/cm}$** as an annual average. The Salinity Action Level was based on historical wastewater data from the past six years. This Salinity Action Level is intended to prevent increases of EC and TDS concentrations in groundwater beyond current conditions. In addition, this Order requires the Discharger to continue its efforts to control and manage salinity in its discharge and comply with the new Salinity Control Program. Compliance with the Salinity Action Level shall constitute compliance with the water quality control plan and shall be deemed adequately protective of beneficial uses.

65. **Nitrate as Nitrogen.** For nutrients such as nitrate, the potential for groundwater degradation depends on wastewater quality and the ability of the vadose zone below the disposal ponds to support nitrification and denitrification to convert the nitrogen to nitrate or nitrogen gas (ammonia) before it reaches the water table.

Based on available wastewater data, total nitrogen is primarily TKN, which consists of organic nitrogen and ammonia nitrogen. TKN has the potential to mineralize and convert to nitrate (with some loss via ammonia volatilization). Nitrate as N concentrations in the wastewater have been non-detect.

Historically, nitrate as N concentrations above the primary MCL of 10 mg/L were observed in Wells ATC-1, ATC-2, and ATC-3. Based on available data in the new deeper wells, concentrations in ATC-3D and ATC-4D are above 10 mg/L with an upward trend in ATC-4D. This Order requires continued groundwater monitoring for nitrate.

For the protection of groundwater quality, this Order requires the Discharger to comply with the new Nitrate Control Program to prevent increases of nitrate concentrations beyond current conditions.

66. **Total Coliform Organisms.** For coliform organisms, the potential for exceedance of the Basin Plan's numeric WQO depends on the ability of the vadose zone soils below the ponds to provide adequate filtration. The Facility does not provide active disinfection to remove pathogens in the wastewater and therefore relies on site conditions to control the persistence and transport of constituents into the aquifer. Shallow groundwater elevations in the area have dropped. Based on available data from the new deeper well, frequent detections of coliform organisms were observed. Cross contamination during subsequent sampling could result in coliform detections. As previously discussed, depth to groundwater at the new deeper wells is between 40 and 50 ft bgs. Prior to reaching the first encountered groundwater, the wastewater will percolate through approximately 40 ft of soil, which will aid in filtering out coliform organisms and prevent groundwater degradation. This Order requires continued groundwater monitoring for total coliform organisms and disinfection of the monitoring wells.
67. **Iron and Manganese.** Iron and manganese concentrations above the respective MCLs were observed in all the wells and appear to be trending upwards. As previously mentioned, analysis was based on unfiltered samples, therefore representative of total metals. Historically, monitoring did not require analysis of iron and manganese in the wastewater or supply water. Elevated concentrations of iron and manganese are not anticipated to be present in the wastewater. Excessive BOD₅ loading rates can deplete oxygen resulting in anoxic conditions that can solubilize naturally occurring metals in the soil, such as iron and manganese. Source control of BOD₅ or additional pretreatment prior to discharge to the ponds can minimize reducing conditions in the soil. Provision H.1.b of this Order requires a *BPTC Evaluation and Facilities System Improvement Workplan* to minimize threat to underlying groundwater quality with respect to iron and manganese. This Order requires continued monitoring of BOD₅ in the wastewater and monitoring of iron and manganese in groundwater to evaluate impacts to underlying groundwater. Groundwater samples shall be filtered prior to analysis.
68. **MTBE, BTEX, TPH-gasoline, and TPH-diesel.** Based on available data, detections for MTBE, BTEX, TPH-gasoline, and TPH-diesel do not appear to have impacted groundwater as discussed in **Finding 40**. In addition, low concentrations or detections below their respective reporting limits were observed in the wastewater as discussed in **Finding 19**. Based on these findings, this Order does not require monitoring for these parameters in the wastewater and groundwater.
69. 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. Compliance with the Salt and Nitrate Control Programs.
 - b. Compliance with a Salinity Action Level for EC.
 - c. Appropriate solids management practices.
 - d. Continued groundwater monitoring to monitor the potential impact of the Facility's discharge on underlying groundwater.
 - e. Use of certified operators to ensure proper operation and maintenance of the Facility systems.
70. The Discharge's implementation of the above-listed BPTC measures including an evaluation of the treatment system in accordance with **Provisions H.1.b** will minimize the extent of further water quality degradation resulting from the Facility's continued operation.
71. The Discharger's operation provides a centralized treatment and disposal solution for domestic waste from multiple commercial properties where there is no regional wastewater collection system. A centralized treatment facility far exceeds any benefits derived from commercial properties otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. The economic prosperity of Central Valley communities and associated industry is a maximum benefit to the people of the State and provides justification for allowing the limited groundwater degradation that may occur pursuant to this Order.
72. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act

73. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301 (CEQA Guidelines). The discharges authorized under this Order are substantially within parameters established under prior WDRs, particularly with respect to character and volume of discharges.
74. This Order is further exempt from CEQA procedural requirements insofar as it is adopted for protection of the environment and does not authorize construction activities or the relaxation of standards allowing for environmental degradation, in accordance with California Code of Regulations, title 14, section 15308 (CEQA Guidelines).
75. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., Yolo County Community Development

Agency certified the 22 June 1999 Tiered Negative Declaration of Environmental Impact for the modification of the Conditional Use Permit for the expansion of the former truck service station and for a lot-line adjustment. No potentially significant impacts to water quality were identified and no mitigation measures to prevent such impacts were imposed. Compliance with these waste discharge requirements will avoid significant impacts to water quality.

Other Regulatory Matters

76. 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.
77. This Order, which prescribes WDRs for discharges of domestic sewage, commercial waste, or treated effluent from a privately owned 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, section 20090, subd. (a) - (b).)
78. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act’s National Pollution Discharge Elimination System (NPDES). The Facility has a design capacity of less than 1.0 mgd and does not have a pretreatment program, therefore 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) at this time.
79. On 2 May 2006, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, State Water Board Order 2006-0003-DWQ (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 Facility’s collection system is privately owned, and therefore is not subject to regulation under the SSO General Order.
80. Existing DWR standards for the construction and destruction of groundwater wells, as well as any more stringent standards that are subsequently adopted, shall apply to all monitoring wells used to monitor impacts of wastewater storage or disposal governed by this Order. (see Cal. Well Stds. Bulletin 74-90 [DWR, June 1991]; Water Wells Stds. Bulletin 74-81 [DWR, Dec. 2918].)
81. Statistical data analysis methods outlined in the US EPA’s Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Unified

Guidance) are appropriate for determining compliance with the Groundwater Limitations of this Order. Depending on the circumstances, other methods may also be appropriate.

82. Order is issued in part pursuant to Water Code section 13263, subdivision (a), which provides 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 ... into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, 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 [Water Code] Section 13241.

83. This Order implements the Central Valley Water Board's Basin Plan, which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses (Wat. Code, section 13241 et seq.). Designated beneficial uses of surface water and groundwater are discussed in Finding 48 and Finding 49, respectively.

84. For the purposes of the California Code of Regulations (CCR), title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-B, where:

- 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; and
- b. Category "B" reflects any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units.

85. Pursuant to Water Code section 13263, subdivision (g), the ability to discharge waste is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

Reporting Requirements

86. This Order is also issued in part pursuant to Water Code section 13267, subdivision (b)(1), which provides that:

[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 within its region

... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

87. The technical reports required under this Order, as well as those required under the separately issued MRP, are necessary to ensure compliance with prescribed WDRs. Additionally, the burdens associated with such reports are reasonable relative to the need for their submission.
88. Failure to comply with the reporting requirements under this Order and the MRP may result in enforcement action pursuant to Water Code section 13268.

Procedural Matters

89. 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.
90. The discharger, interested agencies, and 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. (Wat. Code, section 13167.5; Title 27, section 21730.)
91. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
92. 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 the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions

1. Except as expressly provided herein, the Discharger shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein. This attachment and its individual paragraphs are referred to as SPRRs.

B. Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.
3. Discharge of waste classified as 'designated', as defined in California Code of Regulations, title 22 section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Section E.2 of the SPRRs.
5. Discharge of waste at a location or in a manner different from that described in the Findings herein is prohibited.
6. Discharge of toxic substances into any wastewater treatment system or the disposal field such that biological treatment mechanisms are disrupted is prohibited.

C. Flow Limitations

1. The combined influent flow discharged to the treatment and disposal ponds monitored at INF-001, INF-002, and INF-003 (as defined in the MRP) shall not exceed the limits shown in **Table 11** below.

Table 11. Flow Limitations

Influent Flow Measurement	Influent Flow Limit
Monthly Maximum	31,000 gallons per day
Annual influent flow	11.3 million gallons

D. Salinity Action Level

1. To comply with the Salt Control Program, the Discharger has selected the Alternative Pathway Option 2 (i.e., participate in the P&O Study). Therefore, as discussed in **Finding 64**, these WDRs establish a **Salinity Action Level of 1,700 µmhos/cm** as an annual average.
2. As part of the Annual Report required in the MRP, the Discharger shall evaluate the Facility's annual average effluent EC to the Salinity Action Level. If the Facility's discharge exceeds the Salinity Action Level, the Discharger 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 Facility's salinity effluent levels. This evaluation should include a discussion of any changes to the source water for the area served by the Facility, any new dischargers discharging to the Facility, any increased or changes to conservation efforts

implemented within the Facility's service area (with flow data demonstrating decreased flows to the Facility), and any other changes to Facility's collection or treatment system that could have contributed 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 Discharger 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 impact 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 date (**no later than October 1st** of the year following the exceedance of the Salinity Action Level).

E. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.
2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
3. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
4. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.
5. The discharge shall remain within the permitted waste treatment or containment structures and conveyance structures at all times.
6. Objectionable odors shall not be perceivable beyond the limits of the property boundary at an intensity that creates or threaten to create nuisance conditions.
7. As a means of ensuring compliance with Discharge Specification E.6, 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 and objectionable odors are perceivable beyond the property limits, the Discharger 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.

8. The wastewater ponds shall be managed to prevent breeding of mosquitos or other vectors. 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.
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 2 ft (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 or other suitable measurement device 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 continuous 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 E.9 and E.10.
12. The Discharger shall monitor sludge accumulation in the wastewater treatment/disposal ponds at least every five years beginning in 2023 and shall periodically remove sludge as necessary to maintain adequate

storage capacity. If the estimated volume of sludge in the reservoir exceeds 25 percent of the permitted pond capacity (or other approved percentage by the Executive Officer), the Discharger shall complete sludge cleanout within 12 months after the date of the estimate.

F. Groundwater Limitations

1. Release of waste constituents from any portion of the Facility shall not cause groundwater to:
 - a. Contain waste constituents that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, excluding salinity and nitrates.
 - b. Exceed a total coliform organism level of 2.2 MPN/100 mL over any seven-day period.
 - c. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

G. Solids Disposal Specifications

1. For the purpose of this Order, sludge includes the solid, semisolid, and liquid organic matter removed from wastewater treatment system. Solid waste refers to solid inorganic matter removed by screens and soil sediments from washing of unprocessed fruit or vegetables. Except for waste solids originating from meat processing, residual solids mean organic food processing byproducts such as culls, pulp, stems, leaves, and seeds that will not be subject to treatment prior to disposal or land application.
2. Residual solids shall be removed from screens, sumps, and ponds as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.
3. Any handling and storage of residual solids shall be 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.
4. If removed from the site, residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.

5. Any proposed change in residual solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

H. Provisions

1. The following reports shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision H.4.
 - a. By **[DATE, within 6 months from adoption]**, the Discharger shall submit a *Groundwater Monitoring Well Disinfection Workplan*. The workplan shall provide detailed procedures for well disinfection and include a schedule to complete the work prior to the next sampling event. Completion of any well disinfection activities shall be reported in the quarterly monitoring reports. This Workplan shall be used following a detection of total coliforms in any groundwater monitoring well.
 - b. By **[DATE, within 36 months from adoption of this Order]**, the Discharger shall submit a *BPTC Evaluation and Facilities System Improvement Workplan* to minimize threat to underlying groundwater quality with respect to salinity, nitrates, iron, and manganese. The workplan shall include an evaluation of the treatment system, propose mitigation controls to be implemented to minimize threat to water quality and include a schedule for treatment improvement activities, if applicable to be completed by **[DATE 6 years after adoption]**, and implementation of BPTCs. The Discharger shall report **quarterly** facility progress reports until such time that the treatment improvement activities as proposed in the Workplan are complete and the proposed BPTC have been implemented. Alternatively, if it can be shown that increasing groundwater trends are the result of activities outside the Discharger's control, the report shall include justification that supports that determination.
2. If groundwater monitoring results show that the discharge of waste is causing groundwater to contain any waste constituent concentrations statistically greater than the Groundwater Limitations of this Order, **within 120 days** of the request of the Executive Officer, the Discharger shall submit a BPTC Evaluation Workplan. The workplan shall set forth the scope and schedule for a systematic and comprehensive technical evaluation of each component of the facility's waste treatment and disposal system to determine best practicable treatment and control for each waste constituent that exceeds a Groundwater Limitation. The workplan shall contain a preliminary evaluation of each component of the wastewater treatment, storage, and disposal system and propose a time schedule for completing the comprehensive technical evaluation. The schedule to complete the evaluation shall be as short as practicable and

shall not exceed one year. Alternatively, if it can be shown that the increase is the result of activities outside the Discharger's control, a technical report shall be submitted that justifies and supports that determination.

3. 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.
4. 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.
5. 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 Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.
6. The Discharger shall comply with the separately issued **MRP R5-2022-00xx**, 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.
7. 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 Discharge 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.

8. 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 include 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.
9. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
10. Per the SPRRs, 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.
11. In the event that the Discharger reports toxic chemical release data to the State Emergency Response Commission (SERC) pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986" (42 U.S.C. section 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.
12. In the event of any change in control or ownership of the Facility, 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.
13. 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 SPRR 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.

14. If the discharge to land permitted under this Order ceases, and these WDRs are no longer necessary, the Discharger must contact the Central Valley Water Board's Compliance and Enforcements Unit to discuss wastewater treatment system closure requirements prior to rescission of this Order. Submittal of a Site Closure Plan may be required prior to rescission of this Order.
15. A copy of this Order (including Information Sheet, Attachments, and SPRRs) and the MRP, shall be kept at the Facility for reference by operating personnel. Key operating personnel shall be familiar with their contents.
16. 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 California American Water fail 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. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

LIST OF ATTACHMENTS

Attachment A – Vicinity Location Map

Attachment B – Site Plan and Monitoring Well Location Map

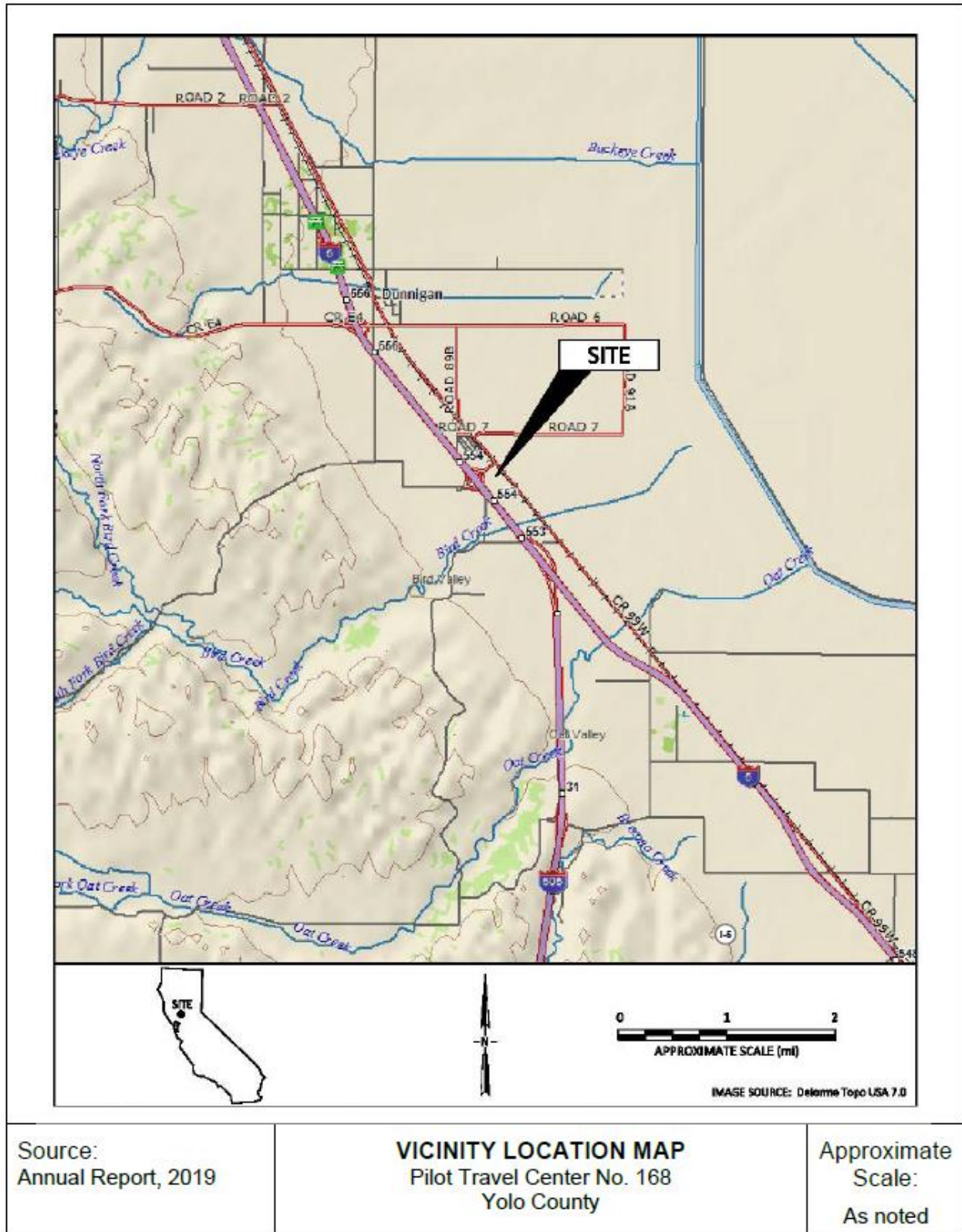
Attachment C – Flow Schematic

Information Sheet

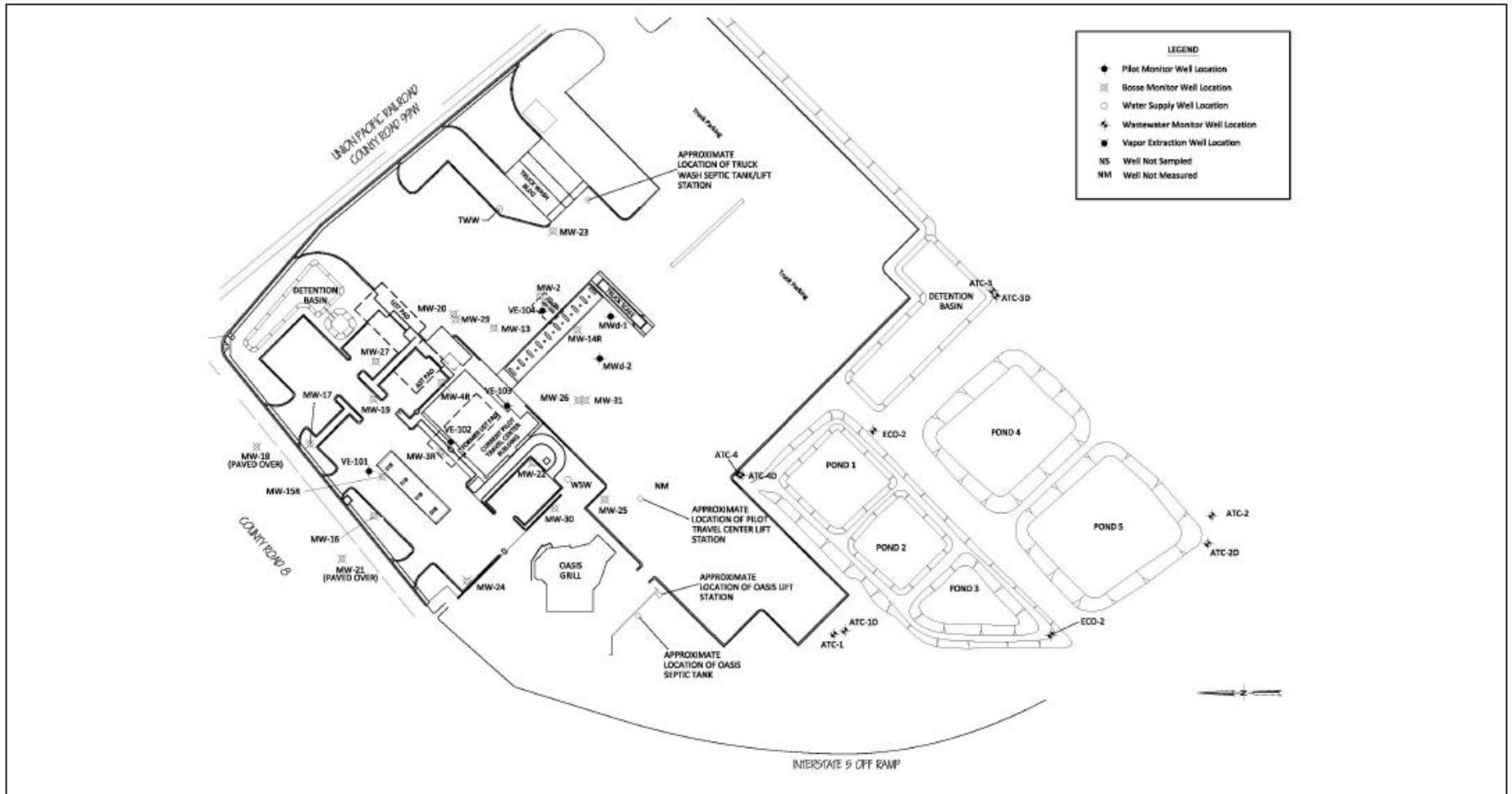
Standard Provisions and Reporting Requirements

Monitoring and Reporting Program R5-2022-XXXX (separate document)

ATTACHMENT A – VICINITY LOCATION MAP

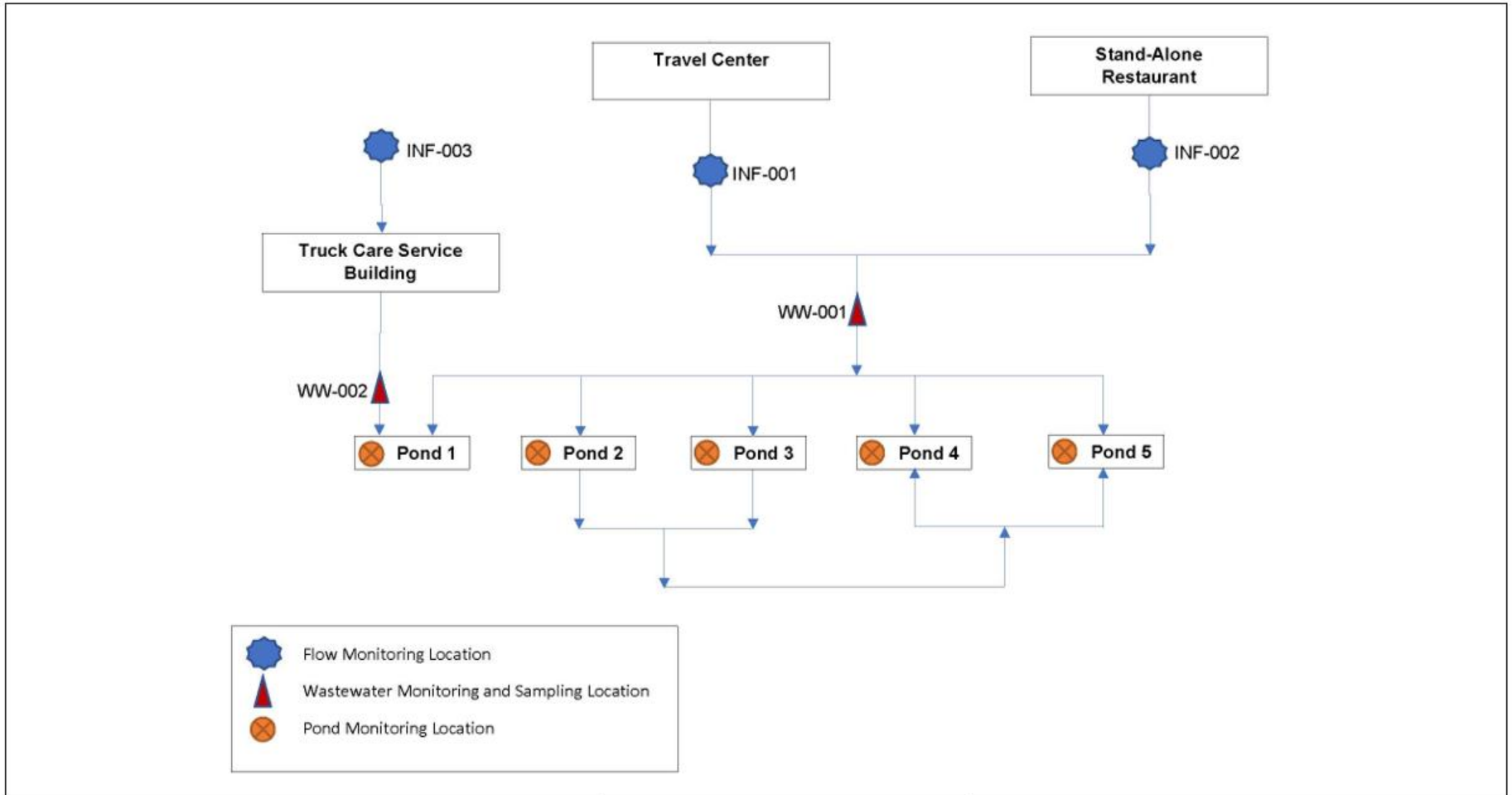


ATTACHMENT B – SITE PLAN AND MONITORING WELL LOCATION MAP



<p>Source: Report of Waste Discharge 20 May 2019</p>	<p>Approximate Scale Not to Scale</p>	<p>SITE PLAN AND MONITORING WELL LOCATION MAP Travel Pilot Center No. 168 Yolo County</p>
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ATTACHMENT C – FLOW SCHEMATIC



Source: Report of Waste Discharge 20 May 2019	Approximate Scale Not to Scale	<p align="center">FLOW SCHEMATIC Travel Pilot Center No. 168 Yolo County</p>
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INFORMATION SHEET

Background

Pilot Travel Centers, LLC owns and operates the Pilot Travel Center No. 168 wastewater treatment facility (Facility) which is located at 30035 County Road 8 in Dunnigan. The Facility consists of five unlined treatment and disposal ponds. The Facility serves a travel center, stand-alone diner-style restaurant, and a truck care service building (former truck wash facility). The travel center houses a convenience store, a fuel sales counter, a fast-food restaurant, showers, and restrooms. The Central Valley Regional Water Quality Control Board previously regulated the discharge under Waste Discharge Requirements (WDRs) Order 5-01-266.

Wastewater and Sludge Disposal

The collection system is comprised of gravity sewer piping and three lift stations. One lift station receives wastewater from the travel center, a second lift station receives wastewater from the stand-alone restaurant, and a third lift station receives wastewater from the truck care service building. There are five unlined ponds for treatment and disposal. Treatment is achieved by stabilization of the organic matter by algae and bacteria. Wastewater from the travel center and stand-alone restaurant can be pumped to Ponds 1 through 5. Wastewater from the truck care service building is pumped only to Pond 1. Ponds 1, 2, and 3 are interconnected at the high-water elevation. Ponds 2 and 3 have high-water overflows into Ponds 4 and 5.

Groundwater Considerations

Groundwater conditions are discussed in Findings 26 through 40 of the Order.

September 1999, a monitoring well network consisting of three wells (ATC-1, ATC-2, and ATC-3) was constructed to a depth of approximately 45 ft bgs to monitor groundwater quality near the treatment and disposal ponds. Well ATC-3 is located adjacent to a stormwater detention basin, which could influence water quality near this well. October 2000, a fourth well, ATC-4, was installed.

Groundwater data was not available between September 2013 through February 2018 due to decreasing water elevations and wells going dry. As a result, deeper wells (ATC-1D, ATC-2D, ATC-3D, and ATC-4D) were installed to a depth approximately 60 ft bgs. Groundwater trends based on available data from 2018 through 2020 for salinity (EC and TDS) and nitrates as N submitted in the 2020 Annual Groundwater Monitoring Report are shown in the figures below.

Figure 1. EC Groundwater Trends

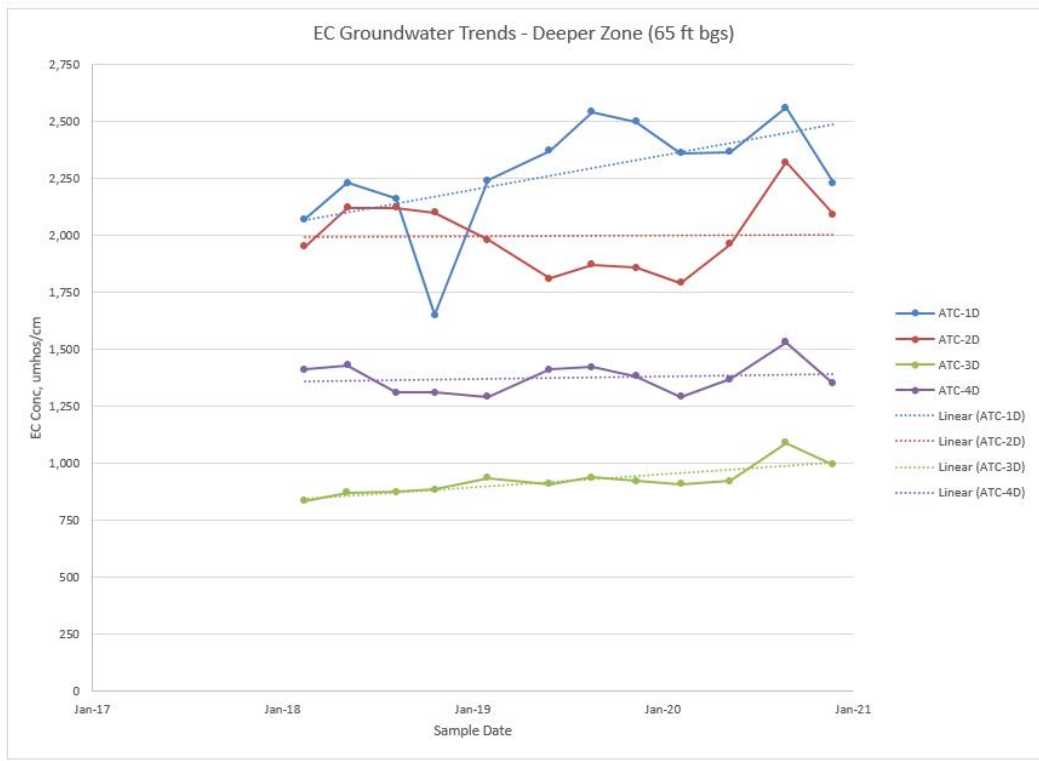


Figure 2 TDS Groundwater Trends

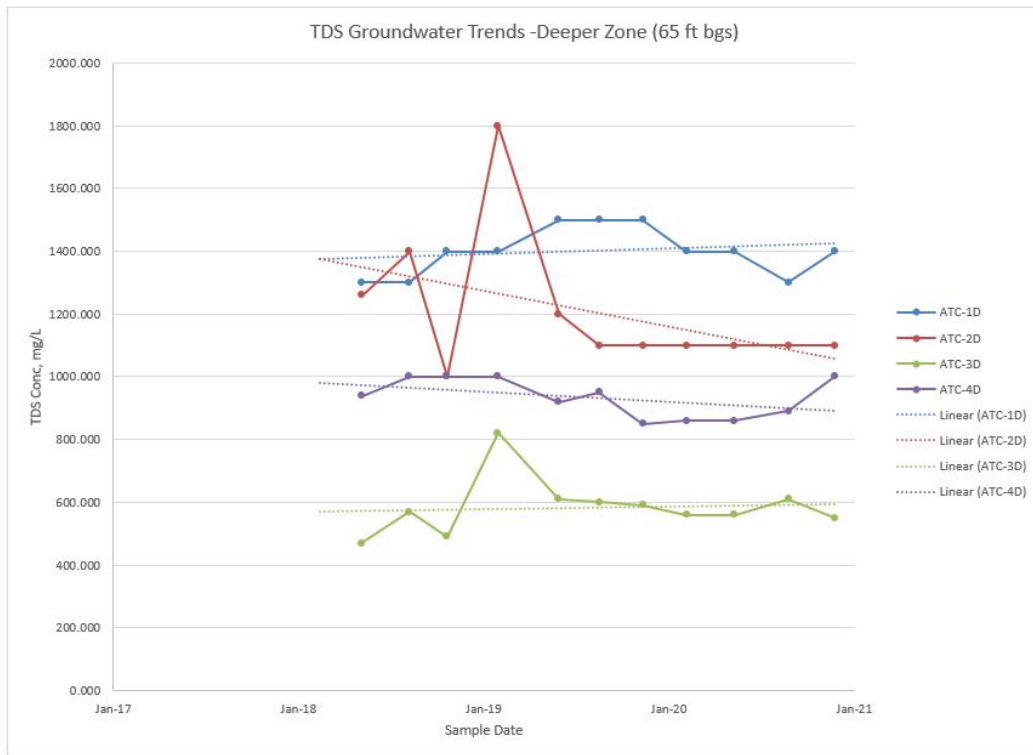
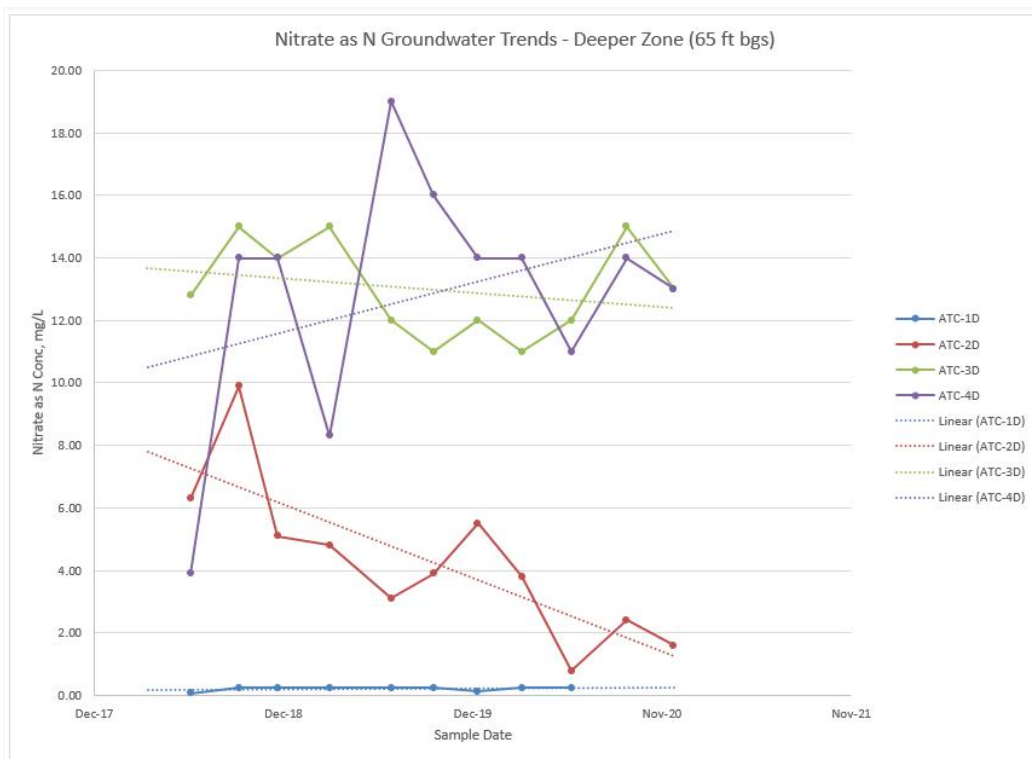


Figure 3 Nitrate as N Groundwater Trends



Antidegradation

Antidegradation analysis and conclusions are discussed in Finding 60 through 72 of the Order.

Discharge Prohibitions, Discharge Specifications, and Provisions

The Order prescribes an average daily dry weather influent flow of 31,000 gpd and a maximum annual discharge up to 11.3 million gallons. The RWD included a water balance that demonstrated adequate disposal capacity based on projected flows, pond dimensions, and reasonable estimates of precipitation and evaporation.

For the Salt Control Program, the Discharger has selected to participate in the P&O Study. This Order prescribes an annual average Salinity Action Level of 1,700 $\mu\text{mhos/cm}$, which was set based on historical average annual EC levels. This limit is to ensure the Discharge is implementing appropriate salinity measures at the Facility.

To address the increasing salinity, nitrate, iron, and manganese concentration trends observed in the groundwater monitoring wells, this Order requires the Discharger to evaluate the treatment system to improve wastewater quality and impacts to groundwater quality.

This Order does not contain a TSS effluent limit. TSS limits are technology based and not appropriate for pond systems.

This Order does not contain a total coliform effluent limit. The Facility does not provide active disinfection. Wastewater is discharged into ponds that are enclosed within a fence with proper signage to minimize public contact. The Order requires monitoring of total coliform in groundwater and disinfection of the groundwater monitoring wells.

Legal Effect of Rescission of Prior WDRS or Orders on Existing Violations

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

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.

**STANDARD PROVISIONS & REPORTING REQUIREMENTS
FOR
WASTE DISCHARGE REQUIREMENTS
1 MARCH 1991 EDITION**

Duplicate signed copies of these reports shall be submitted to the Board and:

Regional Administrator
U.S. Environmental Protection Agency
W-5 75 Hawthorne Street San Francisco, CA 94105

State Water Resource Control Board
Division of Water Quality
P.O. Box 100 Sacramento, CA 95812