

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

ORDER R5-2019-0073

**WASTE DISCHARGE REQUIREMENTS
FOR
TOMATEK, INC AND CITY OF FIREBAUGH
TOMATO PROCESSING FACILITY
FRESNO COUNTY**

FINDINGS

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

Background

1. On 28 December 2018, Tomatek, Inc. (Tomatek) and the City of Firebaugh (City) submitted a Report of Waste Discharge (RWD) to update Waste Discharge Requirements (WDRs) Order 94-072 for the discharge of tomato processing wastewater from the Tomatek, Inc., Tomato Processing Facility (Facility) to a land application area (LAA) owned by the City of Firebaugh.
2. Tomatek owns and operates the Facility that generates the waste and the City owns the LAA, the LAA is farmed by a contract farmer. For the purposes of this Order, Tomatek and the City of Firebaugh will be collectively and jointly referred to as “Discharger” (in singular form). Except as otherwise expressly provide herein, Tomatek and the City are jointly responsible for compliance with the WDRs prescribed herein.
3. The Facility is at 2502 N Street in the City of Firebaugh (36.84° N, 120.45° W). The ponds and LAA are located approximately one-mile northeast of the Facility. The Facility occupies the following Assessor’s Parcel Numbers (APNs) 012-031-02S, 012-031-03S and 012-031-04S. The ponds and LAA occupies APNs 007-100-22ST, 007-100-26ST, and 007-100-25ST. A Site Map with the location of the Facility and LAA is shown on Attachment A, which is incorporated by reference herein and considered a part of this Order.
4. WDRs Order 94-072, adopted by the Central Valley Water Board on 25 March 1994, allowed a daily maximum wastewater flow of up to 2.2 million gallons per day (gpd). The WDRs for the Facility and LAA are being updated to ensure the discharge is consistent with water quality plans and policies and to reflect changes to the Facility. Order 94-072 will be rescinded and replaced with this Order.

Existing Facility and Discharge

5. The Facility primarily operates during the tomato harvest season from approximately July through October and produces various tomato products (e.g., bulk and consumer paste, diced product, and sauces). The Facility operates 24 hours per day, every day during the harvest season. During the off-season, the Facility produces limited products using on-hand inventory.
6. During the harvest season, tomatoes are received in trucks, graded, then transported into the Facility by flumes for processing into paste or diced product.
7. Source water for the Facility is from six City wells, which is treated at two water treatment facilities. The City uses an oxidation filtration process to remove naturally occurring high concentrations of arsenic, iron, and manganese. The six drinking water wells range from 2,000 to 6,300 feet from the City's wastewater treatment facility, are in a semi-confined aquifer above the Corcoran clay and are drilled between 190 to 245 feet below ground surface. Table 1 below summarizes analytical results for the period 2016 through 2018. Note: ND = non-detect (detection levels not reported).

Table 1 - Source Water

Constituent	Units (see 1. below)	2016	2017	2018
Electrical Conductivity (EC)	µmhos/cm	970	1,000	1,100
pH	s.u.	7.9	7.7	7.9
Fixed Dissolved Solids	mg/l	-	520	570
Total Dissolved Solids	mg/l	590	570	610
Total Nitrogen	mg/l	-	-	ND
Alkalinity (as CaCO ₃)	mg/l	150	140	140
Bicarbonate (as CaCO ₃)	mg/l	150	140	140
Calcium	mg/l	39	36	40
Carbonate (as CaCO ₃)	mg/l	ND	ND	ND
Chloride	mg/l	180	180	210
Hardness (as CaCO ₃)	mg/l	190	170	180
Magnesium	mg/l	23	19	20
Potassium	mg/l	3.5	3.1	3.2
Sodium	mg/l	145	150	150
Sulfate	mg/l	85	87	93
Iron	µg/L	ND	44	ND
Manganese	µg/L	-	19	18
Arsenic	µg/L	-	2.7	5.2
Boron	µg/L	340	-	340

- ¹ mg/L denotes milligrams per liter, ug/L denotes micrograms per liter, s.u. denotes standard units, and µmhos/cm denotes micromhos per centimeter
8. Waste streams during the harvest season are generated from unloading, conveyance, sorting, peeling, chopping, wet waste container leakage, boiler blowdown, water softener discharge, equipment sanitation and condensate. A process flow diagram is shown on Attachment D, which is incorporated by reference herein and considered a part of this Order.
 9. Tomatoes are transported to the Facility in trucks where they are moved to the Facility's flume system by flooding the transportation bins. The conveyance system is designed to continuously recycle the tomato conveyance water through a concrete mud settling system. As the conveyance water flows through the mud settling system, a portion is recycled to the flume system and the remaining flow is conveyed to the main concrete sump.
 10. Condensate from the evaporators is cooled via a cooling tower and either used for boiler feed water or pumped to a lined reservoir (condensate pond) and used for unloading tomatoes and in the flume system. The condensate pond is in the southeast corner of the Facility property as shown in Attachment B, which is incorporated by reference herein and considered a part of this Order.
 11. The concrete mud settling system consists of a series of channels and weirs that provides settling time to remove large solids from the muddy flume water before reuse. The RWD does not address how settled solids are disposed of or reused. Solids Disposal Specifications G.3 prohibits the land applications of residual solids unless the Wastewater and Nutrient Management Plan required by Provision H.2.c demonstrates that residual solids can be applied in an agronomic manner.
 12. Table 2 below summarizes the monthly average Facility flow for 2014 through 2018.

Table 2 - Monthly Average Flow (mgd)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2014	0.04	0.08	0.06	0.07	0.06	0.13	1.45	2.00	2.32	1.23	0.16	0.17
2015	0.05	0.03	0.05	0.05	0.04	0.07	0.91	2.06	2.09	1.48	0.18	0.02
2016	0.18	0.10	0.18	0.15	0.01	0.14	0.97	1.72	2.23	1.07	0.03	0.09
2017	0.24	0.16	0.10	0.06	0.05	0.04	0.77	1.94	2.27	0.35	0.05	0.05
2018	0.06	0.06	0.13	0.05	0.03	0.08	0.90	1.88	2.02	0.35	0.55	0.81
Avg.	0.11	0.09	0.10	0.08	0.04	0.09	1.00	1.92	2.19	0.90	0.19	0.23

13. Process wastewater is directed to floor drains, which flows into a main concrete sump. In the concrete sump, wastewater is screened by two large rotary screens and pumped to the overflow standpipe (pumping station), which typically backflows into the emergency pond. Wastewater in the overflow standpipe is pH corrected

with sodium hydroxide and pumped to holding pond 10A at the City of Firebaugh wastewater treatment facility (WWTF). Wastewater is allowed to settle in pond 10A then flows into 10B where it is aerated before discharge to the LAA.

14. The LAA consists of eight fields totaling 162.3 acres; however, the primary operational area is only 140.3 acres because Sudan grass doesn't grow well in reclamation site #6 and reclamation site #7 doubles as a residential stormwater basin. Table 3 below describes the LAA and its uses. Attachment C, which is incorporated by reference herein and considered a part of this Order, shows the configuration of the LAA.

Table 3 - Land Application Area

Field	Acreage	Irrigation Application	Crop
Reclamation Site #1	35.5	Flood Irrigation	Sudan Grass
Reclamation Site #2	11.0	Flood Irrigation	Sudan Grass
Reclamation Site #3	15.8	Flood Irrigation	Sudan Grass
Reclamation Site #4	34.5	Flood Irrigation	Sudan Grass
Reclamation Site Upper #4	17.5	Flood Irrigation	Sudan Grass
Reclamation Site #5	26.0	Flood Irrigation	Sudan Grass
Reclamation Site #6	12.2	Flood Irrigation	None
Reclamation Site #7	9.8	Stormwater Basin (see 1 below)	None
Total:	162.3	--	--

¹ Also serves as a storm drainage pond for the Valle Del Sol subdivision west of the WWTP.

15. The Facility's effluent quality for 2016 through 2018 for both the processing season and off-season are shown in Table 4 and Table 5, respectively. Table 4 shows:
- a. Elevated electrical conductivity (EC) compared to source water (approximately an increase of 2,000 umhos/cm), which exceeds the applicable short-term secondary Maximum Contaminant Level (MCL) of 2,200 umhos/cm;
 - b. Fixed dissolved solids (FDS) concentrations are elevated compared to source water (approximately a 700 mg/L increase), which exceeds the source plus 320 mg/L limitation specified in Order 94-072;
 - c. Iron exceeds the secondary MCL of 300 µg/L;
 - d. Manganese exceeds the secondary MCL of 750 ug/L; and
 - e. Arsenic exceeds the primary MCL of 10 mg/L (at the Facility discharge to the holding ponds).

Table 4 - Processing Season Effluent Characterization (2016-2018 Average)

		Effluent (see 1 below)	Effluent	Effluent	Pond (see 2 below)	Pond	Pond
Constituent	Units	2016	2017	2018	2016	2017	2018
Biochemical Oxygen Demand (BOD)	mg/l	1,821	2,438	2,375	1,489	1,706	2,160
EC	µmhos/cm	4,356	3,045	2,845	2,917	3,267	2,910
pH	Std. unit	8.6	7.1	6.5	7.2	7.4	6.3
Total Suspended Solids (TSS)	mg/l	795	776	420	185	233	149
Fixed Dissolved Solids (FDS)	mg/l	1,523	1,550	1,253	1,467	1,425	1,275
Total Dissolved Solids (TDS)	mg/l	2,450	2,650	2,040	2,400	2,500	2,220
Ammonia (as N)	mg/l	11	56	45	56	86	74
Nitrate (as N)	mg/l	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	mg/l	-	84	70	-	67	72
Total Nitrogen (as N)	mg/l	-	84	72	-	67	73
Alkalinity (as CaCO ₃)	mg/l	330	750	300	820	1,100	750
Bicarbonate (as CaCO ₃)	mg/l	330	750	300	820	1,100	750
Calcium	mg/l	57	51	57	69	62	61
Carbonate (as CaCO ₃)	mg/l	ND	ND	ND	ND	ND	ND
Chloride	mg/l	210	210	240	240	210	260
Hardness (as CaCO ₃)	mg/l	300	230	260	330	290	275
Magnesium	mg/l	39	25	30	38	32	30
Potassium	mg/l	280	200	200	260	220	230
Sodium	mg/l	420	400	245	500	450	360
Sulfate	mg/l	100	71	84	3.0	6.5	2.4
Iron	ug/l	17,000	7,900	10,500	6,300	12,000	6,050
Copper	ug/l	-	33	43	-	55	18
Manganese	ug/l	-	600	540	-	850	607
Arsenic	ug/l	-	-	13	-	-	ND
Boron	ug/l	420	380	375	440	380	375

1 "Effluent" denotes the discharge from the tomato processing facility into the holding ponds.

2 "Pond" denotes the discharge from the holding ponds to the land application area.

Table 5 - Off-Season Effluent Characterization (2016-2018 Average)

		Effluent (see 1 below)	Effluent	Effluent	Pond (see 2 below)	Pond	Pond
Constituent	Units	2016	2017	2018	2016	2017	2018
BOD	mg/l	381	363	646	281	187	261
EC	µmhos/cm	2,000	1,560	1,816	2,057	1,746	1,824
pH	Std. unit	7.8	7.1	7.5	8.8	7.7	7.8
TSS	mg/l	636	226	138	113	100	98
FDS	mg/l	990	700	615	1,300	822	860
TDS	mg/l	1,800	944	845	1,700	985	1,080
Ammonia (as N)	mg/l	-	-	36	-	-	36
Nitrate/Nitrite (as N)	mg/l	-	-	-	-	-	ND
Total Kjeldahl Nitrogen	mg/l	-	34	28	-	7	19
Total Nitrogen (as N)	mg/l	-	34	29	-	18	20

¹ “Effluent” denotes the discharge from the tomato processing facility into the holding ponds.

² “Pond” denotes the discharge from the holding ponds to the land application area.

16. Residual solids are removed at various points in the Facility and include rocks, soil, stems, and tomato solids. Screened stems and other tomato solids are collected in bins and hauled offsite for cattle feed. Solids from the holding ponds are removed as needed, dried, and applied to the LAA. The December 2018 RWD does not identify where residual solids from the mud settling system are discharged to. Solids Disposal Specification G.3 prohibits the land application of residual solids unless the Discharger demonstrates the ability to apply solids in an agronomic manner.

17. Chemicals used at the Facility during processing operations, which may impact wastewater quality, are listed in Table 6 below.

Table 6 - 2017 Chemical Usage at Facility

Source	Type	Quantity	Unit	pH
pH Control	50% Caustic Soda	62,000	gallons	14
Plant Sanitation	12.5% Sodium	56,000	gallons	11.5
Plant Sanitation	50% Caustic Soda	1,900	gallons	14
Plant Sanitation	Cleaner L-130 (Caustic)	1,000	gallons	12
Plant Sanitation	Cleaner L-145 (Caustic)	9,600	gallons	12.8
Plant Sanitation	Cleaner P-120 (Caustic)	45,000	lbs	14
Boiler Water	Series 418 Treatment	1,600	gallons	10

18. The RWD indicates that currently only Sudan grass is grown on the LAA but that a winter wheat crop could also be grown. Potential nitrogen uptake rates as

described in the *Western Fertilizer Handbook (Eighth Edition)* are 325 lbs/acre for Sudan grass and 175 lbs/acre for winter wheat. Table 7 below shows the expected annual nitrogen loading rate, which exceeds the current potential nitrogen uptake of Sudan grass. Staff calculated the loading rates using the average total nitrogen concentration for 2017 through 2018, 140.3 acres of operational land application area, and the average monthly discharge to the land application area for 2016 through 2018.

Table 7 - Annual Nitrogen Loading Rates

Month	2016-18 Average Irrigation Applied (million gallons)	2017-2018 Average Nitrogen in Pond (mg/L)	Total Nitrogen Applied (lbs)	Estimated Nitrogen Loading Rate (see 1 below) (lbs/ac)
Jan	2.80	23	538	4
Feb	1.66	10	136	1
Mar	2.61	13	283	2
Apr	2.23	10	186	1
May	0.42	10	35	0.24
Jun	2.23	8	145	1
Jul	6.58	73	4,007	29
Aug	48.48	67	27,105	193
Sep	61.15	86	43,630	311
Oct	16.81	44	6,170	44
Nov	1.25	24	251	2
Dec	1.72	34	489	3
Total:	147.94	67	82,975	592

¹ Assumes irrigation is evenly distributed over fields currently growing Sudan grass (140.3 acres)

19. Order 94-072 includes a biochemical oxygen demand (BOD) loading rate of 100 lbs/acre-day. Table 8 below provides BOD loading for each month during the 2018 processing season, calculated using reported discharge volumes, an average of the last three BOD concentrations for each month, total operational land application area, and discharge days per month.

Table 8 - BOD Loading

Month	Flow (mgd)	BOD (mg/L)	BOD (lbs)	BOD (lbs/acre)	Days of Discharge	BOD Loading (see 1 below) (lbs/acre/day)
Jul-18	3.8	1,543	48,558	346	5	69
Aug-18	47.1	2,622	1,030,589	7,351	30	245
Sep-18	54.2	2,000	904,129	6,449	30	215
Oct-18	11.0	1,778	162,820	1,161	8	145

¹ Monthly average in lbs/acre/day

20. The Discharger submitted a 28 January 2019 and 24 February 2019 addendum to the RWD proposing methods to comply with the cycle average BOD loading limit of 100 lbs/acre-day. However, following staff's review and further discussions with Tomatek, it was determined, as demonstrated in Table 8, that Discharger cannot currently comply with a 100 lbs/acre-day BOD loading limit. Provision H.2.a, in part, provides a time schedule for compliance with the BOD mass loading limitation specified in Effluent Limitation C.1. Tomatek submitted a report on 14 March 2019 titled *2018 Report of Waste Discharge Proposed Implementation Schedule of Work Plans for Tomatek* (Implementation Schedule Work Plan), in which Tomatek proposes to construct an industrial wastewater treatment facility at the City wastewater treatment facility.
21. The RWD includes the data in Table 9 below, which provides the expected salt loading rates for the LAA based on the average volume of irrigation water applied to the LAA and the average fixed dissolved solids (FDS) concentration for the discharge for the 2016-2018 period.

Table 9 - Annual Salt Loading Rate Based on Fixed Dissolved Solids (FDS)

Month	2016-2018 Average Irrigation Applied (mg)	2016-2018 Average FDS in Pond (mg/l)	Total Salt Applied (lbs)	Estimated Salt Loading Rate (see 1 below) (lbs/ac/yr)
Jan	2.80	878	20,512	146
Feb	1.66	580	8,028	57
Mar	2.61	720	15,685	112
Apr	2.23	590	10,954	78
May	0.42	850	2,979	21
Jun	2.23	1,050	19,516	139
Jul	6.58	1,307	71,719	512
Aug	48.48	1,567	633,799	4,521
Sep	61.15	1,300	663,383	4,732
Oct	16.81	1,067	149,583	1,067
Nov	1.25	1,100	11,506	82
Dec	1.72	1,100	15,823	113
Total:	147.94	1,315	1,623,487	11,580

¹ Assumes irrigation is evenly distributed over 140.3 acres or active irrigation area.

22. The RWD states that a 24-hour, 100-year storm would contribute approximately 4.0 million gallons to the Facility stormwater system. Stormwater from the Facility is directed towards the emergency pond, which has a capacity of 5.5 million gallons. If needed, stormwater can be pumped to holding ponds 10A and 10B. The

LAA is surrounded by roads which are 12 to 18 inches higher than the LAA fields, which preclude runoff from the LAA.

23. Domestic wastewater is discharged to the City of Firebaugh wastewater treatment facility via a separate pipeline.

Planned Changes in the Facility and Discharge

24. As discussed in Finding 20, the Discharger submitted an Implementation Schedule Work Plan to address salinity in the effluent, BOD and nutrient loading rates, and elevated levels of iron and manganese in the effluent. The Discharger proposed path to comply with the WDRs is to secure a state-funded grant for construction of an industrial wastewater treatment facility at the City WWTF to treat the Tomatek discharge as well as future industrial dischargers.

Site-Specific Conditions

25. The topography at the Facility and LAA are relatively flat. A Federal Emergency Management Agency (FEMA) map identified the eastern part of the Facility and the LAA to be in Zone AH, which indicates that this area has a 1% annual chance of shallow flooding. The western part of the Facility lies in Zone X, which indicates the area has a 0.2% annual chance of flooding.
26. Surface waters in the area consist of the San Joaquin River to the North, the Firebaugh Wasteway to the east, the Helm Canal to the south, and Lake Joallen to the west.
27. The Natural Resources Conservation Service soils report for the LAA states soils are comprised primarily of El Nido sandy loam, Bisgani-Elnido association, Wedoka clay, and Tachi clay. These soils are poorly drained with depths to a restrictive feature being greater than 80 inches. These soil types are alluvium derived from either igneous or sedimentary rock.
28. The annual average precipitation for the area is approximately 7.9 inches according to data obtained from the Western Regional Climate Center. The 24-hour, 100-year rain event is approximately 2.69 inches according to data obtained from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Precipitation Frequency Data Server. Based on the Reference Evapotranspiration Map published by the California Irrigation Management Information System (CIMIS, 2018), the reference evapotranspiration rate is approximately 57.9 inches per year.
29. Regional land use data compiled by the California Department of Water Resources (DWR) indicate that land near the Facility and LAA is primarily used for agricultural purposes. The City of Firebaugh lies to the northwest of the LAA .

Groundwater Conditions

30. Groundwater monitoring was not required by the Facility's existing WDRs (Order 94-072) but is required by WDRs Order 98-230 for the City of Firebaugh wastewater treatment facility. The groundwater monitoring network installed to satisfy the requirements of WDRs Order 98-230 appears to have been designed to monitor the LAA that receives effluent from the Facility as the monitoring wells are located on the perimeter of the LAA rather than directly downgradient of the wastewater treatment plant disposal basins. Provision H.2.e of this Order requires submittal of a Groundwater Monitoring Well Network Evaluation and Well Installation Workplan.
31. The local gradient typically flows to the northwest. Depth to groundwater underlying the LAA ranges from 11.5 to 17 feet below ground surface.
32. WDRs Order 98-230 requires the City to monitor groundwater for EC, pH, total dissolved solids and standard minerals on a quarterly basis. The approximate location of the current groundwater monitoring wells are shown in Attachment C. Monitoring wells 1-3 were installed in 1999 and monitoring well 4 was installed in 2000. Monitoring well 5 and 6 were installed in 2009 and were used as part of an August 2010 *Engineering Report on the Disposal of Tomato Processing Wastewater for Tomatek, Inc. and the City of Firebaugh*; however, after the study was completed, sampling of monitoring wells 5 and 6 was discontinued. Table 10 below shows the average sampling results for 2013 through 2018 for monitoring wells 1-4. Monitoring wells MW-2 and MW-3 are considered upgradient wells while MW-1 and MW-4 are considered downgradient wells.

Table 10 - Groundwater Monitoring Results (2013 - 2018 Average)

Constituent	Units	MW-2	MW-3	MW-1	MW-4
EC	µmhos/cm	1,112	656	1,924	2,572
TDS	mg/l	702	410	1,476	1,523
Nitrate (as N)	mg/l	0.7	0.4	4.6	1.3
Ammonia (as N)	mg/l	0.7	1.2	0.9	10.3
Alkalinity (as CaCO ₃)	mg/l	154	95	237	846
Bicarbonate (as CaCO ₃)	mg/l	187	116	289	1,026
Calcium	mg/l	52	34	223	118
Chloride	mg/l	140	87	148	347
Hardness (as CaCO ₃)	mg/l	225	142	783	462
Magnesium	mg/l	23	14	55	41
Potassium	mg/l	4.7	2.4	1.9	55
Sodium	mg/l	147	75	154	364
Sulfate (as SO ₄)	mg/l	185	82	628	29
Iron	ug/l	2,760	886	28	5,218

Constituent	Units	MW-2	MW-3	MW-1	MW-4
Manganese	ug/l	1,045	104	231	2,172
Arsenic	ug/l	2.2	6.6	4.4	32.5

33. The monitoring well analytical results show a significant increase in salinity in downgradient wells (see TDS and EC data). Furthermore, MW-4 shows elevated concentrations of ammonia, arsenic, chloride, iron and manganese. MW-1 appears to be potentially influenced by an unknown source as the elevated sulfate concentrations (2013 to 2018 average of 628 mg/L) is not consistent with other monitoring wells or the discharge itself.

Basin Plan, Beneficial Uses, and Regulatory Considerations

34. The Central Valley Water Board's operative *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan)* designates beneficial uses for water, establishes water quality objectives (WQOs) necessary to sustain such uses; contains implementation plans and policies for protecting waters of the basin; and incorporates State Water Board plans and policies. Per Water Code section 13263(a), these WDRs implement the *Basin Plan*.
35. Local drainage is to the San Joaquin River, the beneficial uses of which (per the *Basin Plan*) include: municipal and domestic supply (MUN); agricultural supply (AGR); industrial process (PROC); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); migration of aquatic organisms (MIGR), spawning, reproduction, and/or early development (SPWN), and wildlife habitat (WILD).
36. Per the *Basin Plan*, beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND); and industrial process supply (PRO).
37. The *Basin Plan* establishes narrative water quality objectives (WQO) for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
38. The *Basin Plan's* numeric WQO 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-designated groundwater.
39. The *Basin Plan's* narrative WQO's 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.

40. The narrative toxicity WQO requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
41. 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.
42. 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 for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) 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 waters having 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 Reopener

43. 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. These programs, once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate. For nitrate, discharges that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers could comply with the new nitrate program either individually or collectively with other dischargers. For salinity, dischargers that are unable to comply with stringent salinity requirements would instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. This Order may be amended or modified to incorporate any newly-applicable requirements.
44. The stakeholder-led Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative has been coordinating efforts to implement new salt and nitrate management strategies. The Board expects dischargers that may be affected by new salt and nitrate management policies to coordinate with the CV-SALTS initiative.

Special Considerations for High Strength Waste

45. For the purpose of this Order, “high strength waste” is defined as wastewater that contains concentrations of readily degradable organic matter that exceed typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD and often contain commensurately high levels of TKN, which is a measure of organic nitrogen and ammonia nitrogen. Typical high strength wastewaters include septage, some food processing wastes, winery wastes, and rendering plant wastes.
46. Excessive application of high organic strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best management practices, which include planting crops to take up plant nutrients and maximizing oxidation of BOD to prevent nuisance conditions.
47. Unless groundwater is very shallow, groundwater degradation with nitrogen species such as ammonia and nitrate can be prevented by minimizing percolation below the root zone of the crops and ensuring that the available nitrogen load does not exceed crop needs over the course of a typical year. Where there is sufficient unsaturated soil in the vadose zone, excess nitrogen can be mineralized by soil microorganisms. Subsequent denitrification can take place in soil microsites and saturated or anoxic zones.
48. With regard to BOD, excessive application can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly-breeding. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.
49. Typically, irrigation with high strength wastewater results in high BOD loading on the day of application. It is reasonable to expect some oxidation of BOD at the ground surface, within the evapotranspiration zone and below the root zone within the vadose (unsaturated) zone. The maximum BOD loading rate that can be applied to land without creating nuisance conditions or leaching of metals can vary significantly depending on soil conditions and operation of the land application system.
50. The U.S. Environmental Protection Agency’s (U.S. EPA) *Pollution Abatement in the Fruit and Vegetable Industry* recommends BOD loading rates in the range of 36 to

600 lbs/acre/day to prevent nuisance, but indicates the loading rates can be even higher under certain conditions. The studies that supported this report did not evaluate actual or potential groundwater degradation associated with those rates. There are few studies that have attempted to determine maximum BOD loading rates for protection of groundwater quality. Those that have been done are not readily adapted to the varying soil, groundwater, and climate conditions that are prevalent throughout the region.

51. The California League of Food Processors' *Manual of Good Practice for Land Application of Food Processing/Rinse Water* proposes risk categories associated with particular BOD loading rate ranges as follows:
 - a. Risk Category 1: (less than 50 lbs/acre/day; depth to groundwater greater than 5 feet) Indistinguishable from good farming operations with good distribution important.
 - b. Risk Category 2: (less than 100 lbs/acre/day; depth to groundwater greater than 5 feet) Minimal risk of unreasonable groundwater degradation with good distribution more important.
 - c. Risk Category 3: (greater than 100 lbs/acre/day; depth to groundwater greater than 2 feet) Requires detailed planning and good operation with good distribution very important to prevent unreasonable degradation, as well as use of oxygen transfer design equations that consider site-specific application cycles and soil properties and special monitoring.

The *Manual of Good Practice* recommends allowing a 50 percent increase in the BOD loading rates in cases where sprinkler irrigation is used, but recommends that additional safety factors be used for sites with heavy and/or compacted soils.

52. Although it has not been subject to a scientific peer review process, the *Manual of Good Practice* provides science-based guidance for BOD loading rates that, if fully implemented, are considered a best management practice to prevent groundwater degradation due to reduced metals.
53. This Order sets an irrigation cycle average BOD loading rate for the LAA of 100 lbs/acre/day consistent with Risk Category 2 in the *Manual of Good Practice* based and requires the Discharger to develop practicable measures to ensure the even application of wastewater over the available LAAs. Provision H.2 provides the Discharger with a compliance schedule for coming into compliance with the cycle average BOD loading rate limit.
54. This Order establishes a performance-based FDS effluent limit of 1,100 mg/L as a flow-weighted annual average to prevent significant increases of TDS and EC concentrations in groundwater. Table 11 below summarizes annual average FDS concentrations for 2016 through 2018. In 2018 the Discharger installed a

flow-controlled sodium hydroxide injection unit to optimize pH control. The flow-control system resulted in a 24% reduction in sodium hydroxide use during the 2018 season

Table 11 - Annual Average Fixed Dissolved Solids (FDS) Concentrations

Month	2016 (mg/l)	2017 (mg/l)	2018 (mg/l)
Jan	-	655	1,100
Feb	-	460	700
Mar	-	480	960
Apr	-	740	440
May	-	850	-
Jun	-	1,050	-
Jul	870	1,450	1,600
Aug	1,700	1,600	1,400
Sep		1,300	1,100
Oct	1,200	1,000	1,000
Nov	1,300	900	1,100
Dec	-	1,100	630
Avg.	1,314	965	1,003

Antidegradation Analysis

55. State Water Resources Control Board's (State Water Board) *Statement of Policy with Respect to Maintaining High Quality Waters of the State*, Resolution 68-16 (Antidegradation Policy) prohibits degradation of groundwater unless it has been shown that such degradation:
- a. Will not unreasonably affect present and anticipated beneficial uses;
 - b. Will not result in water quality less than that prescribed in state and regional policies, (including violation of one or more WQOs);
 - c. Will be minimized by the discharger through best practicable treatment or control (BPTC) to minimize degradation; and
 - d. Will be consistent with the maximum benefit to the people of the State.
56. Constituents of concern that have the potential to cause degradation of the underlying groundwater include, in part, organics, nitrogen, salts, iron, and manganese.
- a. **Organics.** For organics, the Discharger reports application of wastewater with BOD loading rates ranging from 69 to 245 lbs/acre/day during the 2018 processing season (Finding 19 and Table 8 above). The BOD cycle average requirement of 100 lbs/acre/day included in this Order can be categorized at Risk Category 2 in the Manual of Good Practice. However, based on previously reported data, the Discharger cannot currently comply with this limit. This Order includes a compliance schedule, which allows the Discharger to implement the necessary changes at the Facility to come into compliance with the BOD cycle average loading rate limit of 100 lbs/acre/day. The Central Valley Water Board has not received any reports of nuisance conditions from the LAA.

Groundwater monitoring shows elevated concentrations of arsenic, manganese, and iron in downgradient monitoring wells, indicative of reducing conditions caused by the overapplication of organics on the LAA. Provision H.2.e of this Order requires the Discharger to submit a Groundwater Monitoring Well Network Evaluation and Well Installation Workplan to evaluate the groundwater monitoring well network at the LAA.
 - b. **Nitrogen.** For nitrogen, this Order limits the application of wastewater to agronomic rates for both nutrient and hydraulic loading. The projected annual total nitrogen loading rate due to the Facility's discharge to the LAA is 592 lbs/acre (Finding 18 and Table 7 above). The Discharger included a nutrient balance as part of its RWD, which identifies the LAA crop as Sudan grass and potentially winter wheat (potential crop nitrogen uptake rates are discussed in Finding 18). Downgradient MW-4 shows an elevated

concentration of ammonia (10.3 mg/L) compared to background, likely the result of the long-term use of the LAA to dispose of tomato processing wastewater. For the continued protection of groundwater from discharges to the LAA, this Order limits the application of wastewater to agronomic rates.

However, based on previously reported data, the Discharger cannot currently comply with this limit. This Order includes a compliance schedule, which allows the Discharger to implement the necessary changes at the Facility to come into compliance with the total nitrogen mass loading limitation. Furthermore, this Order includes a provision that requires the Discharge to submit a Wastewater and Nutrient Management Plan to assess and implement measures to ensure nutrients are applied at agronomic rates. The Central Valley Water Board expects that application of wastewater and fertilizers at reasonable agronomic rates for nitrogen will preclude further degradation/pollution of groundwater for nitrate as nitrogen.

- c. **Salinity.** Groundwater monitoring (Table 10) shows that the EC downgradient the LAA is elevated above background levels. Therefore, it appears that the continued discharge of process wastewater to the LAA has caused or contributed to elevated salinity in shallow groundwater. Provision H.2.b requires the Discharger to prepare and implement a Salinity Reduction Study Work Plan to identify and implement measures to reduce the salinity in the Facility's discharge. Furthermore, this Order establishes a performance-based FDS effluent limitation as a flow-weighted annual average to prevent any further significant increase of salinity in groundwater.
- d. **Iron and Manganese.** As shown in Finding 15 and Table 4 above, the annual average concentration of iron in the effluent discharged to the holding ponds ranged from 7,900 µg/L to 17,000 µg/L, well above the secondary MCL of 300 µg/L. The manganese annual average ranged from 540 to 600 µg/L, well above the secondary MCL of 50 µg/L. Groundwater monitoring shows iron concentrations in excess of the MCL in monitoring wells 2 through 3 and manganese concentrations in excess of the MCL in all four monitoring wells. The Order requires the Discharger to continue to conduct groundwater monitoring for iron, manganese, and arsenic and requires the submittal of a Metal Evaluation and Minimization Plan (Provision H.2.d) to address sources of elevated iron and manganese in the effluent.

Treatment and Control Practices

57. The Discharger provides, or will provide, as required by this Order, the following treatment and control of the discharge that incorporates:
 - a. Solids removal from the wastewater utilizing rotary screens;
 - b. Reuse of wastewater for crop irrigation via flood irrigation;

- c. A cycle average BOD loading limit of 100 lbs/acre/day;
- d. A performance-based FDS limit of 1,100 mg/L;
- e. A total nitrogen mass effluent limitation based on the LAA crop demand;
- f. Flow-controlled sodium hydroxide injection;
- h. Application of nutrients at agronomic rates;
- g. Preparation and implementation of a Nutrient Management Plan;
- i. Preparation and implementation of a Salinity Reduction Study Work Plan;
- j. Preparation and implementation of a Metals Evaluation and Minimization Plan;
- k. Preparation of annual reports that measure/calculate the salt, BOD, and nitrogen loading to the LAA and assesses the underlying groundwater quality;
- l. Daily inspection of the LAA during wastewater discharge;
- m. Preparation of a Groundwater Monitoring Network Evaluation Plan and Well Installation Workplan;
- n. Groundwater monitoring; and
- o. Construction of an industrial wastewater treatment facility or implementation of an alternative method to comply with various requirements in this Order (i.e., Effluent Limitations C.1 [BOD and nitrogen loading limits], Groundwater Limitations E.1, and Land Application Area Specification F.4).

Antidegradation Conclusions

- 58. This Order establishes terms and conditions to ensure that the authorized discharge from the Facility will not excessively degrade groundwater, contribute to existing pollution, or unreasonably affect present and anticipated future beneficial uses of groundwater.
- 59. With respect to salinity, iron, manganese, nitrogen, and arsenic; groundwater degradation has occurred. Therefore, this Order does not authorize any continued degradation beyond that which exists today for those constituents. This Order includes groundwater limitations for nitrate, arsenic, manganese and iron; and contains a time schedule for overall compliance with the WDRs by construction of an industrial wastewater treatment facility at the City of Firebaugh's WWTF or an alternative method to comply with the groundwater limitations. This Order also includes a performance-based fixed dissolved solids limit, a Salinity Reduction Study Work Plan, a Metal Evaluation and Minimization Plan and a Groundwater Monitoring Network Evaluation Plan to determine ways to reduce and monitor salinity and metals in the Facility's effluent. This Order will be reopened, if necessary, to reconsider effluent limitations and other requirements to comply with

the Antidegradation Policy and the upcoming Salt and Nitrate Control Programs (see Finding 43). Based on the existing record, the discharge authorized by this Order is consistent with the Basin Plan.

60. The provisions of this Order require the Discharger to implement treatment and control measures listed in Finding 57. These treatment and control practices are reflective of BPTC of the discharge.
61. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state and, therefore, sufficient reason exist to accommodate growth and limited groundwater degradation around the Facility, provided that the terms of the Basin Plan are met. Degradation of groundwater by some of the typical waste constituents associated with discharges from a food processing facility, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. Tomatek's operation provides 250 full-time jobs and approximately another 1,200 temporary jobs during the processing season. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and provides sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.

CEQA

62. The prescription of WDRs for an existing facility and operation is exempt from the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to section 15301 of the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.).

Other Regulatory Considerations

63. 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 necessarily subject to Water Code section 106.3 because it does not revise, adopt or establish a policy, regulation or grant criterion (see § 106.3, subd. (b)), it nevertheless promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
64. For the purposes of California Code of Regulations, title 23 (Title 23), the Facility's discharges have a threat-complexity rating of "2B," where:
 - a. Threat Category 2 reflects "discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."

- b. Complexity Category B is assigned to “[a]ny discharger not included [as 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.”

65. This Order, which prescribes WDRs for discharges of wastewater, is exempt from the prescriptive requirements of California Code of Regulations, Title 27, section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (b)).

66. Water Code section 13267, subdivision (b)(1) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... 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.

The technical reports required by this Order and attached Monitoring and Reporting Program No. R5-2019-0073 are necessary to ensure compliance with these WDRs. The burden of producing such reports is also reasonable relative to the need for their submission.

- 67. Existing Department of Water Resources (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 Well Stds. Bulletin* 94-81 [DWR, Dec. 1981].)
- 68. Statistical data analysis methods outlined in the U.S. Environmental Protection Agency’s *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance) are appropriate for determining compliance with Groundwater Limitations of this Order. Depending on the circumstances, other methods may also be appropriate.
- 69. Pursuant to Water Code section 13263, subdivision (g), 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.

Public Notice

70. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
71. The Discharger and interested agencies and persons have been notified of the Central Valley Water Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and an opportunity for a public hearing.
72. All comments pertaining to the discharge were heard and considered in a public hearing.

REQUIREMENTS

IT IS HEREBY ORDERED that Order 94-072 is rescinded and, pursuant to Water Code sections 13263 and 13267, Tomatek, Inc. and City of Firebaugh, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

A. 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 Title 22, section 66261.1 et seq., is prohibited.
3. Except as authorized pursuant to Section E.2 of the *Standard Provisions and Reporting Requirements for WDRs*, 1 March 1991 ed. (SPRRs), treatment system bypasses of untreated or partially-treated waste are prohibited.
4. Discharge of waste at a location or in a manner different from that described in the RWD & Findings is prohibited.
5. Discharge of toxic substances into any wastewater treatment system or LAA, if disruptive of biological treatment methods, is prohibited.
6. Discharge of domestic wastewater to any process wastewater treatment system, the LAA, or surface water is prohibited.
7. Discharge of industrial wastewater to septic systems is prohibited.

B. Flow Limitations

1. The wastewater discharge to the LAA shall not exceed the following (monitored at EFF-001):
 - a. During the processing season (June – October), a monthly average daily flow to the LAA of 2.2 mgd.
 - b. During the transition month of November, a monthly average daily flow to the LAA of 0.6 mgd.
 - c. During the off-season (December – May), a monthly average daily flow to the LAA of 0.3 mgd.

C. Effluent Limitations

1. The blend of treated wastewater, storm water, and supplemental irrigation water (if used in the future) applied to the LAAs shall not exceed the following effluent and mass loading limits (monitored at EFF-001):

Constituent	Units	Daily Maximum	Annual Maximum
Average FDS Concentration	mg/L	--	1,100 (see 1 below)
BOD Mass Loading (see 2 below)	lbs/acre/day	100 (see 3 & 4 below)	--
Total Nitrogen Mass Loading (see 2 and 5 below)	lbs/acre/year	--	Crop Demand (see 4 below)

- 1 Flow-weighted annual average based on the monthly calculation of total flow and concentration of the Facility's effluent applied to the LAA.
- 2 Based on all sources, including residual solids and commercial fertilizers, as well as water from the Settling Pond and plant sanitation and cleaning activities.
- 3 This limit applies as an irrigation cycle average. For the purpose of this Order, "irrigation cycle" is defined as the time period between the start of an irrigation event for a single field and the start of the next irrigation event for the same field.
- 4 Subject to the compliance schedule provided in Provision H.2.a.
- 5 Based on plant available nitrogen (PAN) for the type of crop to be grown and site-specific conditions.

D. 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. Wastewater treatment, storage, and disposal shall not cause a condition of pollution or nuisance as defined by Water Code section 13050.
3. The pH in any unlined pond, that contains wastewater from the Facility shall not have pH less than 6.0 or greater than 9.5.
4. At all times, discharged waste shall remain within permitted waste treatment/containment structures and LAA.
5. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.

6. 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.
7. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.
8. 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 or other suitable measurement device with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
9. 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.
10. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications D.8 and D.9.
11. 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.

11. 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.

E. Groundwater Limitations

1. Release of waste constituents from any portion of the Facility, including but not limited to any treatment, reclamation, or storage component associated with the discharge of treated wastewater from the Facility, shall not cause or contribute to groundwater:
 - a. Containing constituent concentrations in excess of the concentrations specified below or in excess of natural background quality, whichever is greater:
 - i. Nitrate (as nitrogen) of 10 mg/L.
 - ii. Arsenic of 10 ug/L
 - iii. Manganese of 50 ug/L
 - iv. Iron of 300 ug/L
 - v. For constituents identified in Title 22, the MCLs quantified therein.

F. Land Application Area Specifications

1. For the purposes of this Order, "land application area" (LAA) refers to the discharge area described in Finding 14, Table 3 and shown in Attachment C.
2. Crops or other vegetation which may include pasture grasses, native grasses, trees, and/or ornamental landscaping shall be grown in the LAA. Vegetation shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake of nutrients.
3. The resulting effect of the discharge on soil shall not exceed the buffering capacity of the soil profile.
4. Application of waste constituents to the LAA shall be at reasonable agronomic rates to preclude creation of a nuisance or unreasonable degradation of groundwater, considering crop, soil, climate and irrigation management system. The annual nutritive loading of the LAA, including nutritive value of organic and chemical fertilizers, and the wastewater, shall not exceed the annual crop demand.
5. Land application of wastewater shall be managed to minimize erosion.

6. The LAA shall be managed to prevent breeding of mosquitoes or other vectors. In particular:
 - a. There shall be no standing water 48 hours after the irrigation ceases;
 - b. Tailwater ditches shall be maintained essentially free of emergent, marginal, or floating vegetation; and
 - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitos shall not be used to store recycled water.
7. Irrigation of the LAA shall occur only when appropriately trained personnel are on duty.
8. LAA shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.
9. Any irrigation runoff (tailwater) shall be confined to the LAA or returned to the containment system and shall not enter any surface water drainage course or storm water drainage system.
10. Discharge to the LAA shall not be initiated when the ground is saturated.

G. Solids Disposal Specifications

For the purpose of this Order, residual solids are defined in accordance with Finding 16.

1. Residual solids shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal operation, prevent nuisance conditions, and maintain adequate storage capacity.
2. 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.
3. The land application of residual solids is prohibited unless the Discharger can demonstrate that solids can be applied in an agronomic manner. Demonstration of the ability to apply solids in an agronomic manner should be included in the Wastewater and Nutrient Management Plan required by Provision H.2.c.
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. 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 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 Discharger shall comply with Monitoring and Reporting Program (MRP) R5-2019-0073, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of the self-monitoring reports shall be no later than the submittal date specified in the MRP.
2. The following reports shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provisions H.3 and H.4.
 - a. The Discharger shall comply with the BOD and total nitrogen mass loading limitations in Effluent Limitations C.1; Groundwater Limitations E.1; and Land Application Area Specification F.4 in accordance with the following compliance schedule below.

Task	Description	Due Date
i.	<p>Industrial Wastewater Treatment Facility Construction Workplan Submit an Industrial Wastewater Treatment Facility Construction Workplan that proposes a time schedule, not to exceed six years, for the financing and construction of the Discharger's proposed industrial wastewater treatment facility.</p> <p>The workplan shall include at a minimum the following:</p> <ul style="list-style-type: none"> • A proposed time schedule for securing funding and construction of an Industrial Wastewater Treatment Facility; • An evaluation of how the proposed industrial wastewater treatment facility will result in compliance with the Effluent Limitations, Groundwater Limitations, and Land Application Area Specifications listed above; and • An evaluation of possible alternative methods to achieve compliance with the Order in case funding is unable to be obtained for the construction of the proposed industrial wastewater treatment facility. 	<p>By 12 October 2020</p>
ii.	<p>Industrial Wastewater Treatment Facility Construction Workplan Progress Reports Submit annual progress reports on the Discharger's progress towards meeting the milestones in the work plan.</p>	<p>1 February of each year</p>

Task	Description	Due Date
iii.	Fully comply with the BOD and total nitrogen mass loading limitations in Effluent Limitations C.1; Groundwater Limitations E.1; and Land Application Area Specification F.4.	By 13 October 2025

b. **By 13 April 2020**, the Discharger shall submit a **Salinity Reduction Study Work Plan**. The Discharger shall prepare and implement a Salinity Reduction Study Workplan to identify and address sources of salinity to and from the Facility. The Salinity Reduction Study Work Plan shall at a minimum include the following:

- i. Data on current influent and effluent salinity concentrations;
- ii. Identification of known salinity sources;
- iii. Description of current plans to reduce/eliminate known salinity sources;
- iv. Preliminary identification of other potential sources;
- v. A proposed schedule for evaluating sources; and
- vi. A proposed schedule for identifying and evaluating potential reduction, elimination, and prevention methods.

Implementation progress of the Salinity Reduction Work Plan shall be reported each year in the Annual Monitoring Report required pursuant to Monitoring and Reporting Program R5-2019-0073.

c. **By 13 April 2020**, the Discharger shall submit a **Wastewater and Nutrient Management Plan** for Executive Officer approval. At a minimum, the Plan must include:

- i. Procedures for monitoring Facility operations and discharge;
- ii. Practicable measures to ensure reasonable even application of wastewater;
- iii. An action plan to deal with objectional odors and/or nuisance conditions;
- iv. Supporting data and calculations for monthly and annual water and nutrient balances;
- v. A discussion on blending of wastewater and irrigation water;
- vi. Management practices that will ensure wastewater irrigation water, and fertilizers are applied at plant available agronomic rates to the LAA;

- vii. Using soil sampling data, an estimate of average net available nitrogen compared with gross wastewater organic nitrogen loading rates;
- viii. Estimates of nitrogen mineralization and denitrification rates for wastewater using lab tests; and
- ix. Supporting calculations/data including crop type(s) and calculations for monthly and annual water and nutrient balances demonstrating the discharge of Facility wastewater and land application of solids to the LAA will not exceed agronomic rates for both nutrient and hydraulic loading.

The Plan shall propose a site-specific percentage, with supporting rationale, to be used to calculate the plant available nitrogen (PAN) to determine compliance with the annual total nitrogen loading limitation specified in this Order (Effluent Limitations C.1).

- d. **By 13 April 2020**, the Discharger shall submit a **Metal Evaluation and Minimization Plan** to address sources of elevated iron and manganese in the effluent. The Metal Evaluation and Minimization Plan shall at a minimum include the following:
 - i. Data on current influent and effluent metal concentrations;
 - ii. Identification of known metal sources;
 - iii. Description of current plans to reduce/eliminate known metal sources;
 - iv. Preliminary identification of other potential sources;
 - v. A proposed schedule for evaluating sources; and
 - vi. A proposed schedule for identifying and evaluation potential reduction, elimination, and prevention methods.

Implementation progress of the Metal Evaluation and Minimization Plan shall be reported each year in the Annual Monitoring Report required pursuant to Monitoring and Reporting Program R5-2019-0073.

- e. **By 12 October 2020**, the Discharger shall submit a **Groundwater Monitoring Well Network Evaluation and Well Installation Workplan** that evaluates the current monitoring network and proposes new monitoring wells to ensure adequate monitoring and upgradient and downgradient of the LAA. The workplan shall evaluate the adequacy of the current groundwater network and its ability to characterize upgradient groundwater quality and to assess potential groundwater impacts attributable to the Facility's operations and discharge. The workplan shall be prepared in accordance with, and include the items listed in, the first section of Attachment E (*Requirements for Monitoring*

Well Installation Workplans and Monitoring Well Installation Reports) which is incorporated herein.

- f. Within **12 months of receiving Executive Officer approval** of the Groundwater Monitoring Well Network Evaluation and Well Installation Workplan, the Discharger shall submit a **Groundwater Monitoring Well Installation Report** for the new groundwater monitoring wells constructed to comply with Provision H.2.e. The report shall be prepared in accordance with, and include the items listed in, the second section of Attachment E. The report shall describe the installation and development of all new monitoring wells and explain any deviation from the approved workplan.
3. In accordance with 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.
4. The Discharger shall submit the technical reports and workplans 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.
5. The Discharger shall comply with the SPRRs, which are incorporated herein.
6. 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.

7. 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.
8. The Discharger shall use the best practicable cost-effective control technique(s), including proper operation and maintenance, to comply with this Order.
9. As described in 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.
10. In the event that the Discharger reports a 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 (42 U.S.C. § 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to the SERC.
11. 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 assure 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 assure full compliance with this Order.
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 a "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 SPRRs, 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.

14. A copy of this Order (including attachments, Information Sheet, and SPRRs) and the operative MRP shall be kept at Facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
15. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, 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.

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 Title 23, section 2050 et seq. The State Water Board must receive the petition by 5pm 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 pm on the next business day. [Copies of the law and regulations applicable to filing petitions](#) are available on the State Water Board's website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality).

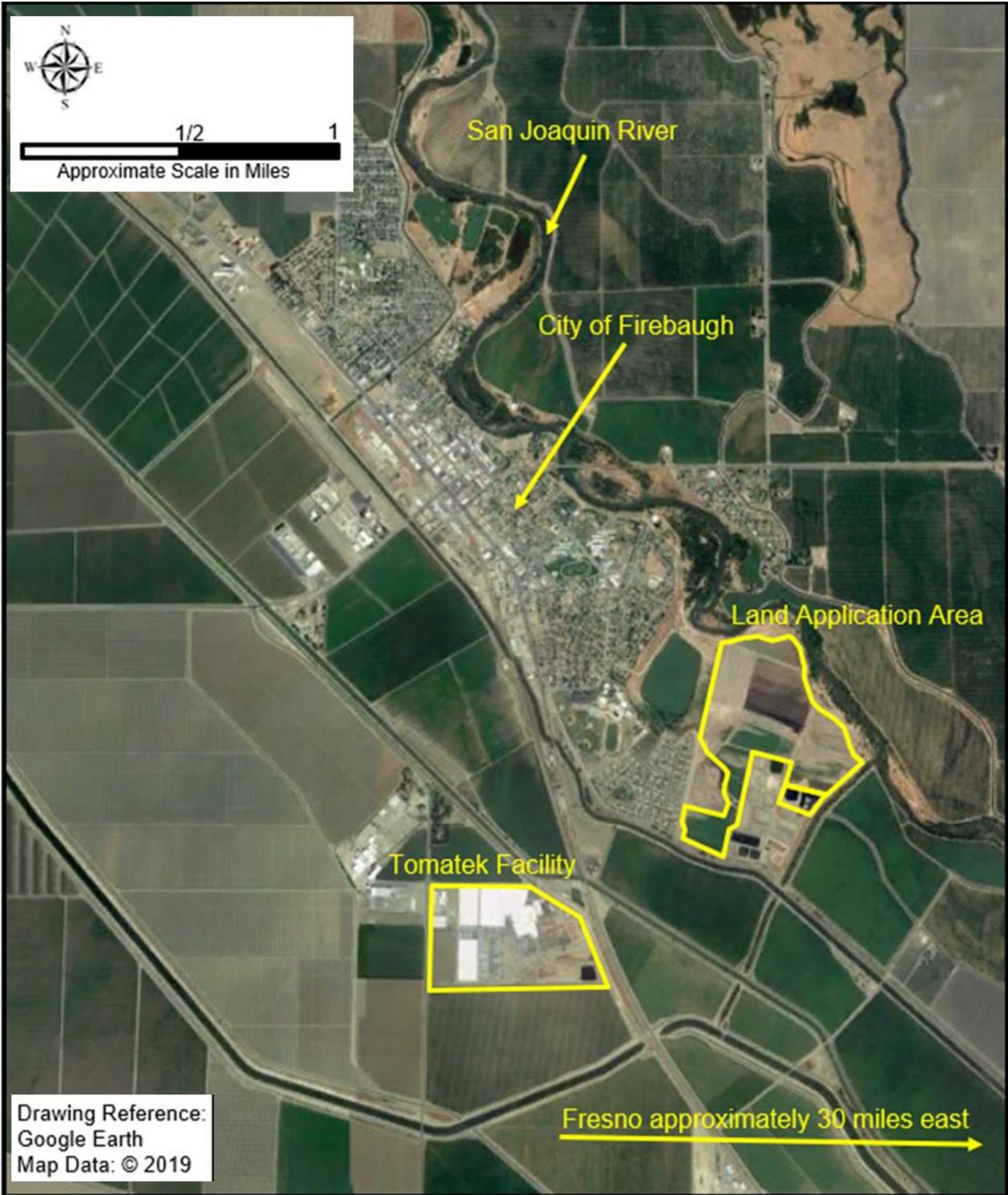
I, PATRICK PULUPA, Executive Officer, do hereby certify that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 11 October 2019.



PATRICK PULUPA, Executive Officer

Order Attachments:

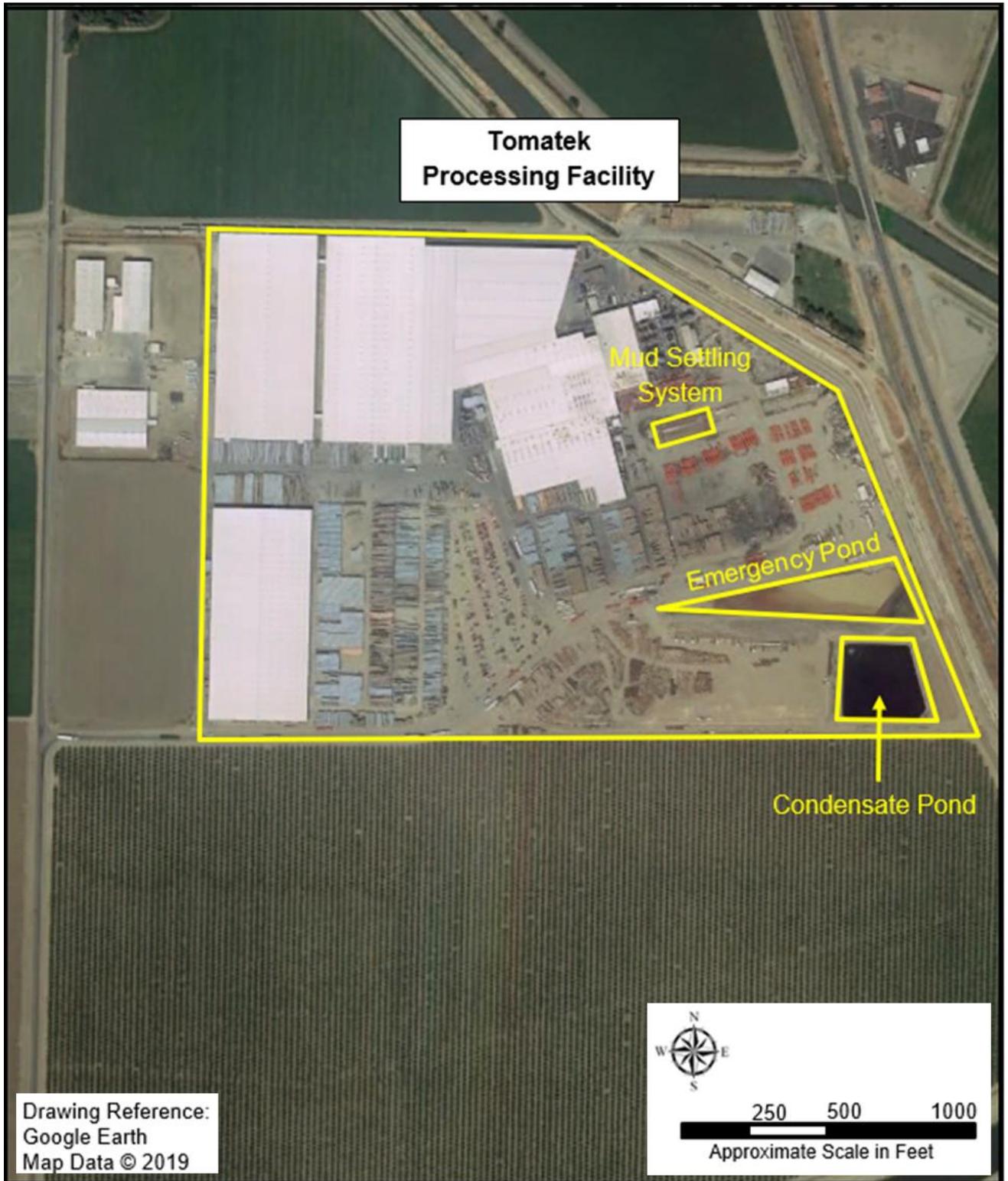
- Attachment A – Site Map
- Attachment B – Facility Layout
- Attachment C – LAA Layout
- Attachment D – Process Flow Diagram
- Attachment E – Requirements for Monitoring Well Installation Workplans and Monitoring Well Installation Reports
- Monitoring and Reporting Program R5-2019-0073
- Information Sheet
- Standard Provisions and Reporting Requirements (SPRRs) dated 1 March 1991



ATTACHMENT A – SITE MAP

TOMATEK, INC. AND CITY OF FIREBAUGH
TOMATO PROCESSING FACILITY
FRESNO COUNTY

ORDER R5-2019-0073



ATTACHMENT B – FACILITY LAYOUT

TOMATEK, INC. AND CITY OF FIREBAUGH
TOMATO PROCESSING FACILITY
FRESNO COUNTY

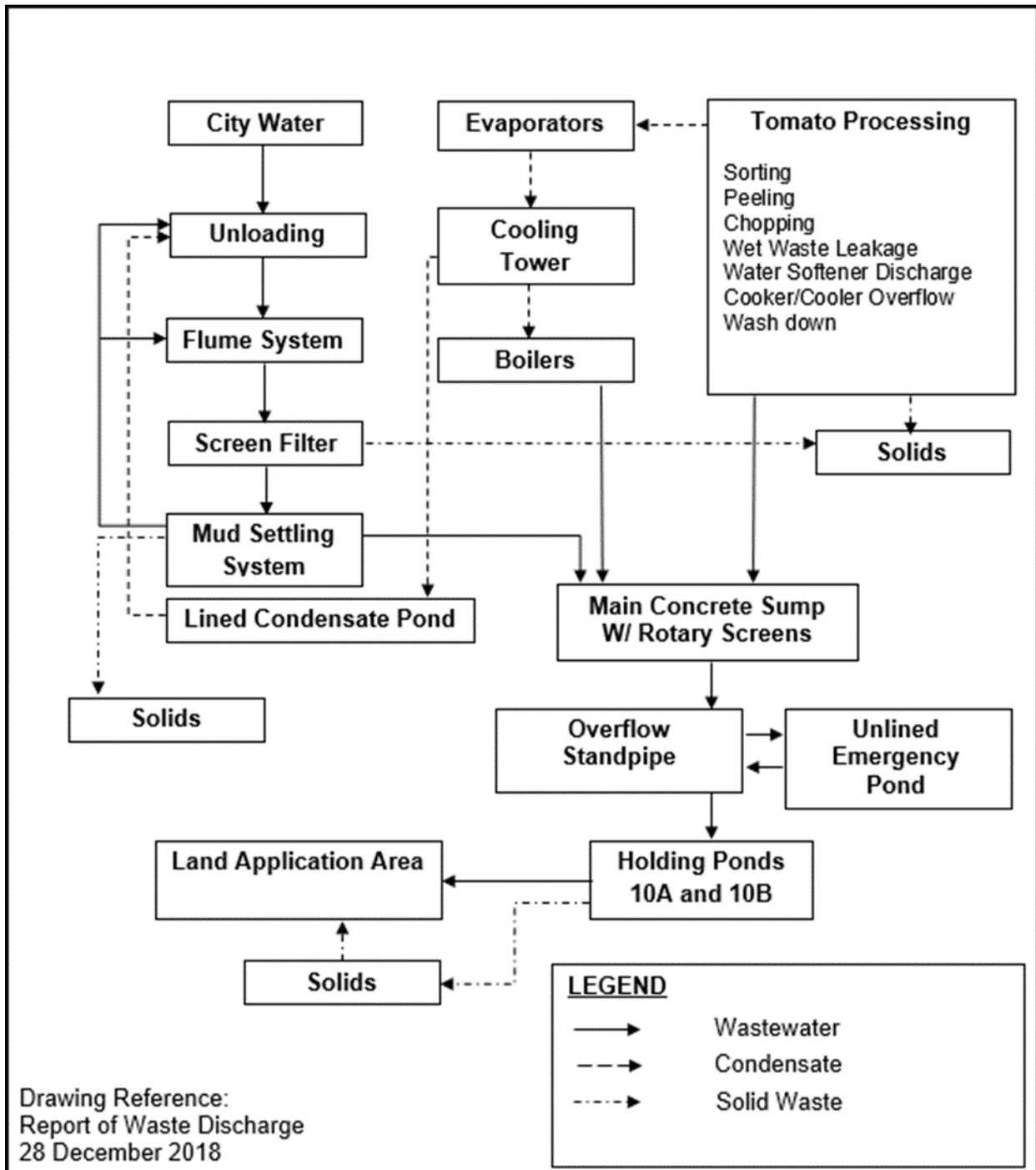
ORDER R5-2019-0073



ATTACHMENT C – LAA LAYOUT

TOMATEK, INC. AND CITY OF FIREBAUGH
 TOMATO PROCESSING FACILITY
 FRESNO COUNTY

ORDER R5-2019-0073



ATTACHMENT D – PROCESS FLOW DIAGRAM

TOMATEK, INC. AND CITY OF FIREBAUGH
 TOMATO PROCESSING FACILITY
 FRESNO COUNTY

ORDER R5-2019-0073

ATTACHMENT E - REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2 below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 - Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- Description of the on-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details:
 - Borehole diameter
 - Casing and screen material, diameter, and centralizer spacing (if needed)
 - Type of well caps (bottom cap either screw on or secured with stainless steel screws)
 - Anticipated depth of well, length of well casing, and length and position of perforated interval
 - Thickness, position and composition of surface seal, sanitary seal, and sand pack
 - Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)

F. Schedule for Completion of Work

G. Appendix: Groundwater Sampling and Analysis Plan (SAP)

The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedure
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
 - o General sampling techniques
 - o Record keeping during sampling (include copies of record keeping logs to be used)
 - o QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells

- Number of monitoring wells installed and copies of County Well Construction Permits
- Topographic map showing facility location, roads, surface water bodies
- Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

- On-site supervision of drilling and well installation activities
- Drilling contractor and driller's name
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals and logging methods
- Well boring log (including the following):
 - o Well boring number and date drilled
 - o Borehole diameter and total depth
 - o Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
 - o Depth to first encountered groundwater and stabilized groundwater depth
 - o Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form).

- Well construction diagram, including:
 - o Monitoring well number and date constructed
 - o Casing and screen material, diameter, and centralizer spacing (if needed)
 - o Length of well casing, and length and position of perforated interval
 - o Thickness, position and composition of surface seal, sanitary seal, and sand pack
 - o Type of well caps (bottom cap either screw on or secured with stainless steel screws)

D. Well Development:

- Date(s) and method of development
- How well development completion was determined
- Volume of water purged from well and method of development water disposal
- Field notes from well development should be included in report.

E. Well Survey (survey the top rim of the well casing with the cap removed):

- Identify the coordinate system and datum for survey measurements
- Describe the measuring points (i.e. ground surface, top of casing, etc.)
- Present the well survey report data in a table
- Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2019-0073

FOR
TOMATEK, INC AND CITY OF FIREBAUGH
TOMATO PROCESSING FACILITY
FRESNO COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267. Tomatek, Inc and the City of Firebaugh shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

Section 13267 of the California Water Code states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

Tomatek, Inc. owns and operates the Tomato Processing Facility (Facility) and the City of Firebaugh owns the Land Application Area (LAA) that is subject to the Waste Discharge Requirements (WDRs) cited herein, and the monitoring reports are necessary to determine compliance with the WDRs. Tomatek, Inc. and the City of Firebaugh are collectively referred to as Discharger in this MRP.

Pursuant to Water Code section 13268, subdivisions (a)(1) and (b)(1), failure to furnish the reports required under this MRP (and also under the operative WDRs), or falsifying information submitted in such reports, constitutes a misdemeanor and may result in the imposition of up to \$10,000 in administrative civil liability for each day of noncompliance.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

A **glossary of terms** used in this MRP is included on the last page.

A. GENERAL MONITORING REQUIREMENTS

1. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP when wastewater or process water is being discharged or conveyed at the flow monitoring points specified. Central Valley Water Board staff shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request. The Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the meter(s) is not in operation.

2. MONITORING AND SAMPLING LOCATIONS

Samples shall be obtained at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to sampling locations prior to implementation of the change. The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order:

Table 1 - Monitoring and Location Designations

Monitoring Location Name	Monitoring Location Description
EP-001	Emergency Pond.
INF-001	Location where a representative sample of the influent (process wastewater) can be obtained prior to discharge to the holding ponds (HP-010A & HP-010B).
HP-10A, HP-10B	Holding ponds 10A and 10B adjacent to the City's wastewater treatment facility.

Monitoring Location Name	Monitoring Location Description
EFF-001	Location where a representative sample of the effluent (process wastewater) can be obtained prior to discharge to the land application area (LAA).
SPL-001	Facility's source water supply from the City of Firebaugh.
LAA-001	The LAA where the Facility's discharge is applied.
MW-01 through MW-6	Groundwater monitoring wells and all future wells added to the approved network.

3. SAMPLING AND SAMPLE ANALYSIS

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater.

The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the *Standard Provisions and Reporting Requirements for WDRs*, dated 1 March 1991 (SPRRs).

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer or by the Discharger's authorized and qualified staff at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (USEPA);
- *Test Methods for Evaluating Solid Waste* (USEPA);
- *Methods for Chemical Analysis of Water and Wastes* (USEPA);

- *Methods for Determination of Inorganic Substances in Environmental Samples* (USEPA);
- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and
- *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water's Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency, constituent analyses, or monitoring parameters. The proposal must include adequate technical justification for reduction in monitoring frequency. This monitoring program shall remain in effect unless and until a revised MRP is issued.

B. SPECIFIC MONITORING REQUIREMENTS

1. EMERGENCY AND HOLDING POND MONITORING

The Emergency Pond and Holding Ponds shall be monitored at **Monitoring Location EP-001 and Monitoring Locations HP-10A, and HP-10B**, respectively. Sampling and monitoring will be conducted from permanent locations that will provide representative samples and observations of the ponds. Freeboard shall be measured vertically from the water surface to the lowest elevation of pond berm (or spillway/overflow pipe invert) and shall be measured to the nearest 0.10 feet. If any pond is dry, the monitoring report shall so state. Pond monitoring shall include, at a minimum, as specified below. The constituents/parameters with weekly monitoring frequencies shall be monitored weekly during the processing season and monthly during the offseason.

Table 2 – Emergency and Holding Pond Monitoring

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
Freeboard	0.1 feet	Measurement	Weekly

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
Odors	--	Observation	Weekly
Berm/levee condition	--	Observation	Weekly
Dissolved Oxygen	mg/L	Grab	Weekly

2. INFLUENT MONITORING

The influent to the Holding Ponds shall be monitored at **Monitoring Location INF-001**. Samples should be representative of the volume and nature of the discharge. Time of collection of samples shall be recorded. Sampling is not required during periods when no wastewater is discharged to the Holding Ponds. At a minimum, the effluent shall be monitored as specified below:

Table 3 - Influent Monitoring

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
pH	pH Units	Grab	Weekly
EC	µmhos/cm	Grab	Weekly
BOD ₅	mg/L	Grab	Monthly
TKN (as N)	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Ammonia (as N)	mg/L	Grab	Monthly
Total Nitrogen (as N)	mg/L	Grab	Monthly
TSS	mg/L	Grab	Monthly
TDS	mg/L	Grab	Monthly
FDS	mg/L	Grab	Monthly
VDS	mg/L	Grab	Monthly

3. EFFLUENT MONITORING

Effluent samples shall be collected at the **Monitoring Location EFF-001**. Samples should be representative of the volume and nature of the discharge. Time of collection of samples shall be recorded. Sampling is not required during periods when no wastewater is discharged to the LAA. At a minimum, the effluent shall be monitored as specified below:

Table 4 - Effluent Monitoring

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
Flow	gallons	Meter Reading	Continuous
BOD ₅	mg/L	Grab	Weekly
pH	pH Units	Grab	Weekly
EC	µmhos/cm	Grab	Weekly
TKN (as N)	mg/L	Grab	Twice Monthly
Nitrate (as N)	mg/L	Grab	Twice Monthly
Ammonia (as N)	mg/L	Grab	Twice Monthly
Total Nitrogen (as N)	mg/L	Grab	Twice Monthly
TSS	mg/L	Grab	Monthly
TDS	mg/L	Grab	Monthly
FDS	mg/L	Grab	Monthly
VDS	mg/L	Grab	Monthly
General Minerals	various	Grab	Quarterly

4. LAND APPLICATION AREA MONITORING

The Discharger shall inspect the LAA at least once daily prior to and during irrigation events. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in the Facility's logbook and included as part of the quarterly monitoring report. In addition, the Discharger shall perform the following routine monitoring and loading calculations for each discrete irrigation area within the LAA each day when wastewater is applied. If supplemental irrigation water is used, samples shall be collected from its source. The data shall be collected and presented in graphical (map) and/or tabular format and shall include the following:

Table 5 - Land Application Monitoring

Frequency	Constituent/ Parameter	Units	Sample Type
Daily	Fields Irrigated	Acres	Calculated
Daily	Wastewater flow	Gallons	Metered
Daily	Wastewater loading	Inches/day	Calculated
Daily	Supplemental Irrigation Flow	Gallons	Metered
Daily	Supplemental Irrigation Loading	Inches/day	Calculated
Daily	Precipitation	Inches	Rain gage (see 1 below)
Monthly	Total Hydraulic Loading (see 2 below)	Inches	Calculated
BOD Loading (see 3 below)			
Cycle	Cycle Average (see 4 below)	lbs/acre/day	Calculated
Nitrogen Loading (see 3 below)			
Annually	From wastewater	lbs/acre/yr	Calculated
Annually	From fertilizers and residual solids	lbs/acre/yr	Calculated
Annually	From supplemental irrigation water	lbs/acre/yr	Calculated
Salt Loading (see 3 below)			
Annually	From wastewater	lbs/acre/yr	Calculated
Annually	From supplemental irrigation water	lbs/acre/yr	Calculated

¹ National Weather Service or CIMIS data from the nearest weather station is acceptable.

² Combined loading from wastewater, irrigation water, and precipitation.

³ The BOD, salt, and nitrogen loading rates shall be calculated as specified in Section C of this MRP.

⁴ A cycle average is calculated by taking the pounds of BOD applied to the LAA in a given period, divided by the sum of the total days wastewater was applied plus the number of days of rest (no application of wastewater), see section C.1. of this MRP for the calculation.

5. GROUNDWATER MONITORING

The Discharger shall maintain the groundwater monitoring well network. If a groundwater monitoring well is dry for more than four consecutive

sampling events or is damaged, the Discharger shall submit a work plan and proposed time schedule to replace the well. The well shall be replaced following approval of the work plan. Once installed, all new wells shall be added to the groundwater monitoring network.

Groundwater Sampling and Analysis

Prior to purging or sampling, the groundwater depth shall be measured in each well to the nearest 0.01 feet. Groundwater elevations shall be determined based on depth-to-water measurements using a surveyed elevation reference point on the well casing. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction.

The Discharger shall monitor the wells in its monitoring well network **MW-1 through MW-6 and any subsequent monitoring wells** as specified below. Low flow or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Otherwise, each monitoring well shall be purged of at least 3 to 5 casing volumes until pH, electrical conductivity and turbidity have stabilized prior to sampling. Groundwater monitoring for all monitoring wells shall include, at a minimum, the following:

Table 6 - Groundwater Monitoring

Constituent/Parameter	Units	Sample Type	Monitoring Frequency
Depth to Groundwater	0.01 feet	Measurement	Quarterly
Groundwater Elevation	0.01 feet	Calculation	Quarterly
Gradient	feet/feet	Calculation	Quarterly
Gradient Direction	degrees	Calculation	Quarterly
pH	pH Units	Grab	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly
Ammonia (as N)	mg/L	Grab	Quarterly
Nitrate (as N)	mg/L	Grab	Quarterly
Total Nitrogen (as N)	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly
Standard Minerals	various	Grab	Quarterly

6. RESIDUAL SOLIDS MONITORING

The Discharger shall monitor the residual solids generated and disposed of on a monthly basis. The following shall be monitored and reported:

- a. Volume of Solids Generated. Solids may include pomace, seeds, stems, screenings, pond solids, and sump solids, or other material.
- b. Volume of Solids Disposed of Off-site. Describe the disposal method (e.g. animal feed, land application, off-site composting, landfill, etc.); the amount disposed (tons); and the name of the hauling company.
- c. Volume of Solids Disposed On-site. Describe the disposal location (i.e., field number), the amount applied, nitrogen concentration, and supporting calculation to ensure application at an agronomic rate.

7. WATER SUPPLY MONITORING

The Discharger shall sample the source water for the Facility at SPL-001. Water supply monitoring shall include at least the following:

Table 7 - Water Supply Monitoring

Constituent/Parameter	Units	Monitoring Frequency
Total Dissolved Solids	mg/L	Annually
Fixed Dissolved Solids	mg/L	Annually
Volatile Dissolved Solids	mg/L	Annually
Electrical Conductivity	µmhos/cm	Annually
Total Nitrogen	mg/L	Annually
Nitrate as Nitrogen	mg/L	Annually
Total Kjeldahl Nitrogen	mg/L	Annually
Standard Minerals	various	Once every three years (see 1 below)

¹ Samples shall be collected once every three years starting in 2020.

C. Reporting Requirements

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov.

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
Region 5 – Fresno Office
1685 “E” St.
Fresno, California 93706

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in any email used to transmit documents to this office:

Program: Non-15,
WDID: 5C100107001
Facility: Tomatek, Inc And City of Firebaugh, Tomato Processing Facility
Order: R5-2019-0073
County: Fresno
Place ID: 264670

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of the WDRs and this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. Pursuant to Section B.3 of the SPRRs, the transmittal letter shall contain a statement by the Discharger or the Discharger’s authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer’s knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports do not need to be included in the monitoring reports; however, all laboratory reports must be retained for a minimum of three years, in accordance with Standard Provision C.3 of the SPRRs. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Standard Provision C.3 of the SPRRs, monitoring information shall include the method detection limit (MDL) and the

Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to Business and Professions Code sections 6735, 7835, and 7835.1.

1. Quarterly Monitoring Reports

Quarterly Monitoring Reports shall be submitted to the Central Valley Water Board by the **1st day of the second month after the quarter** (i.e., the January-March quarterly report is due by May 1st). Each Quarterly Monitoring Report shall include the following:

- a. Results of the **Emergency Pond and Holding Pond Monitoring** specified in Section B.1.
- b. Results of the **Influent Monitoring** specified in Section B.2.
- c. Results of the **Effluent Monitoring** specified in Section B.3., including:
 - i. Calculation of average total nitrogen concentration for each month;
 - ii. Calculation of the 12-month rolling average EC of the discharge for each month of the quarter using the EC value for that month averaged with the EC values for the previous 11 months;
 - iii. Calculation of the maximum daily flow, monthly average flow, and cumulative annual flow, for each month of the quarter.
- d. Results of **Land Application Area Monitoring** specified in Section B.4., including:
 - i. A summary of the inspection activities conducted by the Discharger for the LAA;
 - ii. Calculated cycle average BOD₅ loading rate for the LAA.
 - (a) The mass of BOD₅ applied to each field within the LAA on a cycle average basis shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{AT}$$

- Where:*
- M= Mass of BOD₅ applied to an LAA in lbs/acre/day*
 - C= Concentration of BOD₅ in mg/L based on the three most recent monitoring results*
 - V= Total volume of wastewater applied to the LAA during the irrigation cycle, in millions of gallons*
 - A= Area of the LAA irrigated in acres*
 - T= Irrigation cycle length in days (from the first day water was applied to the last day of the drying time)*

8.345= Unit Conversion Factor

- e. Results of **Groundwater Monitoring**, as specified in Section B.5., including:
 - i. A narrative description of all preparatory, monitoring, sampling, and sample handling for groundwater monitoring.
 - ii. A field log for each well documenting depth to groundwater; method of purging; parameters measured before, during, and after purging; sample preparation (e.g., filtering); and sample preservation.
 - iii. Calculation of the groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of measurement.
 - iv. Summary data tables of historical and current water table elevations and analytical results.
 - v. A scaled map showing relevant structures and features of the Facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., National Geodetic Vertical Datum).
- f. Results of **Residual Solids Monitoring** as specified in Section B.6.
- g. Results of **Water Supply Monitoring** as specified in Section B.7.
 - i. If multiple sources are used, the Discharger shall calculate the flow-weighted average concentrations for each constituent monitored. Results must include supporting calculations.

- h. A comparison of monitoring data to the effluent limitations and discharge specifications and an explanation of any violation of those requirements.
- i. For the LAA, a comparison of monitoring data to the loading rate limitations and discharge specifications and an explanation of any violation of those requirements.
- j. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the quarter.

2. Annual Monitoring Reports

An Annual Monitoring Report shall be submitted by **1 February of each year** and shall include the following:

- a. Total annual effluent flow, and the average monthly flows for each month of the year, compared to the total annual flow limitation of the WDRs.
- b. For the LAA, a chronological log of dates of fertilizer application, residual solids application, irrigation, precipitation, and runoff control operations. Nitrogen and salt loading calculations shall be included.
- c. The types of crop(s) grown, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes including potassium (as estimated by technical references or, preferable, defined by representative plant tissue analysis).
- d. Calculated flow-weighted annual average FDS concentration for each field within the LAA.
 - i. The flow-weighted annual average FDS concentration shall be calculated using the following formula:

$$C_a = \frac{\sum_{i=1}^{12} [(C_{Pi} \times V_{Pi}) + (C_{Si} \times V_{Si})]}{\sum_{i=1}^{12} (V_{Pi} + V_{Si})}$$

- Where:
- C_a = Flow-weighted average annual FDS concentration in mg/L
 - i = The number of the month (e.g., January = 1, February = 2, etc.)
 - C_{Pi} = Monthly average process wastewater FDS concentration for calendar month i in mg/L
 - C_{Si} = Monthly average supplemental irrigation water FDS concentration for calendar month i in mg/L (considering each supplemental source separately)
 - V_{Pi} = Volume of process wastewater applied to LAA during calendar
 - V_{Si} = Volume of supplemental irrigation water applied to LAA during calendar month i in million gallons (considering each supplemental source separately)
- e. Calculated total nitrogen loading rate for each discrete field within the LAA for each month and total annual loading to date.
- i. The mass of total nitrogen applied to each LAA on an annual basis shall be calculated using the following formula and compared to published crop demand for the crops actually grown:

$$M = \sum_{i=1}^{12} \frac{(8.345(C_i V_i) + M_x)}{A}$$

Where:

M	=	Mass of nitrogen applied to LAA in lbs/acre/yr
C_i	=	Monthly average concentration of total nitrogen for month i in mg/L
V_i	=	Volume of wastewater applied to the LAA during calendar month i in million gallons
A	=	Area of the LAA irrigated in acres
i	=	The number of the month (e.g., January = 1, February = 2, etc.)
M_x	=	Nitrogen mass from other sources (e.g., fertilizer, residual solids, and compost) in pounds
8.345	=	Unit Conversion Factor

The plant available nitrogen (PAN) shall be calculated using the site-specific percentage (determined as part of Wastewater and Nutrient Management Plan, Provision H.2.c.) of the total nitrogen applied to the LAA to determine compliance with the Total Nitrogen Mass Loading Effluent Limitation specified in the WDRs.

- f. Concentration versus time graphs for each monitored constituent using all historic groundwater monitoring data. Each graph shall show the background groundwater concentration range and the groundwater limitation as horizontal lines at the applicable concentration.
- g. An evaluation of the groundwater quality beneath the site, a determination of whether any groundwater limitations were exceeded in any well at any time during the calendar year, an assessment of why groundwater limitations were exceeded, and recommendations for further testing or corrective actions to address the exceedances.
- h. A summary of information on the disposal of residual solids during the calendar year.
- i. An annual update to the Salinity Reduction Work Plan (as required by Provision H.2.b. of the WDRs)

- j. An annual update to the Metal Evaluation and Minimization Plan (as required by Provision H.2.d. of the WDRs)
- k. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
- l. Monitoring equipment maintenance and calibration records, as described in SPRRs, Standard Provision C.4.
- m. A statement of when the wastewater treatment system Operation and Maintenance Manual was last reviewed for adequacy and a description of any changes made during the year.
- n. A discussion of any data gaps and potential deficiencies or redundancies in the monitoring system or reporting program.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of a Monitoring and Reporting Program issued by the California Regional Water Quality Control Board, Central Valley Region, on 11 October 2019.



PATRICK PULUPA, Executive Officer

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
TDS	Total dissolved solids
FDS	Fixed dissolved solids
VDS	Volatile dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite least	Samples shall be a flow-proportioned composite consisting of at least eight over a 24-hour period.
Daily	Every day except weekends or holidays.
Weekly	Once per week.
Twice Monthly	Twice per month during non-consecutive weeks.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters.
Annually	Once per year.
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day

General Minerals Analysis for General Minerals shall include at least the following:

Arsenic	Hardness	Potassium
Aluminum	Iron	Sodium
Boron	Magnesium	Sulfate
Calcium	Manganese	Total Alkalinity
Chloride	Phosphorus	(including alkalinity series)

WASTE DISCHARGE REQUIREMENTS ORDER R5-2019-0073
TOMATEK, INC
AND
CITY OF FIREBAUGH
TOMATO PROCESSING PLANT
FRESNO COUNTY

INFORMATION SHEET

Background

Tomatek, Inc. (Tomatek or Discharger) owns and operates a tomato processing and packaging facility (Facility) in Firebaugh in Fresno County. The City of Firebaugh (City) owns the land application area (LAA) utilized by Tomatek and is a co-discharger.

The Facility operates during the tomato harvest season from approximately July through October and produces various tomato products. The Facility operates 24 hours per day, every day during the harvest season. During the off-season the Facility produces limited products using on hand inventory. Tomatek employs approximately 1,200 people during the processing season and about 250 year-round.

The Facility was regulated by Waste Discharge Requirements (WDRs) 94-072. Waste Discharge Requirements Order 94-072 allowed a daily maximum wastewater flow of up to 2.2 million gallons per day (mgd) to the City's LAA. In a 15 August 2018 Central Valley Water Board letter, Tomatek was required to submit a new Report of Waste Discharge (RWD) pursuant to CWC 13260. Tomatek submitted a ROWD on 30 December 2018. Addendums to the RWD were submitted on 28 January 2019 and 24 February 2019.

Wastewater Generation and Disposal

Tomatoes are transported to the Facility in trucks, unloaded by flooding the transportation bins and dumping into the flume system. The conveyance system is designed to continuously recycle the tomato conveyance water through a concrete mud settling system. As the conveyance water flows through the mud settling system, a portion is recycled through the flume system and the remaining flow is conveyed to the main concrete sump.

Waste streams during the harvest season are generated from unloading, conveyance, sorting, peeling, chopping, wet waste container leakage, boiler blowdown, water softener discharge, equipment sanitation and condensate. Condensate from the evaporators is either used for boiler feed water or pumped to a lined reservoir and used for unloading and flume feed water.

Process wastewater is directed to floor drains, which flow into a main concrete sump. In the concrete sump, wastewater is screened by two large rotary screens and pumped to the overflow standpipe (pumping station), which typically backflows into the emergency pond. Wastewater in the overflow standpipe is pH corrected with sodium hydroxide and

pumped to the holding ponds at the City of Firebaugh WWTF (holding ponds 10A and 10B). Wastewater is allowed to settle in holding pond 10A then flows into 10B where it is aerated before discharge to the LAA. The LAA consists of eight fields totaling 162.3 acres; however, the primary operational area is only 140.3 acres.

The wastewater characteristics for 2016 through 2018 are summarized in Finding 15, Table 4 and Table 5 of the Order.

Groundwater Considerations

Groundwater beneath the LAA averages 11.5 to 17 feet below ground surface and flows to the northwest. The previous Order included groundwater limitations but its accompanying Monitoring and Reporting Program (MRP) did not require groundwater monitoring. WDRs Order 98-230 for the City of Firebaugh WWTF require the City to monitor for EC, pH, total dissolved solids and standard minerals on a quarterly basis. Monitoring wells 1-3 were installed in 1999 and monitoring well 4 was installed in 2000. Monitoring well 5 and 6 were installed in 2009 and were used as part of an August 2010 *Engineering Report on the Disposal of tomato Processing Wastewater for Tomatek, Inc. and the City of Firebaugh*; however, after the study was completed, sampling of monitoring wells 5 and 6 was discontinued. This Order requires monitoring off all six monitoring wells as well as any monitoring wells installed in the future.

Groundwater considerations are discussed in Findings 30 through 33 of the Order.

Antidegradation

Antidegradation analysis and conclusions are discussed in Findings 55 through 61 of the Order.

Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions

The Order limits the maximum monthly average daily discharge flow to 2.2 mgd during the processing season, 0.3 mgd during the off-season, and 0.6 during the transition months. The Order sets a cycle average BOD₅ loading limit of 100 lbs/acre/day for the LAA, an annual average maximum FDS limit of 1,100 mg/L and requires that wastewater be applied at agronomic rates. Provision H.2.a of the Order grants the Discharger a time schedule to achieve compliance BOD and total nitrogen mass loading limitations in Effluent Limitations C.1, Groundwater Limitations E.1.a., and Land Application Area Specification F.4.

The Order also includes provisions requiring the Discharger to prepare and implement a Wastewater and Nutrient Management Plan, a Salinity Reduction Study Work Plan, a Metal Evaluation and Minimization Plan, and a Groundwater Monitoring Well Network Evaluation and Well Installation Workplan and Report. The Order prescribes groundwater limitations that state that the discharge shall not cause or contribute to

groundwater containing concentrations in excess of the maximum contaminant levels (MCLs) identified in Title 22 or in excess of natural background water quality, whichever is greater.

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 impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes pond, influent, effluent, water supply, residual solids, LAA, and groundwater monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the effluent/groundwater limitations and the discharge and LAA specifications prescribed in the Order.

Salt and Nitrate Control Programs Regulatory Considerations

The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley at its 31 May 2018 Board Meeting. These programs once effective, could change how the Central Valley Water Board permits discharges of salt and nitrate. The Salinity Control Program currently being developed would subject dischargers that do not meet stringent salinity numeric values (700 $\mu\text{S}/\text{cm}$ EC as a monthly average to protect the AGR beneficial use and 900 $\mu\text{S}/\text{cm}$ EC as an annual average to protect the MUN beneficial use) to performance-based salinity requirements, and would require these dischargers to participate in a basin-wide Prioritization and Optimization Study to develop a long-term strategy for addressing salinity accumulation in the Central Valley.

The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. The Central Valley Water Board anticipates that the CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs region-wide, including the WDRs that regulate discharges from the Tomatek, Inc. and City of Firebaugh, Tomato Processing Facility. More information regarding this regulatory planning process can be found at the following link:
https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/

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. 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.