

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2012-0120

WASTE DISCHARGE REQUIREMENTS

FOR
OLAM TOMATO PROCESSORS, INC., AND
WESTLAKE FARMS, INC.
OLAM TOMATO PROCESSING LEMOORE PLANT
KINGS COUNTY

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

1. On May 2010, Olam Tomato Processors, Inc., (Olam) a Delaware corporation, submitted a Report of Waste Discharge (RWD) for a proposed discharge of tomato processing solids and wastewater to a 13-acre parcel owned by Olam near its Lemoore tomato processing plant (Lemoore Plant).
2. On 1 December 2011, Olam submitted a RWD proposing to discharge tomato processing wastewater to a new Land Application Area (LAA) owned by Westlake Farms, Inc., (Westlake) a California corporation.
3. Olam is the primary entity responsible for the maintenance and operation of the Lemoore Plant and related discharges. Westlake Farms, Inc., is the primary entity responsible for the application of food processing wastewater and compliance with the water reuse requirements of this Order. Olam Tomato Processors, Inc., and Westlake Farms, Inc., (hereafter "Dischargers") and are responsible for compliance with these Waste Discharge Requirements (WDRs). Provision 16 further clarifies Central Valley Water Board expectations with respect to compliance with this Order.
4. The tomato processing plant is at 1175 19th Avenue in Lemoore. The new LAA is in sections 14, 23, and 24 of T20S, R19E, MDB&M as shown in Attachment A, which is attached hereto and a part of this Order.
5. WDRs Order R5-2007-0157, adopted by the Central Valley Water Board on 26 October 2007, prescribes discharge requirements for the tomato processing plant. Order R5-2007-0157 allows an average dry weather flow of up to 4.5 million gallons per day (mgd) to a 2,600-acre disposal area owned by SSC Farms I, LLC and SSC Farms II, LLC (SSC Farms). The Discharger proposes to discharge its tomato processing solids to a 13-acre parcel south of the tomato processing plant. Further, to

discharge its tomato processing wastewater to a new 995-acre LAA owned by Westlake. Therefore, Order R5-2007-0157 will be rescinded and replaced with this Order.

Existing Facility and Discharge

6. Olam processes approximately 750,000 tons of tomatoes annually. Wastewater at Olam is generated from washing and condensing tomatoes (“fresh pack”) and from the tomato remanufacturing process (“food process”). Wastewater is collected in a common sump, screened, and stored in a lined aerated pond (Pond #3) before being discharged to the LAA.
7. Fresh pack wastewater is generated from July through October and food processing wastewater is generated from November through June. Average wastewater flow rates during the fresh pack season were about 1.9 mgd in 2010 and 1.75 mgd in 2011. The average wastewater flow rate produced from the food processing was about 0.27 mgd in 2010 and 0.17 mgd in 2011.
8. Based on data from January 2010 to December 2011, the average and range of wastewater constituent levels from fresh pack and food processing are tabulated below:

			EC ¹ umhos/cm	TDS ² mg/L	FDS ³ mg/L	TSS ⁴ mg/L	pH pH units	BOD ₅ ⁵ mg/L	TN ⁶ mg/L
2010	Fresh Pack	Average	1,432	1,150	534	488	6	1,089	60
		Range	910-2,200	550-1,500	320-690	120-1,800	4-10.5	52-2,900	26-84
2011	Food Processing	Average	1,040	530	409	134	8	170	23
		Range	660-2,500	380-720	302-600	15-400	6-9	3-770	13-36
2011	Fresh Pack	Average	1,518	1,555	548	649	6	1,348	75
		Range	930-2,200	920-1,900	100-900	78-2,000	4.2-10.6	33-3,100	53-99
2011	Food Processing	Average	1,762	1,189	894	321	8	281	33
		Range	820-3,600	530-1,900	411-1,800	39-2,200	5.3-9.2	27-1,100	11-44

- 1 Electrical Conductivity (EC)
- 2 Total Dissolved Solids (TDS)
- 3 Fixed Dissolved Solids (FDS)
- 4 Total Suspended Solids (TSS)
- 5 Five-day, 20°C Biochemical Oxygen Demand (BOD₅)
- 6 Total Nitrogen (TN)

Facility and Discharge

9. In July 2009, Olam purchased the tomato processing plant from SK Foods, L.P. and entered into a lease agreement with SSC Farms where Olam leased only 655 acres of the 2,600 acres owned by SSC Farms. The lease agreement between Olam and SSC Farms ended on 1 July 2012.
10. Olam began discharging its food processing wastewater to the new 995-acre LAA owned by Ceil and Gerri Howe and Westlake Farms, Inc. According to the 2011 RWD,

approximately 555 acres of land will be irrigated with wastewater and the remaining 440 acres of land will be reserved for emergency discharges. Olam subsequently informed the Central Valley Water Board that it will use the entire 995-acres LAA for wastewater disposal.

11. The easement agreement between the Dischargers is for a 10 year period, where Westlake agrees to take Olam's wastewater for irrigation use. The easement agreement can be renewed for three additional periods of 10 years as long as Olam notifies Westlake 90 days prior to the expiration of the existing term.
12. According to the RWD, the average BOD loading rate is 6.9 lbs/acre/day with a minimum loading rate of 0.7 lbs/acre/day in May and a maximum loading rate of 21.8 lbs/acre/day in September, based on 2010 and 2011 data. The average instantaneous loading rate for an 8 day cycle is approximately 55.4 lbs/acre. Westlake Farms, Inc., will use various irrigation methods. Cycle average loading rates will be at or below 100 lbs/acre/day.
13. With an annual flow-weighted FDS average of 543 mg/L and an annual flow-weighted TDS average of 1,538 mg/L, approximately 65 percent of the TDS is a result of organic compounds, based on data from 2011.

Site-Specific Conditions

14. Source water supply for the tomato processing plant is provided by City of Lemoore. Based on data from Olam's 2010 and 2011 Annual Monitoring Reports the quality of source water is as follows: EC of 698 umhos/cm and nitrate as nitrogen of 0.07 mg/L in 2010, and EC of 665 umhos/cm and nitrate as nitrogen of 0.24 mg/L in 2011. To meet crop demand, supplemental irrigation water for the LAA will be from the Westlake canal.
15. According to the Federal Emergency Management Agency Maps (Map Number 0600860125B), the processing plant and the LAA are located within Zone X, an area outside of the 1% annual chance of inundation with water depth of one-foot or less.
16. The processing plant and LAA are in an arid climate characterized by hot dry summers and mild winters. The rainy season generally extends from November through March. Average annual precipitation and evaporation in the discharge area are about 11 inches and 63 inches, respectively, according to information published by California Department of Water Resources (DWR).
17. Soils in the vicinity of the LAA are predominately Lethent Clay Loam and Pitco Clays and are classified as having severe limitations that restrict the choice of plants or require special conservation practices, and water in or on the soil interferes with plant growth or cultivation according to the Natural Resource Conservation Service.

18. Land uses in the vicinity of the LAA are primarily agricultural. The Kings River is to the east of the LAA. The primary crops grown in the area are cotton and tomatoes, according to Kings County 2003 Land Use Maps published by the DWR.

Groundwater Considerations

19. The area of the new LAA was identified as having saline soils and shallow groundwater requiring drainage in various studies dating back to 1966. Portions of the new LAA are tile drained. The tile drained groundwater is of poor quality and drains to the Westlake Farms south basins, approximately 4 miles southeast of Kettleman City. The tile drained basins are regulated by WDRs 97-263.
20. Based on data collected since 1985, the quality of drained groundwater into the Westlake basin sumps has historically been of poor quality with electrical conductivity ranging from 13,140 to 130,000 umhos/cm, total dissolved solids from 13,000 to 49,000 mg/L, sodium from 2,450 to 13,600 mg/L, and chloride from 1,790 to 11,000 mg/L. Based on the character and loading rates of the tomato waste applied to the LAA (Findings 12 and 13), no changes are expected in the character of the drain water.
21. The new LAA has a groundwater monitoring well network that consists of three downgradient monitoring wells (MW-20 through MW-22). Monitoring well MW-8 was installed in 2007 and is upgradient of the new LAA. Monitoring wells MW-20, MW-21, and MW-22 were installed in October 2011. Monitoring wells MW-20 through MW-22 have a total depth of 25 feet below ground surface (bgs) and are screened between 5 feet and 20 feet bgs. Monitoring well MW-8 is no longer available; at a minimum one upgradient well is needed to evaluate changes in groundwater conditions. This Order includes provisions that require Olam to install an upgradient monitoring well.
22. According to data from the new monitoring wells, the depth to groundwater below the new LAA is approximately 4 to 8 feet bgs. Confined groundwater exists below the Corcoran Clay, which is at depth of about 450 feet bgs.
23. Based on data from 2007 through 2011, groundwater in the upgradient well MW-8 has an average EC of 13,933 umhos/cm, TDS of 9,331 mg/L, sodium of 2,669 mg/L, and chloride of 509 mg/L. The quality of groundwater in the downgradient monitoring wells based on data from October 2011 is tabulated below:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>MW-20</u>	<u>MW-21</u>	<u>MW-22</u>
EC	umhos/cm	6,400	41,000	2,100
TDS	mg/L	5,000	46,000	1,700
FDS	mg/L	4,600	42,000	1,600
Na	mg/L	1,000	13,000	230
Cl	mg/L	650	4,800	85

24. Findings 19 through 23 indicate that first encountered groundwater in the vicinity of the LAA is not and has not historically been of high quality with respect to respect to salinity since the early 1970's or before.

Basin Plan, Beneficial Uses, and Regulatory Considerations

25. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004* (hereafter "Basin Plan") designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference plans and policies of the State Water Board. In accordance with Water Code section 13263 (a), these waste discharge requirements implement the Basin Plan.
26. The tomato processing plant is in Detailed Analysis Unit (DAU) No. 238, within the Tulare Lake Basin hydrologic unit, and the LAA is in DAU No. 244, in the Westside Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in both DAUs as municipal and domestic supply, agricultural supply, and industrial service supply. The Basin Plan also identifies DAU No. 238 as having industrial process supply beneficial uses.
27. The tomato processing plant is in the Hanford-Lemoore Hydrologic Area (No. 551.90) and the LAA is in the Westlands Hydrologic Area (No. 551.10) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Resources Control Board in August 1986.
28. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
29. The Basin Plan includes narrative water quality objectives for chemical constituents that, at a minimum, requires waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter 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.
30. The Basin Plan establishes narrative water quality objectives for chemical constituents, taste and odors, and toxicity. The toxicity objective, in summary, 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. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.

31. 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 in order to implement the narrative objective.
32. 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 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.
33. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:
 - a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC of the effluent discharged to land shall not exceed the EC of the source water plus 500 $\mu\text{mhos/cm}$. When the source water is from more than one source, the EC shall be a weighted average of all sources.
 - b. Discharges to areas that may recharge to good quality groundwater shall not exceed an EC of 1,000 $\mu\text{mhos/cm}$, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.
34. The Basin Plan authorizes exemption for food processing industries that discharge to land and exhibit a disproportionate increase in EC of the discharge over the EC of the source water due to unavoidable concentrations of organic dissolved solids from the raw food product, provided that beneficial uses are protected. Exceptions shall be based on demonstration of best available technology and best management practices that control inorganic dissolved solids to the maximum extent feasible.

Antidegradation Analysis

35. State Water Resources Control Board Resolution 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

- a. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
 - c. The discharger employs best practicable treatment or control (BPTC) to minimize degradation;
 - d. The degradation is consistent with the maximum benefit to the people of the state.
36. Constituents of concern that have the potential to degrade groundwater include salts and nutrients as discussed below:
- a. For salinity, the Basin Plan contains effluent limits of EC of source water plus 500 umhos/cm and 1,000 umhos/cm maximum for discharges to areas that may recharge to good quality groundwater. As the Tulare Lake Basin is a closed basin, these limits are designed to control the rate of groundwater degradation with respect to salinity. With a source water EC of 665 umhos/cm, the average discharge EC range of 1,040 umhos/cm to 1,762 umhos/cm exceeds the incremental increase limit for source water plus 500 umhos/cm. However, as described in Finding 34 above, the discharge is eligible for an exception to the Basin Plan's incremental EC limit. The 1,000 umhos/cm limit is not applicable because, as described in Findings 19 through 24, underlying groundwater is of poor quality with respect to EC based on data from 1985 with EC ranging from 13,140 to 130,000 umhos/cm. Therefore, the EC of the discharge is less than the EC of underlying groundwater and will not cause degradation with respect to salinity constituents.
 - b. For nitrogen, effluent total nitrogen concentrations range from 23 mg/L to 75 mg/L. Limited groundwater data from the shallow groundwater monitoring wells is inconclusive regarding the quality of the groundwater with respect to nitrogenous compounds. Therefore, this Order includes loading limits that require nitrogen to be applied at agronomic rates and groundwater limits that proscribe the discharge from causing the groundwater nitrate plus nitrite as nitrogen from exceeding the Primary MCL of 10 mg/L, or background, whichever is higher.
37. The Discharger installed groundwater monitoring wells at its former LAA in 2007 and just recently installed monitoring wells at the new LAA in 2011. Based on available historic data, groundwater beneath the site was shallow and exceeded water quality objectives for salinity prior to 1968. Based on data from the groundwater monitoring well network first encountered groundwater continues to be shallow and of poor quality requiring continuing management. The concentrations of salinity constituents in the effluent are much less than the concentrations reported for groundwater. Thus, the discharge will not degrade underlying groundwater with salinity constituents.

38. The Discharger provides treatment and control of the discharge that incorporates:
- a. Wastewater screening at the plant before discharge to the LAA,
 - b. Wet waste and tomato pomace are hauled off-site for use as cattle feed,
 - c. Settled solids are applied to a 13-acre parcel;
 - d. Application of wastewater at plant uptake rates for nitrogen and organic loading; and
 - e. Blending of wastewater with irrigation water to meet the agronomic requirements for crop growth or other measures to ensure even distribution of wastewater over the area irrigated.

The Board finds that the preceding treatment and control measures represent BPTC for these discharges.

Antidegradation Conclusions

39. This Order establishes terms and conditions to ensure that the discharge does not unreasonably affect present and anticipated future beneficial uses of groundwater or result in groundwater quality worse than background or the water quality objectives set forth in the Basin Plan.
40. Olam, which discharges wastewater to the Land Application Area, aid in the economic prosperity of the community by direct employment of approximately 130 full time and 400 seasonal personnel. In addition, these facilities provide a needed service for local growers, fertilizer and equipment manufacturers as well as providing a tax base for local and county governments. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state, and, therefore, provides sufficient reason to allow limited groundwater degradation to occur. Based on available data, the discharge is not anticipated to cause further groundwater degradation with respect to salinity. This Order does authorize some limited degradation with respect to nitrate as nitrogen, but the degradation will comply with water quality objectives.
41. These WDRs are consistent with the Antidegradation Policy, since: (a) the Discharger has implemented BPTC to minimize degradation, (b) any limited degradation allowed by this Order will not unreasonably affect present and anticipated future beneficial uses of groundwater, or result in water quality less than water quality objectives, and (c) the limited degradation is of maximum benefit to people of the State.

Water Recycling Regulatory Considerations

42. On 3 February 2009, the State Water Board adopted Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The Recycled Water Policy promotes reuse of water to achieve sustainable local water supplies and reduce greenhouse gases.

Other Regulatory Considerations

43. Based on the threat and complexity of the discharge, the facility is determined to be classified as 2B as defined below:
- a. Category 2 threat to water quality: "Those 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. Category B complexity, defined as: "Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units."
44. California Code of Regulations, Title 27 (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste, which includes designated waste, as defined by Water Code section 13173. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt wastewater under specific conditions. This exemption, found at Title 27, section 20090 is described below:

* * *

(b) Wastewater - Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

- (1) the applicable RWQCB has issued WDRs, reclamation requirements, or waived such issuance;
- (2) the discharge is in compliance with the applicable water quality control plan; and
- (3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

* * *

45. The discharge authorized herein is exempt from the requirements of Title 27 in accordance with Title 27, sections 20090(b) because:
- a. The Central Valley Water Board is issuing WDRs,
 - b. The discharge is in compliance with the Basin Plan, and;
 - c. The treated effluent discharged to the LAA does not need to be managed as hazardous waste.

In addition, the reuse of treated process wastewater for irrigation as authorized by this Order is exempt from Title 27 under section 20090(h) for reuse, since the wastewater is treated to make it suitable for direct beneficial reuse and is discharged in a manner consistent with crop requirements. This Order sets terms and conditions of discharge including discharge specifications and monitoring to ensure that the discharge will not impact present and anticipated beneficial uses of groundwater.

46. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the Central Valley Water Board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, waste outside of its region that could affect the quality of water within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Central Valley Water 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 the attached Monitoring and Reporting Program R5-2012-0120 are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

47. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.

48. On 7 December 2012, the Regional Water Board adopted Resolution R5-2012-0119, which approved the Initial Study and adopted a Negative Declaration for the discharge/recycling of wastewater to 995-acre LAA from the Discharger's Lemoore Tomato Processing Plant.
49. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

Public Notice

50. 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.
51. The Dischargers 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.
52. All comments pertaining to the discharge were heard and considered in a public hearing.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order R5-2007-0157 is rescinded and that, pursuant to Water Code sections 13263 and 13267, OLAM Tomato Processors, Inc., and Westlake Farms, Inc., their its 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 waste to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 23, section 2510 et seq., is prohibited.
3. Discharge of waste classified as 'designated', as defined in Water Code section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Standard Provision E.2 of the *Standard Provisions and*

Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991, is prohibited.

5. Discharge of waste in a manner or location other than that described in the Findings, is prohibited.
6. Application of residual solids to the LAA is prohibited.
7. Discharge of domestic wastewater to the process wastewater treatment system is prohibited.
8. Discharge of domestic wastewater to the process wastewater ponds, LAA or any surface water, is prohibited.

B. Effluent Limitations

1. The monthly average discharge flow shall not exceed 4.5 mgd.
2. Average BOD loading to the LAA shall not exceed 100 lbs/acre/day, both long-term and over the course of any discharge cycle (i.e., the time between successive applications).

C. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.
2. The discharge shall not cause degradation of any water supply.
3. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
4. The discharge shall remain within the permitted waste treatment/containment structures and LAA's at all times.
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 tomato processing facility or LAA's at an intensity that creates or threatens to create nuisance conditions.
8. As a means of discerning compliance with Discharge Specification C.7, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Regional Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
9. The Discharger shall operate and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California-registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
10. The treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
11. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications C.10.
12. 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.
13. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
 14. Storage of pomace on areas not equipped with means to prevent storm water infiltration, or a paved leachate collection system is prohibited.

D. Land Application Area Specifications

1. Application of waste constituents to the LAA shall be at reasonable agronomic rates to preclude creation and a nuisance and degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the LAA, including the nutritive value of organic and chemical fertilizers and of the wastewater shall not exceed the annual crop demand.
2. Wastewater shall not be discharged to the LAA in a manner that causes wastewater to stand for greater than 48 hours.
3. Any irrigation runoff shall be confined to the LAA and shall not enter any surface water drainage course or storm water drainage system.
4. Low-pressure and unpressurized pipelines and ditches shall not be used to store wastewater.
5. Application of pomace to LAAs is prohibited.

E. Solids Specifications

1. Settled solids in the pond and tank shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentrations that will violate groundwater limitations of this Order.
2. Collected screenings, sludge's, and other solids removed from the liquid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill,

composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.

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

F. Groundwater Limitations

Release of waste constituents from any treatment or storage component associated with the tomato processing facility or LAA shall not cause or contribute to groundwater:

1. Containing concentrations of constituents Identified in Title 22 in excess of the MCLs quantified therein, or background quality, whichever is greater; or
2. Containing taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

G. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program (MRP) R5-2012-0120, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
2. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
3. 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.

4. 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 only when the operation is necessary to achieve compliance with the conditions of this Order.
5. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
6. 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.
7. In the event of any change in control or ownership of the tomato processing 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.
8. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the CWC. 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.
9. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
10. **By 7 February 2013**, the Discharger shall submit a Work Plan for the installation of an upgradient monitoring well necessary to evaluate changes in groundwater

conditions. The Work Plan shall satisfy the information needs specified in the monitoring well installation section of Attachment C, *Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports*. All wells shall comply with appropriate standards as described in *California Well Standard Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981), and any more stringent standards adopted by the Discharger or county pursuant to CWC section 13801.

11. **By 7 April 2013**, the Discharger shall complete well installation and commence groundwater monitoring in accordance with the Work Plan submitted pursuant to Provision G.10 and Monitoring and Reporting Program R5-2012-0120.
12. **By 27 April 2013**, the Discharger shall submit a monitoring well installation report that meets the requirements of Attachment C.
13. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
14. The Central Valley Water Board is currently implementing the CV-SALTS initiative to develop a Basin Plan amendment that will establish a salt and nitrate management plan for the Central Valley. Through this effort the Basin Plan will be amended to define how the narrative water quality objectives are to be interpreted for the protection of agricultural use. If new information or evidence indicates that groundwater limitations are different than those prescribed herein are appropriate, this Order will be reopened to incorporate such limits.
15. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.
16. Olam Tomato Processors, Inc., (Olam) and Westlake Farms, Inc., (Westlake) are

responsible for complying with the requirements of this Order.

- a. Olam shall:
 - i. Ensure the tomato processing wastewater delivered to Westlake is treated and of a volume and quality consistent with that described in this Order, including Findings 7 and 8;
 - ii. Comply with the portions of the Order related to wastewater treatment, solids disposal, and delivery of the wastewater to Westlake;
 - iii. Conduct and submit, as required, all monitoring and investigation reports required by the Order; and
 - iv. Comply with those Order requirements, not specifically described in this provision, as may be determined appropriate by the Central Valley Water Board or its Executive Officer.

- b. Westlake shall:
 - i. Ensure that the wastewater applied to the Land Application Area is managed in a manner consistent with the Findings and land application requirements of this Order so as not to cause, or threaten to cause, conditions of nuisance or pollution;
 - ii. Provide to Olam information necessary to complete and submit the monitoring required by the Land Application Area sections of Monitoring and Reporting Program No. R5-2012-0120; and
 - iii. Comply with those Order requirements, not specifically described in this provision, as may be determined appropriate by the Central Valley Water Board or its Executive Officer.

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 action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

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

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 7 December 2012.

Original signed by:

PAMELA C. CREEDON, Executive Officer

Order Attachments:

- A Site Location Map
- B Flow Schematic
- C Standard Requirements for Monitoring Well Installation
Work Plans and Monitoring Well Installation Reports
Monitoring and Reporting Program R5-2012-0120
Information Sheet
Standard Provisions (1 March 1991)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2012-0120

MONITORING AND REPORTING PROGRAM

OLAM TOMATO PROCESSORS, INC., AND
WESTLAKE FARMS, INC.
OLAM TOMATO PROCESSING LEMOORE PLANT
KINGS COUNTY

This monitoring and Reporting Program (MRP) is required pursuant to Water Code section 13267.

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with **Standard Provisions and Reporting Requirements for Waste Discharge Requirements**, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer and in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *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 or the California Department of Public Health's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer.

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 the MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for the requested reduction in monitoring frequency.

A glossary of terms used within this MRP is included on page 10.

POND MONITORING

The main pond for the plant shall be monitored until dry as follows:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	Freeboard ¹	mgd	Observation
Daily	Dissolved Oxygen ²	mg/L	Field
Daily	EC	umhos/cm	Field
Daily	pH	pH units	Field

¹ Freeboard shall be monitored to the nearest tenth of a foot.

² DO samples should be collected opposite the pond inlet between the hours of 0800 and 0900. To minimize the potential for the creation of objectionable odors, the DO content in the upper zone (one foot) of any wastewater pond should not be less than 1.0 mg/L.

EFFLUENT MONITORING

Effluent samples shall be collected at a point in the system following treatment and before discharge to the land application area. Time of collection of the sample shall be recorded. Effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow ¹	mgd	Meter
Weekly	EC	umhos/cm	Grab
Weekly	pH	pH units	Grab
Weekly	BOD ₅ ²	mg/L	24-hour composite
Weekly	TSS	mg/L	24-hour composite
Monthly	Total Kjeldahl Nitrogen (TKN)	mg/L	24-hour composite
Monthly	Ammonia as Nitrogen	mg/L	Grab
Monthly	Nitrate as Nitrogen	mg/L	24-hour composite
Monthly	Total Nitrogen	mg/L	Computed
Monthly	Fixed Total Dissolved Solids (FDS)	mg/L	24-hour composite
Quarterly	General Minerals	mg/L	24-hour composite

¹ Flow shall be measured using a magnetic or ultrasonic flow meter.

² Five-day, 20°C biochemical oxygen demand (BOD₅)

LAND APPLICATION AREA MONITORING

The Discharger shall perform the following routine monitoring and loading calculations for the land application area. Data shall be collected and presented in tabular format and shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	Application field number	N/A	N/A
Daily	Application Area	acres	N/A
Daily	Wastewater flow	mgd	Continuous
Daily	Wastewater loading	Inches/day/acre ¹	Calculated
Daily	Supplemental irrigation	mgd	Estimated
Daily	Precipitation	inches	Rain gage ²
Monthly	Total hydraulic loading rate ³	Inches/month/acre ¹	Calculated
<u>BOD₅ loading rate⁴</u>			
Daily	Day of application	lbs/acre/day	Calculated
Daily	Cycle average	lbs/acre/day	Calculated
<u>Nitrogen loading rate⁵</u>			
Monthly	From wastewater	lbs/acre/month	Calculated
Monthly	From fertilizers	lbs/acre/month	Calculated
Annually	Cumulative nitrogen loading	lbs/acre/year	Calculated
<u>Salt Loading⁵</u>			
Monthly	From Wastewater	lbs/acre/month	Calculated
Annually	Cumulative salt loading	lbs/acre/year	Calculated

¹ Report to the nearest 0.001 inch.

² National Weather Service or CIMIS data from the nearest weather station is acceptable.

³ Combined loading from wastewater, irrigation water, and precipitation.

⁴ BOD₅ loading rates shall be calculated using the applied volume of wastewater, actual application area, and the average of the three most recent results of wastewater BOD₅.

⁵ Nitrogen and salt loadings shall be calculated using the applied volume of wastewater, applied acreage, and average effluent concentrations for total nitrogen and FDS.

In addition, the Discharger shall inspect the land application area on a weekly basis. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in field logs and included as part of the quarterly monitoring reports.

GROUNDWATER MONITORING

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 volumes of standing water within the well casing and screen, or additionally the filter pack pore volume. Samples shall be collected and analyzed for the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	Depth to groundwater	Feet ¹	Measured
Quarterly	Groundwater Elevation	Feet ²	Calculated
Quarterly	pH	pH units	Grab
Quarterly	EC	umhos/cm	Grab
Quarterly	Nitrate as Nitrogen	mg/L	Grab
Quarterly	Nitrite as Nitrogen	mg/L	Grab
Quarterly	TKN	mg/L	Grab
Quarterly	Total Nitrogen	mg/L	Grab
Annually	General Minerals ³	mg/L	Grab
Annually	Iron	mg/L	Grab
Annually	Manganese	mg/L	Grab

¹ To the nearest tenth of a foot.

² To the nearest tenth of a foot above mean Sea Level

³ With the exception of wastewater samples, samples must be filtered. If field filtering is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain-of-custody form) to immediately filter then preserve the sample.

SOURCE WATER MONITORING

For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents utilizing monthly flow data and the most recent chemical analysis conducted in accordance with Title 22 drinking water requirements.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	Flow-Weighted EC	umhos/cm	Computed Average
Annually	General Minerals ¹	mg/L	Grab

¹ With the exception of wastewater samples, samples must be filtered. If field filtering is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain-of-custody form) to immediately filter then preserve the sample.

REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report: **1 May**
Second Quarter Monitoring Report: **1 August**
Third Quarter Monitoring Report: **1 November**
Fourth Quarter Monitoring Report: **1 February**

A transmittal letter shall accompany each monitoring report. The transmittal letter shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

The following information is to be included on all monitoring and annual reports, as well as report transmittal letters, submitted to the Central Valley Water Board:

Discharger Name
Facility Name
MRP Number
Contact Information (telephone number and email)

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements.

In addition to the details specified in Standard Provision C.3, 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.

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

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 California Business and Professions Code sections 6735, 7835, and 7835.1.

At any time henceforth, the State or Central Valley Regional Water Board may notify the Discharger to electronically submit monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>) or similar system. Until such notification is given, the Discharger shall submit hard copy monitoring reports.

A. All Quarterly Monitoring Reports shall include the following:

Wastewater Reporting

1. The results of Pond and Effluent Monitoring specified on page 2.
2. For each month of the quarter, calculation of the maximum daily flow and the monthly average flow.
3. A summary of the notations made in the pond monitoring log during each quarter, if applicable. The entire contents of the log do not need to be submitted.

Land Application Reporting

1. The results of the routine monitoring and loading calculations specified on page 3.
2. For each month of the quarter, calculation of the monthly hydraulic load for wastewater and supplemental irrigation water in millions of gallons to each discrete irrigation area.
3. A summary of the notations made in the LAA monitoring log during each quarter. The entire contents of the log do not need to be submitted.

Groundwater Reporting

1. The results of Groundwater Monitoring specified on page 4. If there is insufficient water in the well(s) for sampling the monitoring well(s) shall be reported as dry for the quarter.

2. For each monitoring well, a table showing groundwater depth, elevation, and constituent concentrations for at least five previous years, up through the current quarter.
3. A groundwater contour map based on groundwater elevations for that quarter. The map shall show the gradient and direction of groundwater flow under/around the facility and/or effluent disposal area(s). The map shall also include the locations of monitoring wells and wastewater discharge areas.

Source Water Reporting

1. The results of Source Water Monitoring specified on page 4. Results must include supporting calculations.

B. Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

Facility Information

1. The names and general responsibilities of all persons in charge of wastewater management.
2. The names and telephone numbers of persons to contact regarding the discharge for emergency and routine situations.
3. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).
4. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.

Solids Reporting

1. Annual production totals solids (excluding trash and recyclables) in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.

- a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
- b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
- c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
- d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.
- e. For animal feed, include: the location of the site, and the Order number of any WDRs that regulate it.

Land Application Area Reporting

1. The type of crop(s) grown, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes (as estimated by technical references or, preferably, determined by representative plant tissue analysis) and tabulate in accordance with Table 1.
2. The monthly and annual discharge volumes during the reporting year expressed as million gallons and inches.
3. A monthly balance for the reporting year that includes:
 - a. Monthly average ET_0 (observed evapotranspiration) – Information sources include California Irrigation Management Information System (CIMIS)
<http://www.cimis.water.ca.gov/>
 - b. Monthly crop uptake
 - i. Crop water utilization rates are available from a variety of publications available from the local University of California Davis extension office.
 - ii. Irrigation efficiency – Frequently, engineers include a factor for irrigation efficiency such that the application rate is slightly greater than the crop utilization rate. A conservative design does not include this value.

MONITORING AND REPORTING PROGRAM R5-2012-0120
OLAM TOMATO PROCESSORS, INC., AND
WESTLAKE FARMS, INC.
OLAM TOMATO PROCESSING LEMOORE PLANT
KINGS COUNTY

- c. Monthly average precipitation – this data is available at <http://www.cimis.water.ca.gov/> or at <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmlprcp.html>.
 - d. Monthly average and annual average discharge flow rate.
 - e. Monthly estimates of the amount of wastewater percolating below the root zone (i.e., amount of wastewater applied in excess of crop requirements).
4. A summary of average and cycle BOD loading rates.
 5. The total pounds of nitrogen applied to the reuse area(s), as calculated from the sum of the monthly loading, and the total annual nitrogen loading to the reuse area(s) in lbs/acre-year.
 6. The total pounds of fixed dissolved solids (FDS) that have been applied to the reuse area(s), as calculated from the sum of the monthly loadings, and the total annual FDS loading to the reuse area(s) in lbs/acre-year.

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

Original signed by:

PAMELA C. CREEDON, Executive Officer

7 December 2012

(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand		
CBOD	Carbonaceous BOD		
DO	Dissolved oxygen		
EC	Electrical conductivity at 25° C		
FDS	Fixed dissolved solids		
NTU	Nephelometric turbidity unit		
TKN	Total Kjeldahl nitrogen		
TDS	Total dissolved solids		
TSS	Total suspended solids		
Continuous	The specified parameter shall be measured by a meter continuously.		
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.		
Daily	Samples shall be collected at least every day.		
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.		
Weekly	Samples shall be collected at least once per week.		
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.		
Monthly	Samples shall be collected at least once per month.		
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months.		
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.		
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.		
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in October.		
mg/L	Milligrams per liter		
mL/L	milliliters [of solids] per liter		
ug/L	Micrograms per liter		
umhos/cm	Micromhos per centimeter		
mgd	Million gallons per day		
MPN/100 mL	Most probable number [of organisms] per 100 milliliters		
General Minerals	Analysis for General Minerals shall include at least the following:		
	Alkalinity	Chloride	Sodium
	Bicarbonate	Hardness	Sulfate
	Calcium	Magnesium	TDS
	Carbonate	Potassium	Nitrate
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.		

Table 1. Land Application Area Monitoring

Recycled Water Monitoring Data For Year: _____							
Parcel No. _____ of _____ acres							
		FDS application			Nitrogen application		
		As fertilizer	As effluent	FDS applied	As fertilizer	As effluent	Total nitrogen applied
Month	Crop	(lbs/acre)	(lbs/acre)	(lbs/acre)	(lbs/acre)	(lbs/acre)	(lbs/acre)
October							
November							
December							
Subtotal:							
January							
February							
March							
Subtotal:							
April							
May							
June							
Subtotal:							
July							
August							
September							
Subtotal:							
Annual Total:							

* calculated as (AF effluent/acre) x (2.72) x (X mg/l total nitrogen) = lbs nitrogen/acre

INFORMATION SHEET

ORDER R5-2012-0120
OLAM TOMATO PROCESSORS, INC., AND
WESTLAKE FARMS, INC.
OLAM TOMATO PROCESSING LEMOORE PLANT
KING COUNTY

Background

Waste Discharge Requirements (WDRs) Order R5-2007-0157 regulates the discharge of tomato processing wastewater from SK Foods, L.P. (SK Foods) Lemoore plant southwest of Lemoore in Kings County. The WDRs authorize a monthly average discharge flow of 4.5 million gallons per day (mgd) to a 2,600-acre disposal area owned by SSC Farms I, LLC and SSC Farms II, LLC (SSC Farms). Wastewater generated at the tomato processing plant consists of fresh pack and food process wastewater. Wastewater is collected in a common sump, screened and sent to a lined aerated pond before being discharge to the land application area (LAA). Order R5-2007-0157 allows the discharge of solids from the settling pond and settling tank to the 2,600-acre parcel. Pomace and tomato hulls area collected and hauled off-site as cattle feed.

In July 2009, Olam Tomato Processor's, Inc. (Olam) a Delaware corporation purchased the tomato processing plant from SK Foods and entered into a lease agreement with SSC Farms where Olam leased only 655 acres of the 2,600 acres owned by SSC Farms. The lease agreement between Olam and SSC Farms ended on 1 July 2012.

In May 2010, Olam submitted a technical report requesting to discharge its tomato processing solid waste to a 13-acre parcel just south of the tomato processing plant, owned by Olam.

On 30 November 2011, BSK Associates Engineers & Laboratories, on behalf of Olam submitted a Report of Waste Discharge (RWD) proposing to discharge its food processing wastewater to a new 995-acre LAA owned by Ceil and Gerri Howe and Westlake Farms, Inc. (Westlake) a California corporation. According to the RWD, approximately 555 acres of land will be irrigated with wastewater and the remaining 440 acres of land will be used as emergency overflow land. Olam subsequently informed the Central Valley Water Board that it will use the entire 995-acre LAA for wastewater disposal.

The easement agreement between Olam and Westlake is for a 10 year period. Westlake agrees to take Olam's wastewater for irrigation use. The easement agreement can be renewed for three additional periods of 10 years.

Groundwater Conditions

The new LAA has a groundwater monitoring well network of three downgradient monitoring wells (MW-20 through MW-22). Monitoring well MW-8 is upgradient of the new LAA and is no longer available to Olam because the well is on property not owned or controlled by Olam.

Based on data from 2007 through 2011, quality of groundwater in the upgradient well MW-8 has an average EC of 13,933 umhos/cm, TDS 9,331 mg/L, sodium of 2,669 mg/L, and chloride of 509 mg/L. Based on data from October 2011, groundwater EC in the downgradient wells ranges from 2,100 umhos/cm to 41,000 umhos/cm, TDS ranges from 1,700 mg/L to 46,000 mg/L, FDS has a range from 1,600 mg/L to 42,000 mg/L, sodium of 230 mg/L to 13,000 mg/L, and chloride of 85 mg/L to 4,800 mg/L.

Generally, groundwater in the area of the new LAA is not of high quality with respect to salinity.

The proposed LAA is tile drained. Groundwater drains to the Westlake Farms south basins, approximately 4 miles southeast of Kettleman City. The operation of the basin is regulated by WDRs 97-263.

Based on data collected since 1985, the quality of drained groundwater into the Westlake basins is of poor quality with EC ranging from 13,140 to 130,000 umhos/cm, total dissolved solids from 13,000 to 49,000 mg/L, sodium from 2,450 to 13,600 mg/L, and chloride from 1,790 to 11,000 mg/L. Based on the character and loading rates of the tomato waste applied to the LAA (Findings 12 and 13) no changes are expected in the character of the drain water.

Basin Plan, Beneficial Uses, and Regulatory Considerations

The Basin Plan identifies the greatest long-term water quality problem facing the entire Tulare Lake Basin as increasing salinity in groundwater, a process accelerated by man's activities and particularly affected by intensive irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including the following limits:

- a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC of the effluent discharged to land shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
- b. Discharges to areas that may recharge good quality groundwater shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.

The Basin Plan authorizes exemption for food processing industries that discharge to land and exhibit a disproportionate increase in EC of the discharge over the EC of the source water due to unavoidable concentrations of organic dissolved solids from the raw food product, provided that beneficial uses are protected. Exceptions shall be based on demonstration of best available technology and best management practices that control inorganic dissolved solids to the maximum extent feasible.

The discharge is not in an area that overlies good quality groundwater with respect to salinity.

Antidegradation

Constituents of concern in the discharge that have the potential to degrade groundwater include salts and nutrients. Ambient water quality in the vicinity of the tomato processing plant is of poor quality. This Order establishes terms and conditions that ensure that the discharge will not unreasonably affect present and anticipated uses of groundwater, or, where baseline conditions are not sufficient to support the designated beneficial uses, will not degrade groundwater.

CEQA

The Central Valley Water Board acted as the lead agency for the proposed project pursuant to the California Environmental Quality Act (CEQA). Central Valley Water Board prepared an Initial Study and Negative Declaration for the discharge of tomato processing wastewater to a new land application area. On 7 December 2012, the Regional Water Board adopted Resolution R5-2012-0119.

Title 27

Unless the Board finds that the discharge of designated waste is exempt from Title 27 of the California Code of Regulations, the release of designated waste is subject to full containment requirements. Here, the discharge is exempt from the requirements of Title 27 pursuant to the wastewater and reuse exemptions found at Title 27, sections 20090(b) and (h).

Proposed Order Terms and Conditions

Discharge Prohibitions, Specifications and Provisions

The proposed Order prohibits the discharge of waste to surface waters and to surface water drainage courses.

The proposed Order restricts the Discharger to a monthly average daily flow limit of 4.5 mgd. The proposed Order would set an Effluent Limitation on BOD loading of 100 lbs/acre/day, seasonally and over any particular discharge cycle.

The proposed Order prescribes groundwater limitations that ensure the discharge does not affect present and anticipated beneficial uses of groundwater or contributes to the degradation natural background water quality.

The proposed Order includes provisions that require the Discharger to submit a Work Plan for the installation of an upgradient groundwater monitoring well.

Monitoring Requirements

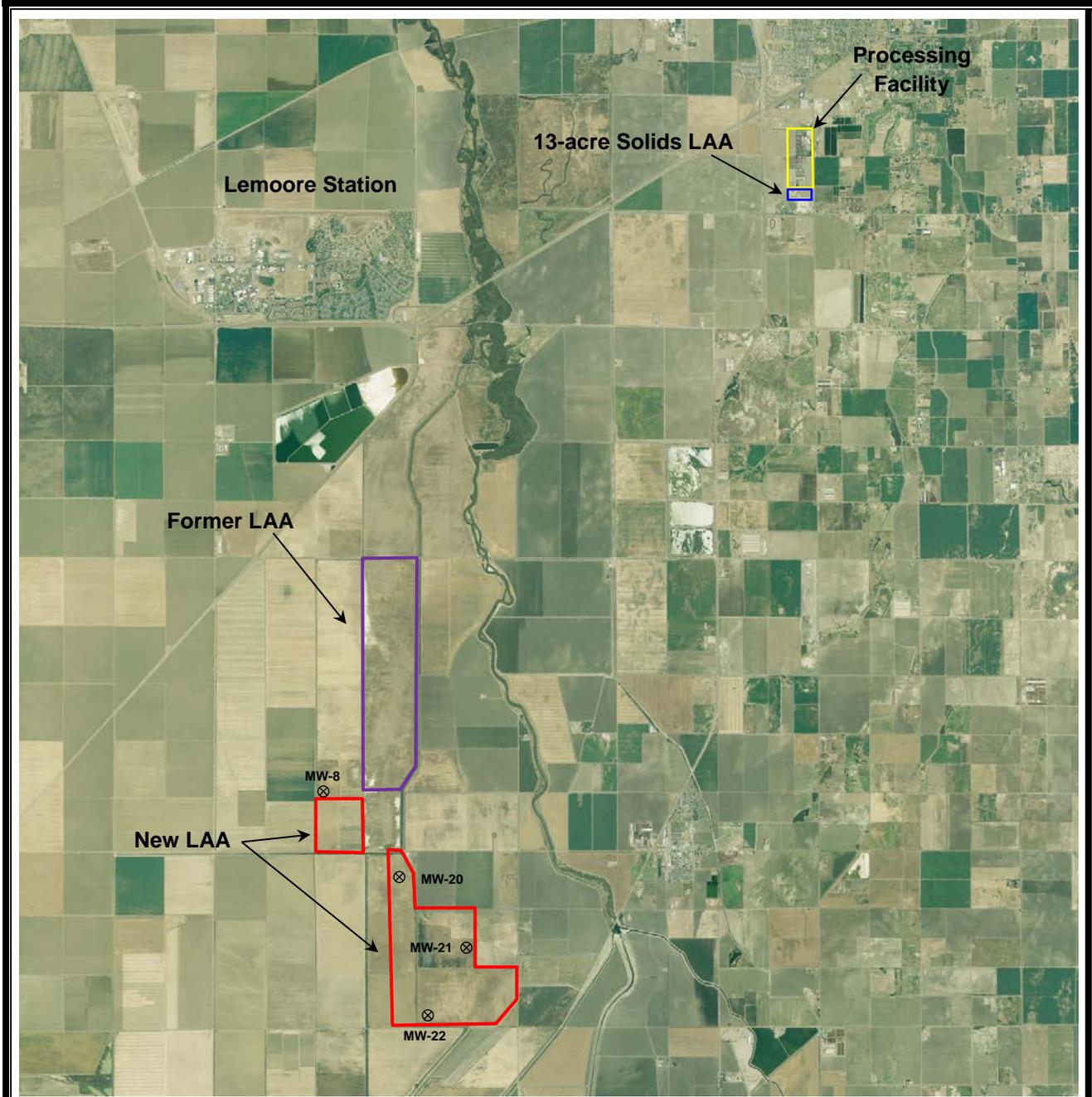
Section 13267 of the Water Code authorizes the Central Valley Water Board to require the Discharger to submit monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. In recent years, there has been an increased

emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving dischargers' accountability for meeting the conditions of discharge.

The proposed Order includes pond monitoring, effluent monitoring requirements, land application area monitoring, groundwater monitoring, and source water monitoring. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations prescribed by the Order, and evaluate groundwater quality and the extent of degradation, if any, caused by the discharge.

Reopener

The conditions of discharge in the proposed 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. It may be appropriate to reopen the Order if new technical information is received or if applicable laws and regulations change.



Map Source:

NAIP Aerial Photograph (2005)

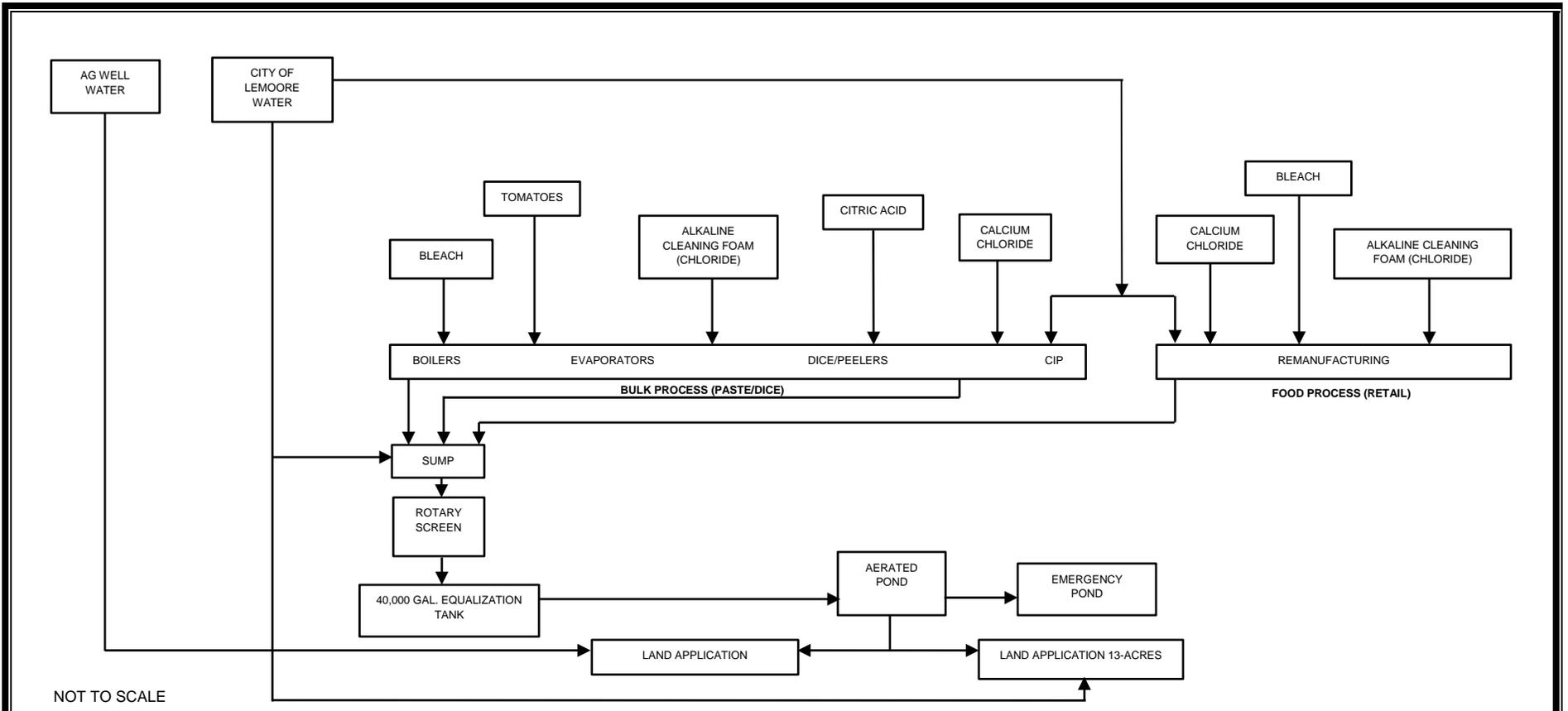


Not to Scale

FACILITY MAP

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0120
 FOR
 OLAM TOMATO PROCESSORS, INC., AND
 WESTLAKE FARMS, INC.
 OLAM TOMATO PROCESSING LEMOORE PLANT
 KINGS COUNTY

ATTACHMENT A



FLOW SCHEMATIC

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0120
 FOR
 OLAM TOMATO PROCESSORS, INC., AND
 WESTLAKE FARMS, INC.
 OLAM TOMATO PROCESSING LEMOORE PLANT
 KINGS COUNTY

ATTACHMENT B

WASTE DISCHARGE REQUIREMENTS R5-2012-0120
ATTACHMENT C
STANDARD REQUIREMENTS FOR
MONITORING WELL INSTALLATION WORK PLANS AND
MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a work plan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approve the work plan. Upon installation, the Discharger shall submit a well installation report that includes the information contained in Section 2, below. All work plans and reports must be prepared under the direction of, and certified by, a California registered geologist or civil engineer.

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

The monitoring well installation work plan shall contain, at a minimum, the following 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 water bodies and drainage courses, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Cuttings disposal methods
- Soil sampling intervals (if appropriate); logging methods; number and location of soil samples and rationale; and sample collection, preservation, and analytical methods

C. Monitoring Well Design (in graphic form with rationale provided in narrative 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, a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities, shall contain, at a minimum, a detailed written description of standard operating procedures for:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- 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
 - General sampling techniques
 - Record keeping during sampling (include copies of record keeping logs to be used)
 - 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 work plan.

A. General Information:

- Purpose of the well installation project
- Number of monitoring wells installed and identifying label(s) for each
- Brief description of geologic and hydrogeologic conditions encountered during well installation
- Topographic map showing facility location, roads, surface water bodies
- Large-scaled site map showing all previously existing wells, newly installed wells, surface water bodies and drainage courses, 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
- Well boring log (provide for each well)
 - Well boring number and date drilled
 - Borehole diameter and total depth
 - Total depth of open hole (i.e., total depth drilled if no caving or back-grouting occurs)
 - Depth to first encountered groundwater and stabilized groundwater depth
 - Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (provide for each well):

- Well construction diagram including:
 - Monitoring well number and date constructed
 - Casing and screen material, diameter, and centralizer spacing (if needed)
 - Length of well casing
 - Length and position of slotted casing and size of perforations
 - Thickness, position and composition of surface seal, sanitary seal, and sand pack

- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development (provide for each well):

- Date(s) and method of development
- How well development completion was determined
- Volume of water purged from well and method of development water disposal

F. Well Survey (provide for each well):

- Reference elevation at the top rim of the well casing with the cap removed (feet above mean sea level to within 0.01 foot)
- Ground surface elevation (feet above mean sea level to within 0.01 foot)
- Horizontal geodetic location, where the point of beginning shall be described by the California State Plane Coordinate System, 1983 datum, or acceptable alternative (provide rationale)
- Present the well survey report data in a table

G. Water Sampling:

- | | |
|---|-----------------------------------|
| Date(s) of sampling | Sample identification |
| How well was purged | Analytical methods used |
| How many well volumes purged | Laboratory analytical data sheets |
| Levels of temperature, EC, and pH at stabilization | Water level elevation(s) |
| Sample collection, handling, and preservation methods | Groundwater contour map |

H. Soil Sampling (if applicable):

- Date(s) of sampling
- Sample collection, handling, and preservation methods
- Sample identification
- Analytical methods used
- Laboratory analytical data sheets
- Present soil sampling data in a table

I. Well Completion Report(s) (as defined in California Water Code §13751). Blank forms are available from California Department of Water Resources' website www.water.ca.gov. Submit this section under separate cover.

J. Appendix - include, at a minimum, copies of the following:

- County-issued well construction permits
- Registered engineer or licensed surveyor's report and field notes
- Field notes from well development