

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-0042
FOR
WAWONA PACKING CO., LLC
CUTLER FRUIT PACKING PLANT
TULARE COUNTY

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

1. Wawona Packing Co., LLC, a California based partnership (hereafter Wawona or Discharger), operates a fruit packing Plant (Plant) at 12133 Avenue 408 near the community of Cutler in Tulare County. The Plant lies in the northwest corner of the northwest corner of Section 19, T16S, R25E, MDB&M, as shown on [Attachment A](#), which is attached hereto and made part of this Order by reference.
2. The processing areas of the Plant consist of bin rooms for fruit washing, pre-cooling, and separation of blemished fruit; stem and leaf removal lines; a culled fruit hopper; conditioning room for ripening fruit; cold storage rooms; and loading and unloading areas. The Plant includes offices and conference rooms, a maintenance area for forklifts and other machinery, and a fruit box manufacturing room. Wastewater generated by fruit processing (washing fruit and equipment) is collected and diverted to two unlined wastewater ponds on the east side of the Plant.
3. Fruit packing activities at the Plant occur during two intervals during the year. From approximately May 1 to October 15 (153 days), stone fruit such as peaches, plums, apricots, and nectarines are packed. During the stone fruit season, the Plant operates 12 hours per day, packing about 364 tons of fruit per day, with an average wastewater discharge of approximately 43,200 gallons per day. From approximately October 15 to April 15 (170 days), citrus fruit including oranges and tangerines are packed. During the citrus season, the Plant operates 9 hours per day, packing about 208 tons of fruit per day, with an average wastewater discharge of 6,530 gallons per day. Wawona generates about 150 gallons per day of wastewater from general Plant cleaning activities.
4. Leaves, stems, and other dry solids are stored in bins for collection by Pena's Disposal service, across Avenue 408 from the Plant. Culled fruit is conveyed to a hopper where the fruit is loaded into dump trucks and transported to hog farms for feed. Drainage from the culled fruit hopper empties into the wastewater ponds.
5. Wawona submitted a Report of Waste Discharge (RWD) in March 2008 in support of wastewater discharge to a pond. Another technical report submitted in November 2008 described use of the same pond as a wastewater storage reservoir and application of wastewater on a cropped Use Area. In December 2011, Wawona informed staff that it purchased adjacent properties, on which it had begun discharging

to newly-constructed replacement storage ponds and proposed to expand its Use Area from 4.2 acres to 7.6 acres. To avoid interference with operation of the onsite domestic wastewater treatment system, the Use Area boundary includes a 10-foot lateral setback around the leach field, as shown on Attachment A.

6. The wastewater ponds have a combined capacity of 6 acre-ft (1.95 million gallons) with 3 feet of freeboard. The identical ponds are approximately 275 feet long and 110 feet wide, oriented north to south along the eastern boundary of the property, adjacent to Sand Creek to the south. They are constructed entirely below grade, with 2:1 side slopes to a depth of 9 feet.
7. The 7.6-acre Use Area will be planted with sudan grass. The Use Area is bounded by Avenue 408 to the north, Road 120 to the west, the west side of the Plant to the east, and a residential property (owned by Wawona) to the south.
8. The Plant and discharge locations span two parcels (Assessor's Parcel Numbers 032-050-002 and 032-050-039), which are together about 47 acres. The parcels are zoned M-1 (Light Industrial) and C-3 (Service Commercial). The designated uses are consistent with Wawona's operations.
9. There is limited analytical data for most wastewater constituents. Samples were collected and analyzed as part of the technical report for the Report of Waste Discharge and for inspections by Central Valley Water Board staff. The Discharger has voluntarily performed monthly monitoring for select constituents. The table below presents a summary of wastewater data in the record, which is generally an average of all data collected since 2008 for each constituent (see footnotes for details):

<u>Constituents</u>	<u>Units</u>	<u>Results</u>
Boron	mg/L	0.059 ¹
Biochemical Oxygen Demand	mg/L	53 ²
Total Suspended Solids	mg/L	38
Hardness (equiv. CaCO ₃)	mg/L	230 ³
pH	std.	7.6
Chloride	mg/L	45 ³
Sodium	mg/L	79 ¹

<u>Constituents</u>	<u>Units</u>	<u>Results</u>
Specific Conductance	umhos/cm	550
Total Dissolved Solids	mg/L	510 ³
Nitrate (as N)	mg/L	1.5
Total Kjeldahl Nitrogen	mg/L	4.2
Total Nitrogen	mg/L	5.2

¹ Analytical results from a single grab sample collected by staff during an inspection.

² Includes a BOD result of 370 mg/L (>20 standard deviations larger than the mean BOD of 22 mg/L without the outlier) for a sample which was analyzed outside of the acceptable hold time.

³ Based on results from only three samples (Feb – Mar 2008).

10. Soaps and sanitizing solutions used in washing, packing, and equipment cleaning enter the wastewater stream. Some chemicals may be present in significant quantities, including ethylene glycol monobutyl ether (EGBE). However, EGBE is expected to biodegrade rapidly in soil. It is appropriate to require monitoring of the wastewater pond effluent for cleaning and sanitizing agents to better assess their threat to water quality.
11. High concentrations of chlorine (50 milligrams per liter) used in citrus processing may produce disinfection byproducts like trihalomethanes. Generally, disinfection byproducts are not a concern for land discharges because studies show attenuation in the soil column (primarily by anaerobic biodegradation). Nonetheless, it is appropriate to require monitoring for disinfection byproducts in wastewater to verify the anticipated low threat to groundwater.
12. The wastewater ponds are unlined. Soil at depth beneath the ponds has not been characterized nor has hydraulic conductivity been measured. Wawona reportedly encountered a hard, clayey soil at a depth of approximately 20 feet during construction of its old wastewater pond, which is now out of service. Wawona used an estimated seepage of about 0.2 inches per day for the water balance in the Report of Waste Discharge.
13. Domestic wastewater from the Plant is discharged separately to a leachfield system, regulated by the Environmental Health Division of the Tulare County Health and Human Services Agency.
14. Wawona discharges stormwater and Plant cooling water from a collection basin south of the plant into adjacent Sand Creek under Order R5-2008-0081/NPDES Permit No. CAG995001, *General Waste Discharge Requirements/NPDES Permit for Dewatering and Other Low Threat Discharges to Surface Waters*.
15. The Discharger applies stormwater and cooling water from the collection basin as supplemental irrigation water in the Use Area to meet crop requirements.

Site-Specific Conditions

16. The Plant and Use Area are in an arid climate characterized by hot dry summers and mild winters. The rainy season generally extends from November through April. Occasional rains occur during the spring and fall months, but summer months are dry. Average annual precipitation in the area is about 12.65 inches according to information published by the Western Regional Climate Center for Orange Cove. The evaporation (Class 'A' pan) is about 67.8 inches, according to the California Department of Water Resources (data collected in Fresno). The California Irrigation Management Information System (CIMIS) database reports an annual average potential evapotranspiration (ET_o) of 53.3 inches for nearby Orange Cove.
17. United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps characterize approximately the top six feet of soil. Soils in the Use Area are a Hanford sandy loam. Hanford sandy loam has a saturated hydraulic conductivity between 2.0 and 6.0 inches per hour. Soils underlying the Plant and in the vicinity of the wastewater ponds and stormwater basin are Exeter loam. Exeter loam has a saturated hydraulic conductivity between 0.20 and 0.57 inches per hour. Both soils series' are described as nonsaline, well drained alluvium from granitic rock sources. The land capability classification of the Exeter and Hanford series soils for irrigation are III-s and I, respectively. Exeter soils have a layer of duripan (hardpan) at a depth of 20 to 40 inches, which can affect the feasibility of irrigated agriculture. The soils pose no other significant use restrictions.
18. South of the Plant is the Cutler-Orosi Joint Powers Authority Wastewater Treatment Facility (Cutler-Orosi WWTF). West of the Plant is farmland where effluent from the Cutler-Orosi WWTF is reclaimed as irrigation water for sudan grass. Across Avenue 408 to the north is Pena's Disposal, Inc., a solid waste (including green waste) transfer station and recycling center and another industrial facility is northwest (across Road 120). According to a 1999 land use survey from the Department of Water Resources, the broader surrounding area includes urban areas (mostly residential in the community of Cutler) and varied agricultural land uses including fruit and nut trees, field crops, truck crops (including onions and berries), pasture, and vineyards.
19. Federal Emergency Management Agency (FEMA) map number 06107C0345E for Tulare County (effective 16 June 2009) shows the Plant is in an area subject to flooding by a 100-year flood (the 1% annual chance flood). The anticipated flood depth is up to 3 feet.

Groundwater Considerations

20. Regional groundwater underlying the area is first encountered at about 30 feet below ground surface (bgs) and flows southwestward according to groundwater monitoring reports from the Cutler-Orosi WWTF. The reports agree with information in Lines of Equal Elevation of Water in Wells, Unconfined Aquifer, published by DWR in Spring

2009. According to data from nearby wells, the groundwater surface elevation fluctuates significantly with time from depths up to 40 feet bgs to less than 5 feet bgs.

21. Typical of groundwater on the east side of the San Joaquin Valley recharged from the granitic formations of the Sierra Nevada Mountains, groundwater in the area is relatively good quality, with low salinity, hardness, and metals. The table below summarizes data from Monitoring Well MW-A, part of the Cutler-Orosi WWTF groundwater monitoring well network. Groundwater appears from the data to have been degraded in recent years by unknown sources, likely unrelated to Wawona's discharge.

<u>Constituent</u>	<u>Units</u>	<u>1996 - 2004</u>		<u>2005 - 2011</u>	
		<u>Average</u>	<u>Range</u>	<u>Average</u>	<u>Range</u>
Sodium	mg/L	17	8.0 - 53	15	12 - 24
Chloride	mg/L	9.0	5.0 - 13	46	21 - 63
EC	umhos/cm	450	380 - 511	620	490 - 720
Nitrate-N	mg/L	5.8	4.0 - 9.5	10	8.4 - 13
TKN	mg/L	< 0.5	< 0.5 - 1.0	1.1	< 0.05 - 2.7
Total Nitrogen	mg/L	6.0	4.0 - 9.5	11	8.9 - 14

22. A sample of raw source water from the onsite supply well contained 0.81 ug/L dibromochloropropane (DBCP), which exceeds the California Primary Maximum Contaminant Level of 0.2 ug/L. DBCP is a banned nematicide that is relatively resistant to degradation and remains in groundwater from historical agricultural uses in the area. Wawona installed a carbon filtration system which it uses to treat water from its well prior to distribution.

Basin Plan, Beneficial Uses, and Water Quality Objectives

23. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004* (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 requirements implement the Basin Plan.
24. The Plant and discharge are in Detailed Analysis Unit (DAU) No. 239, within the Kings Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in the DAU as municipal and domestic supply, agricultural supply, and industrial service and industrial process supply.
25. The Plant and discharge are in the Alta Hydrologic Area (No. 551.60) of the South Valley Floor Hydrologic Unit, as depicted on interagency hydrologic maps prepared by

the State Water Resources Control Board and the Department of Water Resources, revised in August 1986.

26. 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, plant, animal, 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.
27. The Basin Plan Chemical Constituents water quality objective requires, at a minimum, waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of CCR. 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.
28. 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 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.
29. Basin Plan encourages the reuse of wastewater and identifies crop irrigation as a reuse option where the opportunity exists to replace an existing or proposed use of fresh water with recycled water.
30. Sand Creek, which is adjacent to the Plant to the south, is a water of the United States. It is an intermittent stream that carries local storm water runoff southerly to Cottonwood Creek. Cottonwood Creek flows into Cross Creek, which flows to the Tule River. Sand Creek is usually dry during the summer.
31. Sand Creek is a Valley Floor Water and such waters have been designated to have beneficial uses of:

- a. Agricultural supply (AGR);
 - b. Industrial service supply (IND);
 - c. Industrial process supply (PRO);
 - d. Water contact recreation (REC-1);
 - e. Non-contact water recreation (REC-2);
 - f. Warm freshwater habitat (WARM);
 - g. Wildlife habitat (WILD);
 - h. Rare, threatened, or endangered species (RARE); and
 - i. Groundwater recharge (GWR).
32. This Order prohibits discharge of wastewater and stormwater containing wastewater into Sand Creek, except as authorized by Order R5-2008-0081/NPDES Permit No. CAG995001.

Antidegradation Analysis

33. State Water Board Resolution No. 68-16, the *Policy with Respect to Maintaining High Quality Water of the State* (the "Antidegradation Policy"), prohibits the Board from permitting the 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; and
 - d. The degradation is consistent with the maximum benefit to the people of the state.

34. Constituents of concern in the discharge (those with the greatest potential to affect beneficial uses of receiving water) include salts and sanitizing chemicals.
- a. The EC of the discharge (550 umhos/cm) is greater than the baseline EC of first encountered groundwater (450 umhos/cm). However, the average discharge EC is less than the Basin Plan limit of 500 umhos/cm over supply water EC and the discharge will not cause groundwater to exceed even the most stringent water quality goals for applicable groundwater use designations (e.g. 700 umhos/cm commonly associated with the AGR beneficial use).
 - b. The sodium and chloride concentrations in the discharge are greater than the baseline concentrations in groundwater. The Chemical Constituents and Toxicity narrative objectives for groundwater, as they apply to preservation of the AGR beneficial use, are the most limiting for these constituents. The wastewater quality table in [Finding 9](#) seems to suggest that the unlined pond discharge has potential to cause groundwater to contain sodium above the most stringent published water quality goal for sodium of 69 mg/L. However, the single wastewater sample result for sodium (79 mg/L) corresponds with a single concurrent EC reading of 760 umhos/cm. Because the EC of the wastewater is generally much lower than that, it is reasonable to expect a lower concentration of sodium in the wastewater. Combined with dilution provided by supplemental irrigation water and requirements in this Order (Provision G.14) to implement a salinity management plan, sodium is unlikely to cause degradation that would adversely affect beneficial uses. Degradation with chloride does not threaten to cause groundwater to exceed any applicable water quality objective.
 - c. Based on the reported usage of various chemical products, wastewater may contain fungicides, cleaning agents, and disinfection byproducts. The amount of these chemicals in wastewater has not been quantified. However, the concentrations are generally expected to be low. Biodegradation, volatilization, and soil adsorption are expected to limit degradation in terms of these constituents to acceptable levels. It is appropriate to monitor the effluent for these constituents to better characterize their potential for impacts on water quality.
 - d. Regarding organic loading rates, instantaneous loading rates to the Use area are less than 5 lbs BOD/acre/day. The *Manual of Good Practice for Land Application of Food Processing/Rinse Water*, a report commissioned by the California League of Food Processors, suggests organic loading less than 50 lbs BOD/acre/day (given even distribution) is de minimis and indistinguishable from common agronomic conditions. The manual specifies the lowest Risk Category of 1 for this loading rate. To prevent creation of nuisance conditions, the USEPA recommends application of no more than 100 lbs BOD/acre/day in publication No. 625/3-77-007, *Pollution Abatement in*

the Fruit and Vegetable Industry. The discharge is not expected to cause groundwater degradation or nuisance conditions due to organic loading.

Treatment and Control Practices

35. The Discharger will provide treatment and control of the discharge that incorporates:
- a. Use of cleaners with potassium hydroxide rather than sodium hydroxide;
 - b. Minimal fungicide concentrations in wastewater because the fruit packing process is intended to maximize the efficiency with which fungicide is applied to the fruit to reduce costs;
 - c. Use of chemical products according to intended use described on labels;
 - d. Implementation of the Salinity Control Plan required by [Provision G.14](#) of this Order;
 - e. Settling of suspended solids in the wastewater pond;
 - f. Recycling of wastewater for crop irrigation; and
 - g. Source water and discharge monitoring required by Monitoring and Reporting Program [R5-2012-0042](#), a part of this Order.
36. The treatment and control measures described above in [Finding 35](#) represent a higher level of water quality protection measures than those employed by comparable food processing facilities in the Central Valley, and the Board finds that these treatment and control measures represent BPTC for the Plant.

Antidegradation Conclusions

37. 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 the water quality objectives set forth in the Basin Plan.
38. Wawona aids in the economic prosperity of the region by direct employment of about 75 people from October through April and 500 people from May to October, and provides 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. This degradation will not result in a violation of the water quality standards contained in the Basin Plan.
39. These WDRs are consistent with the Antidegradation Policy since: (a) Wawona has implemented BPTC to minimize degradation, (b) the 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.

CEQA

40. Wawona has operated the Plant since 2000, and the structures associated with the Plant, including the ponds and the Use Area, have been installed and/or have been operational since December 2011. These features have been deemed to be consistent with Tulare County's land use policies, and Wawona has not been required to obtain a discretionary permit prior to installing and operating the current Plant features.
41. The Plant and its associated structures have already been installed and are currently in use. This Order places additional regulatory requirements on the continued use of the Plant. These requirements are being prescribed to ensure the continued protection of the environment. This action is therefore exempt from the provisions of the California Environmental Quality Act ("CEQA"), in accordance with California Code of Regulations, title 14, section 15301, which exempts the "operation, repair, maintenance, [and] permitting of existing public or private structures, facilities, mechanical equipment, or topographical features" from environmental review. This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.).

Designated Waste and Title 27

42. 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 a provision that exempts 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 regional water quality control board has issued WDRs, reclamation requirements, or waived such issuance;
 - (2) The discharge is in compliance with 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.

43. The discharge authorized herein is exempt from the requirements of Title 27 in accordance with Title 27, section 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 Use Area does not need to be managed as hazardous waste.

Other Regulatory Considerations

44. The annual fee for the discharge is based on a Threat to Water Quality rating of 2 and Complexity of B (Cal. Code Regs., tit. 23, § 2200.). The Threat rating is based on the potential of the discharge to degrade groundwater beyond water quality objectives protective of beneficial uses. The Complexity rating is based on the use of the wastewater pond and reuse of the wastewater, which are forms of physical and biological treatment that add complexity to staff assessment.

General Findings

45. 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.
46. Water Code section 13267(b) states that:
- 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 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 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 Central Valley Water 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.
47. The technical reports required by this Order and monitoring reports required by the attached MRP R5-2012-0042 are necessary to assure compliance with these waste discharge requirements. The Discharger operates the Plant that discharges the waste subject to this Order.
48. The DWR sets standards for the construction and destruction of groundwater wells, 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 CWC section 13801, apply to all monitoring wells.

49. 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 conditions of discharge in this Order.

Public Notice

50. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
51. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that, pursuant to sections 13263 and 13267 of the Water Code, Wawona Packing Co., LLC, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. Discharge of waste, including storm water containing waste, to surface waters or surface water drainage courses is prohibited, except as authorized by Order R5-2008-0081/NPDES Permit No. CAG995001.
2. Bypass or overflow of untreated wastes, except as allowed by [Standard Provisions E.2](#) in *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, is prohibited.
3. Discharge of waste classified as 'hazardous', as defined in section 2521(a) of title 23, CCR, section 2510 et seq., is prohibited. 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. Discharge of wastewater in a manner or location other than that described herein is prohibited.
5. Storage of solids on areas without means to prevent leachate generation and infiltration into the ground is prohibited.

B. Effluent Limitations

1. The discharge shall not have a pH less than 6.5 or greater than 9.0.
2. Discharge shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>
EC ¹	umhos/cm	1,000
Chloride	mg/L	175
Boron	mg/L	1

¹ Specific conductance

3. The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 umhos/cm. Compliance with this effluent limitation shall be determined monthly.

C. Discharge Specifications

1. The monthly discharge flow rate shall not exceed an average of 44,000 gallons per day (gpd) for the months of May through October (the stone fruit packing season) or 7,000 gallons per day (gpd) for the months of November through April (the citrus packing season).
2. 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 Groundwater Limitations of this Order.
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 land application areas 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 units 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 Plant or the Use Area at an intensity that creates or threatens to create nuisance conditions.

8. Wastewater storage ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the winter. 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.
9. On or about 1 October of each year, the available storage pond capacity shall at least equal the volume necessary to comply with [Discharge Specification C.8](#).
10. All ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.
 - c. Dead algae, vegetation and other 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. The Discharger shall monitor solids accumulation in the wastewater treatment/storage ponds, and shall periodically remove solids as necessary to maintain adequate treatment and storage capacity.

D. Use Area Specifications

1. For the purpose of this Order, "Use Area" means an area with defined boundaries where wastewater is used or discharged.
2. The perimeter of the Use Area shall be graded to prevent ponding along public roads or other public areas and prevent runoff or overspray onto adjacent properties not owned or controlled by the Discharger.
3. Discharger shall maintain a 10-foot setback between the Use Area and the leach field for the onsite domestic wastewater system serving the Plant.
4. Crops shall be grown on the Use Area. Crops shall be selected based on nutrient uptake, consumptive use of water, and irrigation requirements to maximize crop uptake.

5. Hydraulic loading of wastewater and irrigation water shall be at reasonable agronomic rates designed to minimize the percolation of wastewater and irrigation water below the root zone (i.e., deep percolation).
6. Application of waste constituents shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management. The annual nutritive loading to the Use Area, including the nutritive value of organic and chemical fertilizers and of the wastewater, shall not exceed the annual crop demand.
7. The resulting effect of the discharge on soil pH shall not exceed the buffering capacity of the soil profile.
8. The Discharger may not discharge process wastewater to the Use Areas within 24 hours of a storm event of measurable precipitation or when soils are saturated.
9. The Use Area shall be managed to prevent breeding of mosquitoes. More specifically:
 - a. All applied irrigation water must infiltrate completely within 48-hours;
 - b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and
 - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.

E. Solids Specifications

1. Any handling and storage of residual solids on property of the Discharger shall be temporary, and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
2. Collected screenings 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, rendering plants, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements adopted by a regional water quality control board will satisfy this specification.
3. 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.

F. Groundwater Limitations

1. Release of waste constituents from any treatment, reclamation or storage component associated with the discharge shall not cause or contribute to groundwater:
 - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:
 - (i) Nitrate (as N) of 10 mg/L.
 - (ii) For constituents identified in Title 22, the MCLs quantified therein.
 - b. Containing taste or odor-producing constituents, toxic substances, or any other chemical constituents in concentrations that cause nuisance or adversely affect beneficial uses.

G. Provisions

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions), which are part of this Order.
2. The Discharger shall comply with MRP R5-2012-0042, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
3. 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.
4. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the appropriate Central Valley Water Board office (currently, the Fresno office).
5. To assume operation 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 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 California 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.

6. The Discharger shall keep at the Plant a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
7. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
8. The Discharger must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger only when the operation is necessary to achieve compliance with the conditions of this Order.
9. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
10. The Discharger shall maintain and operate surface impoundments sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. 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 shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard.
11. 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.

12. The Discharger shall submit the technical reports and work plans required by this Order for Central Valley Water Board staff consideration and incorporate comments they may have in a timely manner, as appropriate. The Discharger shall proceed with all work required by the following provisions by the due dates specified.
13. All technical reports and work plans required herein 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. As required by these laws, completed technical reports and work plans must bear the signature(s) and seal(s) of the registered professionals(s) in a manner such that all work can be clearly attributed to the professional responsible for the work. All reports required herein are required pursuant to Water Code section 13267.
14. **By 4 December 2012**, Wawona shall submit a Salinity Control Plan, with salinity source reduction goals and an implementation time schedule for Executive Officer approval. The control plan should identify any additional methods that could be used to further reduce the salinity of the discharge to the maximum extent feasible, include an estimate on load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement various elements in the salinity control plan. The Discharger shall implement the plan in accordance with the approved schedule.
15. **By 4 December 2012**, Wawona shall submit a technical report, prepared by a qualified civil engineer licensed to practice in California, demonstrating that it complies with Discharge Specification C.4 and C.6. The technical report must include a description of specific design features and operation and maintenance practices that will prevent inundation or washout for all conveyance, treatment, storage, and disposal units due to floods with a 100-year return frequency.
16. **By 5 October 2012**, Wawona shall submit a revised water balance, prepared by a qualified civil engineer licensed to practice in California. At a minimum, the water balance must account for all water inputs to and outputs from the Plant on a monthly basis, showing the wastewater storage requirement based on the maximum accumulation of wastewater in the ponds during a 100-year return period wet year.
17. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for potential constituents.

18. 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, and may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs 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, section 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 filling 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 8 June 2012.

Original signed by:

PAMELA C. CREEDON, Executive Officer

Order Attachments:

A Site Location Map
Monitoring and Reporting Program R5-2012-0042
Information Sheet
Standard Provisions (1 March 1991)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-0042
FOR
WAWONA PACKING CO., LLC
CUTLER FRUIT PACKING PLANT
TULARE COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to California Water Code (CWC) 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 or 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 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 within this MRP is included on [page 9](#).

DISCHARGE MONITORING

Discharge samples shall be collected at a point in the wastewater disposal system after commingling of all the waste streams and before discharge to the wastewater ponds and Use Area. Time of collection of the sample shall be recorded. Discharge monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Monthly	pH	pH Units	Grab
Monthly	EC	umhos/cm	Grab
Quarterly	BOD ₅	mg/L	Grab
Quarterly	TSS	mg/L	Grab
Quarterly	TDS	mg/L	Grab
Quarterly	Sodium	mg/L	Grab
Quarterly	Chloride	mg/L	Grab
Quarterly	Nitrate as N	mg/L	Grab
Quarterly	TKN	mg/L	Grab
Quarterly	Ammonia	mg/L	Grab
Quarterly	Total Nitrogen	mg/L	Computed
Annually	General Minerals	mg/L	Grab
Quarterly ¹	Industrial Chemicals ²	mg/L	Grab

¹ For the first year of this Monitoring and Reporting Program during periods when industrial chemicals are being used during processing. Every five years following the first year.

² Industrial Chemicals shall consist of chemicals Wawona uses on a regular basis at the Plant, including ethylene glycol monobutyl ether, sodium dodecylbenzene sulfonate, fungicides (Fludioxonil, Imazalil, and Thiabendazole), and disinfection byproducts (trihalomethanes, haloacetic acids, and trichlorophenol).

POND MONITORING

Permanent markers (e.g. staff gauges) shall be placed in all ponds. The markers shall have calibrations indicating the water level at design capacity and available operational freeboard. Wastewater pond monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	Freeboard	Feet ¹	Grab
Weekly	Dissolved Oxygen	mg/L	Grab
Annually ²	Solids Depth ³	Feet ¹	Grab

¹ To nearest tenth of a foot

² In October

³ Thickness of settled solids at the bottom of the pond

The Discharger shall inspect the condition of the wastewater pond weekly and record observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether grease, dead algae, vegetation, scum, or debris are accumulating on the pond surface and their location; whether odors are emanating from the pond and their strength (e.g. pungent sour smell noticeable from 100 feet away, mild organic odor at pond surface, etc.); whether burrowing animals or insects are present; and the color of the wastewater (e.g., dark green, dull green, yellow, gray, tan, brown, etc.). A summary of the entries made in the log shall be included in the subsequent monitoring report.

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.

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

USE AREA MONITORING

The Discharger shall perform the following routine monitoring and loading calculations for each discrete irrigation area within the Use 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 Area	acres	n/a
Daily	Wastewater flow	gallons	Estimated
Daily	Wastewater loading	inches/day	Calculated
Daily	Supplemental irrigation	gallons	Estimated
Daily	Precipitation	inches	Rain gage ¹
Monthly	Total Hydraulic Loading ²	inches/acre-month	Calculated

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

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

In addition, the Discharger shall inspect the Use 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.

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 Plant 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 any report transmittal letters, submitted to the Central Valley Water Board:

Wawona Packing Co., LLC
Cutler Fruit Packing Plant
R5-2012-0042
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 discharge and pond monitoring specified on [page 2](#).
2. For each month of the quarter, calculation of the maximum daily flow, monthly average flow, and cumulative annual flow.
3. For each month of the quarter calculate the 12-month rolling average EC of the discharge and compare it to the 12-month average EC of the source water.
4. A summary of the notations made in the pond monitoring log during each quarter. The entire contents of the log do not need to be submitted.

Source water reporting

1. The results of monthly monitoring for EC and quarterly monitoring for General Minerals specified on [page 3](#). Results must include supporting calculations.

Use Area 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 Use Area monitoring log during each quarter. The entire contents of the log do not need to be submitted.

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

Wastewater treatment 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 by type (i.e., pond sludge versus culled fruit), 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.

Use Area reporting

1. The type of crop(s) grown in the Use Area, 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).

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_o (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.
 - 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 loadings, 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:

Ordered by: _____
Pamela C. Creedon, Executive Officer

8 June 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 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	
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.		

Table 1. Use Area Monitoring

Wastewater Reuse Monitoring Data For Year: _____ Parcel No. _____								
_____ of _____ acres								
Month	Crop	Water application				Nitrogen application		
		Water required	Effluent used	Other water used	Total irrigation water	As fertilizer	As effluent*	Total nitrogen applied
		(AF)	(AF)	(AF)	(AF)	(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

INFORMATION SHEET - ORDER R5-2012-0042
WAWONA PACKING CO., LLC
CUTLER FRUIT PACKING PLANT
TULARE COUNTY

Background

Wawona Packing Co., LLC, (Wawona) has reportedly operated the Cutler Fruit Packing Plant (Plant), a citrus and stone fruit packing plant, in the community of Cutler in Tulare County since 2000. Wawona submitted a Report of Waste Discharge (RWD) in November 2008 for discharge of low-strength fruit washing wastewater to unlined ponds for storage and reuse as irrigation water on about 4.2 acres of sudan grass. The Plant discharges about 43,200 gpd for six months (stone fruit through the summer) and about 6,530 gpd for five months (citrus through the winter). Wawona has a separate pond to collect stormwater and cooling water, which it discharges to adjacent Sand Creek under Order R5-2008-0081/NPDES Permit No. CAG995001, *General Waste Discharge Requirements/NPDES Permit for Dewatering and Other Low Threat Discharges to Surface Waters* (General Order).

Wawona uses sanitizing solutions (e.g. 50 mg/L sodium hypochlorite) and water with antifoaming agents to clean the fruit. Waxes and fungicides are applied to the fruit. Culled fruit is conveyed to a hopper where the fruit is loaded into dump trucks and transported to hog farms for feed. Drainage from the culled fruit hopper empties into the wastewater ponds.

In December 2011, Wawona informed staff that it purchased adjacent properties, on which it had already begun discharging to newly-constructed replacement storage ponds and was preparing to expand its reclamation area. The 9-foot-deep ponds have a combined capacity of 6 acre-ft (1.95 million gallons) with 3 feet of freeboard. The ponds are constructed entirely below grade. The additional land for wastewater application adds 3.4 acres to the existing 4.2-acre area for a total of 7.6 acres of sudan grass.

Groundwater Conditions

The Plant and discharge areas are in the Tulare Lake Basin. Since the area lies at the foot of the granitic Sierra Nevada Mountains, naturally occurring groundwater is good quality, with low salinity, hardness, metals, etc. In addition to precipitation, sources of groundwater recharge include excellent quality seepage from Sand Creek and Alta Irrigation District ditches (sourced from the Kings River), and agricultural drainage. On adjacent property to the south, the Cutler-Orosi WWTF discharges most of its effluent through percolation ponds, but also discharges to about 100 acres of cropped land just west of Wawona and to Sand Creek downstream of Wawona. The Board adopted Waste Discharge Requirements Order No. R5-2006-0092/NPDES No. CA0081485 to regulate discharges from the Cutler-Orosi WWTF.

There are no on-site groundwater monitoring wells, but the neighboring Cutler-Orosi WWTF has a groundwater monitoring well network. According to its monitoring reports, the groundwater gradient is typically between west and south, generally following surface topography, with a slope of about 2 feet per 1,000 feet. The groundwater surface elevation fluctuates dramatically with time from about 40 feet below ground surface (bgs) to about

1 foot bgs. Groundwater is currently estimated to be about 10 feet below grade, or about 1 foot below Wawona's wastewater ponds.

The groundwater surface elevation typically varies by 5 to 10 feet per year. Since the wells were installed in 1997, nearly half of quarterly depth-to-water readings in the monitoring well network have been less than 9 feet. However, less than a quarter of readings in the last 10 years have been that shallow. Groundwater was high in 2006 and is today. The nearest (about 2 miles southwest) USGS well has 10 published depth-to-water readings from 1984 to 2010. The readings that overlap the sampling period of the Cutler-Orosi WWTF wells correspond very closely, with the same relative fluctuations and high groundwater. Shallow groundwater is apparently not isolated to the WWTF property.

Regarding groundwater quality, the United States Geological Survey (USGS) published data for three relatively shallow (total depth of 90 to 300 feet bgs) wells a few miles downgradient that show an average EC of about 550 umhos/cm in 1987. There are upgradient and/or cross-gradient sites with data from groundwater cleanup investigations entered into the Geotracker database that show field EC readings in wells monitoring first-encountered groundwater from about 500 umhos/cm to 1,600 umhos/cm in nearby Cutler and Orosi. The sources of higher EC in some wells were not identified.

Data from the single upgradient well of the Cutler-Orosi WWTF groundwater monitoring well network (MW-A) appears to correspond well with sources of recharge and available groundwater data. Samples from the well likely represent baseline conditions for areal groundwater. However, the well may have recently been degraded by an offsite source. For the period of 1996 (when the well was installed) through the end of 2004, the well had an average EC of 440 umhos/cm and nitrate as nitrogen typically less than 5 mg/L. The data show a trend of increasing salinity (particularly chloride) and nitrate beginning around 2004. Nitrate now exceeds the MCL at around 12 mg/L as nitrogen and EC is near 700 umhos/cm.

The Wastewater Authority requested that the Central Valley Water Board address the issue of degradation in its upgradient well, suggesting Wawona or the waste transfer station, Pena's Disposal Facility, to the north are responsible. In correspondence with the Wastewater Authority, staff posed that the trend may have reversed, but more recent data suggests degradation is ongoing. The source remains unclear. Trilinear diagrams show a shift in ionic character associated with the degradation. The shift does not correspond well with available water quality data for wastewater from the WWTF, Pena's Disposal Facility, or Wawona. Beyond water quality indicators, the reported groundwater gradient data from the Cutler-Orosi WWTF shows Wawona's discharge is typically cross-gradient and not upgradient of the affected well. Wawona does not appear to be a source of the reported groundwater degradation.

The average water quality in Cutler-Orosi WWTF MW-A from 1996 to 2004 is an appropriate baseline for the purpose of an antidegradation analysis pursuant to the Antidegradation Policy. The table below summarizes water quality data for samples from MW-A.

<u>Constituent</u>	<u>Units</u>	1996 - 2004		2005 - 2011	
		<u>Average</u>	<u>Range</u>	<u>Average</u>	<u>Range</u>
Sodium	mg/L	17	8.0 - 53	15	12 - 24
Chloride	mg/L	9.0	5.0 - 13	46	21 - 63
EC	umhos/cm	450	380 - 511	620	490 - 720
Nitrate-N	mg/L	5.8	4.0 - 9.5	10	8.4 - 13
TKN	mg/L	< 0.5	< 0.5 - 1.0	1.1	< 0.05 - 2.7
Total Nitrogen	mg/L	6.0	4.0 - 9.5	11	8.9 - 14

DBCP is prevalent in groundwater in the area, a legacy of irrigated agriculture that predates the ban on its use. The Plant has a supply well onsite, screened from about 200 feet to 230 feet bgs. Wawona has a CDPH-approved wellhead treatment system (carbon) for removal of DBCP from its source 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 is 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 discharge 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 what may recharge good quality groundwater shall not exceed and EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.

Narrative objectives (as opposed to specific numeric objectives) for groundwater in the Basin Plan are the most limiting for this discharge. The Basin Plan establishes narrative water quality objectives for groundwater 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, plant, animal, 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.

The Basin Plan Chemical Constituents water quality objective requires, at a minimum, waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of CCR. 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.

Antidegradation

As mentioned above, the Cutler-Orosi WWTF background (MW-A) well appears to have been a reasonable representation of background groundwater conditions until recently. Current receiving water conditions appear to be inappropriate to use as a baseline for degradation. More recent data shows groundwater has an EC of about 600 umhos/cm. Sodium concentrations are low at an average of 14 mg/L, but chloride is about 46 mg/L.

The table below summarizes water quality data for an Antidegradation Analysis. The table below presents available salts and nitrogen data.

<u>Constituents</u>	<u>Units</u>	<u>Source Water</u> ¹	<u>Wastewater</u>	<u>Baseline Groundwater</u> ²
Salt				
Sodium	mg/L	Not tested	79 ³	17
Chloride	mg/L	37	45 ⁴	9.0
EC	umho/cm	360	550 ⁵	450
TDS	mg/L	320	510 ⁴	290 ⁶
Nitrogen				
TKN	mg/L	Not tested	4.2 ⁵	< 1
Nitrate (as N)	mg/L	5	1.5 ⁵	5.8

¹ Water supply well screened from about 200 to 230 feet below ground surface
² Averages from upgradient well in the Cutler-Orosi WWTF monitoring well network (1996-2003)
³ Analytical results from a single grab sample collected by staff during an inspection
⁴ Based on results from only three samples (Feb – Mar 2008)
⁵ Average includes Wawona’s voluntary monthly self-monitoring (July 2010 – Dec 2011)
⁶ Estimated based on EC using a factor of 0.64

Based on a comparison of the discharge with baseline groundwater conditions, some groundwater degradation may occur. Constituents that have potential to degrade groundwater include sodium, chloride, and salts in general. Based on the reported usage of various chemical products, wastewater may contain fungicides, cleaning agents, and disinfection byproducts. Based on the reported cleaning agent usage, ethylene glycol monobutyl ether (EGBE) could have an annual average concentration in wastewater of 1,750 ug/L, which is above the USEPA Integrated Risk Information System (IRIS) Reference Dose (RfD) as a drinking water level of 350 ug/L. The bulk of these chemicals are biodegradable, or would otherwise be removed in the soil. The Order requires Wawona to quantify the amounts of these chemicals in its wastewater.

Wawona employs some management practices that limit degradation. It controls chemical addition (i.e., chlorine concentrations) and uses some potassium hydroxide cleaning agents in lieu of sodium hydroxide. Discharge to fields of sudan grass reduces the threat of nuisance, organic overloading, and nitrogen overloading, which would already be slight or nonexistent, given the quality of the wastewater.

Percolation from the pond bottoms will likely transmit waste constituents to groundwater in approximately the concentrations shown. Wawona will need to add additional irrigation water (as much as 50 percent of crop requirements) to supplement irrigation of sudan grass. The source water will dilute the wastewater applied to cropped areas, thereby providing further assurance that groundwater degradation will be minimal.

The discharge does not threaten to cause groundwater to exceed numerical water quality objectives in the Basin Plan (i.e., nitrate, boron, chloride, EC, and TDS). The Chemical Constituents and Toxicity narrative objectives, as they apply to preservation of the AGR beneficial use, are the most limiting for this discharge. The table above seems to suggest that the unlined pond discharge has potential to cause groundwater to contain sodium above the most stringent published water quality goal for sodium of 69 mg/L. The single wastewater sample result for sodium (79 mg/L) corresponds with a single concurrent EC reading of 760 umhos/cm. Because the EC of the wastewater is generally much lower than that, we should expect a lower concentration of sodium in the wastewater. Combined with dilution provided by supplemental irrigation water and requirements to implement a salinity control plan, sodium is unlikely to cause degradation that would adversely affect beneficial uses.

The discharge is not expected to cause groundwater degradation in excess of appropriate water quality objectives. Implementation of a Salinity Source Control Plan will further limit degradation. This Order establishes groundwater limitations that allow some degradation, but that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. Monitoring and reporting requirements are designed to supply data for verification of antidegradation findings.

This Order is consistent with the Antidegradation policy since: (a) Wawona has implemented BPTC to minimize degradation, (b) the limited degradation allowed by this Order will not unreasonably affect present and anticipated 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, as the Plant employs up to 500 people, supports the local economy. In addition, the use of process wastewater for irrigation in place of higher quality groundwater will preserve a needed resource, which is of further benefit to people of the State.

CEQA

The Tulare County Planning Commission approved onsite wastewater treatment and disposal system additions to the Plant property on 25 March 1981. Under the County's Standard Conditions of Approval for Special Use Permits (Planning Commission Resolution No. 5175), the County Planning Director is authorized to approve minor modifications in the approved plans upon a request by the applicant, as long as said modifications do not materially affect the determination of the Planning Commission. Successive modifications have apparently all been minor and the County has considered them exempt from CEQA.

The Plant and its associated structures have already been installed and are currently in use. This Order places additional regulatory requirements on the continued use of the Plant. These requirements are being prescribed to ensure the continued protection of the environment. This action is therefore exempt from CEQA requirements in accordance with California Code of Regulations, title 14, section 15301, which exempts the "operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features" from environmental review. This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.).

Title 27

Unless exempt, the release of designated waste is subject to full containment pursuant to Title 27 requirements. Here, the discharge is exempt from the requirements of Title 27 pursuant to the wastewater exemption found at Title 27, section 20090(b).

Proposed Order Terms and Conditions

Discharge Prohibitions, Specifications and Provisions

The proposed Order prohibits discharge to surface waters and drainage courses. The proposed Order limits monthly average flow to 44,000 gallons per day (gpd) for the months of May through October (the stone fruit packing season) and 7,000 gallons per day (gpd) for the months of November through April (the citrus packing season), which is consistent with current practices.

The proposed Order sets an EC limit such that the 12-month rolling average EC of the discharge shall not exceed the average EC of the source water plus 500 µmhos/cm and sets a monthly average EC limit of 1,000 µmhos/cm. In addition, the proposed Order sets specific numerical effluent limits for chloride and boron of 175 mg/L and 1.0 mg/L, respectively consistent with the Basin Plan, and requires Wawaona to prepare and implement a Salinity Control Plan to control the salinity of the discharge to the extent practicable.

The proposed Order would prescribe groundwater limitations that implement water quality objectives for groundwater from the Basin Plan. The limitations require that the discharge not cause or contribute to exceedances of these objectives or natural background water quality, whichever is greater. The proposed Order sets a groundwater limit for nitrate at the Primary MCL of 10 mg/L. The Order also includes narrative objectives from the Basin Plan for preservation of the AGR beneficial use of groundwater.

Monitoring Requirements

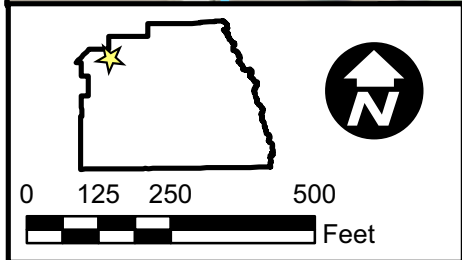
Water Code section 13267 authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. In recent years there has been increased emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving accountability of any discharger for meeting the conditions of discharge. Water Code section 13268 authorizes the assessment of administrative civil liability where appropriate. The proposed Order includes influent and effluent monitoring requirements. In addition, the proposed Order requires monitoring of the Reuse Areas and loading calculations for organics, nutrients, and salts. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations and discharge specifications prescribed in the Order.

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 provided or if applicable laws and regulations change.



Map Source:
NAIP Aerial Photograph (2009)



SITE MAP
 ORDER R5-2012-0042
 WASTE DISCHARGE REQUIREMENTS
 FOR
 WAWONA PACKING CO., LLC
 CUTLER FRUIT PACKING PLANT
 TULARE COUNTY

ATTACHMENT A