

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2016-0XXX

FOR

DELTA PACKING COMPANY AND JOHN TECKLENBURG
DELTA PACKING COMPANY
SAN JOAQUIN COUNTY

This Monitoring and Reporting Program (MRP) incorporates requirements for wastewater discharge monitoring for Delta Packing Company and John Tecklenburg. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. A glossary of terms used in this MRP is included on the last page.

All wastewater samples shall be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form.

Field test instruments (such as pH, electrical conductivity, and dissolved oxygen) may be used provided that:

1. The operator is trained in the proper use of the instrument;
2. The instruments are field calibrated prior to each use;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

FLOW MONITORING

Hydraulic flow rates shall be measured at the flow monitoring points specified in this MRP and depicted on Attachment D in the WDRs. Central Valley Water Board staff shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically at least once per year and records of calibration shall be maintained for review upon request.

Flow rates to the percolation/evaporation ponds (Northern Line) and land application areas (LAAs) (Southern Line) shall be monitored as follows:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ³	<u>Reporting Frequency</u>
Wastewater from Northern Line	Gallons	Meter Reading ¹	Weekly	Monthly
Wastewater from Southern Line	Gallons	Meter Reading ²	Weekly	Monthly

¹ Meter Readings from the Northern Line will include flow measurements from each point of discharge to Pond 1 (from meters M1, M2, and M3).

² Meter Readings at the Southern Line will be taken from a meter to be installed along the irrigation distribution line.

³ Flow monitoring is required only during the processing season.

WASTEWATER MONITORING

Process wastewater from the Northern and Southern Lines discharged to the percolation/evaporation ponds and LAAs, respectively, shall be monitored as described below. A wastewater sample collected from Pond 1 will be representative of the discharge quality for the Northern Line and a wastewater sample from the effluent at the exterior sump will be representative of the discharge quality for the Southern Line. Wastewater monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ²	<u>Reporting Frequency</u>
Total Nitrogen	mg/L	Grab	Monthly	Monthly
BOD ₅	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Metals/Inorganics ³	µg/L	Grab ¹	Monthly	Monthly

¹ All samples shall be filtered prior to preservation.

² Monthly sampling is required during the processing season.

³ Metal/Inorganics analyses includes, at a minimum, the following: chloride, sodium, dissolved arsenic, dissolved iron, and dissolved manganese

POND MONITORING

Ponds 1 and 2 are used for disposal of wastewater (evaporation and percolation) and shall be monitored as specified below:

Parameter	Units	Sample Type	Monitoring Frequency ²	Reporting Frequency
Freeboard ¹	0.1 feet	Measurement	Weekly/ Monthly	Monthly
Odors	--	Observation	Weekly/ Monthly	Monthly
Berm condition	--	Observation	Weekly/ Monthly	Monthly

¹ Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet.

² Weekly monitoring is required during the processing season and monthly during the off-season.

In addition, the Discharger shall inspect the condition of the ponds once per week during the processing season and once per month in the off-season and document visual observations. Notations shall include observations of:

- a. Presence of weeds in the water or along the berm;
- b. Accumulations of dead algae, vegetation, scum, or debris on the pond surface;
- c. Animal burrows in the berms;
- d. Evidence of seepage from the berms or downslope of the ponds;

SOURCE WATER MONITORING

Source water quality shall be monitored as described below. Monitoring of one Northern and two Southern source water wells shall be performed annually and each sample shall be analyzed for the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
pH	Standard	Grab	Annually	Annually
Total Nitrogen	mg/L	Grab	Annually	Annually
Total Dissolved Solids	mg/L	Grab	Annually	Annually
Metals/Inorganics ¹	µg/L	Grab	Annually	Annually

¹ Analysis shall include, at a minimum, the following: calcium, chloride, iron, magnesium, manganese, sodium, and sulfate.

LAND APPLICATION AREA MONITORING

The Discharger shall monitor the land application areas during the processing season and during the off-season and shall submit the results in the corresponding monthly monitoring reports. Monitoring of the land application area shall include the following:

Monitoring Requirements

During Processing Season Requirements ¹

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Local Rainfall ^{2,3}	Inches	Measurement	Weekly	Monthly
Total Wastewater Applied ²	Inches	Calculated	Weekly	Monthly
Total Acreage Applied ^{2,4}	Acres	Calculated	Weekly	Monthly
BOD Loading Rate ^{2,5}	lbs/ac/day	Calculated	Weekly	Monthly
Nitrogen Loading Rate ^{2,6}	lbs/ac/mo. ⁷	Calculated	Monthly	Monthly
LAA Soil Condition ^{2,8}	NA	Inspection	Monthly	Monthly

Year-Round Requirements

Parameter	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Crop	NA	Inspection	Yearly	Monthly
Condition of Containment Berms	NA	Inspection	Weekly/ Monthly ⁹	Monthly
Nuisance Conditions	NA	Inspection	Weekly/ Monthly ⁹	Monthly
Evidence of Erosion	NA	Inspection	Weekly/ Monthly ⁹	Monthly
Any Corrective Action Taken (based on observations)	NA	Inspection	Weekly/ Monthly ⁹	Monthly

¹ During processing season is defined as the time period where cherries are washed and processed. Off-season is defined as the time period when fruit is not processed, but may include times when fruit is cooled and stored, but not processed. Refrigeration condensate is the only wastewater generated during the off-season. These parameters are not required in the off-season.

² Required only during the processing season when wastewater is applied to the LAAs.

³ Rainfall may be monitored on-site or reported from a nearby rain gauge station.

⁴ Land Application Area(s) in use shall be identified by name or number and the acreage provided. If only a portion of an area is used, then the application acreage shall be estimated.

⁵ Calculate the daily application rates, based on the most recent BOD effluent results.

⁶ Total nitrogen applied from all sources, including fertilizers, compost, and supplemental irrigation water if used.

⁷ Report monthly total and cumulative annual to date.

⁸ LAA soil conditions (saturated or unsaturated) shall be determined prior to wastewater application, at the beginning of each processing season.

⁹ Weekly during the processing season and monthly during the off-season

At least **once per week** during the processing season when wastewater is being applied to the land application areas, the entire application area shall be inspected to identify any equipment malfunction or other circumstance that might allow irrigation runoff to leave the area and/or create ponding conditions that violate the Waste Discharge Requirements. A log of these inspections shall be kept at the facilities and be submitted with the monthly monitoring reports. If wastewater was not applied to the land application area, then the monthly monitoring reports shall so state.

SOLIDS MONITORING

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

1. Volume of solids generated. Solids may include pomace, seeds, stems, diatomaceous earth, screenings, and sump/clarifier solids, or other material.
2. Volume disposed of off-site. Describe the disposal method (e.g. animal feed, land application, off-site composting, landfill, etc.), the amount disposed (tons), and the name of the hauling company.

EFFLUENT AND MASS LOADING CALCULATIONS

- a. The mass of BOD applied to each LAA as an irrigation cycle average shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{A(CT)}$$

- Where:
- M = mass of BOD applied to the irrigation block in lb/ac/day as an irrigation cycle average
 - C = concentration of BOD in mg/L based on the most recent wastewater monitoring results
 - V = volume of wastewater applied to the irrigation block in millions of gallons during the entire irrigation cycle
 - A = area of the irrigation block in acres
 - CT = cycle time (i.e., irrigation cycle length from start of irrigation to start of next irrigation event, in days)

- b. The mass of total nitrogen applied to each LAA on an annual basis shall be calculated using the following formula and compared to published crop demand for the crops actually grown:

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

Where:

- M = mass of nitrogen applied to LAA in lb/ac/yr
 C_i = Monthly average concentration of total nitrogen for month i in mg/L
 V_i = volume of wastewater applied to the LAA during calendar month i in million gallons
 A = area of the LAA irrigated in acres
 i = the number of the month (e.g., January = 1, February = 2, etc.)
 M_x = nitrogen mass from other sources (e.g., fertilizer and compost) in pounds
8.345 = unit conversion factor

- c. The mass of wastewater fixed dissolved solids applied to each LAA on an annual basis shall be calculated using the following formula and compared to the FDS loading rate limit:

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

Where:

- M = mass of wastewater FDS applied to LAA in lb/ac/yr
 C_i = Monthly average concentration of effluent FDS for month i in mg/L
 V_i = volume of wastewater applied to the LAA during calendar month i in million gallons
 A = area of the LAA irrigated in acres
 i = the number of the month (e.g., January = 1, February = 2, etc.)
8.345 = unit conversion factor

REPORTING

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

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email:

Attention: Compliance/Enforcement Section
Delta Packing Company
San Joaquin County
Place ID: 807755

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

Central Valley Regional Water Quality Control Board
ECM Mailroom
11020 Sun Center Drive, Suite 200
Rancho Cordova, California 95670

Please include the attached transmittal sheet that includes the following:

Attention: Compliance/Enforcement Section
Delta Packing Company
San Joaquin County
Place ID: 807755

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

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Central Valley Water Board by the **1st day of the second month following the end of the reporting period** (e.g. the April monthly report is due by 1 June). Monthly reports shall be submitted every month, even if processing is not taking place.

The Monthly Report shall include the following:

1. Results of Flow Monitoring, including calculated values for total flow and average daily flow for each month, and calculated average total nitrogen concentration for each month during the processing season.

2. Results of Pond Monitoring.
3. Results of weekly Land Application Area Monitoring during the processing season, and include:
 - a. Calculated irrigation cycle average BOD Loading rate for each LAA and irrigation cycle
 - b. Calculated total nitrogen loading rate for each LAA for each month.
 - c. Calculated flow-weighted average TDS concentration for each LAA for each month and calendar year to date.
4. Results of Solids Monitoring
5. Discharge specifications and an explanation of any violation of those requirements.
6. For each discrete LAA, a comparison of monitoring data to the loading rate limitations and discharge specifications and an explanation of any violation of those requirements.
7. A copy of inspection log page(s) documenting any inspections completed during the month.
8. If requested, copies of laboratory analytical reports and calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the month.

B. Annual Monitoring Reports

An Annual Monitoring Report shall be submitted to the Central Valley Water Board by **1 February** each year. The Annual Monitoring Report shall include the following:

1. Calculation of the annual average wastewater monitoring results for all monitored wastewater constituents.
2. Results of the source water monitoring.
3. A detailed description of any operational changes, new water treatment systems that might affect the character of the wastewater, and changes to the equipment cleaning process.
4. If requested by staff, tabular and graphical summaries of all data collected during the year with data arranged to confirm compliance with the WDRs.
5. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
6. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
7. Whether any expansion of the water treatment plant's capacity is planned or anticipated in the next calendar year.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of requirement violations found during the reporting period, and actions

taken or planned for correcting noted violations, such as operation or facilities modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger, or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

(Date)