

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2016-0029-01

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.

As defined in the WDRs, the processing season is the time period when cherries are washed and processed. Off-season is defined as the time period when fruit is not processed, but discharges of refrigeration condensate from cooling the fruit may still occur.

FLOW MONITORING

Hydraulic flow rates shall be measured during the processing season 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	Quarterly
Wastewater from Southern Line	Gallons	Meter Reading ²	Weekly	Quarterly

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 during the processing season 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> ¹	<u>Reporting Frequency</u>
Total Nitrogen	mg/L	Grab	Every 30 days	Quarterly
BOD ₅	mg/L	Grab	Every 30 days	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Every 30 days	Quarterly
Metals/Inorganics ²	µg/L	Grab ³	Annually	Annually

¹ A minimum of one sample shall be collected every 30 days once the processing season begins.

² Metal/Inorganics analyses includes, at a minimum, the following: chloride, sodium, dissolved arsenic, dissolved iron, and dissolved manganese

³ All samples shall be filtered prior to preservation.

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	Quarterly
Odors	--	Observation	Weekly/ Monthly	Quarterly
Berm condition	--	Observation	Weekly/ Monthly	Quarterly

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 every five years and each sample shall be analyzed for the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling and Reporting Frequency ²</u>
pH	Standard	Grab	Every five years
Total Nitrogen	mg/L	Grab	Every five years
Total Dissolved Solids	mg/L	Grab	Every five years
Metals/Inorganics ¹	µg/L	Grab	Every five years

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

² Sampling shall begin 5 years after the last source water samples were collected.

LAND APPLICATION AREA MONITORING

A. Field Inspections

The Discharger shall inspect the LAAs at least once weekly when wastewater is applied to the LAAs, and observations from those inspections shall be documented for inclusion in the quarterly monitoring reports. The following items shall be documented for each field to be irrigated on that day:

1. Berm condition;
2. Condition of each standpipe and flow control valve (if applicable);
3. Condition of all ditches used for the conveyance of wastewater and tailwater;
4. Ponding;
5. Condition of tailwater ditches and potential runoff to off-site areas;
6. Potential and actual discharge to surface water; and
7. Odors that have the potential to be objectionable at or beyond the property boundary.

Temperature, wind direction, humidity, and other relevant field conditions shall also be observed and recorded. The notations shall also document any corrective actions taken based on observations made. A copy of entries made in the log shall be submitted as part of the Quarterly Monitoring Report.

B. Routine Monitoring

The Discharger shall perform the following routine monitoring and loading calculations during all months during the processing season and shall present the data in the Quarterly and Annual Monitoring Reports.

Constituent	Units	Measurement	Measurement Frequency	Reporting Frequency
Precipitation	0.1 inch	Rain Gauge ¹	Weekly	Quarterly
Total Wastewater Applied	inch	Calculated	Weekly	Quarterly
Total Acreage Applied	acres	Calculated ²	Weekly	Quarterly
BOD ₅ Loading Rate	lb/ac/day	Calculated ³	Weekly	Quarterly
Total Nitrogen Loading	lb/ac/year	Calculated ⁴	Monthly	Quarterly

¹ Data obtained from the nearest National Weather Service rain gauge is acceptable.

² Land application areas in use shall be identified by name or number and the acreage provided. If only a portion of an area is used, the then application acreage shall be estimated.

³ Calculate the daily application rates, based on effluent data.

⁴ Total nitrogen applied from all sources, including fertilizers, compost, and supplemental irrigation water is used.

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 monthly and reported quarterly:

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. Quarterly 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 January - March quarterly report is due by **1 May**). Quarterly reports shall be submitted every quarterly, even if processing is not taking place.

The Quarterly Report shall include the following:

1. Results of Flow Monitoring, including calculated values for total annual flow and average daily flow for each month, and calculated average total nitrogen concentration for each month during the processing season.
2. Results of wastewater monitoring and a comparison to effluent limitations.
3. Results of Pond Monitoring.
4. 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.
5. Results of Solids Monitoring
6. Discharge specifications and an explanation of any violation of those requirements.

7. 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.
8. A copy of inspection log page(s) documenting any inspections completed during the quarter.
9. 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 (every five years).
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.

