

Attachment A

ANNOTATED VERSION OF PROPOSED MONITORING AND REPORTING PROGRAM

[This document presents staff's proposed monitoring and reporting requirements. It is based on the standard monitoring and reporting requirements for dischargers enrolled under the *General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste* (Order No. R3-2004-0066). This document includes annotations intended to show how the proposed monitoring and reporting requirements differ from 1) the standard Order No. R3-2004-0066 requirements, and 2) the discharger's existing requirements]

MONITORING AND REPORTING PROGRAM NO. R3-2004-0066

for

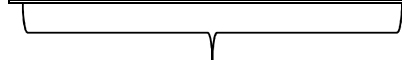
**DISCHARGES ENROLLED UNDER
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGES OF FRUIT AND VEGETABLE PROCESSING WASTE
CENTRAL COAST REGION**

Dischargers regulated by the General WDRs for Discharges of Fruit and Vegetable Processing Waste are subject to the following monitoring and reporting requirements, unless such requirements are modified or waived by the Executive Officer. Additional requirements may be added by the Executive Officer, as needed to adequately ensure compliance with the General WDRs.

WATER SUPPLY MONITORING

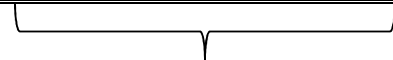
Representative samples of the Facility’s water supply shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Frequency of Sampling and Analysis
Total Dissolved Solids	mg/L	Grab	Annually (March)
Chloride	mg/L	Grab	“
Sodium	mg/L	Grab	“
Boron	mg/L	Grab	“
Sulfate	mg/L	Grab	“
Nitrate (as N)	mg/L	Grab	“



Staff proposes to eliminate Dole’s current Electrical Conductivity monitoring since Total Dissolved Solids monitoring is a sufficient mineral content indicator.

New Boron monitoring would be required.



Dole currently monitors semi-annually. The General WDRs’ standard frequency is annually.

PRODUCTION MONITORING

Production Monitoring would be new for Dole

Facility production shall be reported as follows:

Parameter	Units	Sample Type	Reporting Frequency
Start and End of Processing Season	Dates	--	Annually (December)
Fruits and Vegetables Processed	Tons/year	Measured	“

CHEMICAL USAGE MONITORING

Chemical Usage Monitoring would be new for Dole.

A summary of volumes and types of any chemicals used at the Facility shall be included with each monitoring report.

INFLUENT MONITORING

Representative samples of influent to the treatment system shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Frequency of Sampling and Analysis		
			Peak Wastewater Flow <50,000 gpd	Peak Wastewater Flow 50,000-500,000 gpd	Peak Wastewater Flow >500,000 gpd
Flow	gpd	Metered	Daily	Daily	Daily
Peak Daily Flow	gpd	Calculated	Monthly	Monthly	Monthly
Avg. Daily Flow	gpd	Calculated	Monthly	Monthly	Monthly
pH	pH units	Grab	Monthly	Weekly	Daily
Biochemical Oxygen Demand (BOD ₅) ¹	mg/L	Composite ₂	Annually ³	Semiannually ⁴	Quarterly ⁵
Nitrite (as N) ¹	mg/L	Composite	“	“	“
Nitrate (as N) ¹	mg/L	Composite	“	“	“
Total Kjeldahl Nitrogen (as N) ¹	mg/L	Composite	“	“	“
Total Nitrogen ¹	mg/L	Composite	“	“	“

Notes:

- Influent sampling for BOD₅, nitrite, nitrate, TKN, and total nitrogen may not be required for facilities with low organic and nutrient load wastewater. The Discharger must submit sufficient documentation to support the removal of influent monitoring for BOD₅, nitrite, nitrate, TKN, and total nitrogen in its NOI; if documentation is not sufficient, the discharger may request removal of monitoring after one year of full compliance and monitoring reports support removal.
- Composite samples will cover discharge through one day of operation. Facilities with peak wastewater flow less than 50,000 gpd may utilize grab samples rather than composite samples.
- Annual influent monitoring shall occur in June.
- Semiannual influent monitoring shall occur in March and September.
- Quarterly influent monitoring shall occur in March, June, September, and December.

Dole is not currently required to perform influent monitoring. Staff does not recommend imposing influent monitoring on Dole. Influent monitoring is usually required when the effectiveness of a treatment system needs to be determined, such as when a POTW receives untreated sewage and is expected to reduce BOD. Dole's "influent" consists of relatively clean well water. Since Dole's influent is well water, the above Water Supply monitoring should be sufficient.

POND MONITORING

Pond Monitoring would be new for Dole

Representative samples of wastewater contained in each pond shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Frequency of Sampling and Analysis		
			Peak Wastewater Flow <50,000 gpd	Peak Wastewater Flow 50,000-500,000 gpd	Peak Wastewater Flow >500,000 gpd
Freeboard	ft	Measured	Monthly	Weekly	Daily/Weekly
pH	pH units	Grab	“	“	“
Dissolved Oxygen	mg/L	Grab	“	“	“

Dole's flows exceed 500,000 gpd

Staff reduced the General WDRs' standard daily sampling requirement to weekly sampling to be more in line with Dole' current monitoring requirements. If three months of weekly sampling indicate adequate DO, pH and freeboard, staff proposes to revise frequency to quarterly.

If three months of weekly monitoring indicates no dissolved oxygen, pH or freeboard violations, staff proposes to reduce monitoring frequencies to quarterly.

SEPTIC SYSTEM MONITORING

Solids accumulation in all septic tanks shall be measured annually, prior to the processing season if applicable, and the tanks cleaned when it appears (a) the bottom of the scum (floating) layer will be within 4 inches of the bottom of the outlet device or (b) the sludge level will be within 10 inches of the outlet device before the next scheduled inspection; or submit annual verification of tank cleaning in lieu of measurements. The leachfield areas shall be inspected each week to evaluate adequate system operation and compliance with this Order. Leachfields should be alternated no less than annually to prevent clogging and surfacing effluent. Notations shall be made in a bound log book and include observations of sludge and scum levels and dates which leachfields are alternated. A summary of the entries made in the log shall be submitted with each monitoring report.

Not applicable, since Dole does not use a septic system.

EFFLUENT MONITORING

Representative samples of effluent from the treatment system, immediately prior to disposal, before the treated wastewater is blended with any other water source, shall be collected and analyzed as follows:

Constituent	Units	Sample Type	Minimum Frequency of Sampling and Analysis		
			Peak Wastewater Flow <50,000 gpd	Peak Wastewater Flow 50,000-500,000 gpd	Peak Wastewater Flow >500,000 gpd
Flow	gpd	Metered	Daily	Daily	Daily
Peak Daily Flow	gpd	Calculated	Monthly	Monthly	Monthly
Avg. Daily Flow	gpd	Calculated	Monthly	Monthly	Monthly
pH	--	Grab	Monthly	Weekly	Daily-Quarterly
Biochemical Oxygen Demand (BOD ₅) ¹	mg/L	Composite ²	Semiannually ³	Quarterly ⁴	Monthly-Quarterly
Fixed Dissolved Solids	mg/L	Composite ²	"	"	"
Chloride	mg/L	Composite ²	"	"	"
Sodium	mg/L	Composite ²	"	"	"
Boron	mg/L	Composite ²	"	"	"
Sulfate	mg/L	Composite ²	"	"	"
Nitrite (as N) ¹	mg/L	Composite ²	"	"	"
Nitrate (as N)	mg/L	Composite ²	"	"	"
Total Kjeldahl Nitrogen (as N) ¹	mg/L	Composite ²	"	"	"
Total Nitrogen ¹	mg/L	Composite ²	"	"	"
Priority Pollutants (Inorganics) ⁵	mg/L	Composite ²	Annually ⁶	Semiannually ³	Quarterly ⁴
In addition to the above, facilities which use any form of chlorine for cleaning and/or disinfection shall analyze effluent samples for the following:					
Total Trihalomethanes ³	mg/L	Composite ²	Annually ⁶	Semiannually ³	Quarterly ⁴
Total Haloacetic Acids ⁴	mg/L	Composite ²	"	"	"

Changes from current MRP:
 Peak Daily Flow added
 Avg. Daily Flow added
 BOD replaces COD
 FDS replaces EC
 TKN replaces Total N
 Priority Pollutants added
 TTHM and THAA added

Dole's flows exceed 500,000 gpd

Changes from General WDRs' Requirements:
 Staff recommends quarterly grab samples for these highlighted constituents since data indicates that the discharge quality is sufficiently consistent to warrant such sampling reductions.

Effluent Monitoring Notes:

- ~~1. Effluent sampling for BOD₅, nitrite, TKN, and total nitrogen may not be required for facilities with low organic and nutrient load wastewater. The Discharger must submit sufficient documentation to support the removal of effluent monitoring for BOD₅, nitrite, TKN, and total nitrogen in its NOI; if documentation is not sufficient, the discharger may request removal of monitoring after one year of full compliance and monitoring reports support removal.~~
- ~~2. Composite samples will cover discharge through one day of operation. Facilities with peak wastewater flow less than 50,000 gpd or have effluent discharge from a pond with greater than 10 days detention time may utilize grab samples rather than composite samples.~~
- ~~3. Semiannual effluent monitoring shall occur in March and September.~~
4. Quarterly effluent monitoring shall occur in March, June, September, and December.
5. Includes the following: antimony, arsenic, beryllium, cadmium, chromium III, chromium VI, copper, cyanide, lead, mercury, nickel, selenium, silver, thallium, zinc.
- ~~6. Annual effluent monitoring shall occur in June.~~
7. Includes the following: chloroform, bromodichloromethane, dibromochloromethane, and bromoform. If one year of quarterly monitoring indicates no THMs, staff proposes to reduce THM and HAA monitoring frequency to semiannually.
8. Includes the following: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid. If one year of quarterly monitoring indicates no HAAs, staff proposes to reduce HAA monitoring frequency to semiannually.

Dole requested that THM and HAA monitoring frequency be reduced to semiannually if one year of quarterly monitoring indicates little or no THMs and HAAs. Staff agrees that demonstration of a reduced threat warrants reduced monitoring.

DISPOSAL AREA MONITORING

The Discharger shall inspect and document the condition of fruit and vegetable processing wastewater disposal areas once daily during operation. Subsurface disposal areas should have a regular rotation to prevent clogging and surfacing of effluent. Notations shall be made in a bound log book and include observations of excessive ponding and soil clogging in spreading basins, evidence of erosion, field saturation, runoff, odors, insects, or other potential nuisance conditions that may be present. Any problems shall be promptly corrected. A record shall be kept of the dates and nature of observations and corrective actions taken. ~~A summary of the entries made in the log shall be submitted with each monitoring report.~~ The following information regarding irrigation management at the disposal area shall also be recorded daily and ~~submitted with each monitoring report~~ made available for inspection by Water Board staff:

Dole requested elimination of the requirement to submit summaries of disposal area observations with each monitoring report, suggesting that the practice results in extra work on Dole's part and produces little benefit to the Water Board. Dole believes keeping the information available at the facility should satisfy Water Board needs, should they arise. Staff agrees that such information is not routinely scrutinized and is more applicable when highly concentrated wastes are disposed over relatively small areas. Dole disposes of low-concentration wastes over a relatively large area.

- Inches of precipitation
- Irrigated areas
- Daily acreage applied (acres)
- Daily application rate (gal/acre/day)
- ~~Total nitrogen loading rate as a monthly average (lbs/acre/day)~~
- ~~BOD₅ loading rate as a monthly average (lbs/acre/day)~~

Dole requested the elimination of nitrogen and BOD loading rate reporting, suggesting that such loading has been historically low and, if necessary, can be calculated from other required reporting data (i.e., reported nitrogen and BOD concentrations, as well as daily application rate). Staff agrees that staff can perform the nitrogen and BOD loading rate calculations, if such calculations are needed.

DISPOSAL AREA SOILS MONITORING

The Discharger shall implement disposal area soils monitoring **if deemed necessary** by the Executive Officer. In general, large facilities that discharge concentrated wastewater that is not adequately neutralized (to between pH 6.5 and 8.4) to soils with poor buffering capacity must perform soils monitoring according to the following instructions. The Discharger shall establish a soil profile monitoring location that is representative of the disposal area. This sampling location shall be provided on a map submitted to the Regional Board for concurrence by the Executive Officer. Samples shall be collected and analyzed for the following constituents:

Constituent	Unit	Method	Sample Depths ²	Frequency
Soil pH	pH units	1:2 DI Water (soil to solution ratio)	6 inches and 2 ft.	Annually (September)
Total Acidity	meq H ⁺ / 100 g soil	Measured by BaCl ₂ – TEA (pH 8.3) ¹	6 inches and 2 ft.	Annually (September)

Notes:

1. See Methods of Soil Analysis (cosponsored by ASTM), American Society of Agronomy, Inc., Madison, WI.
2. Below base of disposal area.

Lime Application – If Soil pH is less than or equal to 6.0, the Discharger shall add lime to neutralize the disposal area soils. The amount of lime required for full neutralization is directly related to Total Acidity. For any representative sample of disposal area soils, multiply the Total Acidity value (meq of H⁺/ 100 g soil) by 2000 to get the maximum lime application rate in lbs. pure lime per acre. The amount of lime applied should not exceed the calculated value.

NOTE: Gypsum (CaSO₄*2H₂O) applied to increase hydraulic conductivity does not neutralize acidity (gypsum is a neutral salt).

Effluent from Dole's pond indicates a neutral wastewater.

SOLID WASTE DISPOSAL MONITORING

Solid waste disposal monitoring would be new for Dole.

A summary of estimated volumes and disposal locations of screenings, sludge, and solids shall be included with each monitoring report.

GROUNDWATER MONITORING

Groundwater monitoring would be new for Dole. Requiring groundwater monitoring is consistent with groundwater monitoring requirements for many other fruit and vegetable processing dischargers. Dole has one of the highest effluent flow rates of any fruit and vegetable processing facility in our region. Also, Dole discharges onto the Salinas Valley floor over relatively shallow groundwater.

At Dole's request, this monitoring requirement gives Dole time to develop a groundwater monitoring program. Once Dole submits an acceptable groundwater monitoring program, staff proposes to revise this monitoring program accordingly.

The Discharger shall ~~implement~~ submit a groundwater monitoring proposal by December 01, 2014, ~~if deemed necessary~~ by the Executive Officer. ~~In general, facilities which discharge fruit and vegetable processing waste that is not adequately treated (biologically stabilized and neutralized) to unlined ponds, leach fields, or spreading basins, or in areas where depth to groundwater is shallow, may be required to perform regular groundwater monitoring. Groundwater samples shall be collected from at least three representative monitoring wells, one upgradient and two downgradient of the disposal area, and analyzed as follows:~~

Constituent	Units	Sample Type	Minimum Frequency of Sampling and Analysis
Depth to groundwater	Feet	Measured	Quarterly (March, June, September, and December)
pH	pH units	Grab	Quarterly (March, June, September, and December)
Total Dissolved Solids	mg/L	Grab	Quarterly (March, June, September, and December)
Chloride	mg/L	Grab	Quarterly (March, June, September, and December)
Sodium	mg/L	Grab	Quarterly (March, June, September, and December)
Boron	mg/L	Grab	Quarterly (March, June, September, and December)
Sulfate	mg/L	Grab	Quarterly (March, June, September, and December)
Nitrate (as N)	mg/L	Grab	Quarterly (March, June, September, and December)
Chemical Oxygen Demand	mg/L	Grab	Quarterly (March, June, September, and December)

SAMPLING AND ANALYSIS PROVISIONS

1. All sampling, sample preservation, and analysis shall be performed in accordance with the latest edition of 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants". The Executive Officer may specify test methods that are more sensitive than those specified in 40 CFR Part 136.
2. Periodic samples shall be taken at regular intervals and be representative of the monitored activity. For example, where quarterly samples are required, samples shall be collected on a representative day of March, June, September, and December of each year.
3. All analytical services shall be conducted at a laboratory certified for such analyses by the State Department of Health, or at a laboratory approved by the Executive Officer.
4. All analytical data shall be reported with method detection limits (MDLs) and with identification of either practical quantitation levels (PQLs) or limits of quantitation (LOQs).
5. All monitoring instruments and devices used by the discharger to fulfill this Monitoring and Reporting Program shall be properly maintained and calibrated, as necessary to ensure their continued accuracy.

REPORTING PROVISIONS

1. Monitoring reports shall be submitted to the Regional Board semiannually, **by January 30th and July 30th of each year**. Monitoring reports shall contain all monitoring data obtained during the previous six months (eg., monitoring reports due July 30th shall include sampling events occurring from January through June). The report shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge into full compliance with the General WDRs. Monitoring reports may be required more frequently as deemed necessary by the Executive Officer, based on review of the NOI and site and facility specific information.
2. Monitoring data shall be arranged in tabular format so that the date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to clearly illustrate whether the discharge complies with effluent limitations.
3. The Discharger shall also submit monitoring data and the monitoring reports electronically upon request. Electronic data should be formatted into a Microsoft Excel or equivalent spreadsheet. Electronic report templates are available by contacting Regional Board staff at (805) 549-3147. Electronic submittal should be provided on either 3.5-inch disk or optical compact disk. Electronic data storage media should be labeled with facility name and period of monitoring.
4. If the Discharger monitors any pollutant or parameter more frequently than is required by this monitoring program, the results of such monitoring shall be included in the monitoring reports (i.e., quarterly groundwater elevation, etc.).
5. All monitoring reports shall be signed and certified in accordance with Section E.10 and 11 of the General WDRs.
6. The Discharger shall deliver a copy of each monitoring report in the appropriate format to the Central Coast Regional Water Quality Control Board at the following address:

895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
7. The Discharger shall ensure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Executive Officer. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling, and/or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used;
 - f. All sampling and analytical results;
 - g. All monitoring equipment calibration and maintenance records.
8. The Discharger shall immediately report any non-compliance potentially endangering public health or the environment to the Regional Board (805/549-3147) and any additional appropriate agency. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written report shall also be submitted to the Executive Officer within five (5) days of the time the Discharger becomes aware of the circumstances. The written report shall contain (1) a description of the non-compliance and its cause; (2) the period of non-compliance, including dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and (3) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

- 9. The Discharger shall report all instances of non-compliance not reported under Reporting Provision No. 8 at the time monitoring reports are submitted along with the information required in Reporting Provision No.8.

Ordered By _____
Kenneth A. Harris, Jr.
Executive Officer

Date