

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM R5-2016-0052  
FOR  
ARO PISTACHIOS, INC AND MEHDI ORANDI  
TERRA BELLA PROCESSING FACILITY  
TULARE COUNTY

This Monitoring and Reporting Program (MRP) supersedes the MRP issued on 24 June 2016 and is required pursuant to Water Code section 13267.

ARO Pistachios, Inc and Mehdi Orandi (ARO or Dischargers) 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, electrical conductivity, and dissolved oxygen) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer and in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the State Water Board's Division of Drinking Water Environmental Laboratory Accreditation Program. The Dischargers 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 Dischargers may request the MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for the requested reduction in monitoring frequency.

A glossary of terms used within this MRP is included on [page 12](#).

The Dischargers shall monitor the following locations to demonstrate compliance with the requirements of this Order.

Monitoring Location Name	Monitoring Location Description
EFF-001	The location after the concrete sump and before wastewater is discharged to the lined 130 ac-ft pond
EFF-002	The location after the lined 130 ac-ft pond and before wastewater is discharged to the land application areas (LAA's)
PND-001	At the lined 130 ac-ft pond
SPL-001	Location where a representative sample of the source water from the onsite supply well can be obtained.
SIW-001	Location where a representative sample of the supplemental irrigation water can be obtained.
LAA-001 through LAA-003	Ranch 1 (LAA-001), Ranch 2 (LAA-002), and Ranch 7 (LAA-003)
GWM-001 through GWM-00X	Groundwater monitoring wells established after the completion of Provision G.12 of Waste Discharge Requirements Order R5-2016-0052.

### EFFLUENT MONITORING

The Dischargers fill the lined 130 ac-ft pond from approximately August to October each year (harvest season). Effluent samples shall be collected at EFF-001 during the harvest season. Time of collection of the sample shall be recorded. Effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Effluent Flow	mgd	Meter
1/Harvest Season <sup>1</sup>	pH	pH Units	Grab
Weekly	Electrical Conductivity	umhos/cm	Grab
1/Harvest Season <sup>1</sup>	Biochemical Oxygen Demand <sup>2</sup>	mg/L	Grab
1/Harvest Season <sup>1</sup>	Total Suspended Solids	mg/L	Grab
1/Harvest Season <sup>1</sup>	Total Dissolved Solids	mg/L	Grab
1/Harvest Season <sup>1</sup>	Fixed Dissolved Solids	mg/L	Grab
1/Harvest Season <sup>1</sup>	Total Kjeldahl Nitrogen	mg/L	Grab
1/Harvest Season <sup>1</sup>	Nitrate as Nitrogen	mg/L	Grab
1/Harvest Season <sup>1</sup>	Nitrite as Nitrogen	mg/L	Grab
1/Harvest Season <sup>1</sup>	Ammonia as Nitrogen	mg/L	Grab
1/Harvest Season <sup>1</sup>	Total Nitrogen	mg/L	Computed
1/Harvest Season <sup>1</sup>	General Minerals <sup>3</sup>	mg/L	Grab

<sup>1</sup> Sampling is required once per season. The sample shall be representative of the Facility's discharge (i.e., collected after the first week of the harvest season, but before the last week of the harvest season).

<sup>2</sup> Five-day, 20°C biochemical oxygen demand (BOD)

- 3 General mineral analysis shall include, alkalinity (as CaCO<sub>3</sub>), bicarbonate (as CaCO<sub>3</sub>), boron, calcium, carbonate (CaCO<sub>3</sub>), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS.

The Dischargers apply wastewater from the lined 130 ac-ft pond to the land application areas from approximately March to August each year (irrigation season). Effluent samples shall be collected at EFF-002 during the irrigation season. Time of collection of the sample shall be recorded. Effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Effluent Flow	mgd	Meter
2/Irrigation Season <sup>2</sup>	pH	pH Units	Grab
Weekly	Electrical Conductivity	umhos/cm	Grab
2/Irrigation Season <sup>2</sup>	Biochemical Oxygen Demand <sup>1</sup>	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Total Suspended Solids	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Total Dissolved Solids	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Fixed Dissolved Solids	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Total Kjeldahl Nitrogen	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Nitrate as Nitrogen	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Nitrite as Nitrogen	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Ammonia as Nitrogen	mg/L	Grab
2/Irrigation Season <sup>2</sup>	Total Nitrogen	mg/L	Computed
2/Irrigation Season <sup>2</sup>	General Minerals <sup>3</sup>	mg/L	Grab

1 Five-day, 20°C biochemical oxygen demand (BOD)

2 Sampling is required twice per irrigation season. The initial sample shall be collected prior to the start of the irrigation season. The second sample shall be collected when approximately half of the volume of the wastewater in the lined 130 ac-ft pond has been applied to the LAAs.

3 General mineral analysis shall include, alkalinity (as CaCO<sub>3</sub>), bicarbonate (as CaCO<sub>3</sub>), boron, calcium, carbonate (CaCO<sub>3</sub>), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS.

### POND MONITORING

The Dischargers shall monitor the lined 130 ac-ft pond (PND-001) while wastewater is in the 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 <sup>1</sup>	Observation
Weekly	Odor	mg/L	Observation
Weekly	Berm Condition	---	Observation
Monthly	Liner Condition	---	Observation
Weekly <sup>2</sup>	Dissolved Oxygen (DO)	mg/L	Grab
<u>Pan Lysimeter<sup>3</sup></u>			
Annually	Volume	gallons	Meter
Annually	Electrical Conductivity	umhos/cm	Grab

1 To the nearest tenth of a foot.

- 2 DO shall be measured between 8:00 am and 10:00 am and shall be taken opposite the pond inlet at a depth of approximately one-foot below the pond surface. If there is less than one foot of water in the pond no sample shall be collected and the reason shall be noted in the applicable monitoring report.
- 3 The Dischargers shall conduct annual performance monitoring of the pond liner in accordance with the April 2018 Pond Liner Construction Operation, Maintenance, and Monitoring Plan or subsequently approved plan. Within 30 days of filling the pond from the harvest season, the Dischargers shall purge the pan lysimeter and note the volume purged as well as collect an electrical conductivity reading of the purged water. After the initial pumping, the Dischargers shall pump the pan lysimeter again (at least 24 hours after the initial purge) and note the volume pumped as well as collect an electrical conductivity reading from the second purge.

Permanent markers (e.g., staff gages) shall be placed in all ponds. The markers shall have calibrations indicating water level at the design capacity and available operational freeboard.

### SOURCE WATER MONITORING

The Dischargers shall collect samples of the source water at SPL-001 and supplemental irrigation water SIW-001, and analyze them for the constituents specified below. If the source water is from more than one source, the results shall be presented as a flow-weighted average of all sources.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
<u>Supply Water (SPL-001)</u>			
Quarterly	Electrical Conductivity	umhos/cm	Grab
Annually	General Minerals <sup>1,2</sup>	mg/L	Grab
<u>Supplemental Irrigation Water (SIW-001)</u>			
Annually <sup>3</sup>	Volume	gallons	Meter
Annually <sup>3</sup>	Electrical Conductivity	umhos/cm	Grab
Annually <sup>3</sup>	Nitrate as nitrogen	mg/L	Grab
Annually <sup>3</sup>	Potassium	mg/L	Grab
Annually <sup>3</sup>	Total Dissolved Solids	mg/L	Grab
Annually <sup>3</sup>	Fixed Dissolved Solids	mg/L	Grab

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

2 General mineral analysis shall include, alkalinity (as CaCO<sub>3</sub>), bicarbonate (as CaCO<sub>3</sub>), boron, calcium, carbonate (CaCO<sub>3</sub>), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS.

3 Sample to be collected annually from March to August.

### LAND APPLICATION AREA MONITORING

The Dischargers shall perform the following routine monitoring and loading calculations for Ranch 1 (LAA-001), Ranch 2 (LAA-002), and Ranch 7 (LAA-003). In addition, the Dischargers shall keep a log of routine monitoring observations (e.g. areas of ponding, broken irrigation pipes, odors and/or flies within the LAA's, etc.). 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 Location	n/a	n/a
Daily	Application Area	acres	n/a

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	Wastewater Flow	gallons	Metered
Daily	Wastewater Loading	inches/day <sup>1</sup>	Calculated
Daily	Supplemental Irrigation	inches/day <sup>1</sup>	Calculated
Daily	Precipitation <sup>2</sup>	inches/day <sup>1</sup>	Rain gage <sup>2</sup>
<u>BOD Loading Rates:</u>			
Daily	On Day of Application <sup>3</sup>	lbs/acre	Calculated
Daily	Cycle Average <sup>4</sup>	lbs/acre-day	Calculated
<u>Nitrogen Loading Rates:</u>			
Monthly	From Wastewater <sup>5</sup>	lbs/acre-month	Calculated
Monthly	From Fertilizer and supplemental irrigation water <sup>6</sup>	lbs/acre-month	Calculated
<u>Salt Loading Rates:</u>			
Monthly	From Wastewater <sup>5</sup>	lbs/acre-month	Calculated
Annually	Cumulative Salt Loading	lbs/acre-year	Calculated

1 Report to the nearest 0.01 inch.

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

3 Loading rates to be calculated using the applied volume of wastewater, applied acreage, and the most recent BOD result collected at EFF-002 as specified in the Reporting Section (pages 6-11).

4 The cycle average BOD loading rates shall be calculated using applied volume of wastewater, applied acreage, and the most recent BOD result collected at EFF-002 divided by the number of days between applications as specified in the Reporting Section (pages 6-11).

5 Nitrogen and salt shall be calculated using the applied volume of wastewater, applied acreage, and average of the total nitrogen and fixed dissolved solids results collected during the irrigation season at EFF-002 as specified in the Reporting Section (pages 6-11).

6 Additional nitrogen loading to the land application area from other sources (i.e. organic matter and manure).

## GROUNDWATER MONITORING

The Dischargers shall monitor groundwater in accordance with Provision G.12, and any subsequent additional wells.

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

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Semi-Annual	Depth to groundwater	feet	Measured
Semi-Annual	Groundwater elevation	feet	Computed
Semi-Annual	pH	pH units	Grab
Semi-Annual	Electrical Conductivity	umhos/cm	Grab
Semi-Annual	Total Dissolved Solids	mg/L	Grab
Semi-Annual	Total Kjeldahl Nitrogen	mg/L	Grab

Semi-Annual	Nitrate as Nitrogen	mg/L	Grab
Semi-Annual	Nitrite as Nitrogen	mg/L	Grab
Semi-Annual	Ammonia as Nitrogen	mg/L	Grab
Semi-Annual	Total Nitrogen	mg/L	Computed
Semi-Annual	General Minerals <sup>1</sup>	mg/L	Grab

<sup>1</sup> General mineral analysis shall include, alkalinity (as CaCO<sub>3</sub>), bicarbonate (as CaCO<sub>3</sub>), boron, calcium, carbonate (CaCO<sub>3</sub>), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

## REPORTING

All monitoring results shall be reported in **Semi-Annual 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 Semi-Annual Monitoring Report (August through January): **1 March**

Second Semi-Annual Monitoring Report (February through July): **1 September**

**A transmittal letter shall accompany each monitoring report.** The transmittal letter shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Dischargers 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 Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be mailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents that are 50MB or larger should be transferred to a disc and mailed to the appropriate regional water board office, in this case 1685 E Street, Fresno, CA, 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15, WDID: 5C54NC00323, Facility Name: ARO Pistachios, Inc., Order: R5-2016-0052

In reporting monitoring data, the Dischargers 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 Dischargers complies with waste discharge requirements, and shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Dischargers have previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

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.

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.

**A. All Semi-Annual Monitoring Reports** shall include the following:

#### **Wastewater and Pond Reporting**

1. The results of Effluent Monitoring and Pond Monitoring specified on pages 2 through 4.
2. For each month of the processing season, calculation of the maximum daily flow, monthly average flow, and cumulative annual flow.
3. A summary of both the maintenance conducted on the 130-acre pond liner and the monitoring conducted to evaluate the integrity of the pond liner, in accordance with the Facility's Pond Liner Construction, Operation, Maintenance, and Monitoring Plan.

#### **Source Water Reporting**

1. The results of Source Water Monitoring specified on page 4.

#### **Land Application Area Reporting**

1. The results of the routine monitoring and loading calculations specified on pages 4 and 5.
2. Calculation of the hydraulic load for wastewater and fresh irrigation water to the land application areas in gallons and/or acre-inches.
3. A summary of the notations made in the log book during each quarter. The entire contents of the log do not need to be submitted.
4. Calculate daily and cycle average BOD<sub>5</sub> loading rates for each land application area;
  - a. The mass of BOD<sub>5</sub> applied to each land application area on a daily basis shall be calculated using the following formula:

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

Where: M = Mass of BOD applied to the LAA in lbs/ac/day  
C = Concentration of BOD<sub>5</sub> in mg/L based on the most recent monitoring result  
V = Volume of wastewater applied to the LAA in millions of gallons per day  
A = Area of LAA irrigated in acres  
8.345 = Unit conversion factor

- b. The mass of BOD<sub>5</sub> applied to each land application area on a cycle average basis shall be calculated using the following formula:

$$M = \frac{8.345 (CV)}{AT}$$

Where: M = Mass of BOD applied to the LAA in lbs/ac/day  
C = Concentration of BOD<sub>5</sub> in mg/L based on the most recent monitoring result  
V = Volume of wastewater applied to the LAA in millions of gallons per day  
A = Area of LAA irrigated in acres  
T = Irrigation cycle length in days (From first day water was applied to the last day of drying time)  
8.345 = Unit conversion factor

5. Provide a Site Map of the LAA's showing predominant features, and include field numbers (if applicable) and acreage where wastewater was applied.

### Groundwater Reporting

1. The results of Groundwater Monitoring specified on pages 5 and 6. If there is insufficient water in the well(s) for sampling, the monitoring well(s) shall be reported as dry for that quarter.
2. For each monitoring well, a table showing groundwater depth, elevation, and constituent concentration for the five previous years, up through the present quarter.
3. A groundwater contour map based on groundwater elevation for that quarter. The map shall show the gradient and direction of groundwater flow. The map shall also include locations of all monitoring wells and wastewater storage and application areas.

- B. Annual Reports**, shall be submitted on **1 February of each year**, and shall include the following:

### Facility Information

1. The names and general responsibilities of all persons in charge of wastewater management.
2. The names and telephone numbers of persons to contact regarding the facility 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.
5. A discussion and summary of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

### **Solids Reporting**

1. Annual production total solids (excluding trash and recyclables) in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.
  - a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
  - b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
  - c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
  - d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.
  - e. For beneficial reuse at locations and by entities not operating under a WDRs, and as approved by the Executive Officer, include: the name and location of the site where the beneficial reuse occurs and/or solids are sent for beneficial reuse.

### **Land Application Area Reporting**

1. The type of crop(s) grown in the LAA's, 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 volume of wastewater and irrigation water applied to the LAA's during the reporting year expressed in million gallons and acre-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>
  - d. Monthly average and annual average discharge flow rates.
  - 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. The total pounds of nitrogen applied to each LAA for each month and on an annual basis in lbs/acre-year, shall be calculated using the following formula:

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

Where:	M	=	Mass of nitrogen applied to the LAA in lbs/ac/day
	$C_i$	=	Average concentration of total nitrogen for the month in mg/L
	$V_i$	=	Volume of wastewater applied to LAA for the month in millions of gallons
	A	=	Area of LAA irrigated in acres
	i	=	Number of the month (e.g., January = 1, February = 2, etc)
	$C_i$	=	Average concentration
	$M_x$	=	Nitrogen mass from other sources (e.g., fertilizer, irrigation water, etc)
	8.345	=	Unit conversion factor

5. The total pounds of fixed dissolved solids that have been applied to the LAA's in lbs/acre-year, as calculated from the sum of the monthly loadings.

$$C_a = \frac{\sum_{i=1}^{12} [(C_{Pi} \times V_{Pi}) + (C_{Si} \times V_{Si})]}{\sum_{i=1}^{12} (V_{Pi} + V_{Si})}$$

- Where:
- $C_a$  = Flow-weighted average annual FDS concentration in mg/L
  - $i$  = The number of the month (e.g., January = 1, February = 2, etc.)
  - $C_{Pi}$  = Monthly average process wastewater FDS concentration for calendar month  $i$  in mg/L
  - $C_{Si}$  = Monthly average supplemental irrigation water FDS concentration for calendar month  $i$  in mg/L (considering each supplemental source separately)
  - $V_{Pi}$  = Volume of process wastewater applied to LAA during calendar month  $i$  in million gallons
  - $V_{Si}$  = Volume of supplemental irrigation water applied to LAA during calendar month  $i$  in million gallons (considering each supplemental source separately)

### Annual Pond Liner Performance Evaluation

1. The Annual Report shall also include an annual pond liner performance evaluation certified by a licensed Civil Engineer as required by the April 2018 Pond Liner Construction Operation, Maintenance, and Monitoring Plan or subsequently approved plan.

The Dischargers shall implement the above monitoring program on the first day of the month following the issuance of this revised Monitoring and Reporting Program (1 October 2018).

Ordered by: Clay L. Rodgers  
 for PATRICK PULUPA, Executive Officer  
9/25/2018  
 (Date)

## GLOSSARY

BOD <sub>5</sub>	Five-day biochemical oxygen demand
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.
Daily	Samples shall be collected at least every day.
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.
Weekly	Samples shall be collected at least once per week.
2/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