Central Valley Regional Water Quality Control Board

9 July 2020

Steve Sanders, Chief of Staff
California Living Museum Foundation
1300 17th Street
Bakersfield, CA 93301

CERTIFIED MAIL
7019 2970 0001 5206 3664

NOTICE OF APPLICABILITY

CENTRAL VALLEY WATER BOARD RESOLUTION R5-2018-0085; WAIVER OF REPORTS OF WASTE DISCHARGE AND WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE CENTRAL VALLEY REGION; CALIFORNIA LIVING MUSEUM FOUNDATION; AQUARIUM DISCHARGE; KERN COUNTY

On 21 May 2020, Steve Sanders with the California Living Museum Foundation (hereafter Museum or Discharger) submitted a Report of Waste Discharger (RWD) for coverage under Resolution R5-2018-0085, *Approving Waiver of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge Within the Central Valley Region* (or Low Threat Waiver) for the discharge of aquarium wastewater for use as dust control around the Museum northeast of Bakersfield in Kern County.

Based on the information provided in the RWD and additional information provided by Jordan Reed, an operator with the Museum, the discharge meets the required conditions for approval under the Low Threat Waiver. You are hereby assigned enrollee number **R5-2018-0085-0044.** Please include this number on all correspondence related to this discharge. A copy of the Low Threat Waiver is enclosed and available on the Central Valley Water Board's website at: (https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf).

Please familiarize yourself with the contents of the Low Threat Waiver, including the Conditions of Discharge (Attachment A of the Low Threat Waiver). The discharge must be managed in accordance with the requirements contained in the Conditions of Discharge and with the information submitted with the RWD and this Notice of Applicability (NOA). The Low Threat Waiver will expire on **7 December 2023.** Prior to this date, the Discharger shall contact the Central Valley Water Board and either cease the discharge or submit a new RWD and application fee to continue the discharge under a renewed waiver, general order, or individual waste discharge requirements.

Due to the quality of the discharge, this NOA is accompanied by Monitoring and Reporting Program (MRP) R5-2018-0085-0044 to ensure compliance with the conditions in the Low Threat Waiver.

LOCATION

The Museum and available application areas occupy approximately 50 acres of land at 10500 Alfred Harrell Highway adjacent to the Kern River about eight miles northeast of Bakersfield in Kern County as shown in **Attachment A**. The Museum and surrounding land occupy Assessor's Parcel Number (APN) 386-030-020 and a portion of 386-030-017 (35º 43' 11" N, 118º 88' 30" W). This portion of Kern County is within the Tulare Lake Basin. The operative Water Quality Control Plan for the Tulare Lake Basin (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the basin.

DISCHARGE DESCRIPTION

The Museum has four saltwater aquariums (700 to 800 gallons each) as part of its exhibit space. According to the Discharger, the aquariums are flushed to change out a small portion of the water in the aquariums on a weekly basis. The wastewater drains to a central tank where it is collected and pumped into a water tank for application as dust control around the Museum grounds. The proposed discharge fits under Category 6 (Swimming pool discharges) of the Low Threat Waiver. While the proposed discharge occurs more frequently than once every three years, the total volume is significantly smaller than a normal swimming pool and spread out over a large area, significantly reducing the discharge's threat to impact underlying groundwater quality.

The Discharger estimates that about 1,500 gallons per month (or about 18,000 gallons per year) of wastewater will be generated during periodic change out of the saltwater aquariums. The wastewater will be applied as needed for dust control on about 12 acres of land surrounding the Museum, including the parking area, access roads, trails, and open areas. According to the Discharger, supplemental water may be added to the discharge at certain times when additional water is needed for dust control.

The RWD includes data collected from a sample of the aquarium water, summarized in the table below.

Table 1: Aquarium Discharge (Unblended)

Constituent	Units	Lab Results
pH	pH Units	7.2
Electrical Conductivity (EC)	µmhos/cm	55,200
Total Dissolved Solids (TDS)	mg/L	37,000
Chloride	mg/L	19,000
Arsenic	mg/L	<0.04
Barium	mg/L	0.052
Lead	mg/L	<0.01

Constituent	Units	Lab Results
Selenium	mg/L	0.074
Mercury	ug/L	<0.02
Total Trihalomethanes	ug/L	non-detect
Other VOCs	ug/L	non-detect

Based on these results, the discharge from the saltwater aquariums is high in salinity. However, with the available application area of about 12 acres, the estimated annual salt load from 18,000 gallons will be less than 500 pounds per acre per year. A review of the Geotracker GAMA database identified four wells within about two miles of the Museum with TDS concentrations ranging from about 350 to 1,600 mg/L.

FACILITY-SPECIFIC REQUIREMENTS

The Low Threat Waiver and this NOA covers the discharge of aquarium wastewater from flushing and change out of the saltwater aquariums at the Museum for use as dust control. The Discharger shall comply with the requirements specified in the Low Threat Waiver and the facility-specific requirements listed below.

1. The discharge shall be conducted as described in the RWD and in accordance with the requirements contained in the Low Threat Waiver.

2. Discharge of aquarium wastewater at a location or in a manner different from that described in this NOA is prohibited.

3. Runoff or discharge of aquarium wastewater to a wetland, surface water, surface water drainage course, or biologically or culturally sensitive area is prohibited.

4. Application of aquarium wastewater for dust control shall be done at reasonable rates to prevent oversaturation, ponding, erosion, or runoff.

5. Failure to comply with the requirements of this NOA, attached Monitoring and Reporting Program R5-2018-0085-0044, and the Low Threat Waiver, could result in enforcement actions as authorized by provisions of the California Water Code.

6. The Discharger shall notify the Central Valley Water Board of any change in agreement or proposed use of the discharge of aquarium backwash water as described in the RWD and this NOA.

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleyfresno@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 or any documentation submitted to the mailing address for this office:

Facility Name: California Living Museum Foundation
Program: NON-15.
Resolution: R5-2018-0085-0044
CIWQS Place ID: 867201

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

Central Valley Regional Water Quality Control Board Fresno Office
1685 E Street
Fresno, CA 93706

All documents, including responses to inspections and written notifications, submitted to comply with this Waver shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Russell Walls. Mr. Walls can be reached at (559) 488-4392 or Russel.Walls@waterboards.ca.gov. Questions regarding the permitting aspects of the Wavier, and notification for termination of coverage under the Waiver, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention Katie Carpenter. Ms. Katie Carpenter can be reached at (559) 445-5551 or by email at Katie.Carpenter@waterboards.ca.gov.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, 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 Resources Control Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet or will be provided upon request. (http://www.waterboards.ca.gov/public_notices/petitions/water_quality).

Original Signed by Clay L. Rodgers for
Patrick Pulupa,
Executive Officer

Attachments: Attachment A – Site Map

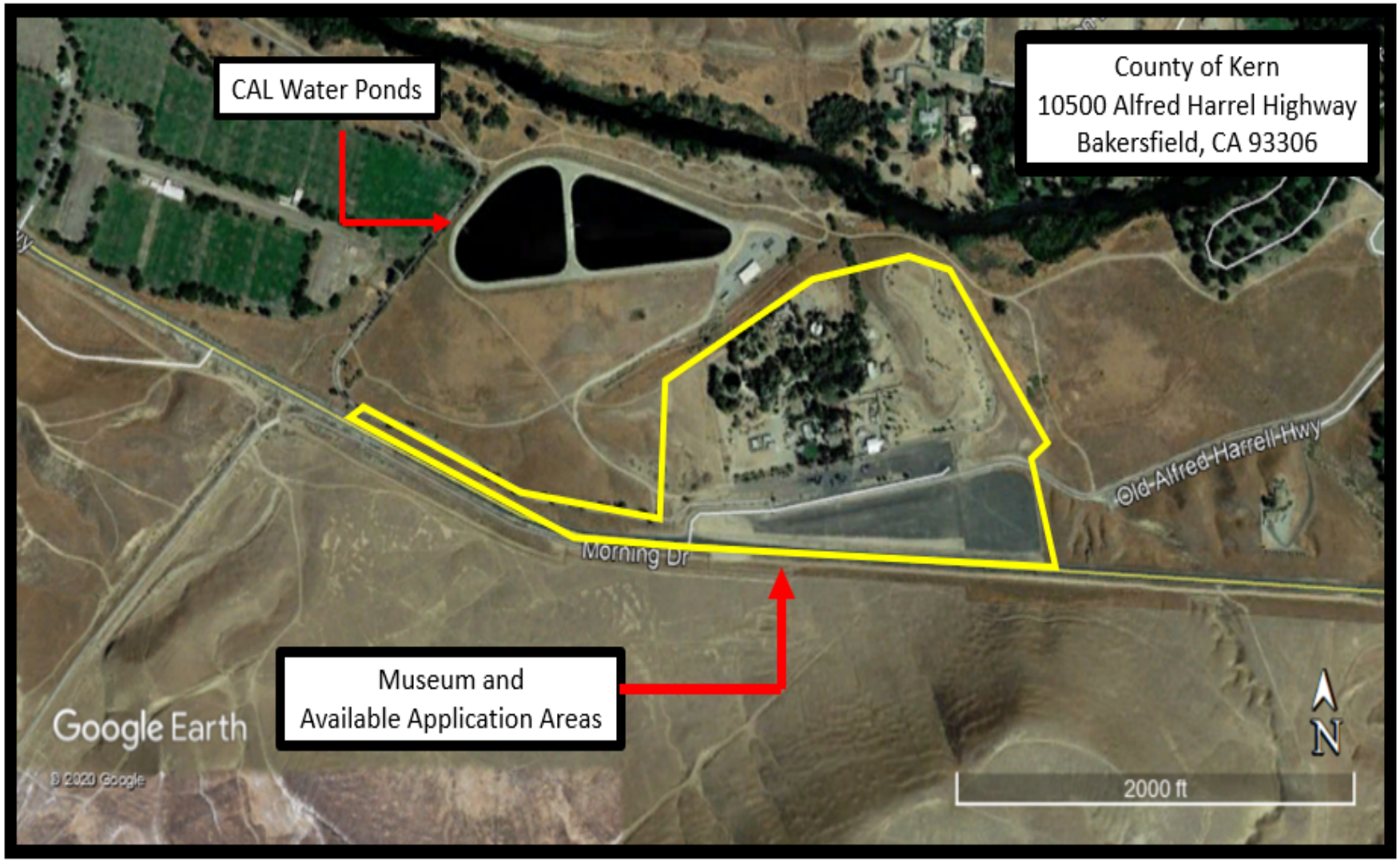
Enclosures: Low Threat Waiver Resolution R5-2018-0085
Monitoring and Reporting Program R5-2018-0085-0044

(see next page for cc's)

cc w/o encs.:

- Russell Walls, Central Valley Water Board, Fresno (via email)
- Chad Fisher, State Water Board Division of Drinking Water, Fresno (via email)
- Kern County Environmental Health Department, Bakersfield
- Jordan Reed, California Living Museum Foundation, (via email)

ATTACHMENT A – Site Map



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2018-0085-0044 FOR CALIFORNIA LIVING MUSEUM FOUNDATION AQUARIUM DISCHARGE KERN COUNTY

On 3 July 2020 the Central Valley Regional Water Quality Control Board (Central Valley Water Board) Executive Officer issued California Living Museum Foundation (Museum or Discharger) Notice of Applicability (NOA) R5-2018-0085-0044 for coverage under Resolution R5-2018-0085, *Approving Waiver of Reports of Waste Discharge and Waste Discharge Requirements for Specific Types of Discharge Within the Central Valley Region* (Low Threat Waiver or Waiver). NOA R5-2018-0085-0044 is for the discharge of aquarium wastewater from flushing and change out of Museum's saltwater aquariums to land for use as dust control. This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code 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.

Section 13267, subsection (b)(1) of the California Water Code states:

> *"In conducting an investigation specified in subdivision (a), the regional 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 regional 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 regional 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."*

The Discharger owns and operates the area subject to NOA R5-2018-0085-0044, and the monitoring reports are necessary to ensure the Discharger complies with the NOA and the conditions specified in the Low Threat Waiver. Pursuant to Water Code section 13268, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

Section 13268 of the California Water Code states, in part:

> *"(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or*

falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b)

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars ($1,000) for each day in which the violation occurs."

A glossary of terms used in this MRP is included on the last page.

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. The measurements may be based on flow meter readings or pump run time estimate. The method of measurement must be specified. 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.

B. MONITORING AND SAMPLING LOCATIONS

Samples shall be obtained at the monitoring points specified in this MRP. The Central Valley Water Board Executive Officer shall approve any proposed changes to sampling locations prior to implementation of the change.

The Discharger shall monitor the following locations as described in Table 1 to demonstrate compliance with the requirements of this MRP:

Table 1. Monitoring Locations

Monitoring Location	Monitoring Location Description
EFF-001	Location where a sample of the discharge can be taken after collection and blending but prior to application for use as dust control.
LAA	Land Application Area where the discharge will be applied as dust control.

C. SAMPLING AND SAMPLE ANALYSIS

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The 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.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *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 (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water's Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

II. SPECIFIC MONITORING REQUIREMENTS

A. EFFLUENT MONITORING (EFF-001)

Effluent samples of the discharge shall be taken after collection and any supplemental water is added but prior to application as dust control to the land application areas. At a minimum, effluent monitoring shall consist of the following:

Table 2. Effluent Monitoring

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
pH	pH units	Grab	Monthly	Quarterly
EC	µmhos/cm	Grab	Monthly	Quarterly
TDS	mg/L	Grab	Quarterly	Quarterly
General Minerals	various	Grab	Once/3 years (see 1 below)	Annually

1. Samples for General Minerals shall be collected once every three years starting in 2020.

B. LAND APPLICATION AREA MONITORING

The Discharger shall monitor the land application areas where aquarium water is applied as dust control. The Discharger shall monitor each discrete application area when the waste water is being applied. The data shall be presented in tabular format and shall include the following:

Table 3. Land Application Area Monitoring

Constituent	Units	Sample Type	Sample Frequency	Reporting Frequency
Flow	gallons	Meter (see 1 below)	Daily	Quarterly
Acreage Applied	acres	Calculated	Daily	Quarterly
Wastewater Loading	inches/acre	Calculated	Monthly	Quarterly
Erosion		Observation	Weekly	Quarterly
Soil Saturation/Ponding		Observation	Weekly	Quarterly
Runoff		Observation	Weekly	Quarterly
Nuisance Odors/Vectors		Observation	Weekly	Quarterly

1. Flows can be metered or estimated based on pump run time or other acceptable method. The method of measurement shall be reported.

III. REPORTING REQUIREMENTS

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. 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
Region 5 – Fresno Office
1685 "E" St.
Fresno, California 93706

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

Program:	Non-15,
Facility:	California Living Museum Foundation
Order:	MRP R5-2018-0085-0044
County:	Kern
Place ID:	867201

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken 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 certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer's knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, 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.

Laboratory analysis reports shall be included in the monitoring reports. All laboratory reports must also be retained for a minimum of three years. For a discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

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.

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. QUARTERLY MONITORING REPORTS

Quarterly Monitoring Reports shall be submitted to the Central Valley Water Board **by the 1st day of the second month after the quarter** (i.e., the first quarter monitoring report [January-March] is due by 1st May). The report shall bear the certification and signature of the Discharger or his/her authorized representative. At a minimum, the quarterly report shall include the following information.

1. Results of all required monitoring. Data shall be presented in tabular format. If no discharge occurred during the reporting period the report shall so state.
2. Copies of all laboratory analytical report(s) and chain of custody form(s) for in-house and contracted laboratory analyses.
3. Map and table identifying locations and periods (i.e., dates) when aquarium water is applied for dust control.

B. FOURTH QUARTER MONITORING REPORT

In addition to the above information the fourth quarter monitoring report shall include the following:

1. The names and contact information for the operator(s) responsible for operation, maintenance, application, and monitoring of the discharge.
2. A discussion and summary of the compliance record for the reporting period identifying all corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or Low Threat Waiver.
3. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the NOA and the conditions specified in the Low Threat Waiver, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order 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 Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this MRP, 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 Resources Control Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided on request.

The Discharger shall implement the above monitoring program by the date of this MRP.

Ordered by: *Original Signed by Clay L. Rodgers for*

PATRICK PULUPA, Executive Officer

7/9/2020

(Date)

IV. GLOSSARY

BOD_5	Five-day biochemical oxygen demand
CaCO3	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Once/3 Years	Sample shall be collected at least once every three years.
Daily	Every day except weekends or holidays.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter.
Annually	Once per year. Annual samples shall be collected in the third quarter between July and September.
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
General Minerals	Analysis shall include; alkalinity (as $CaCO_3$), bicarbonate (as$CaCO_3$), boron, calcium, carbonate (as $CaCO_3$), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, and verification that the analysis is complete (i.e., cation/anion balance).