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## Central Valley Regional Water Quality Control Board

17 April 2024

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

**CERTIFIED MAIL**  
**7021 1970 0001 5446 4993**

### NOTICE OF APPLICABILITY

**RESOLUTION R5-2023-0061  
WAIVER OF WASTE DISCHARGE REQUIREMENTS, REPORTS OF WASTE  
DISCHARGE AND/OR WATER RECYCLING REQUIREMENTS  
FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE CENTRAL VALLEY REGION**

**CALIFORNIA LIVING MUSEUM FOUNDATION  
AQUARIUM DISCHARGE  
KERN COUNTY  
(ENROLLEE # R5-2023-0061-0011)**

On 13 February 2024, Steve Sanders with the California Living Museum Foundation (hereafter Discharger) submitted a Report of Waste Discharge (RWD) for coverage under Resolution R5-2023-0061, *Waiver of Waste Discharge Requirements, Reports of Waste Discharge, and/or Water Recycling Requirements for Specific Types of Discharge Within the Central Valley Region* (Low Threat Waiver) to renew coverage for the discharge of aquarium wastewater for use as dust control on open land and unpaved roads at the California Living Museum (Museum). The application fee and additional information requested by Central Valley Water Board staff were received on 14 February 2024.

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 enrollment under the Low Threat Waiver. You are hereby assigned **enrollee number R5-2023-0061-0011**. 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 Boards website at:

[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/waivers/r5-2023-0061.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2023-0061.pdf)

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MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

Please familiarize yourself with the contents of the Low Threat Waiver, including the Conditions of Discharge (Low Threat Waiver, Attachment A). The discharge must be managed in accordance with the requirements contained in the Conditions of Discharge (Table 1, Category 6 – Swimming pool discharges) and with the information submitted in the RWD and this Notice of Applicability (NOA). Note that the Low Threat Waiver will expire on **14 December 2028**. After which you will need to cease the discharge or submit a new RWD and application fee to seek coverage under a renewed waiver, general order, or individual waste discharge requirements.

## LOCATION

The Museum and available application areas are at 10500 Alfred Harrell Highway and occupy approximately 50 acres of land adjacent to the Kern River, as shown in **Attachment A**. The Museum and land application areas are about eight miles northeast of Bakersfield, in Kern County, and include Assessor's Parcel Number 386-030-030 and a portion of 386-030-017 (35° 34' 11" N, 118° 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 periodically to change out a portion of the water in the tanks. The wastewater is captured and drains to a central tank where it is collected before being pumped into a water tank for use as dust control along access roads and the Museum's parking area. Dust suppression occurs on about 12 acres of the Museum grounds. According to the Discharger, supplemental water may be added to the discharge, as needed.

Based on the spray records from 2020 to 2023, discharges take place about six to seven times per year and average about 6,100 gallons per year. While the discharge occurs more frequently than every three years, the total volume discharged each year is significantly smaller than a swimming pool and is spread over a large area, significantly reducing the threat to underlying groundwater.

Table 1 provides results of samples collected from the aquarium wastewater in May 2020 and January 2024.

**Table 1. Wastewater Quality Sampling**

Constituent	Units	Sample (May 2020)	Sample (January 2024)
pH	Std. units	7.2	--
Electrical Conductivity (EC)	µmhos/cm	55,200	46,300
Total Dissolved Solids (TDS)	mg/L	37,000	30,000
Chloride	mg/L	19,000	19,000

Constituent	Units	Sample (May 2020)	Sample (January 2024)
Lead	mg/L	<0.01	--
Selenium	µg/L	0.074	--
Mercury	µg/L	<0.02	--
Total Trihalomethanes	µg/L	Non-detect	--
Volatile Organic Compounds	µg/L	Non-detect	--

While the discharge from the saltwater aquariums is high in salinity, given the low volume at 6,100 gallons per year and large application area (i.e., 12 acres), the estimated salt load from the discharge will be less than 150 pounds per acre per year (lbs/ac/year) compared to about 1,500 lbs/ac/year if discharged to the onsite septic system. Staff's review of the California Department of Water Resources groundwater maps and Geotracker database shows depth to groundwater in the area has ranged from about 180 to 250 feet below site grade in recent years (2016 to 2023) with TDS concentrations in groundwater ranging from about 350 to 1,600 mg/L.

Given the high salinity of the discharge, this NOA includes a Monitoring and Reporting Program (MRP) to ensure compliance with the conditions in the Low Threat Waiver.

#### **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 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 to biologically or culturally sensitive areas is prohibited.
4. Application of aquarium wastewater for dust control shall be done at reasonable rates to prevent oversaturation, ponding, erosion, or runoff.
5. Annual submittal of monitoring reports including sampling and spray records in accordance with the attached MRP are required.
6. The Discharger shall notify the Central Valley Water Board of any change in agreement or proposed use of the discharge of aquarium wastewater

7. Failure to comply with the requirements of the Low Threat Waiver, this NOA, or attached MRP may result in enforcement action as authorized by provisions of the California Water Code.

Please review this Notice of Applicability carefully to ensure that it completely and accurately reflects the facility name, location, and details of the proposed discharge.

### **DOCUMENT SUBMITTAL**

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](mailto: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, Aquarium Discharge  
**Program:** NON-15.  
**Resolution:** R5-2023-0061-0011  
**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 Waiver shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Omar Mostafa. Mr. Mostafa can be reached at (559) 445-5197 or [Omar.Mostafa@waterboards.ca.gov](mailto:Omar.Mostafa@waterboards.ca.gov). Questions regarding the permitting aspects of the Waiver, 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. Carpenter can be reached at (559) 445-5551 or by email at [Katie.Carpenter@waterboards.ca.gov](mailto: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 NOA 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)).

*Original Signed by Christina Shupe*  
For Patrick Pulupa,  
Executive Officer

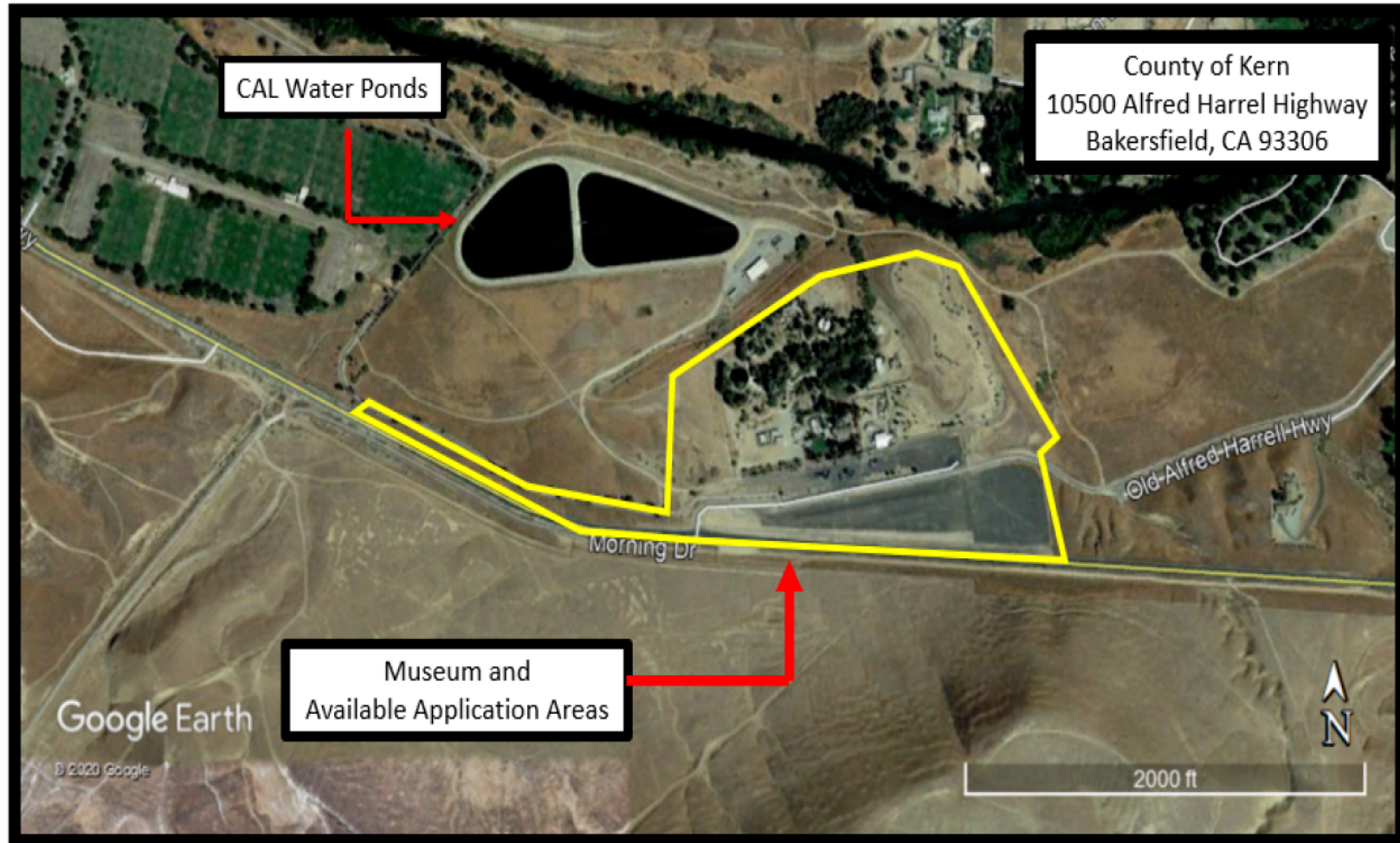
Attachments: Attachment A – Site Plan

Enclosures: Monitoring and Reporting Program R5-2023-0061-0011  
Low Threat Waiver, Resolution R5-2023-0061

cc w/o enc.:

- Omar Mostafa, Central Valley Water Board, Fresno, (via email)
- Kern County Environmental Health Department, Bakersfield
- Jordan Reed, California Living Museum Foundation, (via email)

**ATTACHMENT A – SITE PLAN**



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**MONITORING AND REPORTING PROGRAM R5-2023-0061-0011  
FOR  
CALIFORNIA LIVING MUSEUM FOUNDATION  
AQUARIUM DISCHARGE  
KERN COUNTY**

On **17 April 2024** the Central Valley Regional Water Quality Control Board (Central Valley Water Board) Executive Officer issued the California Living Museum Foundation (Discharger) a Notice of Applicability (NOA) R5-2023-0061-0011, for coverage under Resolution R5-2023-0061, *Approving Waiver of Waste Discharge Requirements, Reports of Waste Discharge, and/or Water Reclamation Requirements for Specific Types of Discharge Within the Central Valley Region* (Low Threat Waiver or Waiver). The NOA regulates the discharge of aquarium wastewater for dust control on open land and unpaved roads at the California Living Museum (Museum). 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 R5-2023-0061-0011, 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 to demonstrate compliance with the requirements of this MRP:

**Table 1. Monitoring Locations**

<b>Monitoring Location</b>	<b>Monitoring Location Description</b>
EFF-001	Location where a sample of the aquarium wastewater can be taken after collection but prior to blending with supplemental water or land application as dust control.
Spray #1, Spray #2, and Spray #3	Designated spray areas.



### **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 most recently approved for use by the United States Environmental Protection Agency (US 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)

Samples of the aquarium wastewater shall be taken from the collection tank prior to the addition of any supplemental water. Samples shall be taken of the aquarium wastewater at least once during each quarter and the results submitted as part of the annual monitoring report. At a minimum, effluent monitoring shall consist of the following:

**Table 2. Effluent Monitoring**

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u>
pH	Std. Units	Grab	Quarterly
Electrical Conductivity (EC)	µmhos/cm	Grab	Quarterly
Total Dissolved Solids (TDS)	mg/L	Grab	Quarterly
General Minerals (see 1 below)	mg/L	Grab	Once/3 years (see 2 below)

1. General Minerals Analysis see Glossary for list of constituents.
2. Samples shall be collected once every three years starting in 2026.

### B. SPRAY AREA MONITORING

The Discharger shall monitor the spray areas where aquarium wastewater is sprayed for use as dust control, and the results reported in the Annual Monitoring Report. At a minimum, the monitoring shall include the following:

**Table 3. Spray Area Monitoring**

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u> (see 1 below)
Flow	gallons	Meter (see 2 below)	Daily
Spray Area (see 3 below)	NA	Observation	Daily
Acreage Applied	acres	Calculated	Daily

1. When discharge occurs.
2. Flows may be metered or estimated based on pump run time, tank capacity, or other acceptable method. The method used to calculate flows shall be reported.

3. The spray area shall be observed for evidence of oversaturation, ponding, erosion, or runoff during applications. Results shall be kept in an application logbook and summarized in the Annual Monitoring Report.

### 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](mailto: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 – Aquarium Discharge  
Order: R5-2023-0061-0011  
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. ANNUAL MONITORING REPORTS**

Annual Monitoring Reports shall be submitted to the Central Valley Water Board by **February 1<sup>st</sup>** of each year. The Annual Monitoring Report shall include the following:

1. Results of all required monitoring data shall be presented in tabular format. If no discharge occurred during the year 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 used for dust control
4. Summary of the spray area monitoring log
5. The names and contact information for the operator(s) responsible for operation, maintenance, and monitoring of the system and application of aquarium wastewater for dust control
6. 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
7. 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 \$1,000 per violation, per day, depending on the violation, pursuant to the Water Code section 13268. 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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)) or will be provided on request.

The Discharger shall begin implementing the above monitoring program the date of this MRP.

Ordered by: *Original Signed by Christina Shupe for:*

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PATRICK PULUPA, Executive Officer

*17 April 2024*

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(Date)

#### IV. GLOSSARY

CaCO <sub>3</sub>	Calcium carbonate
EC	Electrical conductivity at 25° C
TDS	Total dissolved solids
Daily	Every day except weekends or holidays.
Once/3 years	Once every three years.
Weekly	Once per week.
Monthly	Once per calendar month.
Quarterly	Once per calendar quarter (i.e., Jan-Mar, Apr-Jun, Jul-Sep, Oct-Dec).
Annually	Once per year. Annual samples shall be collected in the third quarter between July and September.
mg/L	Milligrams per liter
NA	Not applicable
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 <sub>3</sub> ), bicarbonate (asCaCO <sub>3</sub> ), boron, calcium, carbonate (as CaCO <sub>3</sub> ), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, total dissolved solids, and verification that the analysis is complete (i.e., cation/anion balance).