

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

Office
73-720 Fred Waring Dr. #100
Palm Desert, CA 92260

WaterBoards.ca.gov/Coloradoriver/

ORDER R7-2021-0045
NPDES No. CA0104906



**WASTE DISCHARGE REQUIREMENTS
FOR THE U.S. NAVY NAVAL AIR FACILITY EL CENTRO
WASTEWATER TREATMENT PLANT**

Table 1. Discharger Information

Discharger	U.S. Navy
Name of Facility	Naval Air Facility El Centro Wastewater Treatment Plant
Facility Address	1605 3 rd Street, Building 504
County	Imperial County
Prior Order	R7-2016-0004

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Treated Municipal Wastewater	32°, 50', 20"	115°, 41', 07"	Unnamed Tributary to the New River

Table 3. Administrative Information

This Order was adopted on:	November 2, 2021
This Order shall become effective on:	December 1, 2021
This Order shall expire on:	November 30, 2026
Due Date for Next Report of Waste Discharge (ROWD) and Application for National Pollutant Discharge Elimination System (NPDES) Permit Reissuance:	June 1, 2026, or as soon as possible if planned changes meet the Notice Requirement under 40 C.F.R. § 122.41(l)(1).
Discharge Classification by U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Colorado River Basin Region:	Minor

I, PAULA RASMUSSEN, Executive Officer, hereby certify that the following is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on November 2, 2021.

Original Signed By

PAULA RASMUSSEN
Executive Office

TABLE OF CONTENTS

1. FACILITY INFORMATION 4
2. FINDINGS 4
 2.A. Legal Authorities 4
 2.B. Background and Rationale for Requirements 4
 2.C. Provisions and Requirements Implementing State Law 4
 2.D. Notification of Interested Parties 4
 2.E. Consideration of Public Comment 4
3. DISCHARGE PROHIBITIONS 5
4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS 5
 4.A. Effluent Limitations 5
 4.B. Land Discharge Specifications – Not Applicable 7
 4.C. Recycling Specifications – Not Applicable 7
5. RECEIVING WATER LIMITATIONS 7
 5.A. Surface Water Limitations 7
 5.B. Groundwater Limitations – Not Applicable 9
6. PROVISIONS 9
 6.A. Standard Provisions 9
 6.B. Monitoring and Reporting Program (MRP) Requirements 10
 6.C. Special Provisions 11
7. COMPLIANCE DETERMINATION 17

TABLE OF TABLES

Table 1. Discharge Information 1
Table 2. Discharge Location 1
Table 3. Administrative Information 2
Table 4. Effluent Limitations 6
Table 5. Compliance Schedule 16

TABLE OF ATTACHMENTS

ATTACHMENT A – DEFINITIONS A-1
ATTACHMENT B – MAP B-1
ATTACHMENT C – FLOW SCHEMATIC C-1
ATTACHMENT D – STANDARD PROVISIONS D-1
ATTACHMENT E – MONITORING AND REPORTING PROGRAM E-1
ATTACHMENT F – FACT SHEET F-1
ATTACHMENT G – SUMMARY OF WQBELs CALCULATIONS G-1
ATTACHMENT H – BIOSOLIDS AND SLUDGE MANAGEMENT H-1
ATTACHMENT I – SANITARY SEWER SYSTEM REQUIREMENTS I-1

1. FACILITY INFORMATION

Information describing the U.S. Navy Naval Air Facility El Centro Wastewater Treatment Plant (Facility) is summarized on the cover page and in Sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board) finds as follows:

2.A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2, subject to the requirements in this Order.

2.B. Background and Rationale for Requirements. The Colorado River Basin Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through H are also incorporated into this Order.

2.C. Provisions and Requirements Implementing State Law. The provisions/requirements in Subsections 4.B, 4.C, 5.B, and 6.A.2 are included to implement state law only. These provisions/requirements are not required or authorized under the federal Clean Water Act; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

2.D. Notification of Interested Parties. The Colorado River Basin Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided them with an opportunity to submit written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.E. Consideration of Public Comment. The Colorado River Basin Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order R7-2016-0004 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Colorado River Basin Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

- 3.A.** The discharge of waste to land is prohibited unless authorized in a separate waste discharge permit.
- 3.B.** The discharge of treated wastewater from the Facility at a location or in a manner different from that described in this Order is prohibited.
- 3.C.** The discharge of trash from the Facility to the New River, or any other water of the United States, is prohibited.
- 3.D.** The bypass or overflow of untreated or partially-treated wastewater or wastes to the New River is prohibited, except as allowed under Sections 1.G (Bypass) and 1.H (Upset) of Attachment D, Standard Provisions.
- 3.E.** The discharge of waste in excess of the design treatment or disposal capacity of the system, 0.3 million gallons per day (MGD), is prohibited.
- 3.F.** The discharge of waste that causes contamination, pollution, or nuisance as defined in Water Code section 13050, subdivisions (k), (l) and (m), respectively, is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.A. Effluent Limitations

4.A.1 Final Effluent Limitations for Discharge Point 001

- 4.A.1.a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	0.3	---	---	---	---
pH	Standard Units	---	---	---	6.0	9.0
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	30	45	---	---	---
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	lbs/day ¹	75	113	---	---	---
Total Suspended Solids (TSS)	mg/L	30	45	---	---	---
Total Suspended Solids (TSS)	lbs/day ¹	75	113	---	---	---
Oil and Grease	mg/L	---	---	25	---	---
Oil and Grease	lbs/day ¹	---	---	63	---	---
Chlorine, Total Residual	mg/L	0.01	--	--	--	0.02
Chlorine, Total Residual	lbs/day ¹	0.02	--	--	--	--
Thallium	µg/L	6.3	---	12.6	---	---
Thallium	lbs/day ¹	0.016	---	0.032	---	---
Selenium	µg/L	4.1	---	8.2	---	---

¹ The mass-based effluent limitations are based on a design capacity of 0.3 MGD.

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Selenium	lbs/day ¹	0.01	---	0.02	---	---

4.A.1.b. Percent Removal: The average monthly percent removal of BOD 5-day 20°C and total suspended solids (TSS) shall not be less than 85 percent.

4.A.1.c. Toxicity: There shall be no toxicity in the treatment plant effluent, nor shall the treatment plant effluent cause any toxicity in the receiving water, as defined in Section 5 of the MRP. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or toxicity tests of appropriate duration or other appropriate methods specified by the Colorado River Basin Water Board.

4.A.1.d. Bacteria: The bacterial density in the wastewater effluent discharged to the New River shall not exceed the following values, as measured by the following bacterial indicators:

E. Coli. A six-week rolling geometric mean (GM)² of *Escherichia coli* (*E. coli*) not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly and a statistical threshold value (STV)³ of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

4.A.2. Interim Effluent Limitations – Not Applicable

4.B. Land Discharge Specifications – Not Applicable

4.C. Recycling Specifications – Not Applicable

5. RECEIVING WATER LIMITATIONS

5.A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) and are a required part of this Order. The discharge from the Facility shall not cause or contribute to the following in the New River:

5.A.1. Dissolved Oxygen. The concentration of dissolved oxygen to fall below 5.0 milligrams per liter (mg/L). When dissolved oxygen in the receiving water is

² GM = geometric mean, a six-week rolling geometric mean calculated weekly.

³ STV = statistical threshold value, not to be exceeded by more than 10 percent of samples collected in a calendar month, calculated in a static manner.

already below 5.0 mg/L, the discharge shall not cause any further depression.

- 5.A.2. Oil, Grease, and Floating Material.** Oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
- 5.A.3. Pesticides.** The deposition of pesticides or any combination of pesticides in concentrations that adversely affect beneficial uses.
- 5.A.4. Color.** Discoloration that creates a nuisance or adversely affects beneficial uses.
- 5.A.5. Biostimulatory Substances.** Biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- 5.A.6. Turbidity.** An increase in turbidity that adversely affects beneficial uses.
- 5.A.7. pH.** The normal ambient pH to fall below 6.0 or exceed 9.0 units.
- 5.A.8. Temperature.** An alteration in the natural temperature, unless the Discharger can demonstrate to the satisfaction of the Colorado River Basin Water Board that the alteration in temperature does not adversely affect beneficial uses.
- 5.A.9. Settleable Substances.** The deposition of material in amounts that cause a nuisance or adversely affect beneficial uses.
- 5.A.10. Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.
- 5.A.11. Toxicity.** Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- 5.A.12. Taste and Odors.** An increase in taste- or odor-producing substances that adversely affects beneficial uses.
- 5.A.13. Total Dissolved Solids.** The concentration of total dissolved solids (TDS) to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L.
- 5.A.14. Water Quality Standards.** The violation of any applicable water quality standard for receiving waters adopted by the Colorado River Basin Water Board or the State Water Resources Control Board (State Water Board) as required by the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Clean Water Act section 303 or amendments thereto, the Colorado River Basin Water Board will revise and modify this permit in accordance with such more stringent standard.

5.B. Groundwater Limitations – Not Applicable

6. PROVISIONS

6.A. Standard Provisions

6.A.1. Federal Standard Provisions. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

6.A.2. Colorado River Basin Water Board Standard Provisions. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

6.A.2.a.The Facility shall be protected from any washout or erosion of wastes or covering material, and from any inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.

6.A.2.b.The Discharger shall ensure that all site-operating personnel are familiar with the contents of this Order and shall maintain a copy of this Order at the site.

6.A.2.c.The Discharger's wastewater treatment plant shall be supervised and operated by persons possessing certification of the appropriate grade pursuant to California Code of Regulations, title 23, section 3680.

6.A.2.d.The Discharger shall immediately notify the Office of Emergency Services by phone at (800) 852-7550 to report any noncompliance that may endanger human health or the environment as soon as: (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures.

6.A.2.e.The Discharger shall provide a report to the Colorado River Basin Water Board upon determining that the treatment plant's monthly average flow rate for any month exceeds 80 percent of the design treatment or disposal capacity. The report should indicate what steps, if any, the Discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.

6.A.2.f. In the event of any changes in ownership or management of this operation, the Discharger shall notify the Colorado River Basin Water Board of such change in writing. The Discharger shall also notify the succeeding owner or operator by letter that the new owner or operator must apply for coverage under this Order prior to discharging. The Discharger shall forward a copy of this letter to the Colorado River Basin Water Board within 30 days of providing the notice to the succeeding owner or operator.

6.A.2.g.Prior to any modifications in this Facility which would result in any material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, and if required by the Colorado River Basin Water Board, obtain revised requirements before any modifications are implemented.

- 6.A.2.h.** This Order does not authorize violation of any federal, state, or local laws or regulations.
- 6.A.2.i.** Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- 6.A.2.j.** In the event the Discharger does not comply or will be unable to comply with this Order for any reason, the Discharger shall notify the Colorado River Basin Water Board as follows:
- 1) For noncompliance with any prohibition, effluent limitation, or receiving water limitation of this Order, or for a spill in excess of 1,000 gallons:
 - i. The Discharger shall notify the Colorado River Basin Water Board by email to RB7-coloradoriver@waterboards.ca.gov within 24 hours of having knowledge of such noncompliance.
 - ii. The Discharger shall submit a written report within five days of noncompliance, unless this requirement is waived by Colorado River Basin Water Board staff. The written report shall state the nature, time, duration, and cause of the noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation.
 - 2) For all other forms of noncompliance:

The Discharger shall notify the Colorado River Basin Water Board at the time monitoring reports are submitted.
- 6.A.2.k.** In accordance with Water Code section 1211, the Discharger shall obtain approval from the State Water Board's Division of Water Rights prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse.

6.B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP in Attachment E of this Order and any future revisions thereto. This MRP may be modified by the Executive Officer at any time during the term of this Order and may include an increase in the number of parameters to be monitored, the frequency of the monitoring, the number and size of samples to be collected, or minor clarifications on MRP requirements.

6.C. Special Provisions

6.C.1. Reopener Provisions

6.C.1.a. Standard Revisions. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for an Order modification, revocation and reissuance, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, the modification of land application plans, or the adoption of new regulations by the State Water Board or the Colorado River Basin Water Board, including revisions to the Basin Plan.

6.C.1.b. Whole Effluent Toxicity. As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a numeric chronic toxicity limitation, an acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if a numeric chronic toxicity water quality objective is adopted by the State Water Board, this Order may be reopened to include effluent limitations based on that objective.

6.C.1.c. 303(d)-Listed Pollutants. If new or revised water quality objectives or Total Maximum Daily Loads (TMDLs) come into effect for receiving waters, the effluent limitations in this Order may be modified as necessary to reflect any updated water quality objectives and TMDL waste load allocations.

6.C.1.d. Reasonable Potential. This Order may be modified or revoked and reissued if present or future investigations demonstrate that the Discharger is causing or contributing to excursions above any applicable water quality standard or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

6.C.2. Special Studies, Technical Papers and Additional Monitoring Requirements

6.C.2.a. Toxicity Reduction Evaluation (TRE) Plan

The Discharger must review and update the Toxicity Reduction Evaluation (TRE) Work Plan as defined in Attachment A. The Discharger must conduct a TRE if repeated tests reveal toxicity as a result of waste discharges under this Order. The Discharger shall take all reasonable steps to control toxicity once the source of toxicity is identified. Failure to conduct the required toxicity tests or conduct a TRE shall result in the establishment of effluent limitations for chronic toxicity under this Order and/or appropriate enforcement action.

6.C.2.b. Optional Metal Translator Study

Should the Discharger wish to use a translator for metals and selenium other than the default USEPA conversion factors listed in Tables 2 and 3 of the California Toxics Rule (CTR), the Discharger shall perform studies to determine site-specific metal translators and must submit a written request to the Executive Officer. Otherwise, the USEPA conversion factors shall remain the default

standard used when calculating any water quality-based effluent limitations for selenium and metals. USEPA has developed a guidance manual entitled, *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007, June 1996).

6.C.2.c. Discharger Monitoring Report-Quality Assurance (DMR-QA) Study

USEPA requires major and selected minor permittees subject to an NPDES Permit to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits.

There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study; it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program.

The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board's Quality Assurance Program Officer. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

6.C.3. Best Management Practices and Pollution Prevention

6.C.3.a. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as "Detected, but Not Quantified" [DNQ] when the effluent limitation is less than the Method Detection Limit [MDL], sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) and either:

- 1) A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or
- 2) A sample result is reported as Not Detected (ND) and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP Section 10.B.4.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Colorado River Basin Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Colorado River Basin Water Board including:
 - a) All PMP monitoring results for the previous year;
 - b) A list of potential sources of the reportable priority pollutant(s);
 - c) A summary of all actions undertaken pursuant to the control strategy; and
 - d) A description of actions to be taken in the following year.

6.C.3.b. Spill Response Plan

On September 21, 2020, the Discharger submitted to the Colorado River Basin Water Board a Spill Response Plan (SRP). The Discharger shall review and update the existing SRP on an annual basis. The Discharger shall submit the updated SRP with each Annual Report. At a minimum, the SRP shall include sections concerning spill cleanup and containment measures, public notifications, monitoring, and the procedures to be carried out if floatable material is visible on the water surface near the discharge point. The Discharger shall make the SRP available for staff review during Colorado River Basin Water Board inspections. The Discharger shall ensure that all operating personnel are familiar with the contents of the SRP. A copy of the SRP shall be maintained at the site and shall be accessible to all operating personnel.

6.C.3.c. Stormwater

Enrollment under State Water Board's *General Permit for Storm Water Discharges Associated with Industrial Activities*, Order 2014-0057-DWQ (NPDES No. CAS000001) (Industrial General Permit) is required for facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of a facility with a design flow of 1 MGD or more, or are required to have an approved pretreatment program under 40 C.F.R. part

403. The Discharger is currently enrolled under the Industrial General Permit (WDID No. 7A130100011).

6.C.4. Construction, Operation and Maintenance Specifications

6.C.4.a. Treatment Basins

- 1) A minimum depth of freeboard of two (2) feet shall be maintained at all times in all treatment basins.
- 2) The treatment basins shall be managed to prevent breeding of mosquitoes, in particular:
 - i. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
 - ii. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - iii. Dead algae, vegetation, and debris shall not accumulate on the water surface.
- 3) The treatment basins shall be maintained so they will be kept in aerobic conditions.
- 4) Onsite wastes shall be strictly confined to the lands specifically designated for the disposal operation.
- 5) Public contact with undisinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
- 6) Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the property boundary.

6.C.4.b. Facility and Treatment Operation

- 1) The Discharger shall, at all times, properly operate and maintain all systems and components of collection, treatment and control which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance include effective performance measures, adequate process controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Order. All systems, both in-service and reserved, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Colorado River Basin Water Board upon demand.
- 2) Temporary power or adequate storage capacity shall be provided to maintain the plant in operation in the event of commercial power failure.
- 3) Adequate measures shall be taken to ensure that unauthorized persons are effectively excluded from contact with the wastewater disposal facilities.

- 4) The Discharger shall implement acceptable operation and maintenance at the Facility so that needed repairs and maintenance are performed in a timely manner.

6.C.4.c. Operations Plan for Proposed Plant Expansion

At least 30 days in advance of the operation of an expanded wastewater treatment system, the Discharger shall submit an Operations Plan, in accordance with Water Code section 13385(j)(1)(D). The Operations Plan shall describe the actions the Discharger will take during the period of adjusting or testing, including steps to prevent violations and identification of the shortest reasonable time required for the period of adjusting and testing (not to exceed 90 days for a wastewater treatment unit that relies on a biological treatment process and not to exceed 30 days for any other wastewater treatment unit). Upon receipt of the Operations Plan by the Executive Officer, and if the Executive Officer has not objected in writing to the Operations Plan, Water Code section 13385, subdivisions (h) and (i), shall not apply in accordance with subdivision (j)(1) of section 13385 if a violation is caused by the operation of a new or reconstructed wastewater treatment unit during a defined period of adjusting or testing, as described above.

6.C.5. Special Provisions for Publicly-Owned Treatment Works (POTWs Only)

Not Applicable.

6.C.6. Other Special Provisions

6.C.6.a. Sludge Requirements

- 1) This Order does not authorize any act that results in violation of requirements administered by USEPA to implement 40 C.F.R. part 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 C.F.R. part 503 that are under USEPA's enforcement authority. Attachment H contains biosolids and sludge management requirements.
- 2) Where applicable, the Discharger shall ensure compliance with the requirements in State Water Board Order No. 2004-12-DWQ, *General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities*.

6.C.6.b. Collection Systems

- 1) The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system. (40 C.F.R. § 122.41(e).) The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. §

122.41(d)). See Standard Provision 6.A.2.j and Attachment D, Sections 1.C, 1.D, 5.E, and 5.H.

- 2) The Discharger shall also comply with the sanitary sewer system requirements set forth in Attachment I, which is incorporated herein.

6.C.6.c. The Discharger may be required to submit technical reports as directed by the Colorado River Basin Water Board’s Executive Officer.

6.C.6.d. The Discharger shall exclude from the wastewater treatment plant any liquid or solid waste that could adversely affect the plant operation or effluent quality. The excluded liquid or solid waste shall be disposed of in accordance with applicable regulations.

6.C.7. Special Provisions Reporting Schedules

6.C.7.a Deliverables and Due Dates. The Discharger shall comply with the following compliance schedule as summarized in Table 5:

Table 5. Compliance Schedule

Activity	Description	Due Date
Spill Response Plan 6.C.3.b	The Discharger must annually update the Spill Response Plan (SRP), which must include sections on spill cleanup and containment measures.	Annual updates submitted yearly with Annual Report.
TRE Workplan 6.C.2.a	The Discharger must review and update the TRE Work Plan. The Work Plan should include a description of steps the Discharger will take in the event toxicity is detected.	Within 90 days of the effective date of this Order and any time there are staff or operational changes.
DMR-QA Study 6.C.2.c	The Discharger must conduct a DMR-QA Study to evaluate the analytical ability of laboratories that routinely perform or support self-monitoring analyses. The results of the DMR-QA Study or the most recent Water Pollution Performance Evaluation Study are submitted to the State Water Board.	Annual updates submitted yearly to the State Water Board’s Quality Assurance Officer.
Pollutant Minimization Program (PMP) 6.C.3.a	The Discharger must develop a PMP when there is evidence a priority pollutant is present in the effluent above an effluent limitation and either: (1) the sample result is reported as DNQ and the effluent limitation is less than the RL; or (2) a sample result is reported as ND and the effluent limitation is less than the MDL.	Within 90 days after receipt of evidence of a priority pollutant effluent exceedance.

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section 4 of this Order will be determined as specified below:

7.A. Priority Pollutant Effluent Limitations

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Section 7 of this Order. For purposes of reporting and administrative enforcement by the Colorado River Basin Water Board or the State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the Reporting Level (RL).

7.B. Multiple Sample Data

When determining compliance with an Average Monthly Effluent Limitation (AMEL), Average Weekly Effluent Limitation (AWEL), and Maximum Daily Effluent Limitation (MDEL) for pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- 7.B.1.** The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- 7.B.2.** The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle, unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

7.C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by Section 7.B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month), where no data is available to show compliance. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to AMEL.

7.D. Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by Section 7.B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in seven days of non-compliance where no data is available to show compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of the calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

7.E. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by Section 7.B above for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. For any one day during which no sample is taken, no compliance determination can be made for that day with respect to MDEL.

For multiple samples collected in a calendar day, the maximum daily value is the average of the samples collected in a calendar day, or when applicable, the median as determined by Section 7.B, above.

7.F. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation). There are no mass limits for instantaneous minimum effluent limitations.

7.G. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous

maximum effluent limitation). There are no mass limits for instantaneous maximum effluent limitations.

7.H. Effect of Conducting a Pollutant Minimization Program (PMP)

If a sample result for a priority pollutant, or the arithmetic mean or median of multiple sample results is below the RL, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a PMP for the priority pollutant (as described in Section 6.C.3.a) the Discharger shall not be deemed out of compliance.

7.I. Compliance with Single Constituent Effluent Limitation

Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of a pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

7.J. Mass and Concentration Limitation

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate (MER) determined from that sample concentration shall also be reported as ND or DNQ.

7.K. Percent Removal

Compliance with the secondary treatment standard for monthly average percent removal of biochemical oxygen demand and total suspended solids, pursuant to 40 C.F.R. part 133, shall be determined separately for each wastewater treatment facility discharging through an outfall. For each wastewater treatment facility, the monthly average percent removal is the average of the calculated daily discharge percent removals only for days on which the constituent concentrations is monitored in both the influent and effluent of the wastewater treatment facility at locations specified in the MRP (Attachment E) within a calendar month. The percent removal for each day (Daily Percent Removal) shall be calculated according to the following equation:

$$\text{Daily Percent Removal} = \frac{(\text{Daily Influent Concentration} - \text{Daily Effluent Concentration})}{\text{Daily Influent Concentration}} * 100$$

The percent removal for the month (Monthly Percent Removal) shall be calculated according to the following equation:

$$\text{Monthly Percent Removal} = \frac{(\text{Sum of the Daily Percent Removal})}{\text{Number of Daily Percent Removal Values}}$$

7.L. Chronic Toxicity Narrative Effluent Limitation

Compliance with narrative effluent limitations established in the Order are determined from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The Discharger must report either a “Pass” or a “Fail” and the Percent Effect as required in the MRP, Section 5. If a result is reported as a “Fail,” the Discharger must follow the requirements in MRP, Section 5.A, Chronic Toxicity Testing, to initiate an accelerated monitoring schedule or conduct a TRE.

7.M. Bacteria Effluent Limitations

Compliance with the bacteria effluent limitations established in Section 4.A.1.d of the Order shall be determined and follows:

7.M.1. Six-week Rolling Geometric Mean (GM) for *E. coli* bacteria. The rolling geometric mean shall be calculated using at least 5 sample results over a 6-week period from a site using the following formula:

$$GM = \sqrt[n]{(x1)(x2)(x3)\cdots(xn)},$$

where x is the sample value and n is the number of samples take.

If the weekly calculated six-week rolling geometric mean bacterial concentration for *E.coli* exceeds the bacteria objective summarized in the Effluent Limitations and Discharge Requirements Section 4.A.1.d of this Order, this will represent a single violation of the water quality-based effluent limitation for bacteria and the Discharger will be considered out of compliance for the week in which the GM was reported.

7.M.2. Statistical Threshold Value (STV) for *E. coli* bacteria. (1) The data set shall be ranked from low to high, ranking any ND concentrations lowest, followed by quantified values. (2) The number of sample results should then be multiplied by 90 percent then rounded up to the nearest whole number. (3) Count the values in the data set starting from lowest to highest until the number indicated in step (2) is reached. (4) To be compliant with the statistical threshold value in the Effluent Limitations and Discharge Requirements Section 4.A.1.d of this Order, all sample results less than the point described in step 3 must be less than the STV. If a STV was exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner, this will represent a single violation of the water quality-based effluent limitation for bacteria and the Discharger will be considered out of compliance for the month in which the STV was reported.

7.N. Single Operational Upset

A Single Operational Upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger’s liability in accordance with the following conditions:

- 7.N.1.** A SOU is defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
- 7.N.2.** The Discharger may assert a SOU as a limit to liability only for those violations which the Discharger submitted a notice of the upset as required in Section 5.E.2.b. of Attachment D, Standard Provisions.
- 7.N.3.** For purposes of federal law, determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA's Memorandum Issuance of Guidance Interpreting Single Operational Upset (September 27, 1989).
- 7.N.4.** For purposes of state law, determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with Water Code section 13385(f).

7.O. Significant Figures

The Discharger shall report monitoring and calculation results with regard to significant figures consistent with tabulated values in Table 4 (Effluent Limitations).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

$$\text{Arithmetic mean } (\mu) = \frac{\sum x}{n}$$

where: $\sum x$ is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic

Pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as wasteload allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Federally Owned Treatment Works

Federally owned treatment works means a facility that is owned and operated by a department, agency, or instrumentality of the Federal Government treating wastewater, a majority of which is domestic sewage, prior to discharge in accordance with a permit issued under 33 U.S.C. section 1342.

Geometric Mean (GM)

The geometric mean is a type of mean or average that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geometric mean is defined as the nth root of the product of n numbers. The formula is expressed as: $GM = \sqrt[n]{(x_1)(x_2)(x_3)...(x_n)}$, where x is the sample value and n is the number of samples take.

Inland Surface Waters

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order)

If the number of measurements (n) is odd, then:

$$\text{median} = \frac{X_{(n+1)}}{2}$$

If n is even, then:

$$\text{median} = \frac{X_{\frac{n}{2}} + X_{\frac{n}{2}+1}}{2}$$

(i.e., the midpoint between the $(n/2)$ and $((n/2)+1)$)).

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 Code of Federal Regulations (CFR). part 136, Attachment B.

Minimum Level (ML)

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

Persistent Pollutants

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP)

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Colorado River Basin Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater

from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or Colorado River Basin Water Board.

Publicly Owned Treatment Works (POTWs)

POTW means a treatment works as defined by Clean Water Act section 212, which is owned by a state or municipality (as defined by Clean Water Act section 502(4)). The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances that convey wastewater to the treatment plant.

Reporting Level (RL)

The RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Colorado River Basin Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in a Colorado River Basin Water Board Basin Plan.

Standard Deviation (σ)

Standard Deviation is a measure of variability that is calculated as follows:

$$\text{Standard Deviation } (\sigma) = \frac{\sum(X-\mu)^2}{(n-1)^{0.5}}$$

where: x is the observed value; μ is the arithmetic mean of the observed values; and n is the number of samples.

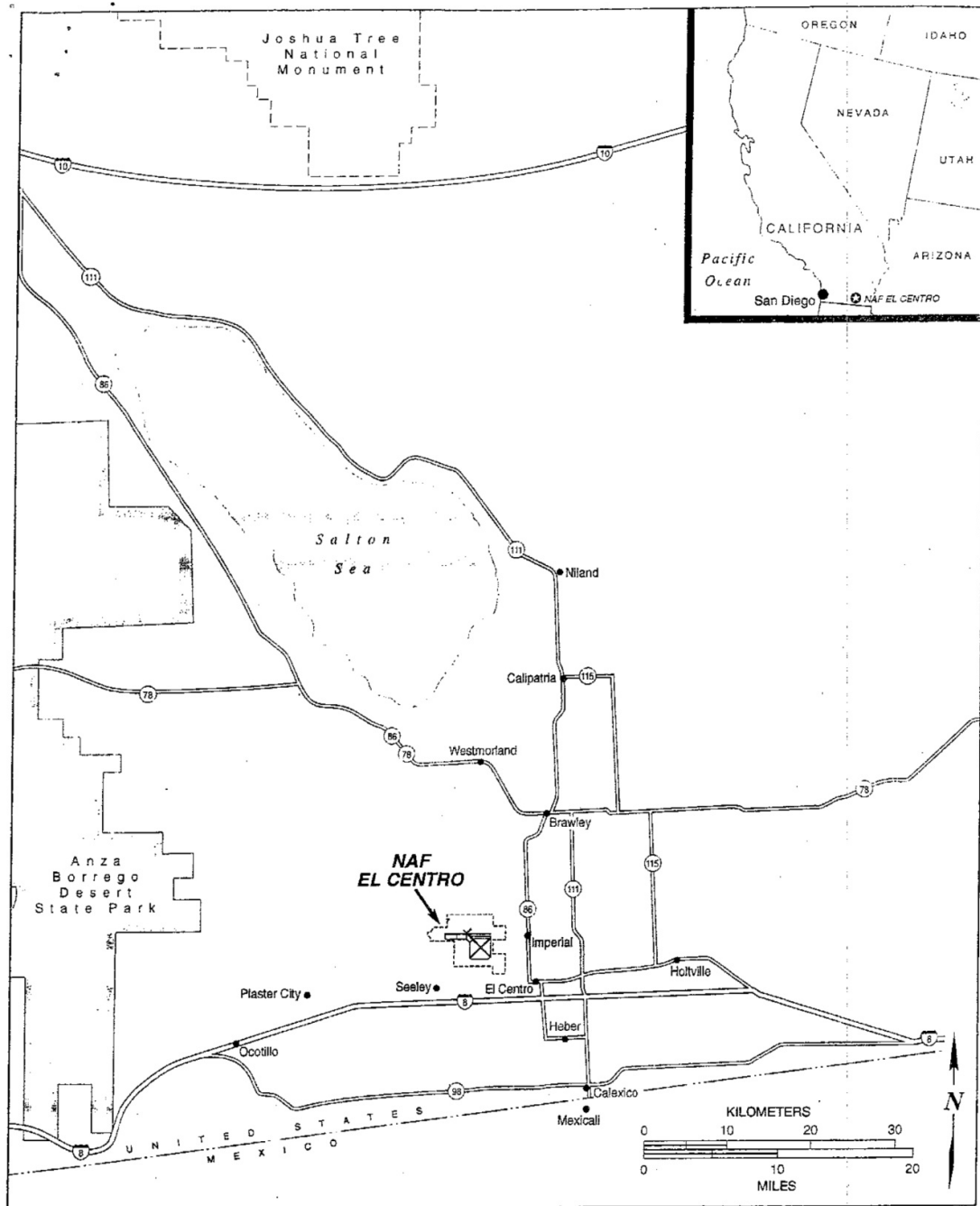
Statistical Threshold Value (STV)

For the bacteria water quality objective, the statistical threshold value is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population. Typically, (1) The data set is be ranked from low to high, ranking any ND concentrations lowest, followed by quantified values. (2) The number of sample results is then be multiplied by 90 percent then rounded up to the nearest whole number. (3) The values in the data set are counted starting from lowest to highest until the number indicated in step (2) is reached. (4) To be compliant with the statistical threshold value, all sample results less than the point described in step 3 must be less than the STV.

Toxicity Reduction Evaluation (TRE)

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

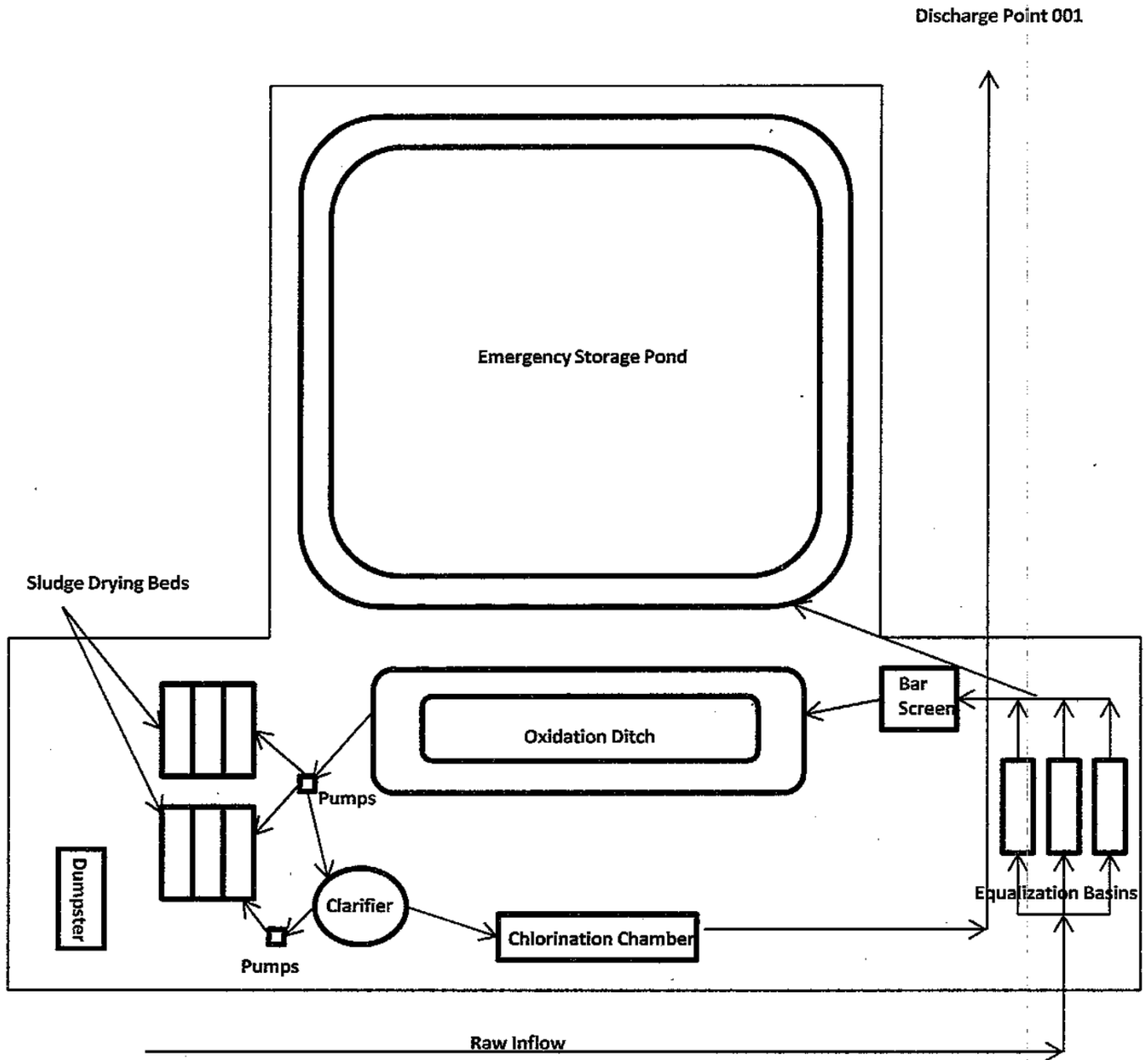
ATTACHMENT B – MAP



**U.S. NAVY, OWNER/OPERATOR
NAVAL AIR FACILITY EL CENTRO WASTEWATER TREATMENT PLANT
El Centro, Imperial County**

**Location of Discharge: Section 7, T15S, R14E, SBB&M
(Latitude 32° 50' 27" N, Longitude 115° 41' 11" W)**

ATTACHMENT C – FLOW SCHEMATIC



NAVAL AIR FACILITY EL CENTRO WASTEWATER TREATMENT PLANT
FLOW DIAGRAM

ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.A. Duty to Comply

- 1.A.1.** The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 Code of Federal Regulations (C.F.R.) § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
- 1.A.2.** The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

1.B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

1.C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

1.D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

1.E. Property Rights

- 1.E.1.** This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

1.E.2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

1.F. Inspection and Entry

The Discharger shall allow the Colorado River Basin Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1.F.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

1.F.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

1.F.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

1.F.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the Clean Water Act or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

1.G. Bypass

1.G.1. Definitions

1.G.1.a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

1.G.1.b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

1.G.2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 C.F.R. § 122.41(m)(2).)

1.G.3. Prohibition of bypass. Bypass is prohibited, and the Colorado River Basin Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

1.G.3.a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

1.G.3.b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

1.G.3.c. The Discharger submitted notice to the Colorado River Basin Water Boards required under Standard Provisions – Permit Compliance 1.7.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

1.G.4. The Colorado River Basin Water Board may approve an anticipated bypass, after considering its adverse effects, if the Colorado River Basin Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

1.G.5. Notice

1.G.5.a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. As of December 21, 2020, all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 C.F.R. section 127.2(b), in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (40 C.F.R. § 122.41(m)(3)(i).)

1.G.5.b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2020, all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 C.F.R. section 127.2(b), in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (40 C.F.R. § 122.41(m)(3)(ii).))

1.H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1.H.1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

1.H.2 Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

1.H.2.a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

1.H.2.b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

1.H.2.c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

1.H.2.d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

1.H.3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

2.B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

2.C. Transfers

This Order is not transferable to any person except after notice to the Colorado River Basin Water Board. The Colorado River Basin Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the Clean Water Act and the Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

3. STANDARD PROVISIONS – MONITORING

- 3.A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- 3.B.** Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:
- 3.B.1.** The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- 3.B.2.** The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N for the measured pollutant or pollutant parameter. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136, or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

4.A. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

4.B. Records of monitoring information shall include:

4.B.1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

4.B.2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

4.B.3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4.B.4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

4.B.5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

4.B.6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

4.C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

4.C.1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

4.C.2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.A. Duty to Provide Information

The Discharger shall furnish to the Colorado River Basin Water Board, State Water Board, or USEPA within a reasonable time, any information which the Colorado River Basin Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Colorado River Basin Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.B. Signatory and Certification Requirements

5.B.1. All applications, reports, or information submitted to the Colorado River Basin Water Board, State Water Board, and/or USEPA shall be signed and certified in

accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 C.F.R. § 122.41(k).)

- 5.B.2.** All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)
- 5.B.2.a.** All permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)
- 5.B.2.b.** All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).)
- 5.B.3.** All reports required by this Order and other information requested by the Colorado River Basin Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- 5.B.3.a.** The authorization is made in writing by a person described in Standard Provisions – Reporting 5.B.2 above (40 C.F.R. § 122.22(b)(1));
- 5.B.3.b.** The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
- 5.B.3.c.** The written authorization is submitted to the Colorado River Basin Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

- 5.B.4.** If an authorization under Standard Provisions – Reporting 5.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5.B.3 above must be submitted to the Colorado River Basin Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
- 5.B.5.** Any person signing a document under Standard Provisions – Reporting 5.B.2 or 5.B.3 above shall make the following certification:
- “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)
- 5.B.6.** Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R. § 122.22(e).)

5.C. Monitoring Reports

- 5.C.1.** Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)
- 5.C.2.** Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Colorado River Basin Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)
- 5.C.3.** If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Colorado River Basin Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

5.C.4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.
(40 C.F.R. § 122.41(l)(4)(iii).)

5.D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date.
(40 C.F.R. § 122.41(l)(5).)

5.E. Twenty-Four Hour Reporting

5.E.1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Colorado River Basin Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Colorado River Basin Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

5.E.2. The following shall be included as information that must be reported within 24 hours:

5.E.2.a. Any unanticipated bypass that exceeds any effluent limitation in this Order.
(40 C.F.R. § 122.41(l)(6)(ii)(A).)

5.E.2.b. Any upset that exceeds any effluent limitation in this Order.
(40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.E.3. The Colorado River Basin Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.F. Planned Changes

The Discharger shall give notice to the Colorado River Basin Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

5.F.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

5.F.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).); or

5.F.3. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels 7.1.1). (40 C.F.R. § 122.41(l)(1)(ii).)

5.G. Anticipated Noncompliance

The Discharger shall give advance notice to the Colorado River Basin Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

5.H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 C.F.R. part 127. The Colorado River Basin Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

5.I Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Colorado River Basin Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

5.J. Identification of the Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. USEPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

6.A. The Colorado River Basin Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.A. Non-Municipal Facilities – Not Applicable

7.B Publicly Owned Treatment Works (POTWs) – Not Applicable

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

TABLE OF CONTENTS

1. GENERAL MONITORING PROVISIONS.....	3
1.A. Sample Volume and Monitoring Locations.....	3
1.B. Instrumentation and Calibration.....	3
1.C. Laboratory Certification.....	3
1.D. Monitoring Test Procedures.....	3
1.E. General Analytical Testing Methods.....	4
1.F. Minimum Levels (ML) and Analytical Method Selection.....	4
1.G. Analytical Testing Methods for Metals.....	5
1.H. Quality Assurance Plan (QAP).....	5
1.I. Failure of Continuous Monitoring Instruments/Devices.....	6
1.J. Reporting Intervals.....	6
1.K. Non-operation of Facility and/or No Discharge.....	6
1.L. Electronic Self-Monitoring Reports (eSMRs).....	6
1.M. Discharge Monitoring Report – Quality Assurance (DMR-QA) Study.....	6
2. MONITORING LOCATIONS.....	6
3. INFLUENT MONITORING REQUIREMENTS.....	7
3.A. Monitoring Location INF-001.....	7
4. EFFLUENT MONITORING REQUIREMENTS.....	8
4.A. Monitoring Location EFF-001.....	8
5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS.....	10
5.A. Chronic Toxicity Testing.....	10
5.B. Toxicity Reduction Evaluation (TRE) Process.....	15
5.C. Reporting of Toxicity Monitoring Results.....	18
6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE.....	18
7. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE.....	18
8. RECEIVING WATER MONITORING REQUIREMENTS.....	18
8.A. Monitoring Location RSW-001.....	18
8.B. Monitoring Location RSW-002.....	19
8.C. Visual Monitoring.....	20
9. OTHER MONITORING REQUIREMENTS.....	21
10. REPORTING REQUIREMENTS.....	21
10.A. General Monitoring and Reporting Requirements.....	21
10.B. Electronic Self-Monitoring Reports (eSMRs).....	21
10.C. Discharge Monitoring Reports (DMRs).....	24
10.D. Other Reports.....	25

TABLE OF TABLES

Table E-1. Monitoring Station Locations.....	7
Table E-2. Influent Monitoring	7
Table E-3. Effluent Monitoring (EFF-001A)	8
Table E-4. Effluent Monitoring (EFF-001B)	9
Table E-5. Effluent Monitoring (EFF-001C)	10
Table E-6. Whole Effluent Toxicity Test Species.....	13
Table E-7. Example of Screening Table for Chronic Test	14
Table E-8. TAC Specified in EPA/821-R-02-013	15
Table E-9. Receiving Water Monitoring Requirements (RSW-001).....	18
Table E-10. Receiving Water Monitoring Requirements (RSW-002).....	19
Table E-11. Monitoring Periods and Reporting Schedule.....	24
Table E-12. Operations and Maintenance Report	27

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Section 308 of the federal Clean Water Act and 40 Code of Federal Regulations (40 C.F.R.) sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Colorado River Basin Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

1. GENERAL MONITORING PROVISIONS

1.A. Sample Volume and Monitoring Locations. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Colorado River Basin Water Board.

1.B. Instrumentation and Calibration. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. All flow measurement devices shall be calibrated at least once per year or more frequently as per the factory stipulated requirements, to ensure continued accuracy of the devices. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

1.C. Laboratory Certification. All analyses shall be conducted at a laboratory certified for such analyses by Environmental Laboratory Accreditation Program (ELAP) through the State Water Board, Division of Drinking Water (DDW) in accordance with Water Code section 13176, and must include quality assurance/quality control data with their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Regional Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.

1.D. Monitoring Test Procedures. The collection, preservation and holding times of all samples shall be in accordance with the test procedures under 40 C.F.R. part 136 (amended May 18, 2012) *Guidelines Establishing Test Procedures for the Analysis of Pollutants*, promulgated by the United States Environmental Protection Agency (USEPA), unless otherwise specified in this MRP. In addition, the Colorado River Basin Water Board and/or USEPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 C.F.R part 136.

1.E. General Analytical Testing Methods. The Discharger must utilize analytical methods as follows:

- 1.E.1. A test procedure listed in 40 C.F.R. section 136.3; or
- 1.E.2. An alternative test procedure approved by USEPA as provided in 40 C.F.R. sections 136.4 or 136.5; or
- 1.E.3. A test procedure listed in 40 C.F.R. part 136, with modifications allowed by USEPA as provided in 40 C.F.R. section 136.6.

Guidance on procedures for approval of alternative and new test procedures can be obtained from the following references: *Protocol for EPA Approval of Alternative Test Procedures for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-002, March 1999); and *Protocol for EPA Approval of New Methods for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-003, March 1999).

1.F. Minimum Levels (ML) and Analytical Method Selection. USEPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule), which became effective September 18, 2015. When more than one test procedure is approved under 40 CFR part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv). A USEPA-approved analytical method is sufficiently sensitive where:

- a. The ML is at or below both the level of the applicable water quality criterion/objective and the permit limitation for the measured pollutant of pollutant parameter; or
- b. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- c. The method has the lowest ML of the USEPA-approved analytical methods where none of the USEPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

The MLs in SIP Appendix 4 of the State Implementation Plan (SIP) remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the SIP. For instance, USEPA Method 1631E for mercury is not currently listed in SIP Appendix 4, but it is published with an ML of 0.5 ng/L,⁴ which makes it a sufficiently sensitive analytical method. Similarly, USEPA Method 245.7 for mercury is published with an ML of 5 ng/L.

⁴ ng/L – nanogram per liter

For priority pollutants, the Discharger shall require its testing laboratory to calibrate the analytical system down to the minimum levels (MLs) specified in 40 C.F.R. part 136, unless an alternative minimum level is approved by the Colorado River Basin Water Board's Executive Officer.

1.G. Analytical Testing Methods for Metals. In conformance with 40 C.F.R. section 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method, unless (1) the applicable effluent limitation for that metal is expressed in the dissolved or valent or total form or (2) all approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium). For example, the dissolved method in conformance with 40 C.F.R. part 136 shall be used to measure compliance with a Chromium (VI) effluent limitation. For cyanide,⁵ analytical test methods in conformance with 40 C.F.R. part 136 shall be used as acceptable methods to measure cyanide.⁶

1.H. Quality Assurance Plan (QAP). In accordance with the test procedures under 40 C.F.R. part 136, samples shall be analyzed as soon as possible after collection. The Discharger shall develop and implement a written Quality Assurance Plan (QAP) using USEPA approved instruments and equipment for samples that are analyzed on-site (e.g., pH, dissolved oxygen, temperature, and residual chlorine) for the purposes of reporting compliance with effluent limitations contained in the Order. The QAP shall at a minimum address the following steps:

- 1.H.1. Provide a description of Standard Operating Procedures (SOPs);
- 1.H.2. Provide an overview of the task description and objectives;
- 1.H.3. Identify the sampling process, method and handling;
- 1.H.4. Identify the instrumentation/equipment testing, inspection and maintenance;
- 1.H.5. Identify the instrumentation/equipment calibration and frequency;
- 1.H.6. Identify the sample analysis methods and calibration range; and
- 1.H.7. Summarize the data review and validation procedures.

⁵ The sample for cyanide measurement shall be collected as a grab sample. Various sample preservation and sample stabilization procedures are available that may resolve analytical interferences associated with cyanide analysis of treated wastewater effluent, ASTM Standard Practice D7365-09a. Further, any technique for removal or suppression of interferences may be employed, provided the laboratory demonstrates that it more accurately measures cyanide through quality control measures described in the analytical test method. Any removal or suppression technique not described in D7365-09a or the analytical test method must be documented with supporting data.

⁶ Federal Register, Vol. 77, No. 97, May 18, 2012. Cyanide exists in a variety of forms. It can be free or part of strong or weak complexes with other species. The analytical method employed determines what type of cyanide is measured. Types of cyanide measured include: Total, Available, Amenable to Chlorination, Weak Acid Dissociable, Free, and others.

1.I. Failure of Continuous Monitoring Instruments/Devices. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for a period greater than 24 hours, the Discharger shall obtain representative grab samples each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. The Discharger shall report the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

1.J. Reporting Intervals. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the regular discharge monitoring reports.

1.K. Non-operation of Facility and/or No Discharge. If the Facility is not in operation, or there is no discharge during a required reporting period, the Discharger shall indicate that there has been no activity during the required reporting period in California Integrated Water Quality System (CIWQS).

1.L. Electronic Self-Monitoring Reports (eSMRs). The Discharger shall submit values in eSMR as required to determine compliance with the permit effluent limit requirements (e.g., AMEL, MDEL, percent removals, geomeans, mass loadings, etc.) in the CIWQS Program, as specified below in Section 10.B. The Discharger shall submit the eSMR in the eSMR module in the CIWQS Program.

1.M. Discharge Monitoring Report – Quality Assurance (DMR-QA) Study. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance (WPP) Evaluation Study are submitted annually. The DMR-QA or WPP Evaluation Study should be sent to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

2. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Wastewater influent to the treatment facility. The sampling station shall be located upstream of any in-plant return flows where a representative influent sample to the treatment plant can be obtained.
001	EFF-001	Effluent discharged from the treatment facility shall be monitored at the outlet pipe to the receiving water (unnamed tributary to the New River) where representative samples of the effluent can be obtained; Latitude 32° 50' 20" N and Longitude 115° 41' 07" W.
---	RSW-001	Receiving water (unnamed tributary to the New River) monitoring location not to exceed 50 feet upstream from the location where the effluent enters the unnamed tributary to the New River; Latitude 32° 52' 17" N and Longitude 115° 40' 52" W.
---	RSW-002	Receiving water (unnamed tributary to the New River) monitoring location not to exceed 50 feet downstream from the location where the effluent enters the unnamed tributary to the New River, at a point where a plume would be expected; Latitude 32° 50' 21" N and Longitude 115° 41' 07" W.
---	SLD-001	Sludge quantity, location and method of disposal from the Facility.

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

3. INFLUENT MONITORING REQUIREMENTS

3.A. Monitoring Location INF-001

3.A.1. The Discharger shall monitor influent at INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Flow Meter (Totalizer) ⁷ Reading	1x/Day	See Section I.B of the MRP

⁷ Effective 180 days after the permit adoption.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	24-Hr. Composite	1x/Week	See Section 1.D. of the MRP
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	lbs/day	Calculated	1x/Week	See Section 1.D. of the MRP
Suspended Solids, Total (TSS)	mg/L	24-Hr. Composite	1x/Week	See Section 1.D. of the MRP
Suspended Solids, Total (TSS)	lbs/day	Calculated	1x/Week	See Section 1.D. of the MRP

4. EFFLUENT MONITORING REQUIREMENTS

4.A. Monitoring Location EFF-001

The Discharger shall monitor a representative sample of secondary treated wastewater effluent from the discharges from the aerated lagoon system at Monitoring Location EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML:

Table E-3. Effluent Monitoring at EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level
Flow	MGD	Flow Meter (Totalizer) Reading	1x/Day	See Section I.B of the MRP
pH	Standard Units	Grab	1x/Day	See Section 1.D of the MRP
Temperature	Degree F	Grab	1x/Day	See Section 1.D of the MRP

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level
<i>Escherichia Coli</i> (<i>E. Coli</i>)	MPN or cfu/100 ml	Grab	1x/Week ^{8,9}	See Section 1.D of the MRP
BOD ₅	mg/L	24-Hr. Composite ¹⁰	1x/Week	See Section 1.D of the MRP
BOD ₅	lbs/day	Calculated	1x/Week	See Section 1.D of the MRP
TSS	mg/L	24-Hr. Composite	1x/Week	See Section 1.D of the MRP
TSS	lbs/day	Calculated	1x/Week	See Section 1.D of the MRP
Thallium	µg/L	Grab	1x/Month	See Section 1.E of the MRP
Thallium	lbs/day	Calculated	1x/Month	See Section 1.E of the MRP
Selenium	µg/L	Grab	1x/Month	See Section 1.E of the MRP
Selenium	lbs/day	Calculated	1x/Month	See Section 1.E of the MRP
Dissolved Oxygen	mg/L	Grab	1x/Month	See Section 1.E of the MRP
Oil and Grease, Total ¹¹	mg/L	Grab	1x/Month	See Section 1.D of the MRP
Nitrates as N	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP
Nitrites as N	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP

⁸ Six-week Rolling Geometric Mean. The rolling geometric mean shall be calculated using at least 5 sample results over a 6-week period from a site using the following formula:

$GM = \sqrt[n]{(x_1)(x_2)(x_3)...(x_n)}$, where x is the sample value and n is the number of samples taken.

⁹ The Discharger may monitor for *E. coli* using analytical methods, Standard Method 9221.F or 9223 (APHA. 1998, 1995, 1992. *Standard Methods for the Examination of Water and Wastewater*. American Public Health Association, 20th, 19th, and 18th Editions. Amer. Publ. Hlth. Assoc., Washington D.C).

¹⁰ 24-hour composite samples shall be time-proportionate composite samples.

¹¹ Total oil and grease shall include the polar and non-polar fraction of oil and grease materials.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level
Ammonia as N	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP
Total Nitrogen as N	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP
Total Phosphate as P	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP
Ortho-Phosphate as P	mg/L	Grab	1x/Quarter	See Section 1.D of the MRP
Total Dissolved Solids	mg/L	Grab	1x/Month	See Section 1.D of the MRP
Total Residual Chlorine	Mg/L	Continuous ¹²	1x/Month	See Section 1.D of the MRP
Hardness, Total (as CaCO ₃)	mg/L	Grab	1x/Month	See Section 1.D of the MRP
Priority Pollutants ¹³	µg/L	24-Hr Composite/Grab	1x/Year	See Section 1.E of the MRP

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.A. Chronic Toxicity Testing

5.A.1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity. The chronic toxicity IWC for this discharge is 100 percent effluent.

5.A.2. Sample Volume and Holding Time. The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

5.A.3. Test Methods. The Discharger shall conduct the following chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance with species and test protocols in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA 821-R-02-013, 2002).

¹² Continuous sampling or a minimum of two grab samples performed daily and the average and maximum daily results shall be uploaded into CIWQS.

¹³ 24-hour composite samples shall be time-proportionate composite samples. All Priority Pollutants as defined by the California Toxics Rule (CTR) codified at 40 CFR section 131.38.

5.A.4. Test Species. The Discharger shall conduct static renewal toxicity tests, with the fathead minnow (*Pimephales promelas*), (Larval Survival and Growth Test Method 1000.0) and the water flea (*Ceriodaphnia dubia*), (Survival and Reproduction Test Method 1002.0); and static tests with the green alga (*Selenastrum capricornutum*), (Growth Test Method 1003.0). In no case shall these species be substituted with another test species unless written authorization from the Colorado River Basin Water Board is received.

5.A.5. Discharge Collected at Monitoring Stations. The Discharger shall conduct chronic toxicity testing on the final effluent measured at Monitoring Location EFF-001 as follows:

Table E-4. Whole Effluent Toxicity Test Species

Test(s)	Species	Endpoints	Test Length (days)	Reference	Sample Type	Minimum Sampling Freq.
Chronic	¹⁴ Fathead Minnow (<i>Pimephales promelas</i>)	Larval Survival and Growth	7	EPA 821-R-02-013 (Chronic) EPA Method 1000.0	Grab or 24-Hr. Composite	2x/Year ¹⁵
Chronic	Water Flea (<i>Ceriodaphnia dubia</i>)	Survival and Reproduction	6-8 ¹⁶	EPA 821-R-02-013 (Chronic) EPA Method 1002.0	Grab or 24-Hr. Composite	2x/Year ¹⁵
Chronic	Green Alga (<i>Selenastrum capricornutu</i>)	Growth	4	EPA 821-R-02-013 (Chronic) EPA Method 1003.0	Grab or 24-Hr. Composite	2x/Year ¹⁵

5.A.6. Species Sensitivity Screening. During the first and fourth years of the permit

¹⁴ For the fathead minnow and the water flea, the sample should consist of three samples collected on three separate days as noted in the method. The green algae test uses only one sample, as it is a shorter test.

¹⁵ At least six months apart

¹⁶ Test duration is determined by production of third brood by control and can be between 6 and 8 days.

term, the toxicity testing shall be conducted in two phases, the screening phase and the monitoring phase.

5.A.6.a. For the screening phase, the Discharger shall split a 24-hour composite effluent sample and conduct concurrent toxicity tests using a fish, an invertebrate and an aquatic plant species. The fathead minnow (*Pimephales promelas*), water flea (*Ceriodaphnia dubia*), and green alga (*Selenastrum capricornutum*) are the test species approved by the Colorado River Basin Water Board’s Executive Officer. The screening phase shall be completed after a minimum of one (1) toxicity test has been completed on the three test species.

5.A.6.b. The screening phase is completed by selecting the most sensitive species. The most sensitive species is the fish, invertebrate, or algal species which consistently demonstrates the largest percent effect level at the In-stream Waste Concentration (IWC), where:

$$\text{IWC percent effect level} = \frac{[(\text{Control mean response} - \text{IWC mean response}) \div \text{Control mean response}] \times 100}{100}$$

5.A.6.c. After the screening phase, the Discharger shall then continue to conduct toxicity testing during the monitoring phase using the single, most sensitive species until the next screening phase. An example of a sensitivity comparison is shown in Table E-5.

Table E-5. Example of Screening Table for Chronic Test

Species	Endpoints	Mean Control Response	Mean Response at IWC (100% effluent)	% effect at IWC (100% effluent)	Most Sensitive Species
Fathead Minnow	Larval Survival	10	10	$(10 - 10)/10 \times 100 = 0\%$	---
Fathead Minnow	Growth	0.41	0.363	$(0.41 - 0.363)/.41 \times 100 = 11.5\%$	---
Water Flea	Survival	10	9	$(10-9)/10 \times 100 = 10\%$	---
Water Flea ¹⁷	Reproduction	33.4	26.7	$(33.4 - 26.7)/33.4 \times 100 = 20\%$	Highest % effect represents most sensitive species

¹⁷ In this example, the water flea represents the most sensitive species. Chronic tests for the water flea shall be conducted as required by measuring and reporting the endpoints for survival and reproduction during the monitoring phase.

Species	Endpoints	Mean Control Response	Mean Response at IWC (100% effluent)	% effect at IWC (100% effluent)	Most Sensitive Species
Green Alga	Growth	197.3	170.1	(197.3-170.1)/197.3 x 100 =13.8%	---

5.A.7. Quality Assurance and Additional Requirements. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are below.

5.A.7.a. The discharge is subject to determination of “Pass” or “Fail” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

5.A.7.b. The null hypothesis (Ho) for the TST statistical approach is:

Mean discharge IWC response ≤ 0.75 x Mean control response.

A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.”

5.A.7.c. The relative “Percent Effect” at the discharge IWC is defined and reported as:

Percent Effect = ((Mean control response – Mean discharge IWC response) / Mean control response) x 100.

This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control, the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

5.A.7.d. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method in EPA/821-R-02-013 (see Table E-8), then the Discharger must resample and re-test within 14 days.

Table E-6. TAC Specified in EPA/821-R-02-013

Species and End Points	EPA/821-R-02-013 Test Method	Test Acceptability Criteria (TAC)

Fathead Minnow <i>Larval Survival and Growth</i>	1000.0, Table 1	80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg. (required)
Water Flea <i>Survival and Reproduction</i>	1000.2, Table 3	80% or greater survival of all control organisms and an average of 15 or more young per surviving female in the control solutions. 60% of surviving control females must produce three broods. (required)
Green Algae <i>Growth</i>	1000.3, Table 3	Mean cell density of at least 1×10^6 cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

5.A.7.e. Dilution water and control water shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

5.A.7.f. The Discharger shall perform toxicity tests on final effluent samples. Chlorine in the final effluent sample may be removed prior to conducting toxicity tests in order to simulate the dechlorination process at the Facility. However, ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized by the Executive Officer.

5.A.7.g. A pH drift during a toxicity test may contribute to artifact toxicity when pH-dependent toxicants (e.g., ammonia, metals) are present in the effluent. To determine whether or not pH drift is contributing to artifact toxicity, the Discharger shall conduct side-by-side toxicity tests as described in section 11.3.6.1 of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002).

The Discharger can confirm toxicity due to pH drift when the Discharger observes no toxicity above the chronic WET permit limit or trigger in the treatments controlled at the pH of the effluent. Upon this confirmation, the Discharger shall request and, upon written approval by the Colorado River Basin Water Board's Executive Officer, the Discharger may use the procedures outlined in section 11.3.6.2 of the chronic freshwater test methods manual to control effluent sample pH during the toxicity test.

5.A.8. Accelerated Monitoring Requirements. Accelerated monitoring for chronic toxicity is triggered when a chronic toxicity test, analyzed using the TST approach, results in "Fail" and the testing meets all test acceptability criteria.

5.A.8.a. Source of Toxicity is Known. If the chronic WET testing results are reported as "Fail" and the source of toxicity is known (e.g., a temporary plant upset, ammonia, ionic imbalance or elevated total dissolved solids [TDS]), then the Discharger shall conduct one additional toxicity test. The Discharger shall use

the same species and test method that failed the WET test. This toxicity test shall begin within 14 days of receipt of a test result as “Fail.” If the additional toxicity test result is reported as a “Pass” or it is confirmed that the toxicity is due to temporary plant upset, ammonia, ionic imbalance or elevated TDS, then the Discharger may return to the regular testing frequency.

5.A.8.b Source of Toxicity is Not Known. If the chronic WET testing results are reported as “Fail” and the source of toxicity is not known, then the Discharger shall conduct four additional toxicity tests using the same species and test method, approximately every two weeks, over an eight-week period. This testing shall begin within 14 days of receipt of a test result as “Fail.” If none of the additional toxicity test results are reported as “Fail,” then the Discharger may return to the regular testing frequency.

5.A.8.c Initiation of Toxicity Reduction Evaluation (TRE). If any accelerated toxicity test results in “Fail,” the Discharger shall cease accelerated monitoring and begin a TRE (as specified in Section 5.B below) to investigate the cause(s) of effluent toxicity and to identify corrective actions to reduce or eliminate that toxicity.

5.B. Toxicity Reduction Evaluation (TRE) Process

5.B.1. Preparation of a TRE Work Plan. The Discharger shall prepare and submit a copy of the Discharger’s Toxicity Reduction Evaluation (TRE) work plan to the Colorado River Basin Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the work plan shall include:

5.B.1.a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

5.B.1.b. A description of the Facility’s methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility, and

5.B.1.c. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

5.B.2. Preparation and Implementation of Detailed TRE Work Plan. If one of the accelerated toxicity tests described in Section 5.A.8, above, results in “Fail,” the Discharger shall immediately initiate the TRE Work Plan developed pursuant to Section 5.B.1 in accordance with USEPA guidance provided in manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) and, within 30 days, submit to the Colorado River Basin Water Board a Detailed TRE Work Plan, which shall follow the generic TRE Work Plan revised as appropriate for

this toxicity event. It shall include the following information, and comply with any additional conditions set by the Executive Officer:

- 5.B.2.a.** Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
- 5.B.2.b.** Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
- 5.B.2.c.** A schedule for these actions, progress reports, and the final report.
- 5.B.3. Toxicity Investigation Evaluation (TIE) Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test methods and, as guidance, the procedures recommended by the USEPA, which include the following:
- 5.B.3.a.** *Toxicity Identification Evaluations: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992);
- 5.B.3.b.** *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991);
- 5.B.3.c.** *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); and
- 5.B.3.d.** *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993).
- 1) Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminated the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
 - 2) The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposed while the TIE and/or TRE process is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
 - 3) The Colorado River Basin Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.
 - 4) The Board may consider the results of any TIE/TRE studies in an enforcement action.

5.B.4. Evaluation of Ammonia Toxicity. For discharges where ammonia has been

identified as a cause of toxicity, the Discharger shall calculate the response threshold on the basis of unionized and total ammonia. The Discharger shall run a parallel test with ammonia in lab water to evaluate if the lab water and the effluent responses are the same (i.e., no matrix effect). In future WET testing, where ammonia toxicity is hypothesized as the cause, the Discharger has the following three options to evaluate whether ammonia is causing the toxicity:

- 5.B.4.a.** If toxicity in lab water is similar to that in the effluent, the Discharger shall conduct a parallel test with ammonia spiked into lab water. Toxicity endpoints are compared on the basis of unionized ammonia. If the endpoints are the same, then the implication is ammonia is responsible for toxicity and no further action is required, or
 - 5.B.4.b.** If toxicity in lab water is not similar to that in the effluent, the Discharger shall conduct a parallel test with effluent, maintaining pH at a level that maintains the unionized fraction below the toxic threshold. If no toxicity is observed in the pH-controlled sample, the implication is that ammonia is responsible for toxicity and no further action is required; or
 - 5.B.4.c.** Without using comparative tests, calculate toxicity in the sample on the basis of unionized ammonia and compare the result to data generated in the TIE; if the results support the hypothesis that ammonia explains toxicity, then no further action is required.
 - 5.B.4.d.** However, if ammonia is not identified as the toxicant, the Discharger shall take action as described in Section 5.A.8 (Accelerated Monitoring Schedule) of this MRP.
- 5.B.5. Evaluation of Ionic Imbalances or Elevated TDS Toxicity.** For discharges where ionic imbalance or elevated TDS has been identified as a cause of toxicity, the Discharger shall conduct the following concurrent tests to characterize the contribution of ionic imbalance or elevated TDS to effluent toxicity. Based on the test results, toxicity should be either quantitatively recovered in synthetic effluent that mimics ionic imbalance or elevated TDS or eliminated by adding selected ions to the effluent to address deficiencies. Thus, in future WET testing, where ionic imbalance or elevated TDS is hypothesized as contributing to toxicity, the Discharger has the following two options to evaluate whether ionic imbalance or elevated TDS is causing the toxicity:
- 5.B.5.a.** Conducting a parallel test with synthetic effluent that mimics the ionic imbalance or TDS concentration; or
 - 5.B.5.b.** Conducting a parallel test with effluent spiked with deficient ion(s). Using these approaches, if ionic imbalance or elevated TDS is shown to account for toxicity, the Discharger shall document the results and findings in the monitoring report and no further testing is required. However, if the parallel tests do not account for toxicity, the Discharger shall take action as described in Section 5.A.8. Accelerated Monitoring Schedule of this MRP.

5.C. Reporting of Toxicity Monitoring Results

5.C.1. The Discharger shall submit either a summary page or the full laboratory report for all toxicity testing as an attachment to CIWQS for the reporting period (e.g., monthly, quarterly, semi-annually or annually) and provide the data (i.e., Pass/Fail) in the PET tool for uploading into CIWQS. The laboratory report shall include:

- 5.C.1.a.** The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the toxicity IWC for the discharge, the dates of sample collection and initiation of each toxicity test, all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE investigations.
- 5.C.1.b.** The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.
- 5.C.1.c.** Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

5.C.2. TRE/TIE results. The Colorado River Basin Water Board shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

5.C.2.a. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request from the Colorado River Basin Water Board.

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

7. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

8. RECEIVING WATER MONITORING REQUIREMENTS

8.A. Monitoring Location RSW-001

8.A.1. The Discharger shall monitor New River at RSW-001 as follows. If no receiving water is present at RSW-001, no receiving water monitoring data is required for station RSW-001.

Table E-7. Receiving Water Monitoring Requirements – RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and
pH	Standard Units	Grab	1x/Quarter	See Section 1.E of the MRP

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and
Temperature	Degree F	Grab	1x/Quarter	See Section 1.E of the MRP
Dissolved Oxygen	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Dissolved Solids	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Hardness (as CaCO ₃)	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Nitrates, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Nitrites, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Ammonia, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Nitrogen as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Phosphate as P	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Priority Pollutants ¹⁸	µg/L	Grab	1x/Year	See Section 1.F of the MRP

8.B. Monitoring Location RSW-002

8.B.1. The Discharger shall monitor New River at RSW-002 as follows. If no receiving water is present at RSW-002, no receiving water monitoring data is required for station RSW-002.

Table E-8. Receiving Water Monitoring Requirements – RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and
pH	Standard Units	Grab	1x/Quarter	See Section 1.E of the MRP

¹⁸ All Priority Pollutants as defined by the California Toxics Rule (CTR) codified at 40 CFR section 131.38.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and
Temperature	Degree F	Grab	1x/Quarter	See Section 1.E of the MRP
Dissolved Oxygen	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Hardness	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Nitrates, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Nitrites, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Ammonia, as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Nitrogen as N	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Phosphate as P	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
Total Dissolved Solids	mg/L	Grab	1x/Quarter	See Section 1.E of the MRP
<i>E.coli</i>	MPN or cfu/ 100 ml	Grab	1x/Quarter	See Section 1.E of the MRP

8.C. Visual Monitoring

8.C.1. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions at Monitoring Locations RSW-001 and RSW-002. Notes on receiving water conditions shall be summarized in the monthly monitoring report and when data is submitted electronically via the SMR module in the CIWQS Program, data shall be reported in the “Attachments” section. Attention shall be given to the presence or absence of:

- 8.C.1.a.** Floating or suspended matter,
- 8.C.1.b.** Discoloration,
- 8.C.1.c.** Aquatic life (including plants, fish, shellfish, birds),
- 8.C.1.d.** Visible film, sheen, or coating,
- 8.C.1.e.** Fungi, slime, or objectionable growths, and
- 8.C.1.f.** Potential nuisance conditions.

9. OTHER MONITORING REQUIREMENTS

10. REPORTING REQUIREMENTS

10.A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

- 10.A.1. The Discharger shall report the results of chronic toxicity testing, TRE, and TIE as required in Section 5, "Effluent Toxicity Testing."
- 10.A.2. The results of any analysis taken more frequently than required using analytical methods and/or monitoring procedures and performed at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.
- 10.A.3. The Discharger shall ensure laboratory analytical results are consistent with the requirements contained in 40 C.F.R. part 136 with regard to significant figures. 40 C.F.R. part 136 specifies for some analytical methods, the number of significant figures to which measurements are made.
- 10.A.4. If there is no discharge during any reporting period, the report shall so state.

10.B. Electronic Self-Monitoring Reports (eSMRs)

- 10.B.1. The Discharger shall submit electronic Self-Monitoring Reports (eSMRs) using the State Water Board's CIWQS Program website: <http://www.waterboards.ca.gov/ciwqs/index.html>. The CIWQS website will provide additional information for eSMR submittal in the event there will be a planned service interruption for electronic submittal.
- 10.B.2. The Discharger shall maintain sufficient staffing and resources to ensure it submits eSMRs for the duration of the term of this permit including any administrative extensions. This includes provision of training and supervision of individuals (e.g., Discharger personnel or consultant) on how to prepare and submit eSMRs.
- 10.B.3. The Discharger shall report in the eSMR the results for all monitoring specified in this MRP under Sections 3 through 9. The Discharger shall submit monthly, quarterly, semi-annual, and annual eSMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. eSMRs are to include all new monitoring results obtained since the last eSMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the eSMR.
- 10.B.4. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-9. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Beginning	Monitoring Period	SMR Due Date
Continuous	December 1, 2021	All	Submit with monthly eSMR
Daily 1x/Day	December 1, 2021	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly eSMR
Weekly 1x/Week	December 1, 2021	Sunday through Saturday	Submit with monthly eSMR
Monthly 1x/Month	December 1, 2021	1 st day of calendar month through last day of calendar month	First day of second month from end of monitoring period
Quarterly 1x/Quarter 4x/Year	December 1, 2021	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Annually 1x/Year	December 1, 2021	November 1 through October 31	January 1

10.B.5. Reporting Protocols. The Discharger shall follow the procedure in 40 C.F.R. part 136 when reporting the results of analytical determinations of chemical constituents in a sample using the following reporting protocols:

10.B.5.a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample). For reporting concentration and calculated values in the PET tool follow these instructions:

- 1) Reporting Concentration - Under the “Qualifier” column select “=” and under the “Result” column report the result (concentration).
- 2) Reporting Calculated Values - Under the “Qualifier” column select “=” and under the “Result” column report the result (calculated value).

10.B.5.b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported under the “Qualifier” column as “DNQ” (Detected, but Not Quantified). For the purposes of data collection, the laboratory shall write

the estimated chemical concentration under the “Result” column next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory. For reporting concentration and calculated values in the PET tool follow these instructions:

- 1) Reporting Concentration – Under the “Qualifier” column select “DNQ,” under the “Result” column report the estimated chemical concentration. In addition, the MDL shall be reported under the “MDL” column and the ML shall be reported under the “ML” column.
- 2) Reporting Calculated Values – Under the “Qualifier” column select “<”, under the “Result” column report the calculated value or in the case of mass loading report the average monthly effluent limitation for mass loading.

10.B.5.c. Sample results less than the laboratory’s MDL shall be reported as “ND” (Not Detected). For reporting concentration and calculated values in the PET tool follow these instructions:

- 1) Reporting Concentration – Under the “Qualifier” column select “ND” and report the MDL under the “MDL” column.
- 2) Reporting Calculated Values - Under the “Qualifier” column select “<”, under the “Result” column report the calculated value (Flow, MGD x 8.34 x MDL (use correct units)) or in the case of mass loading report the average monthly effluent limitation for mass loading.

10.B.5.d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.B.6. Multiple Sample Data. If the Permit an AMEL, AWEL, or MDEL for pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

10.B.6.a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

10.B.6.b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the

two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

10.B.7. Formatting of eSMRs. The Discharger shall submit eSMRs in accordance with the following requirements:

10.B.7.a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the Facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

10.B.7.b. The Discharger shall attach a cover letter to the eSMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation. In addition, the Discharger shall add these violations into CIWQS.

10.B.7.c. The Discharger shall upload the Whole Effluent Toxicity Test result page or entire report for the reporting period under the attachment tab for the reporting period.

10.B.7.d. The Discharger shall upload the laboratory reports for the analysis of the priority pollutant for the reporting period under the attachment tab for the reporting period. The Discharger shall evaluate the results with the criteria and notify the Colorado River Basin Regional Board of any exceedance of the criteria.

10.C. Discharge Monitoring Reports (DMRs)

10.C.1. DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with eSMRs using the Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic eSMR submittal. Information about electronic DMR submittal is available at the [DMR website](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring) at: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

10.C.1.a. The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA study; or

10.C.1.b. The Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from their own laboratories or their contract laboratories.

The Discharger shall submit annually the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study to the State Water Board's Quality Assurance Officer who will send the DMR-QA

Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA’s DMR-QA Coordinator and Quality Assurance Manager.

The key components of the study are listed below.

- 1) The study period is the entire 12 months of each calendar year. However, participation earlier in the year would allow for extra time in the event that sample retesting is necessary.
- 2) Laboratories may use the same sample data that is normally generated under their certification/accreditation obligations.
- 3) Please submit electronic data files along with PDF copies from the approved Proficiency Testing (PT) vendors. The vendor will provide electronic data files (CSV) in the form of the standard EPA data file transfer protocols for uploading into the State Water Board database for this study. You are responsible for ensuring the testing data is received by the State Water Board.

10.D. Other Reports

10.D.1. Special Studies. The Discharger shall report the results of any special studies required by Special Provisions – 6.C.2. The Discharger shall report the progress in satisfaction of compliance schedule dates specified in Special Provisions – 6.C.7. The Discharger shall submit reports with reports with the eSMR scheduled to be submitted on or immediately following the report due date.

10.D.2. Operations and Maintenance Report. The Discharger shall report the following as shown in Table E-10:

Table E-10. Operations and Maintenance Report

Activity	Reporting Frequency
The amount of chemical used (i.e., chlorine, de-chlorinating agent, etc) shall be monitored daily and summarized monthly. The Discharger shall provide a certification statement in the annual report that inspections and documentation of inspections and operation/maintenance problems have been completed.	1x/Month
To inspect and document any operation/maintenance problems by inspecting each unit process. The Discharger shall provide a certification statement in the annual report that inspections and documentation of inspections and operations/maintenance problems have been completed.	1x/Year
Calibration of flow meters and mechanical equipment shall be performed in a timely manner and documented. The Discharger shall provide a certification statement in the annual report that the calibration of flow meters and mechanical equipment has been conducted and documentation of such calibrations is maintained.	1x/Year

Activity	Reporting Frequency
The Discharger shall maintain documentation of all logbooks (operation and maintenance), chain of custody sheets, laboratory and sampling activities as stated in Standard Provisions Sections 4 and 5 (Attachment D). The Discharger shall provide a certification statement in the annual report that maintenance of logbooks, chain of custody sheets, and laboratory and sampling activities as required is being implemented.	1x/Year
The Discharger shall conduct an annual review and evaluation of priority pollutant sampling results collected each year to evaluate the impact on surface water quality and provide this evaluation in the annual report.	1x/Year

ATTACHMENT F – FACT SHEET

TABLE OF CONTENTS

1. PERMIT INFORMATION.....	3
2. FACILITY DESCRIPTION	5
2.A. Discharge of Wastewater Treatment and Controls	5
2.B. Discharge Points and Receiving Waters	5
2.C. Summary of Previous Requirements and Self-Monitoring (SMR) Data	6
2.D. Past Compliance Summary	8
2.E. Planned Changes	9
3. APPLICABLE PLANS, POLICIES, AND REGULATIONS	9
3.A. Legal Authorities	9
3.B. California Environmental Quality Act (CEQA)	9
3.C. State and Federal Laws, Regulations, Policies, and Plans.....	9
3.D. Impaired Water Bodies on the Clean Water Act Section 303(d) List	12
3.E. Other Plans, Policies and Regulations.....	14
4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS.....	15
4.A. General Information	15
4.B. Discharge Prohibitions	15
4.C. Technology-Based Effluent Limitations.....	17
4.D. Water Quality-Based Effluent Limitations (WQBELs)	19
4.E. Final Effluent Limitation Considerations.....	28
4.F. Interim Effluent Limitations – Not Applicable.....	30
4.G. Final Effluent Limitations	30
4.H. Land Discharge Specifications – Not Applicable	33
4.I. Recycling Specifications – Not Applicable.....	33
5. RATIONALE FOR RECEIVING WATER LIMITATIONS	33
5.A. Surface Water	33
5.B. Groundwater – Not Applicable	33
6. RATIONALE FOR PROVISIONS	33
6.A. Standard Provisions.....	33
6.B. Special Provisions.....	34
7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS.....	35
7.A. Influent Monitoring	35
7.B. Effluent Monitoring	35
7.C. Whole Effluent Toxicity Testing Requirements	36
7.D. Receiving Water Monitoring.....	37
7.E. Other Monitoring Requirements.....	38
8. PUBLIC PARTICIPATION.....	38
8.A. Notification of Interested Persons	38
8.B. Written Comments	38
8.C. Public Hearing	39
8.D. Reconsideration of Waste Discharge Requirements	39
8.E. Information and Copying.....	40
8.F. Register of Interested Persons.....	40

8.G. Additional Information..... 40

TABLE OF TABLES

Table F-1. Facility Information..... 3
Table F-2. Historic Effluent Limitations and Monitoring Data (EFF-001A)..... 6
Table F-3. Historic Effluent Limitations and Monitoring Data (EFF-001B)..... 8
Table F-4. Historic Effluent Limitations and Monitoring Data (EFF-001C)..... 9
Table F-5. Effluent Characteristics 10
Table F-6. Violations Report Summary 10
Table F-7. Basin Plan Beneficial Uses 10
Table F-8. Summary of Technology-based Effluent Limitations 10
Table F-9. Basis for Limitations 10
Table F-10. Applicable Beneficial Uses and Water Quality Criteria and Objectives 21
Table F-11. Summary of Reasonable Potential Analysis 23
Table F-12. Summary of Water Quality-based Effluent Limitations 28
Table F-13. Summary of Final Effluent Limitations..... 33

ATTACHMENT F – FACT SHEET

As described in Section 2.B of this Order, the Colorado River Basin Water Board incorporates this Fact Sheet as findings of the Colorado River Basin Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of the Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	7A130703011
Discharger	U.S. Navy (Owner) and KJS Support Services JV, LLC (Operator)
Name of Facility	Naval Air Facility El Centro Wastewater Treatment Plant
Facility Address	1605 3 rd Street, Building 504 El Centro, CA 92251 Imperial County
Legally Responsible Official	CPT William Perkins, Commanding Officer, (760)339-2401; William.perkins1@navy.mil LCDR Derek B. Hall, Public Works Officer, (760)339-2214; Derek.b.hall.mil@us.navy.mil
Facility Contact, Title and Phone	Joao Garza, Chief Wastewater Operator, KJS (760) 339-2230; joao.garza@kinggeorge.us
Authorized Person to Sign and Submit Reports	Sheri Fox, Environmental Protection Specialist, Public Works (760) 339-2532; sheri.fox2@navy.mil Joao Garza, Chief Wastewater Operator (760) 339-2230; joao.garza@kinggeorge.us
Mailing Address	1605 3rd Street, Building 504 El Centro, CA. 92243

WDID	7A130703011
Billing Address	SAME
Type of Facility	Federally Owned Treatment Works
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	N
Recycling Requirements	N
Facility Permitted Flow	0.3 million gallons per day (MGD)
Facility Design Flow	0.3 MGD
Watershed	Imperial Hydrologic Unit (Brawley HA) – 723.10
Receiving Water	Unnamed tributary to New River
Receiving Water Type	Ephemeral stream

- 1.A.** The U.S. Navy (Discharger) is the operator of the Naval Air Facility El Centro Wastewater Treatment Plant (Facility), a Federally Owned Treatment Works. The Discharger also owns the property at 1605 3rd Street, Building 504, El Centro, CA 92251 on which the Facility is located. For the purposes of this Order, references to the “Discharger” or “Permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.
- 1.B.** The Facility discharges wastewater to the New River, which is tributary to the Salton Sea and a water of the United States. The discharge was previously regulated by Order R7-2016-0004 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0104906, adopted on June 11, 2015. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.
- 1.D.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on September 21, 2020. The application was deemed complete on July 29, 2021.
- 1.E.** Federal regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to both 40 C.F.R. section

122.6 and California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the discharger complies with all federal NPDES requirements for continuation of expired permits. The U.S. Navy complied with these requirements; therefore, although the permit expired on June 30, 2021, it was administratively extended.

2. FACILITY DESCRIPTION

The Discharger owns and operates a wastewater collection, treatment, and disposal system and provides sewerage service to the U.S. Navy's Naval Air Facility El Centro with a service population of approximately 1,580. The permitted maximum daily flow limitation is equal to the design capacity of the wastewater treatment plant which is 0.3 MGD and is located in Section 25, T15S, R12E, SBB&M. The discharge consists of disinfected secondary treated sanitary wastewater.

2.A. Discharge of Wastewater Treatment and Controls

The treatment system consists of an influent diversion box, three equalization tanks, an automatic bar screen, an oxidation ditch, and a secondary clarifier. Effluent is chlorinated using sodium hypochlorite solution and dechlorinated using a sodium bisulfite prior to discharge. The Facility also maintains a 4-million-gallon overflow storage pond with a synthetic liner, which can divert flow from the equalization tanks. The Facility provides domestic sewage services to the Naval Air Facility El Centro.

Raw water leaves two pump houses and enters three 18,000-gallon equalization tanks, in parallel. From the equalization basins, raw water passes through the influent junction box, a flow meter and automatic sampler, and then through an automatic bar screen. The wastewater undergoes biological treatment in the oxidation ditch, followed by solids separation in the secondary clarifier. Wastewater is disinfected in the chlorine contact chamber by injecting sodium hypochlorite followed by dechlorination using sodium bisulfite.

A portion of the solids separated in the secondary clarifier is pumped back to the oxidation ditch for additional treatment and the remaining portion is pumped to one of six drying beds, dried, and placed in trash bins prior to being hauled away by a contractor (currently, Allied Waste Services) to the Allied Waste Imperial Landfill (Imperial, CA) for disposal.

Wastewater is discharged from Discharge Point 001 (see table on cover page) to the unnamed tributary to the New River. From the unnamed tributary to the New River, effluent flows approximately 180 yards prior to entering New River, a water of the United States.

2.B. Discharge Points and Receiving Waters

Final effluent is discharged through Discharge Point 001 at Latitude 32° 50' 19" North and Longitude 115° 41' 06" West, to an unnamed tributary to the New River. The permitted maximum daily flow limitation is equal to the design capacity of the

wastewater treatment plant, which is 0.3 MGD. The discharge consists of secondary treated wastewater.

2.C. Summary of Previous Requirements and Self-Monitoring (SMR) Data

Effluent limitations contained in prior Order R7-2016-0004 for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the prior order are as follows in Table F-2:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Flow	MGD	---	---	0.3	---	---	0.28
BOD ₅	mg/L	30	45	---	---	---	12.8
TSS	mg/L	30	45	---	---	---	17
pH	s.u.	---	---	6.0 – 9.0 ¹⁹	---	---	5.2 – 8.7 ²⁰
Oil and Grease	mg/L	---	---	25	---	---	17.9
Mercury	µg/L	0.051	---	0.01	---	---	< 0.0001
Thallium	µg/L	---	---	---	---	---	19
Selenium	µg/L	---	---	---	---	---	48.5
<i>Escherichia coli</i> (E. coli)	MPN/100 ml	126 ²¹	---	400 ²²	---	---	93.3
<i>Fecal Coliform</i>	MPN/100 mL	200	--	400 ²³	81	--	300
Nitrates as N	mg/L	---	---	---	---	---	47.78
Nitrites as N	mg/L	---	---	---	---	---	1
Total Nitrogen	mg/L	---	---	---	---	---	51.8
Ammonia as N	mg/L	---	---	---	---	---	2.8
Total Phosphate as P	mg/L	---	---	---	---	---	13
Orthophosphate as P	mg/L	---	---	---	---	---	7.63

¹⁹ This range represents the instantaneous minimum and maximum pH limitations, respectively.

²⁰ This represents the range of reported pH values.

²¹ Based on a minimum of not less than five samples for any 30-day period.

²² No sample shall exceed 400 MPN/100 ml.

²³ No more than ten percent of the total fecal coliform samples collected during any 30-day period shall exceed a MPN of 400 per 100 milliliters.

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Dissolved Solids (TDS)	mg/L	---	---	---	---	---	2300
Sulfate	mg/L	---	---	---	---	---	---
Chloride	mg/L	---	---	---	---	---	---
Hardness	mg/L	---	---	---	---	---	740
Temperature	°F	---	---	---	---	---	91
Chronic Toxicity (<i>Ceriodaphnia dubia</i>)	TU _c	See footnote #24	---	---	---	---	1
Chronic Toxicity - Reproduction (<i>Ceriodaphnia dubia</i>)	TU _c	See footnote # 24	---	---	---	---	1
Chronic Toxicity - Survival (<i>Pimephales promelas</i>)	TU _c	See footnote # 24	---	---	---	---	1
Chronic Toxicity - Growth (<i>Pimephales promelas</i>)	TU _c	See footnote # 24	---	---	---	---	1

The ROWD described the existing discharge as follows:

Maximum Daily Effluent Flow – 0.28 MGD

Average Daily Effluent Flow – 0.07MGD

The ROWD described the effluent characteristics in Table F-5 as follows:

²⁴ There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water.

Table F-3. Effluent Characteristics

Parameter	Units	Maximum Daily	Average Daily
pH (Minimum)	s.u.	5.2	--
pH (Maximum)	s.u.	8.7	--
Temperature (Winter)	°F	53	--
Temperature (Summer)	°F	91	--
BOD ₅	mg/L	12.8	1.93
Fecal Coliform	MPN/100 mL	300	10.83
TSS	mg/L	17	2.98
Ammonia, as N	mg/L	2.8	0.52
Dissolved Oxygen	mg/L	9.26	6.58
Total Kjeldahl Nitrogen, as N	mg/L	51.8	38.65
Nitrate+Nitrite, as N	mg/L	47.78	36.88
Oil and Grease	mg/L	17.9	1.95
Phosphorus, as P	mg/L	13	4.6
Total Dissolved Solids	mg/L	2300	1699

2.D. Past Compliance Summary

A review of the available effluent monitoring data, submitted in the Discharger's Self-Monitoring Reports is summarized below:

Table F-4. Reported Violations Summary

Date of Exceedance	Limit Basis	Parameter	Permit Limitations	Reported Value	Units
2/27/2018	Instantaneous Maximum	Enterococci	100	533	MPN/100 mL
7/16/2019	Instantaneous Maximum	Enterococci	100	140	MPN/100 mL
7/23/2019	Instantaneous Maximum	Enterococci	100	103	MPN/100 mL

2.E. Planned Changes

The Discharger indicated during a site visit conducted on July 29, 2021, that there are no planned changes at the Facility during the upcoming permit term.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

3.A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to waters of the United States.

3.B. California Environmental Quality Act (CEQA)

This Order serves as both an NPDES permit for discharges subject to the Clean Water Act and as WDRs for discharges subject to the California Water Code. Pursuant to Water Code section 13389, this action to adopt an NPDES permit is exempt from CEQA (Public Resources Code section 21000 et seq.). Under California Code of Regulations, title 14, section 15301, the Colorado River Basin Water Board's action in approving those parts of the Order that implement state law is also exempt from CEQA, because the Facility is an existing facility with negligible or no expansion of existing use.

3.C. State and Federal Laws, Regulations, Policies, and Plans

3.C.1. Water Quality Control Plan. The Water Quality Control Plan for the Colorado River Basin Region (Basin Plan), which was adopted on November 17, 1993 and amended most recently on January 8, 2019, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The requirements in this Order implement the Basin Plan and protect existing and potential beneficial uses of the receiving water, which are as follows:

Table F-5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	New River	Existing: Fresh Water Replenishment (FRSH); Water Contact Recreation (REC-I) ²⁵ ; Non-Contact Water Recreation (REC-II); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); and Support of Rare, Threatened, or Endangered Species (RARE). ²⁶ Potential: Industrial Service Supply (IND)

3.C.2. Thermal Plan. The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971 and amended this plan on September 18, 1975. The plan contains temperature objectives for surface waters.

3.C.3. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants.

3.C.4. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and CTR and to the objectives for priority pollutants established by the Colorado River Basin Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

3.C.5. Emergency Planning and Community Right to Know Act. Water Code section 13263.6(a) requires the Colorado River Basin Water Board to prescribe effluent

²⁵ Unauthorized use.

²⁶ Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by case basis is upon the California Department of Fish and Wildlife on its own initiative and/or at the request of the Colorado River Basin Water Board; and such substantiation must be provided within a reasonable time frame as approved by the Colorado River Basin Water Board.

limitations for POTWs for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. § 11023) indicate as discharged into the POTW, for which the State Water Board or the Colorado River Basin Water Board has established numeric water quality objectives, and has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective.

- 3.C.6. Stormwater Requirements.** USEPA promulgated federal regulations for stormwater on November 16, 1990 in 40 C.F.R. parts 122, 123, and 124. The NPDES Industrial Stormwater Program regulates stormwater discharges from wastewater treatment facilities. Wastewater treatment plants are applicable industries under the stormwater program and are obligated to comply with the federal regulations.
- 3.C.7. Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- 3.C.8. Sewage Sludge and Biosolids.** This Order does not authorize any act that results in violation of requirements administered by USEPA to implement 40 C.F.R. part 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 C.F.R. part 503 that are under USEPA's enforcement authority.
- 3.C.9. Antidegradation Policy.** 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality of high quality waters be maintained unless degradation is justified based on specific findings. The Colorado River Basin Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.
- 3.C.10. Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the Clean Water Act and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that

effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

3.C.11. Water Rights. Prior to making any change in the point of discharge, place of use or purpose of use of treated wastewater that results in a decrease of flow in any portion of the surface or subterranean stream, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change from the State Water Board. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

3.C.12. Statewide Bacteria Provisions. The State Water Board adopted *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Bacteria Provisions and Water Quality Standards Variance Policy* (ISWEBE Plan) through Resolution No. 2018-0038, which was approved by the Office of Administrative Law (OAL) on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The plan adopts new statewide bacteria objectives for coastal and non-coastal waters designated for water contact recreation (REC 1) and establishes *E. coli* as the sole indicator of pathogens in freshwater. These numeric water quality objectives are already effective statewide and supersede the objectives currently listed in the Basin Plan, except for site specific objectives and narrative water quality objectives.

3.C.13. Statewide Mercury Provisions. The State Water Board adopted *Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California -Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (Mercury Provisions) through Resolution No. 2017-0027, which was approved by OAL on June 28, 2017 and became effective upon USEPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions, implemented through NPDES permits issued pursuant to Clean Water Act section 402.

3.D. Impaired Water Bodies on the Clean Water Act Section 303(d) List

Section 303(d) of the federal Clean Water Act requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies (303(d) List) every 2 years. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) List also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. On June 9, 2021, the USEPA gave final approval to California's 2018 303(d) List for waters in the Colorado River Basin Region.

3.D.1. New River

The receiving water for the discharge from the Facility is the New River. The New River is listed on the 303(d) List as impaired for bifenthrin, chlordane, chloride,

chlorpyrifos, cyhalothrin, cypermethrin, DDT, DDD, diazinon, dieldrin, disulfoton, hexachlorobenzene, imidacloprid, indicator bacteria, malathion, mercury, naphthalene, nitrogen ammonia, nutrients, organic enrichment/low dissolved oxygen, PCBs, sediment, selenium, toxaphene, toxicity, and trash.

- 1) **Dissolved Oxygen TMDL.** On November 16, 2012, USEPA approved a TMDL for Dissolved Oxygen (DO) for the New River. This TMDL only established waste load allocations (WLAs) for a particular segment of the New River – namely, the 0.8 mile of impaired reach of the New River immediately downstream from the International Boundary (IB) with Mexico. Because the Facility is located more than 10 miles downstream from the IB, the DO TMDL does not include any requirements applicable to the Discharger.
- 2) **Trash TMDL.** On September 24, 2007, USEPA approved a TMDL for trash for the New River. The TMDL establishes a prohibition on the discharge of any trash to the New River from point sources and contains a waste load allocation (WLA) of 0 pounds per day of trash for the Naval Air Facility El Centro Wastewater Treatment Plant. In compliance with the trash TMDL and assigned WLA, this Order prohibits discharges of trash from the Facility to the New River.
- 3) **Pathogens TMDL.** USEPA also approved a TMDL for pathogens on August 14, 2002. The TMDL set WLAs for three indicator bacteria: fecal coliform, *E. coli*, and enterococci. The WLAs were set at levels equivalent to the prior bacteria water quality objective for surface waters supporting the REC 1 beneficial use found in Chapter 3 of the Basin Plan. These objectives were adapted from the USEPA's *Quality Criteria for Water, 1986*. Studies were initiated in 1972 by USEPA to determine the human health risk for bathing in sewage-contaminated waters and which bacteria indicator would be best for predicting gastrointestinal illness. USEPA determined that for an estimated 8 illnesses per 1,000 swimmers in freshwater and 19 illnesses out of 1,000 swimmers in marine waters, a fecal coliform indicator group maximum geometric mean of 200 most probable number (MPN) per 100 milliliters (mL) was acceptable (USEPA, 1986). Using that illness rate, enterococci and *E. coli* were chosen as the best bacterial indicators for human health in freshwater and enterococci in marine waters.

Following the State Water Board's adoption of Part 3 of the ISWEBE Plan, new bacteria water quality objectives for waters designated for REC 1 are effective statewide. The updated objectives are based on the USEPA's 2012 recommended Clean Water Act section 304(a) criteria for bacteria. The statewide bacteria water quality objectives are based on the more conservative risk protection level of 32 illnesses per 1000 recreators. Consistent with USEPA's 2012 recreational water quality criteria recommendations, the State Water Board chose *E. coli* as the sole indicator of pathogens in freshwater and enterococci as the sole indicator for saline inland surface waters, enclosed bays, and estuaries.

The effluent limitations for *E. coli* contained in this Order are based on the new statewide objectives in Part 3 of the ISWEBE Plan. Because this limitation is

more stringent than the WLAs set by the pathogen TMDL, the effluent limitation fully complies with the pathogen TMDL.

- 4) **Sedimentation/siltation TMDL.** A sedimentation/siltation TMDL for the New River was approved by EPA on March 31, 2003. The TMDL for sediment establishes a wasteload allocation (WLA) applicable to the Facility for sediment. The WLA for sediment states: *“the discharge from point sources (NPDES permits) shall not exceed the total suspended solids limits specified under 40 CFR 122 et seq., and the corresponding mass loading rates.”* Consistent with the requirements of the TMDL, this Order carries forward the total suspended solids effluent limitations already in effect during the prior permit term (i.e., 30 mg/L as monthly average, and 45 mg/L as a weekly average).

3.D.3. The Salton Sea

The New River is tributary to the Salton Sea. The 303(d) List classifies the Salton Sea as impaired by arsenic, chloride, chlorpyrifos, DDT, enterococcus, low dissolved oxygen, nitrogen-ammonia (total ammonia), nutrients, salinity, and toxicity. The Colorado River Basin Water Board has not developed TMDLs addressing these impairments to date. Tributaries to the Salton Sea, including the New River, may be affected by the development of TMDLs for the Salton Sea.

3.E. Other Plans, Policies and Regulations

3.E.1. Stormwater Management. For the control of stormwater discharged from the site of the wastewater treatment facilities, dischargers typically must seek authorization to discharge under and meet the requirements of the State Water Board’s Order 2014-0057-DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* (Industrial General Permit). At this time, the Facility is enrolled in the Industrial General Permit.

3.E.2. Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). The Sanitary Sewer Order, adopted on May 2, 2006, is applicable to all “federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.” The purpose of the Sanitary Sewer Order is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. In lieu of requiring enrollment in the Sanitary Sewer Order, the Colorado River Basin Water Board has incorporated relevant sanitary sewer system requirements into Attachment I of the Order.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

4.A. General Information

The Clean Water Act requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under Clean Water Act section 304(a), supplemented where necessary by other relevant information; or (2) an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 C.F.R. section 122.44(d)(1)(vi).

Effluent and receiving water limitations in this Order are based on the federal Clean Water Act, the Basin Plan, the State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology.

4.B. Discharge Prohibitions

4.B.1. Discharge Prohibition III.A. *(The discharge of waste to land is prohibited unless authorized in a separate waste discharge permit.)*

This prohibition has been retained from Order R7-2016-0004. The limitations and conditions established by the Order are based on specific information provided by the Discharger (including through the ROWD) and gained by the Colorado River Basin Water Board through site visits, monitoring reports, and by other means. Discharges of a character not contemplated by this Order, such as discharges to land, are inconsistent with Clean Water Act section 402's prohibition against discharges of pollutants except in compliance with the Act's permit requirements, effluent limitations, and other enumerated provisions. This prohibition is also based on the Basin Plan requirements to protect the beneficial uses of the receiving water from unpermitted discharges, and it is in keeping with the intent and requirements of Water Code sections 13260 through 13264.

4.B.2. Discharge Prohibition III.B. *(The discharge of treated wastewater from the Facility at a location or in a manner different from that described in this Order is prohibited.)*

This prohibition has been retained from Order R7-2016-0004. The limitations and conditions established by the Order are based on specific information provided by the Discharger (including through the ROWD) and gained by the Colorado River

Basin Water Board through site visits, monitoring reports, and by other means. Discharges to surface waters at locations not contemplated by this Order, or discharges of a character not contemplated by this Order, are inconsistent with Clean Water Act section 402's prohibition against discharges of pollutants except in compliance with the Act's permit requirements, effluent limitations, and other enumerated provisions. This prohibition is also based on the Basin Plan requirements to protect the beneficial uses of the receiving water from unpermitted discharges, and it is in keeping with the intent and requirements of Water Code sections 13260 through 13264.

4.B.3. Discharge Prohibition III.C. *(The discharge of trash from the Facility to the New River, a tributary to the Salton Sea, is prohibited.)*

This prohibition implements the Colorado River Basin Water Board's trash TMDL for the New River approved by USEPA, which establishes a prohibition on the discharge of any trash to the New River from point sources and sets a WLA of 0 pounds per day of trash for the Facility. Additionally, the Basin Plan prohibits conditions that create a nuisance.

4.B.4. Discharge Prohibition III.D. *(The bypass or overflow of untreated or partially-treated wastewater or wastes to the New River is prohibited, except as allowed under Sections 1.G (Bypass) and 1.H (Upset) of Attachment D, Standard Provisions.)*

This prohibition has been retained from Order R7-2016-0004, with minor modifications. The discharge of untreated or partially-treated wastewater from the Discharger's collection, treatment, or disposal facility represents an unauthorized bypass pursuant to 40 C.F.R. section 122.41(m) or an unauthorized discharge which poses a threat to human health and/or aquatic life, and therefore is explicitly prohibited by this Order.

4.B.5. Discharge Prohibition III.E. *(The Discharge of waste in excess of the design treatment or disposal capacity of the system, 0.3 million gallons per day (MGD), is prohibited.)*

This prohibition has been retained from Order R7-2016-0004 and is based on the design capacity of the Facility. Exceedance of this capacity may result in effluent violations and/or the need to bypass untreated effluent blended with treated effluent, which is prohibited by this Order.

4.B.6. Discharge Prohibition III.F. *(The discharge of waste that causes contamination, pollution, or nuisance as defined in Water Code section 13050, subdivisions (k), (l), and (m), respectively, is prohibited.)*

This prohibition has been retained from Order R7-2016-0004, with minor modifications, and is based on section 13050 of the Water Code. The Basin Plan also prohibits conditions that create a nuisance or cause contamination or pollution.

4.C. Technology-Based Effluent Limitations

4.C.1. Scope and Authority

Section 301(b) of the Clean Water Act and implementing USEPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Technology-based effluent limitations (TBELs) require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the facility to use any available control techniques to meet the effluent limits.

Publicly owned treatment works (POTWs) must comply with TBELs based on secondary treatment standards or equivalent to secondary treatment standards pursuant to Clean Water Act section 301(b)(1)(B) and federal regulations at 40 C.F.R. 125.3(a)(1). Secondary treatment regulations were developed by USEPA and are specified in 40 C.F.R. part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD), total suspended solids (TSS), and pH.

Federally owned treatment works such as the Facility, however, fall outside the regulatory definition of POTWs, since they are not owned by a state or municipality. (See 40 C.F.R § 403.3(q).) Federally owned treatment works are subject to permit limits based on Best Practicable Control Technology Currently Available (BPT), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), and/or New Source Performance Standards (NSPS). (Mem. from Martha G. Prothro, USEPA [Apr. 16, 1987], at https://www3.epa.gov/npdes/pubs/60_4-87.txt, as of September 3, 2021.)

40 C.F.R. section 125.3 allows the development of case-by-case TBELs if effluent limitation guidelines (ELGs) have not been developed for non-POTWs. USEPA has not promulgated ELGs for federally owned treatment works. Pursuant to 40 C.F.R. section 125.3, the Colorado River Basin Water Board is authorized to develop TBELs on a case-by-case basis based on Best Professional Judgment (BPJ) under Clean Water Act section 402.

4.C.2. Applicable Technology-Based Effluent Limitations

4.C.2.a. Pursuant to 40 C.F.R. section 125.3, the Colorado River Basin Water Board is exercising its discretion to develop TBELs on a case-by-case basis based on BPJ under section 402 of the federal Clean Water Act.

The Facility is a federally owned treatment works that treats wastewater of similar quality to POTWs and includes similar treatment processes as POTWs. The Facility treats wastes made up of sanitary and industrial waste, consisting of pollutants of concern nearly identical to discharges to POTWs. Moreover, the Facility, through use of the current system, already meets the minimum level of effluent quality attainable through secondary treatment standards for BOD₅, TSS,

and pH. Because the characteristics of the influent and the design and operation of the Facility are substantially similar to a POTW, the Colorado River Basin Water Board, based on BPJ, continues to find that application of the secondary treatment standards is appropriate for this Facility.

Based on the considerations required in 40 C.F.R. section 125.3(d), the Colorado River Basin Water Board finds that the application of secondary treatment standards are appropriate and reasonable given the costs, age, type of facility, engineering aspects, processes, and environmental impacts. Thus, secondary standards have been implemented based on BPJ, and incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations. The secondary treatment standards were also included in the previous order as TBELs and were therefore carried over in this Order.

40 C.F.R. section 133.102 allows concentrations of up to 30 mg/L (monthly average) and up to 45 mg/L (weekly average) for BOD₅ and TSS. (40 C.F.R. § 133.102, (a)-(b).) The 30-day average percent removal of BOD₅ and TSS must not be less than 85 percent. (40 C.F.R. § 133.102(a)-(b).) The effluent values for pH must be maintained within the limits of 6.0 to 9.0. (40 C.F.R. § 133.102(c).) TBELs applicable to the Facility are listed in Table F-6 below. The mass-based effluent limitations are based on a design flow rate of 0.3 MGD.

Table F-6. Summary of Technology-based Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instant. Minimum	Instant. Maximum
BOD ₅	mg/L	30	45	---	---	---
BOD ₅	lbs/day ²⁷	75	113	---	---	---
Removal Efficiency for BOD ₅	%	85	---	---	---	---
pH	s.u.	---	---	---	6.0	9.0
TSS	mg/L	30	45	---	---	---
TSS	lbs/day	75	113	---	---	---
Removal Efficiency for TSS	%	85	---	---	---	---

4.C.2.b. Basis for Limitations:

Table F-7. Basis for Limitations

²⁷ Mass-based effluent limitations are based upon a maximum flow of 0.3 MGD.

Parameters	Basis for Limitations
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	BPJ and 40 C.F.R. § 133.102(a)
Total Suspended Solids (TSS)	BPJ and 40 C.F.R. § 133.102(b)
pH	BPJ and 40 C.F.R. § 133.102(c)
Removal Efficiency for BOD ₅ and TSS	BPJ and 40 C.F.R. § 133.102(a)-(b)

4.D. Water Quality-Based Effluent Limitations (WQBELs)

4.D.1. Scope and Authority

Clean Water Act section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. section 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under Clean Water Act section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated beneficial uses of the receiving water as specified in the Basin Plan and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

4.D.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan establishes the beneficial uses for surface water bodies in the Colorado River Basin Region. The beneficial uses of the New River and the Salton Sea have been described earlier in the Fact Sheet. The Basin Plan also specifies narrative and numeric water quality objectives applicable to surface water.

The CTR and SIP contain specific numeric objectives for toxic substances and the procedures used to implement the objectives. Table F-8 summarizes the applicable water quality criteria/objectives for priority pollutants reported in detectable concentrations in the effluent or receiving water, as well as those pollutants for which effluent limitations existed in Order R7-2016-0004. The

hardness value used to conduct the Reasonable Potential Analysis (RPA) was 400 mg/L, which is the minimum hardness value of the receiving water at Discharge Point 001 (EFF-001). These criteria were used in conducting the RPA for this Order.

Table F-8. Applicable Beneficial Uses and Water Quality Criteria and Objectives

CTR No.	Parameter	Most Stringent Criteria µg/L	Acute (Freshwater) µg/L	Chronic (Freshwater) µg/L	Organisms Only (Human Health) µg/L
1	Antimony	4,300	---	---	4,300
2	Arsenic	150	340	150	---
4	Cadmium	6.28	18.77	6.28	Narrative
6	Copper	27.52	46.34	27.52	---
8	Mercury	0.012	---	0.012	0.051
7	Lead	10.16	260.66	10.16	Narrative
9	Nickel	158.03	1422.80	158.03	4,600
10	Selenium	5.00	20.00	5.00	Narrative
12	Thallium	6.30	---	---	6.30
13	Zinc	356.68	356.68	359.60	---
14	Cyanide	5.20	22	5.20	220,000
44	DDT	0.001	1.1	0.001	---
68	Bis (2-Ethylhexyl) Phthalate	5.90	---	---	5.90
81	Di-n-Butyl Phthalate	12,000	---	---	12,000

4.D.3. Determining the Need for WQBELs for Priority Pollutants

NPDES regulations at 40 C.F.R. 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard.

The SIP, a statewide policy that became effective on May 22, 2000, establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP include methods to determine reasonable potential (for pollutants to cause or contribute to excursions above state water

quality standards) and to establish numeric effluent limitations, if necessary, for those pollutants that show reasonable potential.

Section 1.3 of the SIP requires the Colorado River Basin Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct a reasonable potential analysis. The reasonable potential analysis was performed based on available priority pollutant monitoring data collected by the Discharger from July 2016 through July 2021.

Some freshwater water quality criteria for metals are hardness dependent, i.e., as hardness decreases, the toxicity of certain metals increases and the applicable water quality criteria become correspondingly more stringent. The hardness value used to conduct the reasonable potential analysis (RPA) was 400 mg/L as CaCO₃.

To conduct the reasonable potential analysis, the Colorado River Basin Water Board identified the maximum observed effluent (MEC) and background (B) concentrations for each priority pollutant from the receiving water and effluent data provided by the Discharger and compared this data to the most stringent applicable water quality criterion (C) for each pollutant from the NTR, CTR, and Basin Plan. Section 1.3 of the SIP establishes three triggers for a finding of reasonable potential:

- a. Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
- b. Trigger 2 – If background water quality (B) > C and the pollutant is detected in the effluent; a limit is needed.
- c. Trigger 3 – If other related information, such as a 303(d) listing for a pollutant, discharge type, compliance history, etc., indicates that a WQBEL is required.

Based on the RPA, the discharge demonstrates reasonable potential to cause or contribute to an excursion above the water quality objective for thallium. From July 2016 through July 2021, the Discharger reported 2 detections of thallium in the discharge with one value at 13.3 µg/L and another at 19 µg/L. Both concentrations are higher than the water quality criterion for freshwater at 6.3 µg/L.

The discharge also demonstrates reasonable potential to contribute to an excursion above the water quality objective for selenium. For selenium, the Discharger reported data for four samples collected during the permit term, three of which were detected. One of which was above the water quality criterion of 5 µg/L. With this detection, the Colorado River Basin Water Board has determined that the discharge demonstrates reasonable potential to cause or contribute to an excursion above the water quality standard for selenium.

Data evaluated in the RPA for priority pollutants reported in detectable concentrations in both the receiving water and the effluent, including those pollutants for which effluent limitations existed in Order R7-2016-0004, is summarized below.

Table F-9. Summary of Reasonable Potential Analysis

CTR No.	Priority Pollutant	Applicable Water Quality Criteria (C) µg/L	Max. Effluent Concentration (MEC) µg/L	Max. Detected Receiving Water Concentration (B) µg/L	RPA Result – Effluent Limit Required?	Reason
1	Antimony	4,300	26.2	--	No	MEC < C
2	Arsenic	150	36.1	--	No	MEC < C
4	Cadmium	6.28	5.4	--	No	MEC < C
5a	Chromium (III)	552.04	0.6	--	No	MEC < C
5b	Chromium (VI)	11.43	0.013	--	No	MEC < C
6	Copper	27.52	16	--	No	MEC < C
7	Lead	10.16	0.94	--	No	MEC < C
8	Mercury	0.012	< 0.0001	--	No	MEC < C
9	Nickel	158.03	5.8	--	No	MEC < C
10	Selenium	5.00	48.5	--	Yes	MEC > C
12	Thallium	6.3	19	--	Yes	MEC > C
13	Zinc	356.68	54.1	--	No	MEC < C
26	Chloroform	No Criteria	< 0.01	--	No	NC
36	Methylene Chloride	1,600	< 0.01	--	No	MEC < C
68	Bis(2-ethylhexyl) phthalate	5.9	< 0.01	--	No	MEC < C
108	4,4'-DDT	0.001	< 0.01	--	No	MEC < C

4.D.4. WQBEL Calculations for Priority Pollutants

Final WQBELs for priority pollutants are based on monitoring results and following the calculation process outlined in Section 1.4 of the SIP. A table providing the calculations for all applicable WQBELs for this Order is provided in Attachment G of this Order.

4.D.4.a. WQBELs Calculation Example

Using selenium as an example, the following demonstrates how WQBELs based on an aquatic life criterion were established for this Order. The process for developing these limits is in accordance with Section 1.4 of the SIP. Attachment G summarizes the development and calculation of all WQBELs for this Order using the process described below.

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criterion determine the effluent concentration allowance (ECA) using the following steady state equation:

$$ECA = C + D(C-B) \text{ when } C > B, \text{ and}$$

$$ECA = C \text{ when } C \leq B,$$

- Where
- C The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value from the receiving water of 400 mg/L (as CaCO₃) was used for development of hardness-dependent criteria, and a pH of 5.2 was used for pH-dependent criteria.
 - D The dilution credit, and
 - B The ambient background concentration

For this Order, dilution was not allowed due to the nature of the receiving water and quantity of the effluent; therefore:

$$ECA = C$$

For selenium, the applicable water quality criteria are:

- ECA_{acute}= 20.0
- ECA_{chronic}= 5.0
- ECA_{human health}= Narrative

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{acute}[6.42] = ECA_{acute}[20] \times Multiplier_{acute}[0.32]$$

$$LTA_{chronic}[2.64] = ECA_{chronic}[5] \times Multiplier_{chronic}[0.53]$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard

deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. For this example, the CV calculated was 0.6 based on less than 10 samples for selenium.

Step 3: For the AMEL and MDEL, use the most limited LTA calculated in the previous step.

$$AMEL_{\text{aquatic life}}[4.1] = LTA[2.64] \times AMEL \text{ multiplier}_{95}[1.55]$$

$$MDEL_{\text{aquatic life}}[8.2] = LTA[2.64] \times MDEL \text{ multiplier}_{99}[3.11]$$

For selenium:

$$AMEL_{\text{aquatic life}} = 4.1$$

$$MDEL_{\text{aquatic life}} = 8.2$$

Step 4: Currently there is only narrative water quality criteria regarding human health for selenium. For pollutants that do have numeric human health criteria, additional calculations are done to compare effluent limits for average monthly and max daily effluent limits based on each criterion.

Step 5: Select the lower of the AMEL and MDEL based on aquatic life and human health (if applicable) as the water-quality based effluent limit for the Order.

AMEL _{aquatic life}	MDEL _{aquatic life}	AMEL _{human health}	MDEL _{human health}
4.1 µg/L	8.2 µg/L	Not Applicable	Not Applicable

The lowest (most restrictive) effluent limits are based on aquatic life and were incorporated into this Order.

4.D.5. WQBELs for Non-Priority Pollutants

Pursuant to 40 C.F.R. section 122.44(d), the Colorado River Basin Water Board must establish effluent limitations to control non-priority pollutants that have the reasonable potential to cause or contribute to an excursion above any state water quality standard.

4.D.5.a. Bacteria

Raw domestic wastewater inherently contains bacteria and human pathogens that threaten human health and aquatic life and has the potential to result in pollution and nuisance under Water Code section 13050 if discharged untreated to the receiving water. In light of the operational and discharge characteristics of the Facility, there exists reasonable potential for an exceedance of water quality objectives for bacteria and WQBELs are required.

The State Water Board adopted *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Bacteria Provisions and Water Quality Standards Variance Policy* (Part 3 of the ISWEBE Plan; Bacteria Provisions and Variance Policy) through Resolution No. 2018-0038, which was approved by OAL on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The plan adopts statewide bacteria objectives for coastal and non-coastal waters designated for water contact recreation (REC 1) and establishes *E. coli* as the sole indicator of pathogens in freshwater. These numeric water quality objectives are already effective statewide and supersede the objectives currently listed in the Basin Plan, except for site specific objectives and narrative water quality objectives. Pursuant to Part 3 of the ISWEBE Plan, the New River, which has a REC 1 designated beneficial use, must not have bacterial densities in excess of the following:

E. Coli. A six-week rolling geometric mean (GM) of *Escherichia coli* (*E. coli*) not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

Effluent limitations for *E. coli* are incorporated into this Order. The bacterial indicator of *E. coli* is used to estimate the presence of pathogens in the wastewater effluent discharged to Discharge Point 001. The effluent limitations for *E. coli* help determine the effectiveness of the municipal wastewater treatment facility's disinfection system. These effluent limitations will ensure that the discharge complies with the applicable water quality objectives for bacteria and the WLAs for the pathogen TMDL for the New River.

4.D.5.c. Oil and Grease

In the section for Aesthetic Qualities, the Basin Plan states: "All waters shall be free from substances attributable to wastewater of domestic or industrial origin or other discharges which adversely affect beneficial uses not limited to: floating as debris, scum, grease, oil, wax, or other matter that may cause nuisance."

Oil and grease and floating material are pollutants that may be found in sanitary waste from households, businesses or industries; POTWs typically are designed to remove these constituents. Oil and grease and floating material removal is typically achieved during primary treatment. Based on information included in self-monitoring reports submitted by the Discharger, effluent samples for oil and grease indicate their presence in the effluent (40 out of 60 detectable

concentrations ranging from 0.6 mg/L to 17.9 mg/L). Therefore, the discharge demonstrates a reasonable potential to cause or contribute to a receiving water excursion above the Basin Plan's narrative objective for oil and grease and floating material.

This Order includes the effluent limitation for oil and grease from the previous Order R7-2016-0004 and establishes a maximum daily effluent limitation (MDEL) for oil and grease to implement the narrative water quality objective contained in the Basin Plan and protect the beneficial uses of the New River. The effluent limitation for oil and grease is based on the numeric limitation (MDEL) included in the adopted General Order R7-2015-0006, *NPDES Permit for Low Threat Discharges to Surface Waters Within the Colorado River Basin Region*.

4.D.5.d. Whole Effluent Toxicity (WET)

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to aquatic organisms or that produce other detrimental response(s) in aquatic organisms. A detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

The SIP requires the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objectives for aquatic life in the Basin Plan. The SIP requires that the Discharger demonstrate the presence or absence of chronic toxicity using tests on the fathead minnow, *Pimephales promelas*, the water flea, *Ceriodaphnia dubia*, and the freshwater alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*). The MRP (Attachment E of this Order) requires toxicity monitoring two times a year to demonstrate compliance with the narrative toxicity objective.

The previous Order contained narrative toxicity language and triggers and established routine monitoring requirements. During the past permit term, the Discharger did not exceed any toxicity triggers during chronic toxicity testing. In addition, this Order establishes thresholds that, when exceeded, require the Discharger to conduct accelerated toxicity testing and/or conduct Toxicity Reduction Evaluation (TRE) studies.

Numeric chronic toxicity effluent limitations have not been included in the Order for consistency with the SIP, which implements narrative toxicity objectives in basin plans. The TST statistical method will be used to evaluate the toxicity data collected.

4.D.5.e. Chlorine

Chapter 3 of the Basin Plan contains a narrative water quality objective for surface water that states, "No individual chemical or combination of chemicals shall be present in concentrations that adversely affect beneficial uses." This narrative objective applies to the chemical chlorine. Because the wastewater treatment process involves chlorination, the discharge demonstrates a

reasonable potential to cause or contribute to an excursion in the receiving water above the water quality objective. As described above, chlorination is used as an oxidizing biocide. This Order carries forward the effluent limitations from the previous Order based on USEPA's *National Ambient Water Quality Criteria for the Protection of Freshwater Aquatic Life* (NAWQC) recommend 4-day average (chronic) and 1- hour average (acute) criteria for chlorine of 0.011 mg/L and 0.019 mg/L, respectively. The Colorado River Basin Water Board calculates effluent limitations for CTR and non-CTR parameters using the procedures outlined in the SIP and the USEPA *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001), which contain statistical methods for converting chronic (4-day) and acute (1-hour) aquatic life criteria to average monthly and instantaneous maximum daily effluent limitations based on the variability of the existing data and the expected frequency of monitoring. The effluent limitations for total chlorine residual are based on the Basin Plan's narrative toxicity objective and USEPA's NAWQC (rounded to two significant figures) of 0.01 mg/L as the average monthly maximum and 0.02 mg/L as the instantaneous maximum.

4.D.6. Summary of Water Quality-based Effluent Limitations

Table F-10. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Thallium	µg/L	6.3	---	12.6	---	---
Thallium	lbs/day ¹	0.016	---	0.032	---	---
Selenium	µg/L	4.1	---	8.2	---	---
Selenium	lbs/day ¹	0.01	---	0.02	---	---
Oil and grease, Total	mg/L	---	---	25	---	---
Oil and grease, Total	lbs/day	---	---	1,230	---	---
<i>Escherichia Coli</i> (<i>E. Coli</i>)	cfu/100 ml ²⁸	100 (GM) ²⁹	---	320 (STV) ³⁰	---	---

²⁸ cfu/100 mL = colony forming units per 100 milliliters

²⁹ Six-week Rolling Geometric Mean. The rolling geometric mean shall be calculated using at least 5 sample results over a 6-week period from a site using the following formula:

GM = $n\sqrt{(x1)(x2)(x3)\cdots(xn)}$, where x is the sample value and n is the number of samples taken.

³⁰ STV = statistical threshold value, not to be exceeded by more that 10 percent of samples collected in a calendar month, calculated in a static manner.

4.E. Final Effluent Limitation Considerations

4.E.1. Anti-Backsliding Requirements

The Clean Water Act specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit, unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in Clean Water Act sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l).

New contaminant data collected in the last five years has resulted in modified coefficients of variation and updated hardness values. These modifications resulted in the removal of effluent limitations for mercury based on the consideration of new information (i.e., current discharge monitoring data and reasonable potential analysis). Although the New River is a non-attainment water for the pollutant mercury, pursuant to Clean Water Act sections 402(o)(2)(B)(i) and 303(d)(4)(B), there is no reasonable potential for an excursion above the water quality objective (and no applicable WLA), and the relaxation is consistent with the state and federal antidegradation policies. All other effluent limitations for priority pollutants in this Order are at least as stringent as the effluent limitations in the previous Order. New limits have been included for selenium and thallium based on current discharge monitoring data and a reasonable potential analysis.

Effluent limitations for enterococci and fecal coliform are removed in this Order based on the new statewide water quality objectives for bacterial indicators in REC 1 waters found in Part 3 of the ISWEBE Plan, effective on March 22, 2019. Part 3 of the ISWEBE Plan establishes *E. coli* as the sole indicator of pathogens in freshwater and sets new numeric water quality objectives for bacterial indicators that supersede the prior objectives for bacteria in the Basin Plan. Based on several epidemiological studies sponsored by USEPA, the studies concluded that *E. coli* is the most reliable indicator bacteria for protecting human health. The new objectives are more stringent than prior objectives and more protective of human health based on a risk protection level of 32 illnesses per 1,000 recreators. Accordingly, the removal of effluent limitations for enterococci and fecal coliform has not resulted in any less stringent effluent limitations for bacteria in the permit.

The narrative TDS “effluent” limitation in the previous Order was actually a receiving water limitation, with compliance measured as the discharge not causing the concentration of TDS in the receiving water to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L. This Order retains the same receiving water requirements in Section 5.A.13. Namely, this Order still requires, as before, that the discharge not cause the concentration of TDS in the New River to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L. As such, the anti-backsliding requirements do not apply to the removal of the narrative TDS “effluent” limitation, because the removal of this limitation has not resulted in any less stringent requirements in the permit.

The effluent limitations in the Order are consistent with the anti-backsliding requirements of the Clean Water Act and federal regulations.

4.E.2. Antidegradation Policies

The permitted surface water discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

The discharge from the Facility contains conventional pollutants (BOD₅, TSS, bacteria, oil and grease, and pH) that are controlled through best practicable control technology currently available (BPT) and best available technology economically achievable (BCT) to prevent exceedances of water quality objectives for those pollutants and adverse impacts on the beneficial uses of the New River. Additionally, the TSS and *E.coli* effluent limitations are in full compliance with the WLAs established in the sedimentation/siltation TMDL and the pathogens TMDL for the New River and are protective of beneficial uses. The discharge also contains TDS, but at concentrations significantly below the 4,000 mg/L water quality objective for the receiving water.

Two priority pollutants, thallium and selenium, have been detected in the effluent in concentrations exceeding water quality objectives. This Order establishes WQBELs for these pollutants based on the water quality criteria established in the CTR and completing an RPA. The established WQBELs for thallium and selenium prevent adverse impacts to the beneficial uses of the New River and ensure compliance with the Basin Plan.

The Colorado River Basin Water Board has determined that some limited degradation of the receiving water from the Facility discharge is consistent with the federal and state antidegradation policies, because any limited degradation: (a) is confined to a reasonable area; (b) is minimized by implementation of regular maintenance, and optimal operation of best practicable treatment and control measures by the Discharger; (c) is primarily limited to waste constituents typically encountered in similar domestic wastewater; (d) does not unreasonably affect any present or anticipated beneficial uses of surface water prescribed in the Basin Plan, and will not result in the violation of any water quality objective; and (e) is consistent with the maximum benefit to the people of the state.

The discharge from the Facility as permitted herein reflects best practicable treatment and control (BPTC) for the subject wastewater. The control is intended to ensure that the discharge does not create a condition of pollution or nuisance and that the "background" water quality will be maintained. The Facility incorporates:

- 1) Technology for secondary treated domestic wastewater;
- 2) Effluent disinfection;
- 3) Sludge handling facilities;
- 4) An operation and maintenance manual;
- 5) Staffing to assure proper operation and maintenance; and

- 6) A standby emergency power generator of sufficient size to operate the necessary treatment units during periods of loss of commercial power.

Some limited degradation of surface water by the typical waste constituents associated with wastewater from wastewater treatment plants is consistent with the maximum benefit to the people of the state. The Discharger provides essential public services for the U.S. Navy Naval Air Facility El Centro by providing wastewater treatment to local military operations and residents, which is an important benefit to the state. The Discharger also supports the economic prosperity of the community by the employment of fulltime and part-time personnel at the plant. Based on the foregoing, the discharge as permitted herein is consistent with the federal and state antidegradation policies.

4.E.3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations on BOD₅, TSS, percent removal, and pH are specified in federal regulations in 40 C.F.R. part 133. The permit's technology-based pollutant restrictions are no more stringent than those typically required by the Clean Water Act. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. The scientific procedures for calculating the individual WQBELs for toxic pollutants are based on the CTR-SIP, which was approved by the USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the Clean Water Act.

4.F. Interim Effluent Limitations – Not Applicable

4.G. Final Effluent Limitations

Table F-11 below summarizes the proposed effluent limitations for the discharge from the treatment system through Discharge Point 001. Proposed effluent limitations are based on BPJ/secondary treatment standards, the California Toxics Rule, and Colorado River Basin Plan water quality standards.

The previous Order (R7-2016-0004) established TBELs for BOD₅, TSS, and TSS/BOD₅ percent removal based on secondary treatment standards, which have also been included in this Order through BPJ.

The previous Order contained WQBELs for bacterial indicators, oil and grease, chlorine, and mercury; with the exception of mercury, they are included in this Order with modifications. New effluent limitations for selenium and thallium are established based on the results of the RPA in accordance with requirements of the CTR and SIP.

4.G.1 Mass-based Effluent Limitations

40 C.F.R. section 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and section 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 C.F.R. section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g., CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations are established using the following formula:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

Where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

4.G.2. Final Effluent Limitations

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the MRP.

Table F-11. Summary of Final Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instant. Min.	Instant. Max.	Basis
Flow	MGD	---	---	0.3	---	---	40 C.F.R. § 122.44
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	mg/L	30	45	---	---	---	BPJ, 40 C.F.R. 133

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instant. Min.	Instant. Max.	Basis
Biochemical Oxygen Demand (BOD) (5 day @ 20 Deg. C)	lbs/day ³¹	75	113	---	---	---	BPJ, 40 C.F.R. 133
Suspended Solids, Total (TSS)	mg/L	30	45	---	---	---	BPJ, 40 C.F.R. 133
Suspended Solids, Total (TSS)	lbs/day	75	113	---	---	---	BPJ, 40 C.F.R. 133
Oil and Grease	mg/L	---	---	25	---	---	Basin Plan
Oil and Grease	lbs/day	---	---	63	---	---	Basin Plan
<i>Escherichia Coli (E. Coli)</i>	cfu/100 ml	100 (GM)	---	320 (STV)	---	---	Basin Plan
Thallium	µg/L	6.3	---	12.6	---	---	CTR, SIP
Thallium	lbs/day	0.016	---	0.032	---	---	CTR, SIP
Selenium	µg/L	4.1	---	8.2	---	---	CTR, SIP
Selenium	lbs/day	0.01	---	0.02	---	---	CTR, SIP

4.G.2.a. Percent Removal: The average monthly percent removal of BOD 5-day 20°C and TSS shall not be less than 85 percent.

4.G.2.b. Toxicity: There shall be no toxicity in the treatment plant effluent, nor shall the treatment plant effluent cause any toxicity in the receiving water, as defined in Section 5 of the MRP. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or toxicity tests of appropriate duration or other appropriate methods specified by the Colorado River Basin Water Board.

³¹ The mass-based effluent limitations are based on a design capacity of 0.3 MGD.

4.G.2.c. Bacteria: The bacterial concentrations in the wastewater effluent discharged to the New River shall not exceed the following concentrations, as measured by the following:

E. Coli. A six-week rolling geometric mean (GM) of *Escherichia coli* (*E. coli*) not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

4.H. Land Discharge Specifications – Not Applicable

4.I. Recycling Specifications – Not Applicable

5 RATIONALE FOR RECEIVING WATER LIMITATIONS

5.A. Surface Water

Clean Water Act section 303, subdivisions (a) through (c), require states to adopt water quality standards, including water quality criteria where necessary to protect beneficial uses. The Colorado River Basin Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains receiving surface water limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, color, chemical constituents, dissolved oxygen, oil, grease and floating material, pH, pesticides, settleable substances, tastes and odors, temperature, toxicity, and turbidity.

5.B. Groundwater – Not Applicable

6. RATIONALE FOR PROVISIONS

6.A. Standard Provisions

6.A.1. The Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42.

6.A.2. Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 C.F.R. section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2), because the enforcement authority under the

Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.B. Special Provisions

6.B.1. Reopener Provisions

This section is based on 40 C.F.R. parts 122 through 124. The Colorado River Basin Water Board may reopen the permit to modify permit conditions and requirements. Causes for modification include, but are not limited to, the promulgation of new regulations, modification in sludge use or disposal practices, or the adoption of new regulations by the State Water Board or Colorado River Basin Water Board, including revisions to the Basin Plan.

6.B.2. Special Studies and Additional Monitoring Requirements

6.B.2.a. TRE Work Plan. This provision is based on the SIP, Section 4, Toxicity Control Provisions.

6.B.2.b. Optional Translator Study. This provision is based on the SIP and allows the Discharger to conduct an optional translator study, based on the SIP and at the Discharger's discretion. This provision is based on the need to gather site-specific information in order to apply a different translator from the default translator specified in the CTR and SIP. Without site-specific data, the default translators are used with the CTR criteria.

6.B.2.c. DMR-QA Study. This provision is based on section 308 of the Clean Water Act (33 U.S.C. § 1318). USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. See Section 7.E.1 below.

6.B.3. Best Management Practices and Pollution Prevention

6.B.3.a. Pollutant Minimization Program. This provision is based on the requirements of Section 2.4.5 of the SIP.

6.B.3.b. Spill Response Plan. This provision is based on the requirements of 40 C.F.R. section 122.41(e) and the previous Order.

6.B.3.c. Stormwater. This provision is based on Water Quality Order 2014-0057-DWQ, NPDES General Permit No. CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities*.

6.B.4. Construction, Operation, and Maintenance Specifications

6.B.4.a. Facility and Treatment Operation. This provision is based on the requirements of 40 C.F.R. section 122.41(e) and the previous Order.

6.B.4.b. Treatment Basins. These provisions are included to ensure compliance with requirements established in this Order, and are based on the Clean Water Act, USEPA regulations, the Water Code, and Colorado River Basin Water Board plans and policies.

6.B.4.c. Operations Plan for Proposed Plant Modification. This provision is based on Water Code section 13385(j)(1)(D) in which the Discharger may adjust and test the expansion to the treatment system. This provision requires the Discharger to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting or testing, including steps to prevent violations.

6.B.5. Special Provisions for Publicly-Owned Treatment Works (POTWs)

6.B.6. Other Special Provisions

6.B.6.a. Sludge Disposal Requirements. Requirements are based on the previous Order and 40 C.F.R. parts 503, 257, and 258.

6.B.6.b. Collection Systems. The Clean Water Act prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 U.S.C. § §1311, 1342.) The Discharger's collection system is part of the Federally Owned Treatment Works (FOTW) that is subject to this Order. Pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41(e)), report any non-compliance (40 CFR § 122.41(l)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)). As such, the Discharger must comply with Standard Provision 6.A.2.j and Attachment D, Sections 1.C, 1.D, 5.E, and 5.H, as well as Attachment I.

6.B.7. Special Provision Reporting Schedules

The reporting schedules specify the deliverables and due dates for the Spill Response Plan, TRE Workplan, DMR-QA Study, and PMP.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Clean Water Act section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Colorado River Basin Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

7.A. Influent Monitoring

This Order includes treatment plant influent monitoring requirements from Order R7-2016-0004.

7.B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions as per the MRP. This provision requires compliance with the MRP, and is based on 40 C.F.R. sections 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in NPDES permits

(including this Order) issued by the Colorado River Basin Water Board. In addition to containing definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the Water Code, and the Colorado River Basin Water Board and State Water Board's plans and policies. The MRP also contains sampling programs specific to the Discharger's wastewater treatment facility. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, periodic monitoring is required for all priority pollutants defined by the CTR, for which the criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the Facility, EFF-001, will be required as shown in the proposed MRP and as required by the SIP.

The effluent monitoring requirements are largely unchanged from the previous Order; continuous monitoring for flow and total chlorine is included as well as daily monitoring for pH and temperature, and weekly monitoring for TSS and BOD₅. Effluent monitoring for selenium and thallium are set at monthly in the MRP. *E. coli* monitoring has been modified from five times per month to weekly according to the new statewide bacteria water quality objectives in Part 3 of the ISWEBE Plan. Monitoring for oil and grease has been maintained at monthly to determine compliance with effluent limitations. Monitoring for nitrite, nitrate, ammonia nitrogen, total nitrogen, total phosphate, ortho-phosphate, hardness, and total dissolved solids has been maintained at a quarterly frequency.

7.C. Whole Effluent Toxicity Testing Requirements

- 7.C.1.** Whole effluent toxicity (WET) testing requirements establish monitoring of the effluent to ensure that the receiving water quality is protected from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This permit requires chronic toxicity testing.
- 7.C.2.** This requirement establishes conditions and protocols by which compliance with the Basin Plan narrative water quality objective for toxicity will be demonstrated. The permit includes monitoring and evaluation of the effluent for chronic toxicity and provides monitoring triggers that, when the test results in "Fail," require the Discharger to initiate accelerated testing, TRE, and TIE procedures. The WET testing requirements in this Order include a screening phase and a monitoring phase of species testing. Screening is required during the first and fourth years of the permit term, to determine the most sensitive species that the Discharger will continue to use during the monitoring phase. This Order also includes specific procedures to evaluate toxicity caused by ammonia, ionic imbalance, and elevated

TDS concentrations.

- 7.C.3.** The WET testing requirements contained in the MRP, Section 5 were developed based on the *Draft National Whole Effluent Toxicity (WET) Implementation Guidance Under the NPDES Program* (EPA 832-B-04-003), the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003), and *Technical Support Document for Water Quality-based Toxics Control* (EPA 833-5-91-100). This is the most current guidance available to the Colorado River Basin Water Board.
- 7.C.4.** USEPA has developed a statistical approach that evaluates the WET measurement of wastewater effects on specific test organisms' ability to survive, grow, and reproduce. The approach is called the Test of Significant Toxicity (TST) and is a statistical method that uses hypothesis testing techniques based on research and peer-reviewed publications. The TST approach examines whether an effluent at the critical concentration (e.g., in-stream waste concentration or IWC, as recommended in USEPA's *Technical Support Document* [EPA 833-5-91-100] and implemented under USEPA's WET NPDES permits program) and the control within a WET test differ by an unacceptable amount; i.e., the amount that would have a measured detrimental effect on the ability of aquatic organisms to thrive and survive. This Order requires the Discharger to utilize the TST approach to evaluate the WET data.
- 7.C.5.** The TST approach explicitly incorporates test power (the ability to correctly classify the effluent as nontoxic) and provides a positive incentive to generate valid, high quality WET data to make informed decisions regarding WET reasonable potential and permit compliance determinations. Once the WET test has been conducted, the TST approach is used to analyze the WET test results to assess whether the effluent discharge is toxic at the critical concentration. The TST approach is designed to be used for a two-concentration data analysis of the influent water concentration (IWC) or receiving water concentration (RWC) compared to a control concentration. Using the TST approach, permitting authorities like the Colorado River Basin Water Board have more confidence when making determinations as to whether a permittee's effluent discharge is toxic or non-toxic. Use of the TST approach does not result in any changes to USEPA's WET test methods; however, a facility might want to modify its future WET tests by increasing the number of replicates over the minimum required (USEPA 1995, 2002a, 2002b, 2002c) by the approved USEPA WET test method to increase test power, which is the probability of declaring an effluent non-toxic if the organism response at the IWC is truly acceptable.

7.D. Receiving Water Monitoring

7.D.1. Surface Water

Surface water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water pursuant to the Basin Plan. Monitoring requirements for the receiving water are unchanged from the previous Order. Additionally, annual monitoring for priority pollutants in the

upstream receiving water has been continued, as required in accordance with the SIP.

7.D.2. Groundwater – Not Applicable

7.E. Other Monitoring Requirements

7.E.1. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the Clean Water Act (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) the Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study and also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

8. PUBLIC PARTICIPATION

The Colorado River Basin Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the U.S. Navy Naval Air Facility El Centro Wastewater Treatment Plant. As a step in the adoption process, the Colorado River Basin Water Board staff has developed tentative WDRs and has encouraged public participation in the WDRs adoption process.

8.A. Notification of Interested Persons

The Colorado River Basin Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the Colorado River Basin Water Board's website and electronic listserv, where the public had access to the agenda and any changes in dates and locations of the adoption hearing:

https://www.waterboards.ca.gov/coloradoriver/board_info/agenda/

8.B. Written Comments

Interested persons were invited to submit written comments concerning tentative

WDRs as provided through the notification process. Comments were due either by:

- (1) mail to the Attn: Jose Valle de Leon, Colorado River Basin Water Board at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260;
- (2) email to Jose Valle de Leon at jose.valledeleon@waterboards.ca.gov; or
- (3) fax to the Colorado River Basin Water Board office at (760) 341-6820, Attn: Jose Valle de Leon.

To be fully responded to by staff and considered by the Colorado River Basin Water Board, the written comments were due at the Colorado River Basin Water Board office by 5:00 p.m. on October 8, 2021.

8.C. Public Hearing

The Colorado River Basin Water Board held a public hearing on the tentative WDRs during its regular Board meeting at the following date and time, which was held by video and teleconference only:

Date: November 2, 2021
Time: 9:00 a.m.
Location: Virtual Meeting via Zoom Video and Teleconference

As a result of the COVID-19 emergency and the Governor's Executive Orders to protect public health by limiting public gatherings and requiring social distancing, the Board Meeting has held solely via remote presence. Links for the meeting, including a phone call option, were posted on the Colorado River Basin Water Board's website.

Interested persons were invited to attend. At the public hearing, the Colorado River Basin Water Board heard testimony pertinent to the discharge and the permit. For accuracy of the record, important testimony was requested in writing.

8.D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Colorado River Basin Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, 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 Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

For [instructions on how to file a water quality petition for review](https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml), see:
(https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

8.E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Colorado River Basin Water Board by calling (760) 346-7491.

8.F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Colorado River Basin Water Board, reference this Facility, and provide a name, address, and phone number.

8.G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Jose Valle de Leon at (760) 776-8940.

ATTACHMENT G – SUMMARY OF WQBELs CALCULATIONS

The WQBELs developed for this Order are summarized below and were calculated as described in the methodology summarized in Attachment F, Fact Sheet and are contained in Section 4.D.4 of this Order.

Table G-1. Summary of WQBELs Calculations

CTR #	Parameter	AMEL HH = ECA = C HH only µg/L	MDEL/ AMEL multiplier	MDEL HH µg/L	ECA acute = C acute	ECA acute multiplier	LTA acute µg/L	ECA chronic = C chronic µg/L	ECA chronic multiplier	LTA chronic µg/L	Lowest LTA µg/L	AMEL multiplier 95	AMEL aquatic life	MDEL multiplier 99	MDEL aquatic life
12	Thallium	6.3	2.01	12.6	---	---	---	---	---	---	---	1.55	6.3	3.11	12.6
10	Selenium	---	2.01	---	20	0.321	2.635	5	0.537	6.42	2.635	1.55	4.08	3.11	8.19

Table G-2 Summary of WQBELs Effluent Limitations

CTR #	Parameter	AMEL ($\mu\text{g/L}$)	MDEL ($\mu\text{g/L}$)
12	Thallium	6.3	12.6
10	Selenium	4.1	8.2

ATTACHMENT H – BIOSOLIDS AND SLUDGE MANAGEMENT

1. BIOSOLIDS USE AND DISPOSAL REQUIREMENTS

- 1.1.** All biosolids generated by the Discharger shall be reused or disposed of in compliance with the applicable portions of:
 - 1.1.1.** 40 C.F.R. part 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated. 40 C.F.R. part 503, Subpart B (land application) applies to biosolids placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation. 40 C.F.R. part 503, Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.
 - 1.1.2.** 40 C.F.R. part 258: for biosolids disposed of in Municipal Solid Waste landfills.
 - 1.1.3.** 40 C.F.R part 257: for all biosolids disposal practices not covered under 40 C.F.R. part 258 or 503.
- 1.2.** The Discharger is responsible for ensuring that all biosolids from the Facility are used or disposed of in accordance with 40 C.F.R. part 503, whether the Discharger reuses or disposes of the biosolids itself or transfers them to another party for further treatment, reuse, or disposal. The Discharger is responsible for informing subsequent preparers, applicers, or disposers of the requirements they must meet under 40 C.F.R. part 503.
- 1.3.** The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal that may adversely impact human health or the environment.
- 1.4.** No biosolids shall be allowed to enter wetland or other waters of the United States.
- 1.5.** Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.
- 1.6.** Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.
- 1.7.** The Discharger shall ensure that haulers who transport biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.
- 1.8.** If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all the requirements for surface disposal under 40 C.F.R. part 503, Subpart C, or must submit a written request to USEPA with the information enumerated in 40 C.F.R. section 503.20(b), requesting permission for longer temporary storage.

- 1.9. Sewage sludge containing more than 50 mg/kg Polychlorinated Biphenyls (PCBs) shall be disposed of in accordance with 40 C.F.R. part 761.
- 1.10. Any off-site biosolids treatment, storage, use, or disposal site operated by the Discharger within the Colorado River Basin Region that is not subject to its own WDRs, shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.
- 1.11. The USEPA or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger, directly or through contractual arrangements with their biosolids management contractors, to:
 - 1.11.1. Enter upon all premises where biosolids are produced by the Discharger and all premises where such biosolids are further treated, stored, used, or disposed, either by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal.
 - 1.11.2. Have access to and copy any records that must be kept under the conditions of this permit or of 40 C.F.R. part 503, by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal.
 - 1.11.3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the production of biosolids and further treatment, storage, use, or disposal by the Discharger or by another party to whom the Discharger transfers the biosolids for further treatment, storage, use, or disposal.
- 1.12. Monitoring shall be conducted as follows:
 - 1.12.1. Biosolids shall be tested for the metals required in 40 C.F.R. section 503.16 (for land application) or section 503.26 (for surface disposal), using the methods in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (EPA SW-846), as required in section 503.8(b)(4), at the following minimum frequencies:

Volume (dry metric tons/year)	Frequency
0 – 290	once per year
290 – 1500	once per quarter
1500 – 15000	once per 60 days
> 15000	once per month

For accumulated, previously untested biosolids, the Discharger shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples. Test results shall be expressed in milligrams of pollutant per kilograms of biosolids on a 100% dry weight basis. Biosolids to be land applied shall be

tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- 1.12.2.** Prior to land application, the Discharger shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 C.F.R. section 503.32. Prior to disposal in a surface disposal site, the Discharger shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.
- 1.12.3.** For biosolids that are land applied or placed in a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve vector attraction reduction requirements in 40 C.F.R. section 503.33(b).
- 1.12.4.** Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and federal facilities with greater than 5 MGD influent flow shall sample biosolids for pollutants listed under Clean Water Act section 307 (a) (as required in the pretreatment section of the permit for POTWs with pretreatment programs). Class 1 facilities and federal facilities with greater than 5 MGD influent flow shall test dioxins/dibenzofurans using a detection limit of less than 1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.
- 1.12.5.** The biosolids shall be tested annually or more frequently if necessary to determine hazardousness in accordance with California law.
- 1.12.6.** If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
- 1.12.7.** Biosolids placed in a municipal landfill shall be tested semi-annually by *Method 9095: Paint Filter Liquids Test* (EPA SW-846, 2004) to demonstrate that there are no free liquids.
- 1.13.** The Discharger, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following 40 C.F.R. part 503 notification requirements:
 - 1.13.1.** A reuse/disposal plan shall be submitted to the USEPA Region 9 Biosolid Coordinator and to the state permitting agency, prior to the use or disposal of any biosolids from the Facility to a new or previously unreported site. The plan shall be submitted by the land applier of the biosolids and shall include, a description and a topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a list of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed nitrogen loadings to be used for the crops, and a groundwater monitoring plan if one exists.

- 1.13.2.** If the biosolids do not meet 40 C.F.R. section 503.13, Table 3 metals concentration limits, the Discharger must require their land applier to contact the state permitting authority to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 40 C.F.R. section 503.12(b)(2) have been applied to the site since July 20, 1993, and, if so, the cumulative amount of pollutants applied to date, and background concentration, if known. The Discharger shall then notify USEPA Region 9 Coordinator of this information.
- 1.13.3.** For biosolids that are land applied, the Discharger shall notify the applier in writing of the nitrogen content of the biosolids, and the applier's requirements under 40 C.F.R. part 503, including the requirements that the applier certify that the requirement to obtain information in Subpart A, and that the management practices, site restrictions, and any applicable vector attraction reduction requirements Subpart D have been met. The Discharger shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.
- 1.13.4.** If bulk biosolids are shipped to another state or to tribal land, the Discharger must send written notice prior to the initial application of bulk biosolids to the permitting authorities in the receiving state or tribal land (the USEPA Regional Office for the area and the state/tribal authorities).
- 1.13.5.** Notification of 40 C.F.R. part 503 non-compliance: The Discharger shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of any noncompliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Discharger shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.
- 1.14.** The Discharger shall submit an annual biosolids report electronically (<https://cdx.epa.gov/>) to USEPA Region 9 Biosolids Coordinator and the Colorado River Basin Water Board by **February 19 of each year** for the period covering the previous calendar year. The report shall include:

 - 1.14.1.** The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
 - 1.14.2.** Results of all pollutant monitoring required in the Monitoring Section above.
 - 1.14.3.** Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 C.F.R. sections 503.17 and 503.27.
 - 1.14.4.** Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.

- 1.14.5. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
- 1.14.6. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other reuse/disposal methods not covered in N.3, above, and volumes delivered to each.
- 1.15. The Discharger shall require all parties contracted to manage their biosolids to submit an annual biosolids report to USEPA Region 9 Biosolids Coordinator by **February 19 of each year** for the period covering the previous calendar year. The report shall include:
 - 1.15.1. Names and addresses of land appliers and surface disposal site operators, name, location (latitude/longitude), and size (hectares) of site(s), volumes applied/disposed (dry metric tons) and for land application, biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha), dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 40 C.F.R. section 503.12(e)(2), management practices in section 503.14 and site restrictions in section 503.32(b)(5) have been met.

ATTACHMENT I – SANITARY SEWER SYSTEM REQUIREMENTS

A. DEFINITIONS

Except as otherwise specified, definitions set forth in Water Code section 13000 et seq. shall apply to the requirements in this attachment. (See, e.g., Wat. Code, § 13050.)

Sanitary Sewer Overflow (SSO)—Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

- (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
- (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
- (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

Sanitary Sewer System—Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

SSO Reporting System—Online spill reporting system hosted, controlled, and maintained by the State Water Resources Control Board (State Water Board). The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

Untreated or Partially-Treated Wastewater—Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

B. PREVENTION, MITIGATION AND ELIMINATION OF OVERFLOWS

1. The Discharger shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Discharger shall take all feasible steps to contain and mitigate the impacts of an SSO.
2. In the event of an SSO, the Discharger shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from

storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

3. All SSOs must be reported in accordance with **Sections C-D** herein.
4. When a sanitary sewer overflow occurs, the Discharger shall take all feasible steps and necessary remedial actions to (1) control or limit the volume of untreated or partially treated wastewater discharged, (2) terminate the discharge, and (3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Discharger shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (a) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (b) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (c) Cleanup of debris at the overflow site;
 - (d) System modifications to prevent another SSO at the same location;
 - (e) Adequate sampling to determine the nature and impact of the release; and
 - (f) Adequate public notification to protect the public from exposure to the SSO.
5. The Discharger shall properly, manage, operate, and maintain all parts of the sanitary sewer system, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
 6. The Discharger shall implement an **Operation & Maintenance Program (OMP)** that includes the following elements:
 - (a) Maintenance of up-to-date map(s) of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
 - (b) Plans for routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas.

- (c) Development of a **Rehabilitation and Replacement Plan (RRP)** to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The RRP should provide for regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. The RRP should also focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects.
 - (d) Training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
 - (e) Equipment and replacement part inventories, including identification of critical replacement parts.
7. The Discharger shall prepare (and, upon request, provide copies for Colorado River Basin Water Board review), an **Overflow Emergency Response Plan (OERP)** identifying measures to protect public health and the environment. At minimum, the OERP must include the following:
- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
 - (b) A program to ensure an appropriate response to all overflows;
 - (c) Procedures to ensure prompt notification to the Colorado River Basin Water Board and other potentially affected entities (e.g. county health agencies, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State.
 - (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the OERP and are appropriately trained;
 - (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
 - (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

C. NOTIFICATION REQUIREMENTS

Although Colorado River Basin Water Board and State Water Board are not first responders, the following requirements are intended to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses of water.

Table 1—SSO Categories

<p>Category 1</p>	<p>Discharges of untreated or partially treated wastewater of any volume resulting from the Discharger’s sanitary sewer system failure or flow condition that:</p> <ul style="list-style-type: none"> (a) Reach surface water and/or reach a drainage channel tributary to a surface water; or (b) Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
<p>Category 2</p>	<p>Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from the Discharger’s sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.</p>
<p>Category 3</p>	<p>All other discharges of untreated or partially treated wastewater resulting from the Discharger’s sanitary sewer system failure or flow condition.</p>

Table 2—Notification, Reporting, Monitoring and Record-Keeping Requirements

<p>Notification to Cal OES</p>	<p>Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.</p>	<p>Call Cal OES at (800) 852-7550</p>
--------------------------------	---	---------------------------------------

Reporting	<p>Category 1 SSOs: Submit certified report within 15 days of SSO end date.</p> <p>Category 2 SSOs: Submit certified report within 15 days of the SSO end date.</p> <p>Category 3 SSOs: Submit certified report within 30 days of the end of month in which SSO the occurred.</p> <p>SSO Technical Reports: Submit within 45 days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.</p> <p>“No Spill” Certifications: Certify that no SSOs occurred within 30 days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.</p>	Enter data into CIWQS Online SSO Database, certified by enrollee’s Legally Responsible Official(s).
Monitoring	Conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
Record-Keeping	<p>SSO event records.</p> <p>Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.</p> <p>Collection system telemetry records if relied upon to document and/or estimate SSO Volume.</p>	Self-maintained records shall be available during inspections or upon request.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the Discharger shall, as soon as possible, but not later than two (2) hours after (A) the Discharger has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the California State Office of Emergency Services (Cal OES) and obtain a notification control number.

2. To satisfy notification requirements for each applicable SSO, the Discharger shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:
 - i. Name of person notifying Cal OES and direct return phone number.
 - ii. Estimated SSO volume discharged (gallons).
 - iii. If ongoing, estimated SSO discharge rate (gallons per minute).
 - iv. SSO Incident Description:
 - a. Brief narrative.
 - b. On-scene point of contact for additional information (name and cell phone number).
 - c. Date and time enrollee became aware of the SSO.
 - d. Name of sanitary sewer system agency causing the SSO.
 - e. SSO cause (if known).
 - v. Indication of whether the SSO has been contained.
 - vi. Indication of whether surface water is impacted.
 - vii. Name of surface water impacted by the SSO, if applicable.
 - viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
 - ix. Any other known SSO impacts.
 - x. SSO incident location (address, city, state, and zip code).
3. Following the initial notification to Cal OES and until such time that the Discharger certifies the SSO report in the CIWQS Online SSO Database, the Discharger shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

D. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** The Discharger shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.
2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the Discharger shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the

flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.

3. **SSO Categories**

- i. **Category 1**—Discharges of untreated or partially treated wastewater of any volume resulting from the Discharger’s sanitary sewer system failure or flow condition that:
 - a. Reach surface water and/or reach a drainage channel tributary to a surface water; or
 - b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
- ii. **Category 2**—Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from the Discharger’s sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.
- iii. **Category 3**—All other discharges of untreated or partially treated wastewater resulting from the Discharger’s sanitary sewer system failure or flow condition.

4. **Timeframes for Reporting SSOs to CIWQS**

- i. **Category 1 SSOs and Category 2 SSOs**—A certified report shall be submitted via the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Reports shall contain the minimum information specified below in **Table 3**.
- ii. **Category 3 SSOs**—A certified report shall be submitted via the CIWQS Online SSO Database within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Reports shall contain the minimum information specified below in **Table 3**.
- iii. **“No Spill” Certification**—If there are no SSOs during the calendar month, the Discharger shall either:
 - (1) Certify, within 30 calendar days after the end of each calendar month, a “No Spill” certification statement in the

CIWQS Online SSO Database certifying that there were no SSOs for the designated month; or

- (2) Certify, quarterly within 30 calendar days after the end of each quarter,³² “No Spill” certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on.

- iv. **Amended SSO Reports**—The Discharger may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. After 120 days, the Discharger may contact the SSO Program Manager to request to amend an SSO report if the Discharger also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The Discharger shall submit an **SSO Technical Report** in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report shall include:

- i. **Causes and Circumstances of the SSO:**
 - a. Complete and detailed explanation of how and when the SSO was discovered.
 - b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
 - c. Detailed description of the employed methodology and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
 - d. Detailed description of the cause(s) of the SSO.
 - e. Copies of original field crew records used to document the SSO.
 - f. Historical maintenance records for the failure location.
- ii. **Response to SSO:**
 - a. Chronological narrative description of all actions taken by enrollee to terminate the spill.

³² For quarterly reporting, the quarters are January-March (Q1), Q2-April-June (Q2), July-September (Q3) and October-December (Q4).

- b. Explanation of how the OERP was implemented to respond to and mitigate the SSO.
- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

- a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- b. Detailed location map illustrating all water quality sampling points.

6. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the Discharger must fax or e-mail all required information to Colorado River Basin Water Board's office in accordance with the time schedules identified herein. In such event, the Discharger must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

7. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

The Discharger shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, Monday-Friday, 8am-5pm. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database.

Contents of SSO Reports—At a minimum, the mandatory information specified in **Table 3** shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

Table 3—Required Information in Certified SSO Reports

	SSO Category	1	2	3
A-1	SSO Contact Information: Name and telephone number of contact person who can answer specific questions about the SSO being reported.	✓	✓	✓
A-2	SSO Location Name.	✓	✓	✓
A-3	Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.	✓	✓	✓
A-4	Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.	✓	✓	✓
A-5	Whether or not the SSO reached a municipal separate storm drain system.	✓	✓	✓
A-6	Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.	✓	✓	✓
A-7	Estimate of the SSO volume, inclusive of all discharge point(s).	✓	✓	✓
A-8	Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.	✓	✓	✓
A-9	Estimate of the SSO volume recovered (if applicable).	✓	✓	✓
A-10	Number of SSO appearance point(s).	✓	✓	✓
A-11	Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.	✓	✓	✓
A-12	SSO start date and time.	✓	✓	✓
A-13	Date and time the Discharger was notified of, or self-discovered, the SSO.	✓	✓	✓
A-14	Estimated operator arrival time.	✓	✓	✓
A-15	For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.	✓	-	-
A-16	For spills greater than or equal to 1,000 gallons, the Cal OES control number.	✓	-	-
B-1	Description of SSO destination(s).	✓	✓	✓
B-2	SSO end date and time.	✓	✓	✓
B-3	SSO causes (mainline blockage, roots, etc.).	✓	✓	✓
B-4	SSO failure point (main, lateral, etc.).	✓	✓	✓
B-5	Whether or not the spill was associated with a storm event.	✓	✓	✓
B-6	Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.	✓	✓	-
B-7	Description of spill response activities.	✓	✓	-
B-8	Spill response completion date.	✓	✓	-
B-9	Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.	✓	✓	-

	SSO Category	1	2	3
B-10	Whether or not a beach closure occurred or may have occurred as a result of the SSO.	✓	-	-
B-11	Whether or not health warnings were posted as a result of the SSO.	✓	-	-
B-12	Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.	✓	-	-
B-13	Name of surface water(s) impacted.	✓	-	-
B-14	If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.	✓	-	-
B-15	If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.	✓	-	-
B-16	Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.	✓	-	-
B-17	SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.	✓	✓	✓

E. MONITORING REQUIREMENTS

The Discharger shall develop and implement an **SSO Water Quality Monitoring Program** to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the Discharger becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
 - i. Ammonia
 - ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and *E-coli*.