CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

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ORDER R7-2015-0007
NPDES NO. CAG917001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS OF EXTRACTED AND TREATED GROUNDWATER RESULTING FROM THE CLEANUP OF GROUNDWATER POLLUTED BY VOLATILE ORGANIC CONSTITUENTS

A Discharger, as described in the following table, who has complied with the requirements for coverage under this General Order, is authorized to discharge wastes, once permit coverage is effective as described in this General Order.

For the purposes of this General Order, references to the “Discharger”, “Permittee”, or “Enrollee” in applicable federal and state laws, regulations, plans, or policies are held to be equivalent to references to the Discharger herein.

Table 1. Discharger Information

Dischargers	Dischargers are those parties deemed responsible by the California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter, Regional Water Board) for remediation of groundwater polluted by volatile organic compounds (VOCs) and discharging, or proposing to discharge, treated groundwater resulting from the cleanup of groundwater polluted by VOCs into surface waters.

Table 2. Administrative Information

This General Order was adopted on:	September 17, 2015
This General Order shall become effective on:	October 1, 2015
This General Order shall expire on:	September 30, 2020

I, Robert Perdue, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on September 17, 2015.

Original Signed by
Robert Perdue, Executive Officer

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I. FACILITY INFORMATION

A. Eligible Facilities.

This General Order applies to instances of soil and/or groundwater pollution in the Colorado River Basin Region resulting from leaks at fuel storage and dispensing facilities and unauthorized discharges of volatile organic compounds (VOCs), including purgeable halocarbons and aromatic compounds, into waters of the state of California. Pollution of these sites is typically caused by leaky containment vessels for fuel, solvents, and other wastes at service stations and similar operations. Remedial activities at many of these sites are expected to necessitate discharge of treated groundwater to surface waters within the Colorado River Basin Region. Cleanup of these sites involves similar treatment technologies and results in similar waste discharges. The regulation of these discharges includes similar effluent limitations and monitoring requirements. Consequently, these discharges are more efficiently regulated with a general National Pollutant Discharge Elimination System (NPDES) permit rather than an individual NPDES permit. This General Order updates General Order R7-2009-0400 and establishes general waste discharge requirements (WDRs) for discharges resulting from the cleanup of groundwater polluted by releases of petroleum-related organic compounds and other volatile organic compounds (VOCs) associated with chemical releases.

The chemical constituents of concern regulated by this General Order include petroleum-related organic compounds and other volatile organic compounds associated with petroleum and/or chemical releases and naturally occurring inorganic constituents that may be present in groundwater at levels, or may be concentrated by treatment to levels, that exceed the more stringent of either applicable water quality criteria for receiving (downstream) waters or background (upstream) receiving waters. Applicable water quality criteria for receiving waters include those established by the water quality control plan for the Colorado River Basin Region (the Basin Plan) and the California Toxics Rule (CTR).

B. Authorized Discharges

1. Discharges that are authorized under this General Order must meet the following criteria:

    a. The discharge must be classified as a minor discharge by the United States Environmental Protection Agency (U.S. EPA). Discharges that exceed 1.0 MGD are classified as major discharges and shall not be authorized to discharge under this General Order;

    b. Pollutant concentrations in the discharge will not (a) cause, (b) have the reasonable potential to cause, or (c) contribute to an excursion above any applicable water quality objectives;

    c. The discharge from the site groundwater or the treated effluent must not exceed the water quality screening criteria for any constituent listed in Attachment B, other than for those constituents for which limitations are established in Section V.A (Effluent Limitations);

    d. The discharge does not include water added for the purpose of diluting pollutant concentrations; and

    e. Pollutant concentrations in the discharge will not cause or contribute to degradation of water quality or impair beneficial uses of receiving waters.

C. Exclusion of Coverage

1. For coverage under this General Order, the Discharger shall submit a completed NOI together with other information as described in Section II.A.1 below (General Order Application). If the Executive Officer determines that the proposed discharge is eligible for coverage under this General Order, a Notice of Applicability (NOA) will be issued and the proposed discharge becomes an "authorized discharge." The NOA will specify the maximum discharge flow rate (which also limits the mass loading rate for each constituent) and any other limits or provisions necessary for the individual discharge. The NOA may be terminated or revised by the Executive Officer at any time.

The Executive Officer of the Regional Water Board or the Regional Administrator of the U.S. EPA may require any person authorized to discharge wastes by this General Order to subsequently apply for and obtain an individual NPDES permit. Any interested person may petition the Executive Officer or the Regional Administrator to take action in accordance with this finding. Cases where an individual permit may be required include the following:

a. The Discharger is not in compliance with the conditions of this General Order or the NOA from the Executive Officer;

b. Changes in technologies or practices that impact the control or abatement of pollutants in the discharge;

c. New or revised effluent limitation guidelines are promulgated for the category of discharges covered by this General Order;

d. Changes to the Water Quality Control Plan for the Colorado River Basin (hereinafter Basin Plan) are adopted that contain requirements applicable to the discharges covered by this General Order; or

e. The requirements of section 122.28(a), title 40 of the Code of Federal Regulations[1] are not met.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

To obtain coverage under this General Order, which also serves as an NPDES permit, dischargers shall submit the following information to the Regional Water Board: (a) a completed Notice of Intent; (b) results of wastewater sampling; (c) an Engineering Plan; and (d) filing fee, plus surcharges.

1. Notice of Intent. All applicants must complete and submit an NOI as provided in Attachment C. The NOI requires dischargers seeking coverage under this General Order to submit the following information:

a. A completed Notice of Intent (NOI); and

b. The current filing fee, plus applicable surcharges.

c. **Wastewater Sampling.** All dischargers are required to analyze the proposed discharge for the priority pollutants regulated under the CTR and for the constituents specified in

[1] All further regulatory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

the Basin Plan. These parameters are specified in Attachment B. If the discharge will be discharged to a water quality-listed segment (WQLS) pursuant to the latest Clean Water Act (CWA) section 303(d) list (hereinafter 303(d) List), the Discharger shall also analyze for the parameter(s) causing the impairment(s). Finally, applicants proposing to discharge to the New River, Alamo River, Imperial Valley Drains, Coachella Valley Drains, Palo Verde Valley Drains, and to tributaries to the Salton Sea must also sample for several additional parameters specified in the Basin Plan and as contained in Attachment B of this General Order. Dischargers are required to submit the results of all sampling performed to the Regional Water Board along with the completed NOI.

In addition to listing the parameters to be analyzed, Attachment B also provides screening levels for pollutants. Dischargers who exceed a screening level for pollutants with applicable effluent limitations established in section V.A.1 will be considered ineligible for enrollment under this General Order.

d. **Engineering Report.** All dischargers are required to submit an approved Remedial Action Plan (RAP) or, if a RAP has not been submitted and approved, an engineering report (Report) containing the following information:

   i. A discussion of how the proposed discharge is consistent with the type of discharge eligible for coverage under this General Order;

   ii. An explanation of why a discharge to surface waters is the only feasible method for disposing of the site groundwater or treated effluent, supported by a letter from the local publicly-owned treatment works (POTW) stating that they cannot accept the discharge;

   iii. A general discussion of the proposed cleanup project including descriptions of the extraction method, treatment processes, design parameters, flow rates, and expected treatment performance not to exceed water quality screening criteria and effluent and receiving water limitations;

   iv. A schematic of the treatment process;

   v. A site map showing the extraction wells, monitoring wells, treatment site, and the storm drain or surface water discharge location; and

   vi. A map showing the path from the point of initial discharge to the ultimate location of discharge.

e. Dischargers previously authorized to discharge wastes under General Order R7-2009-0400 must submit an NOI within 45 days of the effective date of this General Order, and be issued a new authorization to discharge by the Executive Officer. Existing dischargers enrolling under this General Order are required to collect a representative sample of the site groundwater or treated effluent and analyze it for all the constituents listed in Attachment B. Dischargers shall conduct this analysis and submit the results with the NOI; otherwise, the existing authorization may be terminated. If the analytical sample results of any constituent other than those constituents listed in Section V.A of this General Order exceeds the water quality screening criteria listed in Attachment B, the Discharger will be considered ineligible for enrollment under this General Order. Other information may be required by the Executive Officer before authorizing enrollment under this General Order (General Order R7-2015-0007).

f. Dischargers not previously authorized to discharge wastes under General Order R7-2009-0400 shall file a complete NOI at least 45 days prior to commencement of the discharge. If the proposed discharge meets the requirements of this General Order, the

Executive Officer will provide the Discharger with a written authorization to discharge wastes in accordance with the requirements specified in this General Order.

g. All required submittals shall be submitted to the Regional Water Board, at the following address:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

B. Termination of Discharges

If the Discharger wishes to terminate authorization under this General Order, the Discharger shall submit a completed Notice of Termination (NOT). Termination from coverage will occur on the date specified in the NOT unless the Regional Water Board notifies the Discharger otherwise. All discharges shall cease before the date of termination, and any discharge to surface waters on or after this date shall be considered in violation of the Clean Water Act (CWA) unless that discharge is authorized by another NPDES permit.

C. Transferring Ownership

Coverage under this General Order may be transferred in case of change of ownership of land or discharge facility provided the existing discharger notifies the Executive Officer of the proposed transfer date, and the notice includes a written agreement between the existing and new dischargers containing a specific date of transfer of coverage, responsibility for compliance with this General Order, and liability between them.

III. FINDINGS

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

A. Background.

1. On September 22, 1998, U.S. EPA Region IX authorized the State of California to issue general NPDES permits in accordance with section 122.28. Section 122.28 allows for the issuance of general permits to regulate categories of discharges if the sources within each category:

a. Involve the same or substantially similar types of operations;

b. Discharge the same types of waste;

c. Require the same effluent limitations or operating conditions;

d. Require the same or similar monitoring; and

e. Are more appropriately controlled under a general permit than under individual permits.

2. On September 19, 2009, the Regional Water Board adopted General Order R7-2009-0400 (NPDES Permit No. CAG917001) in accordance with section 122.28 to regulate discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs into surface waters. General Order R7-2009-0400 rescinded General Order R7-2002-1000, except for enforcement purposes.

B. Discharge Description.

1. Wastewater from a groundwater cleanup project can include the following and may be produced and treated on a continuous or batch basis:

a. Treated groundwater from the cleanup of VOC contamination;

b. Groundwater pumped from beneath a layer of free product in order to establish a cone of depression to aid in the containment and extraction of pollutants;

c. Potentially polluted groundwater extracted during short- and long-term pump tests;

d. Potentially polluted well development water; and/or

e. Potentially polluted water purged prior to monitoring well sampling.

C. 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 (CWA) and implementing regulations adopted by the U.S. EPA 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 surface waters.

D. 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 are also incorporated into this Order.

E. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B, IV.C, and V.B of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA (33 U.S.C. § 1251 et seq.); consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

F. 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 has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

G. 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 this General Order supersedes General Board Order R7-2009-0400 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 CWA and regulations 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 past violations of the superseded Order.

IV. DISCHARGE PROHIBITIONS

A. The discharge of waste to land not owned or controlled by the Discharger is prohibited unless authorized in Waste Discharge Requirements or NPDES Permit.

B. Discharge of treated wastewater at a location or in a manner different from that described by the Discharger in its NOI application or as authorized by the Executive Officer is prohibited.

C. The discharge of trash to the waters of the State is prohibited.

D. Except as allowed under the Standard Provisions for NPDES permits (hereinafter Standard Provisions), included as Attachment D, the bypass or overflow of untreated or partially treated wastewater (i.e., treated groundwater) or wastes to the waters of the State is prohibited.

E. The Discharger shall not extract groundwater for treatment in excess of the design treatment or disposal capacity of the treatment system as specified in the Discharger's NOA from the Executive Officer.

F. Discharge of material other than extracted and treated groundwater from the investigation and cleanup of VOC-polluted groundwater and added treatment chemicals not approved by the Executive Officer is prohibited.

G. The discharge shall not cause degradation of any water supply.

H. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Section 13050, subdivisions (l) and (m), respectively, of the California Water Code.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations

a. **Discharges to Municipal Designated Waters.** The Discharger shall maintain compliance with the following effluent limitations at the discharge point identified in the NOA, with compliance measured at monitoring locations identified in the NOA as described in the Monitoring and Reporting Program, Attachment E:

Table 3. Effluent Limitations for Discharges to Municipal Designated Waters

Parameter	Units	Instantaneous Maximum Effluent Limitations
Lead, Total Recoverable	µg/L	15
Acrolein	µg/L	320
Acrylonitrile	µg/L	0.059
Benzene	µg/L	1.0
Bromoform	µg/L	4.3
Carbon Tetrachloride	µg/L	0.25
Chlorobenzene	µg/L	70
Chlorodibromomethane	µg/L	0.41
Chloroethane	µg/L	300
Chloroform	µg/L	100
Dichlorobromomethane	µg/L	0.56
1,1-Dichloroethane	µg/L	5.0
1,2-Dichloroethane	µg/L	0.38
1,1-Dichloroethylene	µg/L	0.057
1,2-Dichloropropane	µg/L	0.52
1,3-Dichloropropylene	µg/L	0.5
Ethylbenzene	µg/L	30
Methyl Bromide	µg/L	48
Methyl Chloride	µg/L	3

Parameter	Units	Instantaneous Maximum Effluent Limitations
Methylene Chloride	µg/L	4.7
1,1,2,2-Tetrachloroethane	µg/L	0.17
Tetrachloroethylene	µg/L	0.8
Toluene	µg/L	40
1,1,1-Trichloroethane	µg/L	200
1,1,2-Trichloroethane	µg/L	0.6
Trichloroethylene	µg/L	2.7
Vinyl Chloride	µg/L	0.5
cis-1,2-Dichloroethylene	µg/L	6
trans-1,2-Dichloroethylene	µg/L	10
Di-isopropyl Ether	µg/L	5
Ethanol	µg/L	760,000
Hydrocarbons, Petroleum (Total)	µg/L	100
Methanol	µg/L	3,500
Methyl tertiary-butyl ether (MTBE)	µg/L	13
Tertiary-amyl methyl ether (TAME)	µg/L	5
Tertiary Butyl Alcohol	µg/L	12
Trichlorofluoroethane	µg/L	1,200
Xylenes, Total	µg/L	20

b. **Discharges to Non-Municipal Designated Waters.** The Discharger shall maintain compliance with the following effluent limitations at discharge points identified in the NOA, with compliance measured at monitoring locations identified in the NOA as described in the attached MRP:

Table 4. Effluent Limitations for Discharges to Non-Municipal Designated Waters

Parameter	Units	Instantaneous Maximum Effluent Limitations
Lead, Total Recoverable	µg/L	15
Acrolein	µg/L	780
Acrylonitrile	µg/L	0.66
Benzene	µg/L	70
Bromoform	µg/L	360
Carbon Tetrachloride	µg/L	4.4
Chlorobenzene	µg/L	21,000
Chlorodibromomethane	µg/L	34
Chloroethane	µg/L	300
Chloroform	µg/L	100
Dichlorobromomethane	µg/L	46
1,1-Dichloroethane	µg/L	5.0
1,2-Dichloroethane	µg/L	99
1,1-Dichloroethylene	µg/L	3.2

Parameter	Units	Instantaneous Maximum Effluent Limitations
1,2-Dichloropropane	µg/L	39
1,3-Dichloropropylene	µg/L	1,700
Ethylbenzene	µg/L	29,000
Methyl Bromide	µg/L	4,000
Methyl Chloride	µg/L	3
Methylene Chloride	µg/L	1,600
1,1,2,2-Tetrachloroethane	µg/L	11
Tetrachloroethylene	µg/L	8.85
Toluene	µg/L	200,000
1,1,1-Trichloroethane	µg/L	200
1,1,2-Trichloroethane	µg/L	42
Trichloroethylene	µg/L	81
Vinyl Chloride	µg/L	525
cis-1,2-Dichloroethylene	µg/L	10
trans-1,2-Dichloroethylene	µg/L	140,000
Di-isopropyl Ether	µg/L	5
Ethanol	µg/L	760,000
Hydrocarbons, Petroleum (Total)	µg/L	100
Methanol	µg/L	740,000
Methyl tertiary-butyl ether (MTBE)	µg/L	13
Tertiary-amyl methyl ether (TAME)	µg/L	5
Tertiary Butyl Alcohol	µg/L	12
Trichlorofluoroethane	µg/L	4,000
Xylenes, Total	µg/L	1,750

c. **pH:** The hydrogen ion (pH) of the treated effluent shall be maintained within the limits of 6.0 to 9.0 standard units.

d. **Toxicity**: 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, as defined in section V 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.

VI. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this General Order. The discharge shall not cause the following in waters of the United States:

1. Result in the concentration of dissolved oxygen in the receiving water to fall below 5.0 mg/L. When dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.
2. Result in the presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
3. Result in the deposition of pesticides or combination of pesticides detectable in concentrations that adversely affects beneficial uses.
4. Result in discoloration in the receiving water that adversely affects beneficial uses.
5. Result in the discharge of biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
6. Result in an increase of turbidity that adversely affects beneficial uses.
7. Result in the normal ambient pH of the receiving water to fall below 6.0 or exceed 9.0 units.
8. Result in altering the natural receiving water temperature that adversely affects beneficial uses.
9. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.
10. Result in the discharge of an individual chemical or combination of chemicals in concentrations that adversely affect beneficial uses.
11. Result in 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.
12. Result in an increase in taste or odor-producing substances that adversely affect beneficial uses.
13. Result in the violation of any applicable water quality standard for receiving waters adopted by the Colorado River Basin Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA section 303 or amendments thereto, the Colorado River Basin Water Board will revise and modify this Permit in accordance with such more stringent standard.
14. Result in the bacterial concentrations in receiving waters supporting a REC-I designation that exceed the following concentrations as measured by the following bacterial indicators and is shown in the following table:

Name of Water Body	**Unit**	**E. Coli**		**Enterococci**		**Fecal Coliform**	
		Average[2]	**Max**	**Average[2]**	**Max**	**Average[2]**	**Max[3]**
Colorado River	MPN[1]	126	235	33	61	200	400
New River	MPN	126	400	33	100	200	400
Alamo River	MPN	126	400	33	100	200	400
Imperial Valley Drains	MPN	126	400	33	100	200	400
Coachella Valley Drains	MPN	126	400	33	100	200	400

Name of Water Body	Unit	E. Coli		Enterococci		Fecal Coliform	
		Average[2]	Max	Average[2]	Max	Average[2]	Max[3]
Palo Verde Valley Drains	MPN	126	400	33	100	200	400

[1] Most Probable Number
[2] The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period)
[3] No more than ten percent of total samples during any 30-day period may exceed 400 MPN per 100 ml.

15. Result in the bacterial concentrations in receiving waters supporting a REC-II designation that exceed the following concentrations, as measured by the following bacterial indicators and shown in the following table:

Name of Water Body	Unit	E. Coli		Enterococci		Fecal Coliform	
		Average[2]	Max	Average[2]	Max	Average[2]	Max
Colorado River	MPN[1]	630	1,175	165	305	165	305
New River	MPN	630	2,000	165	500	165	500
Alamo River	MPN	630	2,000	165	500	165	500
Imperial Valley Drains	MPN	630	2,000	165	500	165	500
Coachella Valley Drains	MPN	630	2,000	165	500	165	500
Palo Verde Valley Drains	MPN	630	2,000	165	500	165	500

[1] Most Probable Number
[2] The geometric mean bacterial density (based on a minimum of not less than five samples equally spaced over a 30-day period)

16. Result in the concentration of Total Dissolved Solids in receiving waters as shown in the following table.

Name of Water Body	Annual Average TDS (mg/L)	Maximum TDS (mg/L)
New River	4,000	4,500
Alamo River	4,000	4,500
Imperial Valley Drains	4,000	4,500
Coachella Valley Drains	2,000	2,500
Palo Verde Valley Drains	2,000	2,500

B. Groundwater Limitations – Not Applicable

VII. PROVISIONS

A. Standard Provisions

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

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 General Order, the more stringent provision shall apply:

a. The groundwater treatment 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.

b. The Discharger shall comply with all conditions of this General Order. Noncompliance constitutes a violation of the Federal Clean Water Act and Porter-Cologne Water Quality Control Act, and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification of waste discharge requirements; or denial of a permit renewal application.

c. The Discharger shall ensure that all site-operating personnel are familiar with the contents of this General Order, and shall maintain a copy of this General Order at the site.

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.

   Although State and Regional Water Boards do not have duties as first responders, it is important to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. To carry out this objective, the following notification requirements are to be implemented:

   i. For any discharges of sewage that result in a discharge to a drainage channel or surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services.

   ii. As soon as possible, follow the notification, reporting, monitoring, and recordkeeping requirements under WQ 2013-0058-EXEC for the Statewide Waste Discharge Requirements for Sanitary Sewer Systems. (http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2013/wqo2013_0058exec.pdf).

e. Prior to any change in ownership or management of this operation, the Discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Colorado River Basin Water Board along with the proposed transfer date and written agreement between the two parties..

f. Prior to any modifications in this facility, which would result in 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.

g. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.

h. This Order does not authorize violation of any federal, state, or local laws or regulations.

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.

j. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily, average weekly, average monthly, instantaneous maximum or instantaneous minimum, or receiving water limitation of this Order, 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, and shall confirm this notification in writing within five days, unless the Colorado River Basin Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

k. Prior to making any change in the point of discharge, place of use, or purpose of the use of treated wastewater that results in a decrease of flow in any portion or a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Wat. Code §1211.)

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

a. This General Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this General Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this General Order as a result of the special condition monitoring data.

b. The Discharger shall submit data sufficient to determine if a WQBEL is required in the discharge permit as required under the SIP. It is the Discharger's responsibility to provide all information requested by the Colorado River Basin Water Board for use in the analysis. The permit shall be reopened to establish WQBELs, if necessary.

c. This General Order may be modified, rescinded and reissued, for cause. The filing of a request by the Discharger for a General Order modification, rescission and reissuance, or a notification of planned changes or anticipated noncompliance does

not stay any General Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or the Colorado River Basin Water Board, including revisions to the Basin Plan.

d. The CWA requires the Colorado River Basin Water Board to modify, or terminate and reissue, the NPDES permit if a discharger must implement a pretreatment program. Public notice and a comment period are mandatory for these actions.

e. This General Order may be reopened and the Whole Effluent Toxicity (WET) Requirements, contained in section V of the MRP, may be modified to address changes to U.S. EPA or State Water Board policies or guidance regarding the testing or reporting requirements for WET testing.

f. TMDLs for pathogens, nutrients, salt, dissolved oxygen, VOCs, trash, pesticides, and selenium are to be developed by the Regional Water Board. The permit may be reopened and modified in the future to include appropriate requirements necessary to fully implement the approved TMDL, if needed.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Whole Effluent Toxicity Requirements**

For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct whole effluent toxicity (WET) testing, as specified in MRP section V. Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds the numeric toxicity monitoring triggers specified in section V.C of the MRP, this Order requires the Discharger to initiate accelerated WET testing. If the Discharge exceeds the numeric toxicity monitoring triggers during the accelerated WET testing, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE) in accordance with an approved TRE Work Plan. A TRE is a site-specific study conducted in a stepwise process to identify the source(s) of toxicity, evaluate effective control measures for effluent toxicity, and confirm the reduction in effluent toxicity. This Provision includes requirements for the Discharger to develop and submit a TRE Work Plan and, if necessary, initiate accelerated WET testing and a TRE/TIE.

b. **Chronic Whole Effluent Toxicity.**

Within 90 days of the effective date of this General Order, the Discharger shall submit to the Colorado River Basin Water Board a TRE Work Plan for approval by the Executive Officer. The Discharger shall review and update the existing TRE Work Plan on an annual basis. The Discharger shall submit the updated TRE Work Plan with each Annual Report. The TRE Work Plan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Work Plan must be developed in accordance with U.S. EPA guidance provided in manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) and be of adequate detail to allow the Discharger to immediately initiate the TRE Work Plan upon notification from the WET testing laboratory of effluent toxicity. This plan shall describe the steps the Discharger intends to follow in the event that toxicity is detected, and should include at a minimum:

i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

ii. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

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

iv. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

v. A schedule for these actions.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program**

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (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, or results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or

ii. 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 X.B.5.

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.

4. Construction, Operation and Maintenance Specifications

a. **Facility and Treatment Operation**

i. 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 includes effective performance, 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.

ii. Temporary power or adequate storage capacity shall be provided to maintain the plant in operation in the event of commercial power failure.

iii. Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the wastewater disposal facilities.

iv. The Discharger shall implement acceptable operation and maintenance at the facility so that needed repair and maintenance are performed in a timely manner.

b. **Start-Up Phase and Start-Up Reporting**

i. The Discharger shall inform the Regional Water Board in writing of the location of all sampling stations and the expected start-up date at least 10 days prior to beginning operational start-up.

ii. During the original start-up of the treatment facility, sampling of the system influent and treated effluent must be performed on the first (1st) and fifth (5th) day of operation. On the 1st day of operation, the system shall be allowed to run until at least three (3) extraction well volumes are removed and until three (3) consecutive readings taken at least one (1) hour apart for pH, conductivity, and temperature are within five (5) percent of each other. Once these criteria are met, the system influent and treated effluent shall be sampled and submitted for analysis. During this phase of the start-up, all system effluent shall be discharged into a holding tank or sanitary sewer (not to the receiving water) until the results of the analysis show that the discharge is within the effluent limitations established in General Order No. R7-2015-0007 and in the NOA.

iii. If the analysis of samples collected during the 1st day of operation indicate that the system is in compliance, the system shall be operated for a total of five (5) days with the system effluent being discharged into the receiving water. A second series of samples shall be collected during the fifth day. The effluent may continue to be discharged into the receiving water while the samples are being analyzed if the results are received within 48 hours of sampling. If the samples from the 5th day samples indicate compliance, discharge to the receiving water shall continue.

iv. If the treatment system is shut down more than 48 hours during the original start-up, the original start-up procedures and sampling must be repeated.

v. A report on the start-up phase shall be submitted to the Regional Water Board no more than fifteen (15) calendar days after completion of the start-up phase. The report should contain a summary of all monitoring results, copies of laboratory reports, chain of custody forms, flow rates, and a description of any changes or modifications to the treatment system.

5. Other Special Provisions

a. The Discharger may be required to submit technical reports as directed by the Colorado River Basin Water Board's Executive Officer.

b. 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. Required Submittals and Reports

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

Table 5. Deliverables and Due Dates

Activity	Description	Due Date
TRE Workplan	Description of steps the Discharger will take in the event toxicity is detected. The workplan should describe investigation and evaluation techniques used to identify sources of toxicity; method for maximizing in-house efficiency; and identify the party who will conduct the TIE.	Within 90 days of the effective date of this General Order
Start-Up Notification	The Discharger shall inform the Regional Water Board in writing of the location of all sampling stations and the expected start-up date at least 10 days prior to beginning operational start-up.	10 days prior to start-up
Start-Up Report	The Discharger shall submit a report on the start-up phase to the Regional Water Board no more than fifteen (15) calendar days after completion of the start-up phase.	Within 15 days of completion of the start-up phase

VIII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this General Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and VII. of this General Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, 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).

B. 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 are for instantaneous minimum effluent limitations.

C. 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.

D. 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 Provision VI.C.3.a.), the Discharger shall not be deemed out of compliance.

E. Water Quality-Based Effluent Limitations.

1. In accordance with section 2.4.5 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (State Implementation Policy or SIP), compliance with water quality-based effluent limitations shall be determined as follows:

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

   b. When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

      ii. 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 a DNQ.

      iii. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is

present in the effluent above an effluent limitation and the Discharger conducts a PMP, the Discharger shall not be deemed out of compliance.

F. Chronic Toxicity Narrative Language.

Compliance with narrative effluent limitations established in the Order shall be determined as follows:

Reasonable potential for toxicity for this discharge has not been determined, hence effluent chronic toxicity limit based on WET tests do not exist. However, compliance with narrative effluent limitations established in the Order comprises of chronic toxicity triggers. The chronic toxicity permit triggers for this discharge are:

1. Any chronic toxicity test result that exceeds 2 chronic toxicity units (TUc) or a three (3)-sample median (consecutive samples) that exceeds 1 TUc shall trigger accelerated WET testing; or
2. Any single concentration toxicity test where statistical significant difference exists between the control and in-stream waste concentration is considered a Fail result. For this discharge, the IWC is 100 percent effluent. A Pass result indicates no toxicity at the IWC, and a Fail result indicates toxicity at the IWC. The Discharger must report either a Pass or a Fail and the percent effect as required in the Monitoring and Reporting Program, section V. If a result is reported as a Fail, the Discharger must follow the requirements in Monitoring and Reporting Program, section V.D., Accelerated Toxicity Testing and TRE/TIE Process. Failure to initiate an accelerated monitoring schedule or conduct a TRE/TIE may result in appropriate enforcement action.

G. Significant Figures

The Discharger shall report monitoring and calculation results with regard to significant figures.

ATTACHMENT A – DEFINITIONS

Acute Toxicity Test
Acute toxicity test is a test to determine the concentration of effluent or ambient waters that causes an adverse effect (usually mortality) on a group of test organisms during a short-term exposure (e.g., 24, 48, or 96 hours). Acute toxicity is determined using statistical procedures (e.g., point estimates or a t-test).

Ambient Toxicity
Ambient toxicity is measured by a toxicity test on a sample collected from a receiving waterbody.

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:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Authorized Discharge
Any discharge that is authorized pursuant to this National Pollutant Discharge Elimination System (NPDES) permit and meets the conditions set forth in this General Order.

Best Management Practices (BMPs)
BMPs are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and non-point discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Chronic Toxicity Tests
Chronic toxicity tests measure the sub-lethal effects of a discharge (e.g. reduced growth or reproduction). Certain chronic toxicity tests include an additional measurement of lethality.

Criteria Continuous Concentration (CCC)
Criteria Continuous Concentration equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (e.g., 4 days) without deleterious effects.

Criteria Maximum Concentration (CMC)
Criteria Maximum Concentration equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time (e.g., 1 hour) without deleterious effects.

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.

Effect Concentration (EC)
Effect concentration is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g., mortality, fertilization). EC25 is a point estimate of the toxicant concentration that would cause observable 25% adverse effect as compared to the control test organisms.

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 waste load allocation (WLA) as used in U.S. EPA 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.

Existing Discharger
Any Discharger that is not a new Discharger. An existing Discharger includes an "increasing Discharger" (i.e., an existing Facility with treatment systems in place from its current discharge that is or will be expanding, upgrading, or modifying its existing permitted discharge after the effective date of the State Implementation Policy).

Geometric Mean
Geometric mean, is a measure of the central tendency of a data set that minimizes the effects of extreme values. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

Geometric Mean = $(C_1 \times C_2 \times \ldots \times C_n)^{1/n}$ where n = the number of days samples were collected during the period, and C = the concentration of bacteria (CFU*/100 mL) found on each day of sampling.

*Effluent limitations for bacterial density are expressed in units of a Most Probable Number per 100 milliliters (MPN/100 ml). This calculation of geometric mean is also applicable and shall be used to determine compliance with bacterial effluent limitations.

Group I Pollutants
The list of pollutants is based on Appendix A to 40 C.F.R § 123.45. The State Water Resources Control Board enforcement policy located at
http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf
provides the list in Appendix C: Group 1 Pollutants.

Group 2 Pollutants
The list of pollutants is based on Appendix A to 40 C.F.R § 123.45. The State Water Resources Control Board enforcement policy located at
http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf
provides the list in Appendix D: Group 2 Pollutants.

Hypothesis Testing
Hypothesis testing is a statistical approach (e.g., Dunnett's procedure) for determining whether a test concentration is statistically different from the control. Endpoints determined from hypothesis testing are no observed effect concentration (NOEC) and lowest observed effect concentration (LOEC).

Infeasible
Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Inhibition Concentration
Inhibition concentration is a point estimate of the toxicant concentration that would cause a given, percent reduction in a non-lethal biological measurement (e.g., reproduction or growth), calculated from a continuous model (i.e., Interpolation Method). For example, IC25 is a point estimate of the toxicant concentration that would cause a 25 percent reduction in a non-lethal biological measurement.

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).

In-Stream Waste Concentration
In-stream waste concentration (IWC) is the concentration of a toxicant or effluent in the receiving water after mixing (the inverse of the dilution factor). A discharge of 100% effluent is considered the IWC for this discharge.

LC50
LC50 (lethal concentration, 50%) is the toxicant or effluent concentration that would cause death to 50 percent of the test organisms.

Load Allocation
The portion of a receiving water's total maximum daily load that is allocated to one of its non-point sources of pollution or to natural background sources.

Lowest Observed Effect Concentration
Lowest observed effect concentration (LOEC) is the lowest concentration of an effluent or toxicant that results in statistically significant adverse effects on the test organisms (i.e., where the values for the observed endpoints are statistically different from the control).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

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.

Minimum Significant Difference (MSD)
Minimum significant difference is the magnitude of difference from control where the null hypothesis is rejected in a statistical test comparing a treatment with a control. MSD is based on the number of replicates, control performance, and power of the test.

New Discharger
New Discharger includes any building, structure, Facility, or installation from which there is, or may be, a discharge of pollutants, the construction of which commenced after the effective date of the State Implementation Policy.

No Observed Effect Concentration (NOEC
No observed effect concentration is the highest tested concentration of an effluent or toxicant that causes no observable adverse effect on the test organisms (i.e., the highest concentration of toxicant at which the values for the observed responses are not statistically different from the control).

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

Notice of Applicability (NOA)
A written notification issued by the NPDES permitting authority authorizing discharge under the terms and conditions of a general order.

Notice of Intent (NOI)
A written application submitted to the NPDES permitting authority seeking authorization to discharge under a general order.

Objectionable Bottom Deposits
Objectionable Bottom Deposits are an accumulation of materials or substances on or near the bottom of a water body, which creates conditions that adversely impact aquatic life, human health, beneficial uses, or aesthetics. These conditions include, but are not limited to, the accumulation of pollutants in the sediments and other conditions that result in harm to benthic organisms, production of food chain organisms, or fish egg development. The presence of such deposits shall be determined by Colorado River Basin Water Board(s) on a case-by-case basis.

Percent Effect
The percent effect represents the difference between the response of the species at the IWC (i.e., 100% effluent) and the response in the control sample, relative to the control sample, as a percentage. The percent effect at IWC can be calculated as follows:

$$\text{Percent Effect} = \frac{(\text{Control Mean Response} - \text{IWC} \rightleftarrows \text{Mean Response})}{\text{Control Mean Response}} * 100$$

PET Tool
The PET tool is a Microsoft Excel file that allows you to configure your data into a format that CIWQS will understand and interpret correctly, which is the CIWQS Data Format, or CDR. You can open the PET Tool in Excel, configure it on the basis of your permit requirements, and then use the configured file as a template for entering data during the different reporting frequency and periods.

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.

Public Entity
Public Entity includes the Federal government or a state, county, city and county, city, district, public authority, or public agency.

Quality Assurance (QA)
Quality assurance is a practice in toxicity testing that addresses all activities affecting the quality of the final effluent toxicity data. QA includes practices such as effluent sampling and handling, source and condition of test organisms, equipment condition, test conditions, instrument calibration, replication, use of reference toxicants, recordkeeping, and data evaluation.

Quality Control (QC)
Quality control is the set of more focused, routine, day-to-day activities carried out as part of the overall QA program.

Reference Toxicant Test
Reference toxicant test is a check of the sensitivity of the test organisms and the suitability of the test methodology. Reference toxicant data are part of a routine QA/QC program to evaluate the performance of laboratory personnel and the robustness and sensitivity of the test organisms.

Replicate
Replicate is two or more independent organism exposures of the same treatment (i.e., effluent concentration) within a whole effluent toxicity test. Replicates are typically separate test chambers with organisms, each having the same effluent concentration.

Report of Waste Discharge
For the purposes of this Individual Board Order, references to the Report of Waste Discharge (ROWD) shall include the California Form 200, USEPA forms and any other application information submitted to the Colorado River Basin Water Board.

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.

Sample
Sample is a representative portion of a specific environmental matrix that is used in toxicity testing.

Serious Violation
For discharges of pollutants subject to the State Water Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," or the "California Ocean Plan", where the effluent limitation for a pollutant is lower than the applicable Minimum Level, any discharge that: (1) equals or exceeds the Minimum Level; and (2) exceeds the effluent limitation by 40 percent or more for a Group 1 pollutant or by 20 percent or more for a Group 2 pollutant, is a serious violation for the purposes of California Water Code section 13385(h)(2).

For discharges of pollutants that are not subject to the State Water Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," or the California Ocean Plan (e.g., pollutants that are not addressed by the applicable plan) where the effluent

limitation for a pollutant is lower than the quantitation limit specified or authorized in the applicable waste discharge requirements or monitoring requirements, any discharge that: (1) equals or exceeds the quantitation limit; and (2) exceeds the effluent limitation by 40 percent or more for a Group 1 pollutant or by 20 percent or more for a Group 2 pollutant, is a serious violation for the purposes of California Water Code section 13385(h)(2).

Significant Difference
Significant difference is a statistically significant difference (e.g., 95 percent confidence level) in the means of two distributions of sampling results.

Significant Figures
Significant figures of a number are those digits that carry meaning contributing to its precision. When adding or subtracting values with different degrees of precision, the last digit retained is determined by the least precise number (i.e., the answer should contain no digits farther to the right of the least precise number). For example:

$$\begin{array}{r} 37.24 \\ \underline{+10.3} \\ 47.54 \end{array} \quad \text{is rounded to } 47.5$$

When multiplying or dividing values with different degrees of precision, the number of significant figures in the answer equals that of the quantity that has the smallest number of significant figures. For example:

$$\overbrace{113.2}^{4} \; x \; \overbrace{1.43}^{3} = \overbrace{161.876}^{6} \quad \text{is rounded to } \overbrace{162}^{3}$$

Additional Information on significant figures.

a. All nonzero digits are significant.

b. Zeros between nonzero digits are significant (e.g., 1.005 mg has four significant figures.

c. When a number ends in zeros to the right of a decimal point, they are significant (0.00500 has three significant figures).

d. When a number ends in zeros that are not to the right of a decimal point, significant figures are indeterminable (e.g., 10300 kg).

e. Only measurements have a limited number of significant figures. Given values, constants, etc. are assumed to have an infinite number of significant figures.

In addition, 40 C.F.R. part 136 specifies for some analytical methods, the number of significant figures to which measurements are made. 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.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in the Colorado River Basin Water Board's Basin Plan.

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

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

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

State Implementation Policy (SIP)
The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Statistic
Statistic is a computed or estimated quantity such as the mean, standard deviation, or Coefficient of Variation.

Technology-Based Effluent Limitation
A technology-based effluent limitation is a permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration.

Test Acceptability Criteria (TAC)
Test acceptability criteria are test method-specific criteria for determining whether toxicity test results are acceptable. The effluent and reference toxicant must meet specific criteria as defined in the test method (e.g., for the Ceriodaphnia dubia survival and reproduction test, the criteria are as follows: the test must achieve at least 80 percent survival and an average of 15 young per surviving female in the control and at least 60% of surviving organisms must have three broods).

Total Maximum Daily Load (TMDL)
A TMDL is the sum of the individual waste load allocations and load allocations for receiving water. A margin of safety is included with the two types of allocations so that any additional loading, regardless of source, would not produce a violation of water quality standards.

Total Solids
Total Solids are the materials that remain as residue when dried at 103 to 105 degrees Celsius.

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.

Toxicity Test
Toxicity test is a procedure to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of effect on exposed test organisms of a specific chemical or effluent.

t-Test
t-Test (formally Student's t-Test) is a statistical analysis comparing two sets of replicate observations, in the case of WET, only two test concentrations (e.g., a control and IWC). The purpose of this test is to determine if the means of the two sets of observations are different (e.g., if the 100-percent effluent or ambient concentration differs from the control [i.e., the test passes or fails]). The statistical significance (i.e., pass/fail) of a two-sample test can be determined with either a standard t-test (if homogeneity of variance is achieved) or a modified t-test (if homogeneity of variance is not achieved).

Waste Load Allocation (WLA)
The portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution.

Welch's t-Test
Welch's t-Test is an adaptation of the Student's t-test intended for use with two samples having unequal variances.

Whole Effluent Toxicity (WET)
The aggregate toxic effect of an effluent measured directly by a toxicity test.

ATTACHMENT B - SCREENING LEVELS FOR TOXIC POLLUTANTS REASONABLE POTENTIAL ANALYSIS

I. INSTRUCTIONS

This Attachment contains listings of the parameters Dischargers are to analyze as part of their application for coverage under this General Order. The sampling requirements that are applicable to all discharges are presented in section II below, in Tables B-2 and B-3. Additional sampling requirements applicable to discharges to specific waterbodies follow in section III, in Tables B-4 through B-6. The Discharger shall compare the results of all analyses to the corresponding screening levels in Tables B-2 to B-6, where applicable, and submit them with the completed Notice of Intent (NOI). Any analyses performed for parameters without screening levels shall also be submitted to the Regional Water Board with the completed NOI.

Dischargers shall obtain and analyze a representative sample(s) of the upstream receiving water for hardness. If a representative sample cannot be obtained upstream of the discharge, the discharger shall obtain the sample downstream within 100 feet of the discharge location. If the receiving water is comprised entirely of effluent, the discharger may analyze the effluent for hardness in lieu of the receiving water. The analytical method(s) used shall be capable of achieving a detection limit at or below the minimum level, otherwise, a written explanation shall be provided.

The rationale for the screening levels in Tables B-2 through B-6 is provided in section IV.C.3 of the Fact Sheet (Attachment F) of this General Order. The discharger shall conduct the initial monitoring and report the results in the “Sample Result” column of the applicable table. The discharger shall then compare the sample result to the corresponding screening level. If the sample result is greater than the screening level, the discharger shall indicate reasonable potential exists by entering “yes” into the “Reasonable Potential?” column. If the sample result is equal to or less than the screening level, the discharger shall indicate reasonable potential does not exist by entering “no” into the “Reasonable Potential?” column.

The Colorado River Basin Water Board reserves the right to re-evaluate reasonable potential with additional representative data or relevant information, pursuant to the specifications of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) and the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan).

The certification statement and statement of perjury are applicable to all attachments of the NOI, and are applicable to the monitoring results and analysis reported within this form. Table B-1 provides an overview of the parameters to be analyzed as part of the application package.

Table B-1. Overview of Sampling Requirements

Attachment B Table	Parameter(s) Covered[1]	Water to be Sampled
Sampling Requirements for All Discharges		
Table B-2	Priority Pollutants	EFF[2]
Table B-3	Hardness-Dependent Priority Pollutants[3]	EFF
None	Any 303(d) Listed Parameters[4]	EFF

Additional Sampling Requirements for Discharges to Specific Waterbodies		
Tables B-4 and B-5	Total Dissolved Solids	EFF
Table B-6	Selenium	EFF

1. The sampling requirements in terms of the parameters covered apply to all designated beneficial uses unless otherwise specified. MUN designated waters pertain to those receiving waters designated for municipal and domestic water supply, and Non-MUN designated waters pertain to those receiving waters designated for one or more of the other use categories. Consult section III.H of the Limitations and Discharge Requirements for further information concerning designated use categories.
2. EFF = effluent water
3. Several of the priority pollutant metals are hardness-dependent and require that a sample of the receiving water be analyzed for hardness.
4. If the proposed receiving water is listed as impaired by any parameter on California's latest 303(d) List, then the Discharger shall analyze for the listed parameter(s). Consult the following Web site for the latest 303(d) List: http://www.swrcb.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml .

Dischargers shall analyze all applicable pollutants in this Attachment in accordance with the analytical methods and other requirements specified in Part 136 of Title 40 of the Code of Federal Regulations (CFR) and in accordance with section I of the Monitoring and Reporting Program (Attachment E) of this General Order.

For priority pollutant constituents with applicable water quality criteria, detection limits shall be below the screening level. If the lowest minimum level (ML) published in Appendix 4 of the SIP is not below the screening level, the detection limit shall be the lowest ML. For priority pollutant constituents without applicable water quality criteria, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP or 40 C.F.R. Part 136.

Detection, for the purposes of the priority pollutants with applicable water quality criteria, means a sample result that is greater than or equal to the detection limit. Sample results less than the ML, but greater than or equal to the detection limit, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported, and shall be used to compare to the applicable screening level for purposes of determining whether effluent limitations are necessary.

Detection, for the purposes of the priority pollutants without applicable water quality criteria, means a sample result that is greater than or equal to the applicable screening level (i.e., the lowest ML specified in the SIP).

II. ANALYSES REQUIRED OF ALL DISCHARGERS

A. Priority Pollutants. All Dischargers seeking authorization to discharge under this General Order shall sample and analyze the proposed effluent for the priority pollutants contained in Tables B-2 and B-3. The results of the analyses shall be compared to the corresponding screening levels and shall be submitted as part of the NOI.

Table B-2. Screening Levels for Priority Pollutants

Parameter	Sample Result (µg/L)	Screening Levels[1]		Minimum Levels (MLs) (µg/L)	Above Screening Level (yes/no)
		Municipal Designated Waters (µg/L)[2]	Non-Municipal Designated Waters (µg/L)[2]		
Volatile Organics					
1,1-Dichloroethane		5	5	1	
1,1-Dichloroethylene		0.057	3.2	0.5	
1,1,1-Trichloroethane		200	200	2	
1,1,2-Trichloroethane		0.6	42	0.5	
1,1,2,2-Tetrachloroethane		0.17	1	0.5	
1,2-Dichlorobenzene		600	600	0.5	
1,2-Dichloroethane		0.38	99	0.5	
1,2-Dichloropropane		0.52	39	0.5	
1,2-Cis-Dichloroethylene		6	10	N/A	
1,2-Trans-Dichloroethylene		10	10	1	
1,3-Dichlorobenzene		400	2,600	2	
1,3-Dichloropropylene		0.5	0.5	0.5	
1,4-Dichlorobenzene		5	0.5	0.5	
2-Chloroethyl-vinyl-ether		1[3]	1[3]	1	
Acetone		700	700	N/A	
Acrolein		320	780	5	
Acrylonitrile		0.059	0.66	2	
Benzene		1.0	1.0	0.5	
Bromoform		4.3	360	0.5	
Carbon Tetrachloride		0.25	0.5	0.5	
Chlorobenzene		680	21,000	2	
Chlorodibromomethane		0.41	34	0.5	
Chloroethane		300	300	2	
Chloroform		100	100	2	
Dichlorobromomethane		0.56	46	0.5	
Di-isopropyl Ether		5	5	N/A	
Ethanol		760,000	760,000	N/A	
Ethylbenzene		700	700	2	
Ethylene Dibromide		0.05	0.05	N/A	
Hydrocarbons, Total Petroleum		100	100	N/A	
Methanol		3,500	740,000	N/A	
Methyl Bromide		10	4,000	2	
Methyl Chloride		3	3	0.5	
Methyl ethyl ketone		700	700	N/A	
Methyl tertiary-butyl ether		13	13	N/A	
Methylene Chloride		4.7	1,600	0.5	
Tertiary-amyl-methyl ether		5	5	N/A	
Tertiary Butyl Alcohol		12	12	N/A	
Tetrachloroethylene		0.8	8.85	0.5	
Toluene		150	150	2	
Trichloroethylene		2.7	5	0.5	
Trichlorofluoroethane		1,200	4,000	N/A	

Parameter	Sample Result (µg/L)	Screening Levels[1]		Minimum Levels (MLs) (µg/L)	Above Screening Level (yes/no)
		Municipal Designated Waters (µg/L)[2]	Non-Municipal Designated Waters (µg/L)[2]		
Vinyl Chloride		0.5	0.5	0.5	
Xylenes		20	1,750	N/A	
Semi-Volatile Organics					
1,2-Diphenylhydrazine		0.04	0.54	1	
1,2,4-Trichlorobenzene		70	--	5	
2-Chlorophenol		120	400	5	
2,4-Dichlorophenol		93	790	5	
2,4-Dimethylphenol		540	2,300	2	
2,4-Dinitrophenol		70	14,000	5	
2,4-Dinitrotoluene		0.11	9.1	5	
2,4,6-Trichlorophenol		2.1	6.5	10	
2,6-Dinitrotoluene		5[3]	5[3]	5	
2-Nitrophenol		10[3]	10[3]	10	
2-Chloronaphthalene		1,700	4,300	10	
3,3'-Dichlorobenzene		0.04	0.077	5	
3-Methyl-4-Chlorophenol		1[3]	1[3]	1	
2-Methyl-4,6-Dinitrophenol		13	765	5	
4-Nitrophenol		5[3]	5[3]	5	
4-Bromophenyl phenyl ether		5[3]	5[3]	5	
4-Chlorophenyl phenyl ether		5[3]	5[3]	5	
Acenaphthene		1,200	2,700	1	
Acenaphthylene		10[3]	10[3]	10	
Anthracene		9,600	110,000	5	
Benzidine		0.00012	0.00054	5	
Benzo(a)Anthracene		0.0044	0.049	5	
Benzo(a)Pyrene		0.0044	0.049	2	
Benzo(b)Fluoranthene		0.0044	0.049	10	
Benzo(g,h,i)Perylene		5[3]	5[3]	5	
Benzo(k)Fluoranthene		0.0044	0.049	2	
Bis(2-Chloroethoxyl)Methane		5[3]	5[3]	5	
Bis(2-Chloroethyl)Ether		0.031	1.4	1	
Bis(2-Chloroisopropyl)Ether		1,400	170,000	10	
Bis(2-Ethylhexyl)Phthalate		1.8	5.9	5	
Butylbenzyl Phthalate		3,000	5,200	10	
Chrysene		0.0044	0.049	5	
Dibenzo(a,h)Anthracene		0.0044	0.049	1	
Diethyl Phthalate		23,000	120,000	10	
Dimethyl Phthalate		313,000	2,900,000	10	
di-n-Butyl Phthalate		2,700	12,000	10	
di-n-Octyl Phthalate		10[3]	10[3]	10	
Fluoranthene		300	370	10	
Fluorene		1,300	14,000	10	
Hexachlorobenzene		0.00075	0.00077	1	

Parameter	Sample Result (µg/L)	Screening Levels[1]		Minimum Levels (MLs) (µg/L)	Above Screening Level (yes/no)
		Municipal Designated Waters (µg/L)[2]	Non-Municipal Designated Waters (µg/L)[2]		
Hexachlorobutadiene		0.44	50	1	
Hexachlorocyclopentadiene		50	17,000	5	
Hexachloroethane		1.9	8.9	1	
Indeno(12,3-cd)Pyrene		0.0044	0.049	0.05	
Isophorone		8.4	600	1	
N-Nitrosodimethyl amine		0.00069	8.1	5	
N-Nitroso-di-n-propyl amine		0.005	1.4	5	
N-Nitrosodiphenyl amine		5.0	16	1	
Naphthalene		10[3]	10[3]	10	
Nitrobenzene		17	1,900	10	
Pentachlorophenol		0.28	7.9	1	
Phenanthrene		5[3]	5[3]	5	
Phenol		21,000	4,600,000	50	
Pyrene		960	11,000	10	
Metals and Other Compounds					
Antimony, Total Recoverable		14	4,300	5	
Arsenic, Total Recoverable		50	36	10	
Beryllium, Total Recoverable		4	--	0.5	
Cadmium, Total Recoverable		Refer to Table B-3			
Chromium (III)		Refer to Table B-3			
Chromium (VI)		11	50	5	
Copper, Total Recoverable		Refer to Table B-3			
Cyanide, Free		5.2	--	5	
Lead, Total Recoverable		Refer to Table B-3			
Mercury, Total Recoverable		0.050	0.051	0.2	
Nickel, Total Recoverable		Refer to Table B-3			
Selenium, Total Recoverable		5.0	71	2	
Silver, Total Recoverable		Refer to Table B-3			
Thallium, Total Recoverable		1.7	6.3	1	
Zinc, Total Recoverable		Refer to Table B-3			
Asbestos		7 MFL[4]	7 MFL[5]	--	
2,3,7,8-TCDD		1.3×10^{-8}	1.4×10^{-8}	--	
Pesticides and PCBs					
4,4'-DDD		0.00083	0.00084	0.05	
4,4'-DDE		0.00059	0.00059	0.05	
4,4'-DDT		0.00059	0.00059	0.01	
alpha-Endosulfan		0.056	0.0087	0.02	
alpha-BHC		0.0039	0.013	0.01	
Aldrin		0.00013	0.00014	0.005	
beta-Endosulfan		0.056	0.0087	0.01	
beta-BHC		0.014	0.046	0.005	

Parameter	Sample Result (µg/L)	Screening Levels[1]		Minimum Levels (MLs) (µg/L)	Above Screening Level (yes/no)
		Municipal Designated Waters (µg/L)[2]	Non-Municipal Designated Waters (µg/L)[2]		
Chlordane		0.00057	0.00059	0.1	
delta-BHC		--	--	0.005	
Dieldrin		0.00014	0.00014	0.01	
Endosulfan Sulfate		110	240	0.05	
Endrin		0.036	0.0023	0.01	
Endrin Aldehyde		0.76	0.81	0.01	
Heptachlor		0.00021	0.00021	0.01	
Heptachlor Epoxide		0.0001	0.00011	0.01	
gamma-BHC		0.019	0.063	0.02	
PCBs, sum of [6]		0.00017	0.00017	0.5	
Toxaphene		0.00073	0.00075	0.5	

[1] The screening levels for MUN designated waters were established based on the maximum contaminant level (MCL) and California Toxics Rule (CTR) criteria for the protection of aquatic life or for the protection of human health for consumption of water and organisms, whichever was the more stringent. The screening levels for Non-MUN designated waters were established based on CTR criteria for the protection of aquatic life or human health for the consumption of organisms only, whichever was the more stringent.
[2] µg/L = micrograms per liter
[3] Priority pollutants for which no applicable MCLs or CTR criteria for the protection of human health or aquatic life exist include beryllium, chloroethane, 2-chloroethylvinyl ether, chloroform, 1,1-dichloroethane, methyl chloride, 1,1,1-trichloroethane, 2-nitrophenol, 4-nitrophenol, 3-methyl-4-chlorophenol, acenaphthylene, benzo(ghi)perylene, bis(2-chloroethoxy)methane, 4-bromophenyl phenyl ether, 4-chlorophenyl phenyl ether, 2,6-dinitrotoluene, di-n-octyl phthalate, naphthalene, phenanthrene, 1,2,4-trichlorobenzene, delta-BHC, and asbestos (non-MUN only). The screening level for these parameters is based on the lowest minimum level (ML) contained in the SIP.
[4] MFL = million fibers per liter
[5] There are no applicable MCLs or CTR criteria for the protection of human health (consumption of organisms only) or aquatic life for asbestos for non-MUN designated waters. There is also no applicable ML for asbestos in the SIP. Therefore, the screening level for asbestos for non-MUN designated waters is equivalent to the CTR criterion for the protection of human health (consumption of water and organisms). If the discharge exceeds this screening level, effluent limitations will not be required, but the Discharger will be required to conduct additional monitoring as specified in the NOA from the Executive Officer.
[6] The screening level applies to the sum of Aroclors 1242, 1254, 1221, 1232, 1248, 1280, and 1016.

Table B-3. Screening Levels for Hardness-Dependent Priority Pollutant Metals

Receiving Water Hardness (mg/L as $CaCO_3$)	Most Stringent CTR Water Quality Criterion (µg/L)						
	Cadmium	Chromium (III)	Copper	Lead	Nickel	Silver	Zinc
1 – 10	0.07	4.8	0.18	0.01	1.1	0.01	2.4
11 – 20	0.44	34	1.4	0.19	8.1	0.09	18
21 – 30	0.72	58	2.5	0.44	14	0.28	32
31 – 40	0.98	79	3.4	0.72	19	0.54	44
41 – 50	1.2	100	4.4	1.0	25	0.88	56
51 – 60	1.5	120	5.2	1.4	30	1.3	68
61 – 70	1.7	140	6.1	1.7	34	1.7	79
71 – 80	1.9	160	7.0	2.1	39	2.3	90
81 – 90	2.1	170	7.8	2.4	44	2.8	100
91 – 100	2.3	190	8.6	2.8	48	3.5	110

Receiving Water Hardness (mg/L as $CaCO_3$)	Most Stringent CTR Water Quality Criterion (µg/L)						
	Cadmium	Chromium (III)	Copper	Lead	Nickel	Silver	Zinc
101 – 110	2.5	210	9.4	3.2	53	4.1	120
111 – 120	2.7	230	10	3.6	57	4.9	130
121 – 130	2.9	240	11	4.1	61	5.6	140
131 – 140	3.0	260	12	4.5	66	6.5	150
141 – 150	3.2	270	13	4.9	70	7.3	160
151 – 160	3.4	290	13	5.4	74	8.2	170
161 – 170	3.6	310	14	5.8	78	9.2	180
171 – 180	3.8	320	15	6.3	82	10	190
181 – 190	3.9	340	15	6.8	86	11	200
191 – 200	4.1	350	16	7.3	90	12	210
201 – 210	4.3	370	17	7.7	94	13	220
211 – 220	4.4	380	18	8.2	98	15	230
221 – 230	4.6	400	18	8.7	100	16	230
231 – 240	4.8	410	19	9.2	110	17	240
241 – 250	4.9	430	20	9.7	110	18	250
251 – 260	5.1	440	20	10	110	20	260
261 – 270	5.2	450	21	11	120	21	270
271 – 280	5.4	470	22	11	120	23	280
281 – 290	5.5	480	23	12	130	24	290
291 – 300	5.7	500	23	12	130	25	300
301 – 310	5.8	510	24	13	130	27	300
311 – 320	6.0	520	25	13	140	29	310
321 – 330	6.2	540	25	14	140	30	320
331 – 340	6.3	550	26	15	140	32	330
341 – 350	6.5	570	27	15	150	33	340
351 – 360	6.6	580	27	16	150	35	350
361 – 370	6.7	590	28	16	150	37	360
371 – 380	6.9	610	29	17	160	39	360
381 – 390	7.0	620	29	17	160	41	370
391 – 400	7.2	630	30	18	170	42	380
> 400	7.3	650	31	19	170	44	390

B. Section 303(d) Parameters. If the proposed receiving water is listed as impaired on the latest 303(d) List http://waterboards.ca.gov/coloradoriver/water_issues/programs/tmdl/docs/303d/r7_2010_303d_list.pdf , the Discharger shall analyze a representative sample of the discharge for the affected parameter(s) and submit the results with the completed NOI.

III. Waterbody or Designated Use Specific Analyses Required

The Basin Plan establishes limitations for the discharge of certain pollutants to specific waterbodies. Dischargers proposing to discharge treated groundwater from cleanup of VOCs under this General Order to the New River, Alamo River, Imperial Valley Drains, Coachella Valley Drains, Palo Verde

Valley Drains, and to tributaries to the Salton Sea shall analyze a representative sample of the discharge for the parameters indicated in Tables B-4 through B-6 below, as applicable, and compare the results to the screening levels noted. The Discharger shall submit the results of all analyses performed with the completed NOI.

Table B-4. Analysis Requirements for Discharges to the New River, Alamo River, and the Imperial Valley Drains

Parameter	Units	Sample Result	Screening Level	Above Screening Level (yes/no)
Total Dissolved Solids	mg/L		4,000	

Table B-5. Analysis Requirements for Discharges to the Coachella Valley Drains and the Palo Verde Valley Drains

Parameter	Units	Sample Result	Screening Level	Above Screening Level (yes/no)
Total Dissolved Solids	mg/L		2,000	

Table B-6. Analysis Requirements for Discharges to the Tributaries to the Salton Sea

Parameter	Units	Sample Result	Screening Level	Above Screening Level (yes/no)
Selenium	mg/L		0.005	

ATTACHMENT C – NOTICE OF INTENT

NOTICE OF INTENT
TO COMPLY WITH THE TERMS OF
GENERAL ORDER R7-2015-0007
FOR
DISCHARGES OF TREATED GROUNDWATER FROM CLEANUP OF VOCS

I. REASON FOR FILING

New Discharge or New Facility	NPDES Permit Reissuance/Renewal	Change from Individual Permit to General Permit
☐	☐	☐

II. EXISTING PERMITS/REQUIREMENTS (IF APPLICABLE):

List any active Board Orders or Permits adopted by this Regional Water Board for this facility.
1. Board Order No. _____ _____ _____
2. NPDES Permit(s) _____ _____ _____

III. PROJECT/FACILITY NAME AND SITE ADDRESS INFORMATION

Project/Facility Name			
Site Address			
Mailing Address			
City	State	Zip	Phone
1. Assessor's Parcel Numbers: Facility:	2. Latitude: Facility:	3. Longitude: Facility:	
Contact Person			

IV. CONTRACTOR/OPERATOR (If additional contractors/operators are involved, provide information in a supplemental letter)

Name					
Mailing Address					
City	State	Zip	License Number _____		
Contact Person	Contractor ☐		Operator ☐	Contractor/Operator ☐	
Owner Type (check one)	1. Individual ☐	2. Corporation ☐	3. Govt. Agency ☐	4. Partnership ☐	5. Other ☐

V. PROPERTY OWNER (If additional property owners are involved, provide information in a supplemental letter)

Name					
Mailing Address					
City	State	Zip	License Number _____		
Contact Person					
Owner Type (check one)	1. Individual ☐	2. Corporation ☐	3. Govt. Agency ☐	4. Partnership ☐	5. Other ☐

VI. Address Where Legal Notice May Be Served:

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person			

VII. BILLING ADDRESS (Where Annual Fee Invoices should be sent):

Name			
Mailing Address			
City	State	Zip	Phone
Contact Person			

VIII. DISCHARGE LOCATION (If more than one discharge is proposed, provide information in a supplemental letter):

Street (including address, if any):

_____

City/County:

_____

Nearest Cross Street(s):

_____

Township/Range/Section T_____, R_____, Section_____, SBB&M

Attach a map of at least 1:24000 (1”=2000’) showing the discharge site (e.g., USGS 7.5’ topographic map). The map should also show the treatment system, discharge point, and surface waters. Wells and residences within 1,500 feet shall be identified.

1. Assessor’s Parcel Numbers Discharge Point:	2. Latitude Discharge Point:	3. Longitude Discharge Point:

IX. PROJECT DESCRIPTION AND TREATMENT PROCESS DESCRIPTION

Provide a description of the project and the discharge requiring coverage under this General Order. If additives are added to your process, briefly describe their composition if the information is available. If treatment is necessary prior to discharge, attach a schematic flow diagram and provide description of all treatment processes. In addition, include the proposed discharge rate in million gallons per day (MGD), the approximate project start date, and the projected discharge duration. (Attach additional sheets, if necessary)

_____

_____

Start Date_____ Estimated Stop Date_____

Discharge or Design Flow Rate_____ MGD

Is the discharge continuous or intermittent? _____

X. RECEIVING WATER INFORMATION

1. Name of closest Receiving Water.

_____

2. Receiving Water is tributary to (name major downstream water body):

_____

Receiving Water Designation (check one)	1. Municipal Designated Receiving Water ☐	2. Non-Municipal Designated Receiving Water ☐

XI. POLLUTANTS/PARAMETERS LIKELY TO BE IN THE DISCHARGE

Please identify (mark all that apply). Discharger to submit report on analysis of constituents identified below:

☐ Nitrates ☐ Color ☐ Suspended material ☐ Turbidity

☐ pH ☐ Oil and grease ☐ Chlorine ☐ Metals

☐ Total Dissolved Solids ☐ Other (e.g., E. Coli, nutrients, BOD, etc.) (please describe):

_____

_____

Priority Pollutant Monitoring – Required of ALL applicants:
Have samples been collected: ☐ Yes (attach results) ☐ No
Do any priority pollutants results exceed the Water Quality Screening Criteria? ☐ Yes ☐ No
If your answer is yes, a facility-specific individual permit may be required from this Regional Water Board rather than this General Order.

Are additives in the discharge? ☐ Yes ☐ No
If yes, please specify the additive and/or sample results:_____

_____

XII. ABILITY TO COMPLY

Do you believe the discharge may have acute or chronic toxicity, chemical, or organic constituents, bacteria, pesticides, oil and grease, radioactivity, salinity, or temperature that may adversely impact beneficial uses of the Receiving Water?

☐ Yes ☐ No

If your answer is yes, a facility-specific individual permit may be required from this Regional Water Board rather than this General Order.

XIII. FEES

Provide the applicable fees. Information concerning the applicable fees can be found at http://www.waterboards.ca.gov/resources/fees/docs/fy1415_npdes_fees.pdf [1]. Checks must be made payable to the State Water Resources Control Board. (Please mark the appropriate box)

☐ Check Enclosed with NOI ☐ Renewal – Annual Fee is Billed Automatically

XIV. 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.

The Regional Water Board will be immediately notified of any violation, or threatened violation, of this General Permit.

Signature of Contractor/Operator		Signature of Property Owner	
Print or Type Name		Print or Type Name	
Title	Date	Title	Date

[1] The filing fee for this low threat permit is identified in the California Code of Regulations, Chapter 23, Division 3, Chapter 9, Article 1 and consists of the base fee identified in section 2200(b)(8) and the ambient water quality monitoring surcharge (21 percent of the base fee) identified in the second paragraph of section 2200.

XV.OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

_____

_____

_____

You will be notified of receipt of your Notice of Intent. The notice will state if your discharge meets the criteria for this General Order, whether the Notice of Intent is complete or if additional information must be submitted to complete your application for this General Order, pursuant to division 7, section 13260 of the California Water Code.

The completion date of your application is normally the date when all required information, including the correct fee, is received by the Regional Water Board.

FOR REGIONAL WATER BOARD OFFICE USE ONLY

Date NOI Received:	Letter to Discharger Sent:	Fee Amount Received:	Check #:

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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 (CWA) 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 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA 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).)

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).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal 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).)

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).)

E. Property Rights

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

F. Inspection and Entry

The Discharger shall allow the Colorado River Basin Water Board, State Water Board, U.S. EPA, 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. 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);
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);
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
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA 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.)

G. Bypass

1. Definitions
   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).)
   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).)
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 I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
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)):
   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));
   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
   c. The Discharger submitted notice to the Colorado River Basin Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. §122.41(m)(4)(i)(C).)
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 I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   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. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

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. 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 I.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).)

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)):

   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));

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

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

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

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).)

II. STANDARD PROVISIONS – PERMIT ACTION

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).)

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).)

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 CWA and the Water Code. (40 C.F.R. § §122.41(l)(3); 122.61.)

III. STANDARD PROVISIONS – MONITORING

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).)

B. Monitoring results 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. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), 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).)

B. Records of monitoring information shall include:

4. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
5. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
6. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
7. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
8. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
9. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Colorado River Basin Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Colorado River Basin Water

Board, State Water Board, or U.S. EPA 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 U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Colorado River Basin Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

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).)

3. All reports required by this General Order and other information requested by the Colorado River Basin Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

   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

   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).)

4. If an authorization under Standard Provisions – Reporting V.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 V.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. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.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).)

C. Monitoring Reports

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).)
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 for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this General 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. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Colorado River Basin Water Board (40 C.F.R. § 122.41(l)(4)(ii).)
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).)

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).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that 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 written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission 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. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
   b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

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

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)):

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
2. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Colorado River Basin Water Board or State 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).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

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 U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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.

B. Etc.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Colorado River Basin Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that

discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Colorado River Basin Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Colorado River Basin Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) 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.

I. GENERAL MONITORING PROVISIONS

A. 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.

B. 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. 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.

C. All flow measurement devices shall be calibrated at least once per year or more frequently, to ensure continued accuracy of the devices.

D. All analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board, unless otherwise specified by this Order or Monitoring and Reporting Program. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

E. The collection, preservation and holding times of all samples shall be in accordance with the test procedures under 40 C.F.R. part 136 (revised as of May 14, 1999) “Guidelines Establishing Test Procedures for the Analysis of Pollutants,” promulgated by the United States Environmental Protection Agency (U.S. EPA), unless otherwise specified in this MRP. In addition, the Colorado River Basin Water Board and/or U.S. EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 C.F.R part 136.

F. The permittee must utilize analytical methods as follows:

1. A test procedure listed in 40 C.F.R. part 136.3; or
2. An alternative test procedure approved by EPA as provided in 40 C.F.R. parts 136.4 or 136.5; or;
3. A test procedure listed in 40 C.F.R. part 136, with modifications allowed by EPA 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).

G. 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. For priority pollutants with water quality-based effluent limitations (WQBELs) established in this Order, when there is more than one ML value listed in 40 C.F.R. part 136 for that substance, the Discharger shall select any one of the ML values and its associated analytical method that is below the calculated effluent limitation. If no ML is below the effluent limitation, then the lowest ML value and its associated analytical method shall be used. For priority pollutants without effluent limitations established in this Order, the Discharger shall select any one of the cited analytical methods for monitoring and reporting purposes. Any internal quality control data associated with the sample shall be reported when requested by the Executive Officer. The Colorado River Basin Water Board will reject the quantified laboratory data if quality control data is unacceptable.

H. In conformance with federal regulations 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. For Chromium (VI), 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[1], analytical test methods in conformance with 40 C.F.R. part 136 shall be used as acceptable methods to measure Cyanide[2].

I. 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 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.

J. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.

K. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

L. The Discharger shall submit values in eSMR as required to determine compliance with the permit effluent limit requirements (i.e., AMEL, MDEL, Geomeans, etc.).

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[1] The sample for cyanide measurement shall be collected as a grab sample. Various sample preservation and sample stabilizations procedures are available that may resolve analytical interferences associated with cyanide analysis of treated wastewater effluent, ASTM Standard Practice D7365-09a. Furthermore, 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.

[2] 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

M. 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 CIWQS.

II. 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
Treatment System Influent	INF-001	Untreated groundwater at a point in the groundwater collection system immediately prior to treatment.
Discharge Point 001	EFF-001	Treated effluent, after treatment and before contact with the receiving water and/or dilution by any other water or waste.
Discharge Point 002	EFF-002	If more than one discharge point is authorized under the General Permit, compliance monitoring locations shall be named EFF-002, EFF-003, etc., and shall be located so as to allow collection of treated effluent after treatment and before contact with receiving water and/or dilution by any other water or waste.
Receiving Water – Upstream	RSW-001	Receiving water immediately upstream of the point of discharge so that samples are representative of upstream, background conditions within the receiving stream.
Receiving Water – Downstream	RSW-002	Receiving water at an appropriate monitoring location, downstream of the point of discharge, that adequately represents downstream water quality.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor extracted groundwater immediately prior to being treated as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Gasoline Range Organics (BTEX, MTBE, and Oxygenates)	µg/L[1]	Grab	2x/Year	EPA Method 8260/8015

[1] µg/L = micrograms per liter

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001 (as specified in NOA)

1. The Discharger shall monitor treated groundwater 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 Minimum Level:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow Rate	GPD[1]	Continuous	Continuous[2]	N/A
pH	standard units	Grab	1x/Month	See Footnote 3
Temperature	°C	Grab	1x/Month	See Footnote 3
Conductivity	µmhos/cm @ 25°C	Grab	1x/Month	See Footnote 3
Dissolved Oxygen	mg/L[4]	Grab	1x/Month	See Footnote 3
Total Dissolved Solids	mg/L	Grab	1x/Month	See Footnote 3
Total Suspended Solids	mg/L	Grab	1x/Month	See Footnote 3
Lead, Total Recoverable	µg/L	Grab	1x/Quarter	See Footnote 3
Acrolein	µg/L	Grab	1x/Quarter	See Footnote 3
Acrylonitrile	µg/L	Grab	1x/Quarter	See Footnote 3
Benzene	µg/L	Grab	1x/Quarter	See Footnote 3
Bromoform	µg/L	Grab	1x/Quarter	See Footnote 3
Carbon Tetrachloride	µg/L	Grab	1x/Quarter	See Footnote 3
Chlorobenzene	µg/L	Grab	1x/Quarter	See Footnote 3
Chlorodibromomethane	µg/L	Grab	1x/Quarter	See Footnote 3
Chloroethane	µg/L	Grab	1x/Quarter	See Footnote 3
Chloroform	µg/L	Grab	1x/Quarter	See Footnote 3
Dichlorobromomethane	µg/L	Grab	1x/Quarter	See Footnote 3
1,1-Dichloroethane	µg/L	Grab	1x/Quarter	See Footnote 3
1,2-Dichloroethane	µg/L	Grab	1x/Quarter	See Footnote 3
1,1-Dichloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3
1,2-Dichloropropane	µg/L	Grab	1x/Quarter	See Footnote 3
1,3-Dichloropropylene	µg/L	Grab	1x/Quarter	See Footnote 3
Ethylbenzene	µg/L	Grab	1x/Quarter	See Footnote 3
Methyl Bromide	µg/L	Grab	1x/Quarter	See Footnote 3
Methyl Chloride	µg/L	Grab	1x/Quarter	See Footnote 3
Methylene Chloride	µg/L	Grab	1x/Quarter	See Footnote 3
1,1,2,2-Tetrachloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3
Tetrachloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3
Toluene	µg/L	Grab	1x/Quarter	See Footnote 3
1,1,1-Trichloroethane	µg/L	Grab	1x/Quarter	See Footnote 3
1,1,2-Trichloroethane	µg/L	Grab	1x/Quarter	See Footnote 3
Trichloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3
Vinyl Chloride	µg/L	Grab	1x/Quarter	See Footnote 3
cis-1,2-Dichloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
trans-1,2-Dichloroethylene	µg/L	Grab	1x/Quarter	See Footnote 3
Di-isopropryl Ether	µg/L	Grab	1x/Quarter	See Footnote 3
Ethanol	µg/L	Grab	1x/Quarter	See Footnote 3
Hydrocarbons, Petroleum (Total)	µg/L	Grab	1x/Quarter	See Footnote 3
Methanol	µg/L	Grab	1x/Quarter	See Footnote 3
Methyl tertiary-butyl ether (MTBE)	µg/L	Grab	1x/Quarter	See Footnote 3
Tertiary-amyl-methyl-ether (TAME)	µg/L	Grab	1x/Quarter	See Footnote 3
Tertiary Butyl Alcohol	µg/L	Grab	1x/Quarter	See Footnote 3
Trichlorofluoroethane	µg/L	Grab	1x/Quarter	See Footnote 3
Xylenes, Total	µg/L	Grab	1x/Quarter	See Footnote 3
Hardness as $CaCO_3$	mg/L	Grab	1x/Quarter	See Footnote 3

[1] GPD = Gallons per Day

[2] Reported monthly with monthly average daily flow.

[3] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

[4] mg/L = milligrams per liter

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Monitoring Requirements

1. Toxicity tests shall be performed to evaluate the toxicity of the discharged wastewater in accordance with the following procedures unless otherwise specified by the Colorado River Basin Water Board's Executive Officer or his designee.

   a. Freshwater Species and Test Methods for the Chronic Test:

   The toxicity tests shall be conducted in accordance with the protocol given in EPA/821-R-02-013 – Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, 4th Edition.

   The permittee 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). See Table E-4 for toxicity tests.

2. 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 Duration (days)	References	Sample Type	Minimum Sampling Frequency
Chronic	Fathead Minnow (Pimephales promelas)[1]	Larval Survival and Growth	7	EPA 821-R-02-013 (Chronic) EPA Method 1000.0	Grab or 24 hour composite	1x/Quarter, 1x/Year[2]

Test (s)	Species	Endpoints	Test Duration (days)	References	Sample Type	Minimum Sampling Frequency
Chronic	Water Flea (Ceriodaphnia dubia)[1]	Survival and Reproduction	6-8[3]	EPA 821-R-02-013 (Chronic) EPA Method 1002.0	Grab or 24 hour composite	1x/Quarter, 1x/Year[2]
Chronic	Green Alga (Selenastrum capricornutum[1]	Growth	4	EPA 821-R-02-013 (Chronic) EPA Method 1003.0	Grab or 24 hour composite	1x/Quarter, 1x/Year[2]
Acute	Fathead Minnow (Pimephales promelas)[1]	Larval Survival and Growth	7	EPA 821-R-02-012 (Acute)	Grab or 24 hour composite	1x/Quarter, 1x/Year[2]
Acute	Water Flea (Ceriodaphnia dubia)[1]	Survival and Reproduction	6-8[3]	EPA 821-R-02-012 (Acute)	Grab or 24 hour composite	1x/Quarter, 1x/Year[2]

[1] 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.
[2] Quarterly for the first year, and annually thereafter.
[3] Test duration is determined by production of 3rd brood by control and can be between 6 and 8 days.

3. During the first year of the permit term, the toxicity testing shall be conducted in two phases, the screening phase and the monitoring phase.

   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.

   b. For the monitoring phase, toxicity testing shall be conducted on the most sensitive species. The most sensitive species shall be selected based on the most sensitive endpoint (i.e., lethal or sub-lethal) from chronic tests conducted during the screening phase. The most sensitive species is the fish, invertebrate, or alga species which consistently demonstrates the largest percent effect level among all test endpoints at the In-stream Waste Concentration[3] (IWC), where: IWC percent effect level = [(Control mean response − IWC mean response) ÷ Control mean response] × 100. After the screening phase, the permittee shall than continue to conduct routine toxicity testing (i.e., quarterly during the first year of the permit term and annually thereafter) using the single, most sensitive species for until the next screening phase. An example of a sensitivity comparison is shown in Table E-5.

[3] Mixing zones or dilution credits are not authorized for this discharger and 100% effluent will be considered the IWC.

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 x 100 = 0%	
Fathead Minnow	Growth	0.41	0.363	(0.41-0.363)/.41 x 100 =11.5%	
Water Flea	Survival	10	9	(10-9)/10 x 100 = 10%	
Water Flea[1]	Reproduction	33.4	26.7	(33.4-26.7)/33.4 x 100 =20%	Highest % effect represents most sensitive species[1]
Green Alga	Growth	197.3	170.1	(197.3-170.1)/197.3 x 100 =13.8%	

[1] 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.

B. Quality Assurance

1. Quality assurance measures, instructions, and other recommendations and requirements are found in the chronic test methods manual previously referenced. Additional requirements are specified below.
2. Control water should be prepared and used as specified in the test method manual Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R-02/013, 2002). Dilution and control waters may be obtained from an unaffected area of receiving waters. Synthetic (standard) dilution is an option and may be used if the above source is suspected to have toxicity greater than 1.0 TUc.
3. A series of at least five dilutions and a control shall be tested for chronic toxicity testing if not using the t-test or modified t-test. The series shall include the following concentrations: 12.5, 25, 50, 75, and 100 percent effluent.
4. For the chronic toxicity testing using a t-test, two dilutions shall be used, i.e., 100 percent effluent and a control. The statistical significance (i.e., pass/fail) of a two-sample test can be determined with either a standard t-test (if homogeneity of variance is achieved) or a modified t-test (if homogeneity of variance is not achieved).
5. If organisms are not cultured in-house, testing laboratories shall conduct concurrent testing with a reference toxicant. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests shall also be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc.). Testing laboratories shall perform a reference toxicant test quarterly, concurrently with each effluent toxicity test. Reference toxicant testing is used to document ongoing laboratory performance in addition to assessing the sensitivity of the test organism.
6. All reference toxicant test results must be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 C.F.R. part 136) (EPA 821-B-00-004, 2000).

7. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the toxicity test references, then the Discharger must re-sample and retest within 15 working days or as soon as possible. The retesting period begins when the Discharger receives the test results that indicate retesting is needed.

8. The reference toxicant and effluent tests must meet the upper and lower bounds on test sensitivity as determined by calculating the percent minimum significant difference (PMSD) for each test result. The test sensitivity bound is specified for each test method in the respective methods manuals.

9. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent sample prior to toxicity testing without written approval by the permitting authority.

10. 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 permittee shall conduct three sets of side-by-side toxicity tests in which the pH of one treatment is controlled at the pH of the effluent while the pH of the other treatment is not controlled, 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). Toxicity is confirmed to be artifactual and due to pH drift when no toxicity above the chronic WET permit limit or trigger is observed in the treatments controlled at the pH of the effluent. Upon this confirmation, the permittee shall request and upon written approval by the Colorado River Basin Water Board's Executive Officer, the permittee 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.

C. Chronic Toxicity Definition and Numeric Toxicity Whole Effluent Toxicity (WET) Monitoring Triggers

1. Chronic Toxicity Definition.

   a. Chronic toxicity measures sub-lethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms.

   b. Chronic toxicity shall be measured in TUc, where TUc = 100/NOEC. The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significantly different from the control(s).

   c. If using a t-test or modified t-test, chronic toxicity shall be reported as pass/fail using a laboratory control and the sample (e.g., 100% effluent) during the test. The determination of pass or fail from a single aqueous concentration is ascertained with a standard t-test (refer to Appendix H of EPA's Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, 4th Edition (EPA/821-R-02-013). In these pass/fail tests, the objective is to determine if the survival in the single treatment (e.g., effluent) is significantly different from the control survival. EPA Region 9 recommends the statistical significance (i.e., pass/fail) of a two-sample test design be determined with either a modified t-test (if homogeneity of variance is not achieved) or a standard t-test (if homogeneity of variance is achieved).

2. Numeric Chronic Toxicity Monitoring Trigger.

   a. Any chronic toxicity test result that results in “fail” when using a t-test or modified t-test shall trigger accelerated monitoring.

D. Accelerated Toxicity Testing and TRE/TIE Process

1. If the chronic WET permit trigger is exceeded and the source of toxicity is known [e.g., a temporary plant upset, ammonia, ionic imbalance or elevated total dissolved solids (TDS)], then the permittee shall conduct one additional toxicity test. The permittee 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 exceeding the chronic WET permit trigger. If the additional toxicity test does not exceed the WET permit trigger or it is confirmed that the toxicity is due to temporary plant upset, ammonia, ionic imbalance or elevated TDS, then the permittee may return to the regular testing frequency.

2. If the chronic WET permit trigger is exceeded and the source of toxicity is not known, then the permittee shall conduct three additional toxicity tests using the same species and test method, approximately every two weeks, over a 6-week period. This testing shall begin within 14 days of receipt of a test result exceeding the chronic WET permit trigger. If none of the additional toxicity tests exceed the chronic WET permit trigger, then the permittee may return to the regular testing frequency.

3. If one of the additional toxicity tests, in paragraphs V.D.1 and V.D.2 above, exceeds the chronic WET permit trigger, then, within 14 days of receipt of this test result, the permittee shall initiate a TIE.

4. The permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the U.S. EPA which include the following:

   a. Toxicity Identification Evaluations: Characterization of Chronically Toxic Effluents, Phase I (EPA/600/6-91/005F, 1992);

   b. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003, 1991);

   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

   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).

5. As part of the TIE Investigation, the Discharger shall be required to implement its TRE work plan. The TRE Work Plan which shall include the following: further actions undertaken by the permittee to investigate, identify, and correct the causes of toxicity; actions the permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required WET tests or a TRE within a designated period shall result in the establishment of numerical toxicity effluent limitations in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE includes the following:

a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99-002, August 1999;

b. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations, EPA/600/2-88/70, April 1989; and

c. Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program dated March 27, 2001, U.S. EPA Office of Wastewater Management, Office of Regulatory Enforcement.

E. Ammonia, Ionic Imbalance or Elevated TDS Toxicity

1. For discharges where a TIE has identified ammonia as a cause of toxicity, the permittee shall calculate the response threshold on the basis of unionized and total ammonia. The permittee 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 permittee has the following three options to evaluate whether ammonia is causing the toxicity:

   a. If toxicity in lab water is similar to that in the effluent, the permittee 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

   b. If toxicity in lab water is not similar to that in the effluent, the permittee 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, then implication is that ammonia is responsible for toxicity and no further action is required; or

   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.

   Using these approaches, if ammonia is identified as the toxicant, the permittee shall document the results and findings in the monitoring report and no further testing is required. However, if ammonia is not identified as the toxicant, the permittee shall take action as described in Section D. Accelerated Toxicity Testing and TRE/TIE Process of this permit.

2. For discharges where a TIE has identified ionic imbalance or elevated TDS as a cause of toxicity, the permittee shall conduct the following concurrent tests to characterize the contribution of ionic imbalance or elevated TDS to effluent toxicity. Based on the results from the TIE, 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 permittee has the following two options to evaluate whether ionic imbalance or elevated TDS is causing the toxicity:

   a. Conducting a parallel test with synthetic effluent that mimics the ionic imbalance or TDS concentration; or

   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 permittee 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 permittee shall take action as described in Section D. Accelerated Toxicity Testing and TRE/TIE Process of this permit.

F. Reporting of Toxicity Monitoring Results

1. The permittee 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., TUc, TUa or Pass/Fail) in the PET tool for uploading into CIWQS. The laboratory report shall contain: the toxicity test results (TUc or pass/fail and percent effect); 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/TIE investigations.
2. The permittee shall provide the actual test endpoint responses for the control (i.e., the control mean) and the IWC (i.e., the IWC mean) for each toxicity test to facilitate the review of test results and determination of reasonable potential for chronic WET by the permitting authority.
3. The permittee shall notify the permitting authority in writing within 14 days of exceedance of the chronic WET permit trigger. This notification shall describe actions the permittee has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

VI. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

1. The Discharger shall monitor the receiving water at RSW-001 as follows. In the event that no receiving water is present at RSW-001, no receiving water monitoring data are required for station RSW-001.

Table E-6. Receiving Water Monitoring Requirements – RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1x/Year	See Footnote 1
pH	standard units	Grab	1x/Year	See Footnote 1
Hardness as $CaCO_3$	mg/L	Grab	1x/Year	See Footnote 1
Temperature	ºF	Grab	1x/Year	See Footnote 1
Total Dissolved Solids	mg/L	Grab	1x/Year	See Footnote 1
Priority Pollutants	µg/L	Grab	1x/Year[2]	See Footnote 1

[1] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board. Priority Pollutants as defined by the California Toxics Rule (CTR). pH and hardness shall also be sampled and measured with annual priority pollutant testing.

[2] Monitoring for priority pollutants in the receiving water at monitoring location RSW-001 shall be required during the first year of operation only.

B. Monitoring Location RSW-002

1. The Discharger shall monitor the receiving water at RSW-002 as follows. In the event that no receiving water is present at RSW-002, no receiving water monitoring data are required for station RSW-002.

Table E-7. Receiving Water Monitoring Requirements- RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1x/Year	See Footnote 1
pH	standard units	Grab	1x/Year	See Footnote 1
Temperature	ºF	Grab	1x/Year	See Footnote 1
Total Dissolved Solids	mg/L	Grab	1x/Year	See Footnote 1

[1] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

VII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

1. New Dischargers who have received an NOA for coverage under this General Order shall inform the Regional Water Board 24 hours prior to the commencement of discharge.
2. The Discharger shall report the results of chronic toxicity testing, TRE, and TIE as required in section V, “Effluent Toxicity Testing”.
3. The results of any analysis taken more frequently than required using analytical methods, monitoring procedures and performed at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.
4. 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.

B. Electronic Self-Monitoring Reports (eSMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board’s California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for eSMR submittal in the event there will be a planned service interruption for electronic submittal.
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.

3. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, quarterly, and annual eSMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this General Order. SMRs 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 General Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the eSMR.

4. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	NOA effective date	All	Submit with monthly SMR
1x/Month	First day of calendar month following NOA effective date or on NOA effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	First day of second month following month of sampling
1x/Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) NOA effective date	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
1x/Year	January 1 following (or on) NOA effective date	January 1 through December 31	February 1

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. Further, the Discharger shall use the following reporting protocol:

   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:

      Reporting Concentration - Under the “Qualifier” column select “=” and under the “Result” column report the result (concentration).

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

   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 (± 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:

      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.

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:

Reporting Concentration – Under the “Qualifier” column select “ND” and report the MDL under the “MDL” column.

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.

6. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above, Attachment E and section VII. Compliance Determination. For purposes of reporting and administrative enforcement by the Colorado River Basin Water Board and 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. Multiple Sample Data. When determining compliance with a MDEL for priority 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:

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.

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.

8. The Discharger shall submit eSMRs in accordance with the following requirements:

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.

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.

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.

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.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II.D 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 this General Order.

This General 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 General Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this General Order not specifically identified as “not applicable” are fully applicable to this Discharger.

I. PERMIT INFORMATION

A. On September 17, 2009, the Regional Water Board adopted General Order R7-2009-0400 (NPDES Permit No. CAG917001) in accordance with section 122.28 to regulate discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs into surface waters. General Order R7-2009-0400 rescinded General Order No. R7-2002-1000. Presently, there is one discharger currently enrolled under the General NPDES Permit.

B. For the purposes of this General 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.

II. BACKGROUND

A. There are numerous instances of soil and/or groundwater pollution in the Colorado River Basin Region resulting from leaks at fuel storage and dispensing facilities and unauthorized discharges of VOCs, including purgeable halocarbons and aromatic compounds, into State waters. Pollution of these sites is typically caused by leaky containment vessels for fuel, solvents, and other wastes at service stations and similar operations. More cases are expected. Remedial activities at many of these sites are expected to necessitate discharge of treated groundwater to surface waters within the Colorado River Basin Region. Cleanup of these sites involve similar treatment technologies and result in similar waste discharges. The regulation of these discharges includes similar effluent limitations and monitoring requirements. Consequently, these discharges are more efficiently regulated with a general NPDES permit rather than an individual NPDES permit. This General Order updates General Order R7-2009-0400 and establishes general WDRs for discharges resulting from the cleanup of groundwater polluted by VOCs.

On September 22, 1998, U.S. EPA Region IX authorized the State of California to issue general NPDES permits in accordance with section 122.28. Section 122.28 allows for the issuance of general permits to regulate categories of discharges if the sources within each category:

1. Involve the same or substantially similar types of operations;
2. Discharge the same types of waste;
3. Require the same effluent limitations or operating conditions;
4. Require the same or similar monitoring; and
5. Are more appropriately controlled under a general permit than under individual permits.

B. General Permit Application and Coverage

The General Order requires that Discharger(s) (i.e., parties deemed responsible by the Regional Water Board for remediation of groundwater polluted by VOCs) to file a Notice of Intent (NOI) to be eligible for coverage under this General Permit. The NOI shall accompany a Report of Waste Discharge (Form 200), an NPDES Application Forms 1 and 2D, analytical results for a representative sample of groundwater to be treated and discharged under this General Order (for parameters listed in Attachment B), the appropriate filing fee plus surcharges, and an engineering report.

1. **Notice of Intent.** All applicants must complete and submit an NOI as provided in Attachment C along with the current filing fee.

2. **Wastewater Sampling.** All Dischargers are required to analyze the proposed discharge for the priority pollutants regulated under the CTR and for the constituents specified in the Basin Plan. These parameters are specified in Attachment B. Dischargers are also required to analyze their discharges for hardness, to determine eligibility for coverage. If the surface water body to receive the proposed direct discharge is impaired, pursuant to the latest CWA section 303(d) list,1 the Discharger shall also analyze for the constituent(s) causing the impairment(s). Finally, applicants proposing to discharge treated groundwater from the cleanup of VOCs to the New River, Alamo River, Imperial Valley Drains, Coachella Valley Drains, Palo Verde Valley Drains, and to tributaries to the Salton Sea must also sample for a few additional parameters specified in the Basin Plan and summarized in Tables B-4 to B-6 of Attachment B. The results of all Discharger sampling efforts are to be submitted with the completed NOI.

   Attachment B contains screening levels for priority pollutants. Since this General Order covers discharges of treated groundwater from the cleanup of VOCs to all surface waters in the Colorado River Basin Region, the screening levels are based on the most restrictive water quality objectives / criteria. Dischargers who exceed a screening level, where they are provided in Attachment B, will be considered ineligible for enrollment under this General Order.

3. **Engineering Report.** All dischargers are required to submit an engineering report discussing the proposed cleanup project, design parameters, expected treatment performance, and stating how the proposed discharge is consistent with the type of discharge eligible for coverage under this General Order and why a discharge to surface waters is the only feasible method for disposing of the treated effluent; specifically:

   a. A discussion of how the proposed discharge is consistent with the type of discharge eligible for coverage under this General Order;

   b. An explanation of why a discharge to surface waters is the only feasible method for disposing of the treated effluent supported by a letter from the local publicly-owned treatment works (POTW) stating that they cannot accept the discharge;

   c. A general discussion of the proposed cleanup project including descriptions of the extraction method, treatment processes, design parameters, flow rates, and expected treatment performance;

   d. A schematic of the treatment process;

[1] The list of WQLSs can be found under the CWA section 303(d) List at http://www.swrcb.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml.

e. A site map showing the extraction wells, monitoring wells, treatment site, and the storm drain or surface water discharge location; and

f. A map showing the path from the point of initial discharge to the ultimate location of discharge.

4. **Filing Fee.** In addition to the material outlined in items II.A.1 through 3 above, dischargers shall submit the current State Water Board adopted permit fee, plus surcharges. Information concerning current permit fees may be found at: **http://www.waterboards.ca.gov/resources/fees.**

5. **Application Period and Notice of Applicability.** Dischargers seeking coverage under this General Order shall file a completed NOI (with appropriate attachments) at least 45 days prior to the proposed discharge. Upon receipt of a complete NOI and the additional information required, as described above in II.B.1 through 4, the Regional Water Board's Executive Officer shall determine whether the proposed discharge complies with the following criteria:

   a. The proposed discharge results from the cleanup of groundwater polluted by VOCs;

   b. The proposed discharge is to surface waters in this region;

   c. The proposed discharge is classified as a minor discharge; and

   d. The proposed treatment system and associated operation, maintenance, and monitoring plans are believed to be reasonably capable of meeting the provisions, prohibitions, effluent limitations, and receiving water limitations of this proposed General Order.

   e. Analytical results for a representative sample of the proposed discharge do not exceed the water quality screening criteria for any constituent listed in Attachment B, other than those for which limitations are established in Section IV.A of the General Order, Effluent Limitations.

If the discharge is deemed eligible for coverage, the Regional Water Board's Executive Officer shall issue a Notice of Authorization (NOA) to the discharger specifying whether the discharge is authorized under the terms and conditions of this General Order. Discharges shall not commence until after receiving the Executive Officer's written NOA or until the Regional Water Board has issued an individual permit for the discharge.

C. Description of Discharge

All discharges authorized under this General Order are of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs into surface waters. Pollution of these sites is typically caused by leaky containment vessels for fuel, solvents, and other wastes at service stations and similar operations. VOCs of concern include petroleum hydrocarbons (e.g., gasoline, diesel, kerosene, fuel oil, and heavier ranges), purgeable hydrocarbons, aromatic hydrocarbons, and fuel octane enhancers (e.g., methyl tertiary butyl ether (MTBE), methanol, ethanol, tertiary butyl alcohol (TBA), and di-isopropyl ether).

Wastewater from a groundwater cleanup project can include the following and may be produced and treated on a continuous or batch basis:

1. Treated groundwater from the cleanup of VOC contamination;
2. Groundwater pumped from beneath a layer of free product in order to establish a cone of depression to aid in the containment and extraction of pollutants;

3. Potentially polluted groundwater extracted during short- and long-term pump tests;
4. Potentially polluted well development water; and/or
5. Potentially polluted water purged prior to well sampling.

D. Discharge Points and Receiving Waters

Under the General Order, there may be multiple discharge points. Information regarding the receiving waters will be found in the completed NOI and will be included in the NOA.

E. Eligible Discharges

This General Order covers discharges to surface waters within the Colorado River Basin Region of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs.

To be covered under this General Order, a discharger must demonstrate the following:

1. The discharge is classified as a minor discharge;
2. Pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
3. The discharge shall not exceed the water quality criteria for toxic pollutants (Attachment B), and there shall be no reasonable potential to cause or contribute to an excursion above the criteria;
4. The representative sample of the contaminated groundwater to be treated and discharged must not exceed the water quality screening criteria for any constituent listed in Attachment B, other than for those constituents for which effluent limitations are established in Section V.A, Effluent Limitations.
5. The discharge shall not cause acute nor chronic toxicity in receiving waters;
6. The discharge shall pass through a treatment system designed and operated to reduce the concentration of contaminants to meet the effluent limitations of this General Order;
7. The discharge does not include water added for the purpose of diluting pollutant concentrations; and
8. The Discharger shall be able to comply with the terms or provisions of this General Order.

F. Summary of Existing Requirements

Effluent limitations contained in General Order R7-2009-0400 for discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs are presented in Table F-1, below.

Table F-1. Historic Effluent Limitations

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Receiving Waters	Non-Municipal Designated Receiving Waters
Lead, Total Recoverable	µg/L	15	15

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Receiving Waters	Non-Municipal Designated Receiving Waters
Acrolein	µg/L	320	780
Acrylonitrile	µg/L	0.059	0.66
Benzene	µg/L	1.0	70
Bromoform	µg/L	4.3	360
Carbon Tetrachloride	µg/L	0.25	4.4
Chlorobenzene	µg/L	70	21,000
Chlorodibromomethane	µg/L	0.41	34
Chloroethane	µg/L	300	300
Chloroform	µg/L	100	100
Dichlorobromomethane	µg/L	0.56	46
1,1-Dichloroethane	µg/L	5.0	5.0
1,2-Dichloroethane	µg/L	0.38	99
1,1-Dichloroethylene	µg/L	0.057	3.2
1,2-Dichloropropane	µg/L	0.52	39
1,3-Dichloropropylene	µg/L	0.5	1,700
Ethylbenzene	µg/L	30	29,000
Methyl Bromide	µg/L	48	4,000
Methyl Chloride	µg/L	3	3
Methylene Chloride	µg/L	4.7	1,600
1,1,2,2-Tetrachloroethane	µg/L	0.17	11
Tetrachloroethylene	µg/L	0.8	8.85
Toluene	µg/L	40	200,000
1,1,1-Trichloroethane	µg/L	200	200
1,1,2-Trichloroethane	µg/L	0.6	42
Trichloroethylene	µg/L	2.7	81
Vinyl Chloride	µg/L	0.5	525
cis-1,2-Dichloroethylene	µg/L	6	10
trans-1,2-Dichloroethylene	µg/L	10	140,000
Di-isopropyl Ether	µg/L	5	5
Ethanol	µg/L	760,000	760,000
Hydrocarbons, Petroleum (Total)	µg/L	100	100
Methanol	µg/L	3,500	740,000
Methyl tertiary-butyl ether (MTBE)	µg/L	13	13
Tertiary-amyl methyl ether (TAME)	µg/L	5	5
Tertiary Butyl Alcohol	µg/L	12	12
Trichlorofluoroethane	µg/L	1,200	4,000
Xylenes, Total	µg/L	20	1,750

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This General 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 (CWA) and implementing regulations adopted by the U.S. EPA 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 surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

1. **Water Quality Control Plan.** The Water Quality Control Plan for the Colorado River Basin (hereinafter Basin Plan), which was adopted on November 17, 1993, and amended on November 16, 2012, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (including amendments adopted by the Colorado River Basin Water Board to date). In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Consistent with this state policy, effluent limitations specified in this General Order protect existing and potential beneficial uses of the receiving waters within the Colorado River Basin Region include one or more of the following:

   - Agricultural supply (AGR)
   - Aquaculture (AQUA)
   - Cold freshwater habitat (COLD)
   - Freshwater replenishment (FRSH)
   - Ground water recharge (GWR)
   - Hydropower generation (POW)
   - Industrial service supply (IND)
   - Municipal and domestic supply (MUN)
   - Non-contact water recreation (REC-II)
   - Preservation of rare, threatened, or endangered species (RARE)
   - Warm freshwater habitat (WARM)
   - Water contact recreation (REC-I)
   - Wildlife habitat (WILD)

   The Basin Plan establishes the following beneficial uses for ground waters throughout the Colorado River Basin Region:

   - Agricultural supply (AGR)
   - Industrial service supply (IND)

- Municipal and domestic supply (MUN)[2]

Requirements of this Order implement the Basin Plan.

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 Regional Water Board does not consider the discharges of treated groundwater from the cleanup of VOCs regulated by this General Board Order to contain thermal or elevated temperature wastes. Therefore, requirements of this General Board Order do not implement the Thermal Plan.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA 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, U.S. EPA 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.

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 U.S. EPA through the NTR and to the priority pollutant objectives 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 U.S. EPA 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.

5. **Emergency Planning and Community Right to Know Act.** Section 13263.6(a), CWC, requires that "the Colorado River Basin Water Board shall prescribe effluent limitations as part of the WDRs of a POTW 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. Sec. 11023) (EPCRKA) 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."

6. **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.A. §§ 1531 to 1544). This Order requires compliance with effluent

[2] At such time as the need arises to know whether a particular aquifer which has no known existing MUN use should be considered a source of drinking water, the Regional Water Board will make that determination based on criteria listed in the "Sources of Drinking Water Policy" in Chapter 2 of the Basin Plan. As stated in footnote 2 for Table 2-5 of the Basin Plan, an "X" placed under the MUN column in Table 2-5 of the Basin Plan for a particular hydrologic unit indicates only that at least one of the aquifers in that unit currently supports a MUN beneficial use. The actual MUN usage of the Imperial hydrologic unit is limited only to a small portion of that ground water unit.

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.

7. **Anti-degradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation 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 anti-degradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality 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 anti-degradation policies. The permitted discharge must be consistent with the anti-degradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

8. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA 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.

D. Impaired Water Bodies on CWA 303(d) List

Under section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of water quality limited segments (WQLSs). The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. CWA section 303(d) further mandates that once waters are impaired by a particular constituent, the NPDES permitting authority is to develop total maximum daily loads (TMDLs) for the impaired water body. A TMDL is the maximum amount of pollution that a waterbody can assimilate without violating state water quality standards.

Completed TMDLs in the Colorado River Basin Region, the receiving water and impairments, and requirements are located at the following site:

http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/tmdl/tmdl_completed_projects.shtml

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA 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 U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) on 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 CWA, Basin Plan, State Water Board's plans and policies, U.S. EPA guidance and regulations, and best practicable waste treatment technology. While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used.

1. Code of Federal Regulations – Title 40.
2. Water Quality Control Plan (Colorado River Basin – Region 7) as amended to date.
3. General Order R7-2009-0400.

A. Discharge Prohibitions

Effluent and receiving water limitations in this General Order are based on the Federal CWA, Basin Plan, State Water Board's plans and policies, U.S. EPA guidance and regulations, and best practicable waste treatment technology.

General Order R7-2015-0007 prohibits any discharge of wastes causing degradation of any water supply. This General Order also prohibits the extraction of groundwater for treatment in excess of the design capacity of the treatment system as specified in the discharger's NOA from the Executive Officer, to ensure proper operation and treatment by the groundwater treatment system. In addition, this General Order prohibits the discharge of material other than extracted and treated groundwater from the investigation and cleanup of VOC-polluted groundwater. These prohibitions are carried forward from the existing General Order.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA 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. The discharge authorized by this General Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Colorado River Basin Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

a. Groundwater pollutant plumes are often complex mixtures of hundreds of petroleum-related compounds that make complete chemical analysis very expensive, often impractical, and sometimes impossible due to sample matrix interferences, constituent masking, or the lack of standardized analytical techniques. Further, neither the State Water Board nor U.S. EPA has proposed or established water quality criteria for many of the petroleum hydrocarbon compounds that are likely to be found in the discharges authorized under this General Board Order. The indicators used to evaluate compliance with gasoline and diesel-related compounds are benzene, toluene, ethylbenzene, and xylene (BTEX), and total petroleum hydrocarbons (TPH). For chlorinated hydrocarbons solvents such as trichloroethylene (TCE) and tetrachloroethylene (PCE), the specific chemical constituents can be used to determine compliance. The effluent limitations for these constituents are based on U.S. EPA's and the State Water Board's MCLs.

b. A number of treatment options are available for the treatment of contaminated groundwater. The more commonly used methods include air stripping, air sparging, granular activated carbon adsorption, UV-peroxidation, nutrient-enhanced biodegradation, and a combination of two or more of the above technologies. To remediate subsurface soil contamination, vapor extraction systems and in-situ bio-remediation are commonly used. Most of these systems, if designed and operated properly, can lower the concentration of VOCs to below detection limits. For constituents without established water quality criteria, technology-based effluent limitations were applied. The technology-based effluent limitations are derived from reasonable detection limits for each pollutant.

c. This General Order includes technology-based effluent limitations based on achievable detection limits, considered BPJ in accordance with section 125.3. Based on BPJ, effluent limitations for di-isopropyl ether, ethanol, methanol, methyl tertiary-butyl ether (MTBE), tertiary-amyl methyl ether (TAME), total petroleum hydrocarbons (TPH), and trichlorofluoroethane in this General Board Order have been carried over from the previous General Board Order R7-2009-0400.

Table F-2. Summary of Technology-based Effluent Limitations

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Waters	Non-Municipal Designated Waters
Di-isopropyl ether	µg/L	5	5
Methyl tertiary-butyl ether (MTBE)	µg/L	13	13
Tertiary-amyl methyl ether (TAME)	µg/L	5	5

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Waters	Non-Municipal Designated Waters
Total Petroleum Hydrocarbons (TPH)	µg/L	100	100

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA 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.

Section 122.44(d)(1)(i) of 40 C.F.R. 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) U.S. EPA criteria guidance under CWA 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 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.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Discharges of treated groundwater from the cleanup of VOCs may potentially be discharged to all surface waters in the Colorado River Basin Region. The designated beneficial uses of surface waters throughout the Colorado River Basin Region include agricultural supply, aquaculture, cold freshwater habitat, freshwater replenishment, ground water recharge, hydropower generation, industrial service supply, municipal and domestic supply, non-contact water recreation, preservation of rare, threatened, or endangered species, warm freshwater habitat, water contact recreation, and wildlife habitat.

3. Determining the Need for WQBELs

The CWA requires WQBELs if technology-based effluent limitations are not sufficiently stringent to meet applicable water quality criteria. In the suite of VOCs regulated by this General Order, several VOCs have water quality criteria in the CTR that are below the respective technology-based effluent limitation. Therefore, the effluent limitation for those VOCs is established at the CTR water quality criteria.

As stated in Sections II.A and II.B of this General Order, the Discharger is required to submit analytical results representing the quality of groundwater to be treated and discharged, prior to obtaining coverage under this General Order. The analytical results from this sample will be compared to the water quality screening criteria for any

constituent listed in Attachment B, as a means of determining reasonable potential to cause or contribute to an exceedance of a water quality standard. As stated previously, if the analysis determines the discharge cause or contribute to an exceedance of a water quality standard, based on the comparison to the water quality screening criteria, the discharge is ineligible for coverage under this General Order.

In order to address the wide range of surface water beneficial uses throughout the Colorado River Basin Region, this General Order applies separate effluent limitations for discharges to water bodies dependent upon the beneficial uses of the receiving waters. Receiving waters that have been designated to support domestic and municipal supply (MUN) will be held to effluent limitations based on human health and drinking water standards. Discharges to receiving waters that are not designated as MUN will be held to standards that protect aquatic life and human health based on the CTR.

4. WQBEL Calculations

The effluent limitations established in this General Order for discharges to receiving waters that have been designated to support domestic and municipal supply (MUN) are set at human health water quality criteria contained in the CTR and drinking water standards (U.S. EPA and State Water Board). Further, effluent limitations established in this General Board Order for discharges to receiving waters that are not designated as MUN are set at the more stringent of the water quality criteria that protect aquatic life or human health based on those criteria contained in the CTR. For pollutants where the MCL was more stringent than the CTR water quality criterion, the MCL was established as the effluent limitation, for both discharge scenarios.

The Discharger is required to monitor the effluent as directed in the Monitoring and Reporting Program and Notice of Applicability. The effluent limitations are established as maximum values. Because these values are set at the levels that would otherwise be required for average monthly limits to ensure that enrolled discharges are appropriate for coverage under a general permit, only maximum limitations are included.

Table F-3. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Receiving Waters	Non-Municipal Designated Receiving Waters
Lead, Total Recoverable	µg/L	15	15
Acrolein	µg/L	320	780
Acrylonitrile	µg/L	0.059	0.66
Benzene	µg/L	1.0	70
Bromoform	µg/L	4.3	360
Carbon Tetrachloride	µg/L	0.25	4.4
Chlorobenzene	µg/L	70	21,000
Chlorodibromomethane	µg/L	0.41	34
Chloroethane	µg/L	300	300
Chloroform	µg/L	100	100
Dichlorobromomethane	µg/L	0.56	46
1,1-Dichloroethane	µg/L	5.0	5.0
1,2-Dichloroethane	µg/L	0.38	99

Parameter	Units	Instantaneous Maximum Effluent Limitation	
		Municipal Designated Receiving Waters	Non-Municipal Designated Receiving Waters
1,1-Dichloroethylene	µg/L	0.057	3.2
1,2-Dichloropropane	µg/L	0.52	39
1,3-Dichloropropylene	µg/L	0.5	1,700
Ethylbenzene	µg/L	30	29,000
Methyl Bromide	µg/L	48	4,000
Methyl Chloride	µg/L	3	3
Methylene Chloride	µg/L	4.7	1,600
1,1,2,2-Tetrachloroethane	µg/L	0.17	11
Tetrachloroethylene	µg/L	0.8	8.85
Toluene	µg/L	40	200,000
1,1,1-Trichloroethane	µg/L	200	200
1,1,2-Trichloroethane	µg/L	0.6	42
Trichloroethylene	µg/L	2.7	81
Vinyl Chloride	µg/L	0.5	525
cis-1,2-Dichloroethylene	µg/L	6	10
trans-1,2-Dichloroethylene	µg/L	10	140,000
Ethanol	µg/L	760,000	760,000
Methanol	µg/L	3,500	740,000
Tertiary Butyl Alcohol	µg/L	12	12
Trichlorofluoroethane	µg/L	1,200	4,000
Xylenes, Total	µg/L	20	1,750

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative “no toxics in toxic amounts” criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a shorter time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

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 or produce other detrimental response on aquatic organisms. 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 previous General Order contained narrative toxicity language and triggers, and monitoring requirements. This General Order implements the narrative objective for toxicity, requiring there shall be no toxicity in the treatment plant effluent. In addition, the

Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity identification evaluation (TIE) and toxicity reduction evaluation (TRE) studies.

In addition to the Basin Plan requirements, section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, this Order requires the Discharger to conduct chronic toxicity testing for discharges to receiving waters of the Colorado River Basin Region.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this General Order are at least as stringent as the effluent limitations in the previous General Order.

2. Anti-degradation Policies

Section 131.12 of the code of federal regulation 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 No. 68-16. Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires discharges to waters of the State be regulated to achieve the "highest water quality consistent with maximum benefit to the State." It also establishes the intent that where waters of the State are of higher quality than that required by state policies, including Water Quality Control Plans, such higher quality "shall be maintained to the maximum extent possible" unless it is demonstrated that any change in quality will be consistent with maximum benefit to people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., violation of any water quality objective). The discharge is also required to meet waste discharge requirements that result in the best practicable treatment or control necessary to assure that pollution or nuisance will not occur, and that the highest water quality consistent with maximum benefit to the people will be maintained.

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 consist of restrictions on di-isopropyl ether, methyl tertiary-butyl ether (MTBE), tertiary-amyl methyl ether (TAME), and total petroleum hydrocarbons (TPH). 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 Title 40, C.F.R. section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by the U.S. EPA 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 U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Interim Effluent Limitations – Not Applicable

F. Final Effluent Limitations

Table F-4 below summarizes the proposed effluent limitations for the discharge from the treatment system through Discharge Point 001. Proposed effluent limitations are based on U.S. EPA and CA State Water Board drinking water standards, the CTR, and Colorado River Basin Plan Water Quality Standards.

For discharges to receiving waters that are designated as domestic and municipal supply, the most stringent value of water quality criteria contained in the CTR for protection of human health (consumption of water and organisms), CA State Water Board Primary MCLs, U.S. EPA MCLs, or currently achievable detection limits, were established as effluent limitations. For discharges to receiving waters that are not designated as domestic and municipal supply, the most stringent value of CTR for protection of human health (consumption of organisms only), CA State Water Board Primary MCLs, or currently achievable detection limits, were established as effluent limitations. All effluent limitations are carried over from the previous General Order R7-2009-0400.

Table F-4. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitation – Municipal Designated Waters	Basis	Effluent Limitation – Non-Municipal Designated Waters	Basis[1]
Lead, Total Recoverable	µg/L	15	SWB MCL	15	SWB MCL
Acrolein	µg/L	320	CTR (HH-W&O)	780	CTR (HH-Org)
Acrylonitrile	µg/L	0.059	CTR (HH-W&O)	0.66	CTR (HH-Org)
Benzene	µg/L	1.0	SWB MCL	70	CTR (HH-Org)
Bromoform	µg/L	4.3	CTR (HH-W&O)	360	CTR (HH-Org)
Carbon Tetrachloride	µg/L	0.25	CTR (HH-W&O)	4.4	CTR (HH-Org)
Chlorobenzene	µg/L	70	SWB MCL	21,000	CTR (HH-Org)
Chlorodibromomethane	µg/L	0.41	CTR (HH-W&O)	34	CTR (HH-Org)
Chloroethane	µg/L	300	U.S. EPA PMCL	300	U.S. EPA PMCL
Chloroform	µg/L	100	SWB MCL	100	SWB MCL
Dichlorobromomethane	µg/L	0.56	CTR (HH-W&O)	46	CTR (HH-Org)
1,1-Dichloroethane	µg/L	5.0	SWB MCL	5.0	SWB MCL
1,2-Dichloroethane	µg/L	0.38	CTR (HH-W&O)	99	CTR (HH-Org)
1,1-Dichloroethylene	µg/L	0.057	CTR (HH-W&O)	3.2	CTR (HH-Org)
1,2-Dichloropropane	µg/L	0.52	CTR (HH-W&O)	39	CTR (HH-Org)
1,3-Dichloropropylene	µg/L	0.5	SWB MCL	1,700	CTR (HH-Org)

Parameter	Units	Effluent Limitation – Municipal Designated Waters	Basis	Effluent Limitation – Non-Municipal Designated Waters	Basis[1]
Ethylbenzene	µg/L	30	U.S. EPA SMCL	29,000	CTR (HH-Org)
Methyl Bromide	µg/L	48	CTR (HH-W&O)	4,000	CTR (HH-Org)
Methyl Chloride	µg/L	3	U.S. EPA Action Level	3	U.S. EPA Action Level
Methylene Chloride	µg/L	4.7	CTR (HH-W&O)	1,600	CTR (HH-Org)
1,1,2,2-Tetrachloroethane	µg/L	0.17	CTR (HH-W&O)	11	CTR (HH-Org)
Tetrachloroethylene	µg/L	0.8	CTR (HH-W&O)	8.85	CTR (HH-Org)
Toluene	µg/L	40	U.S. EPA SMCL	200,000	CTR (HH-Org)
1,1,1-Trichloroethane	µg/L	200	SWB MCL	200	SWB MCL
1,1,2-Trichloroethane	µg/L	0.6	CTR (HH-W&O)	42	CTR (HH-Org)
Trichloroethylene	µg/L	2.7	CTR (HH-W&O)	81	CTR (HH-Org)
Vinyl Chloride	µg/L	0.5	SWB MCL	525	CTR (HH-Org)
cis-1,2-Dichloroethylene	µg/L	6	SWB MCL	10	Technology
trans-1,2-Dichloroethylene	µg/L	10	SWB MCL	140,000	CTR (HH-Org)
Di-isopropyl Ether	µg/L	5	Best Professional Judgment (BPJ)	5	Technology
Ethanol	µg/L	760,000	U.S. EPA SMCL	760,000	U.S. EPA SMCL
Hydrocarbons, Petroleum (Total)	µg/L	100	BPJ	100	Technology
Methanol	µg/L	3,500	U.S. EPA IRIS	740,000	U.S. EPA SMCL
Methyl tertiary-butyl ether (MTBE)	µg/L	13	SWB Action Level	13	SWB Action Level
Tertiary-amyl methyl ether (TAME)	µg/L	5	BPJ	5	Technology
Tertiary Butyl Alcohol	µg/L	12	SWB Action Level	12	SWB Action Level
Trichlorofluoroethane	µg/L	1,200	SWB MCL	4,000	CA PHG
Xylenes, Total	µg/L	20	U.S. EPA SMCL	1,750	Technology

[1] SWB MCL = State Water Board Maximum Contaminant Level; CTR (HH-Org) = California Toxics Rule water quality criteria for the protection of human health, consumption of organisms; CTR (HH-W&O) = California Toxics Rule water quality criteria for the protection of human health, consumption of water and organisms; U.S. EPA SMCL = Federal Secondary Maximum Contaminant Level; U.S. EPA PMCL = Federal Primary Maximum Contaminant Level; U.S. EPA IRIS = Integrated Risk Information System Reference Dose as a Drinking Water Level; CA PHG = California Public Health Goal; BPJ is based on Quantification Limits.

pH: The hydrogen ion (pH) of the treated effluent shall be maintained within the limits of 6.0 to 9.0 standards units.

Toxicity: 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, as

defined in Section V.E 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 bioassays of appropriate duration or other appropriate methods specified by the Regional Water Board.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan. As such, they are a required part of the proposed Order.

A. Surface Water

1. The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and are carried forward from the previous General Order. As such, they are a required part of the proposed General Order. The receiving water limitations for dissolved oxygen and temperature are as follows:

2. The discharge shall not cause the concentration of dissolved oxygen in the receiving water to fall below 5.0 mg/L. When the dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.

3. The discharge shall not result in the natural receiving water temperature to be altered, unless it can be demonstrated to the satisfaction of the Colorado River Basin Water Board that such alteration in temperature does not adversely affect beneficial uses.

4. The discharge shall not result in the normal ambient pH of the receiving water to fall below 6.0 or exceed 9.0 units.

5. In addition, the Basin Plan specifies bacterial objectives for surface waters for specific designated uses. This General Order incorporates those objectives as receiving water limitations for bacterial indicators (i.e., E. coli, enterococci, and fecal coliform).

6. The Basin Plan also specifies water quality objectives for specific waterbodies. Those objectives are incorporated in this General Order as receiving water limitations.

B. Groundwater – Not Applicable

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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.

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. Section 123.25(a)(12) of 40 C.F.R. 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).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 C.F.R. part 123. The Colorado River Basin Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Colorado River Basin Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. **TRE Work Plan, Toxicity Identification Evaluations, and Toxicity Reduction Evaluations.** This provision is based on the SIP, section 4, Toxicity Control Provisions.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program**. This provision is based on the requirements of section 2.4.5 of the SIP.

4. Construction, Operation, and Maintenance Specifications

a. **Facility and Treatment Operation**. This provision is based on the requirements of section 122.41(e) and the previous Order.

b. **Start-Up Phase and Start-Up Reporting.** This provision is based on the previous General Order.

5. Other Special Provisions

Special Provisions VI.C.6.a and VI.C.6.b are included to ensure the compliance with requirements established in Order R7-2015-0007, and are based on the previous Order, the CWA, U.S. EPA regulations, CWC, and Colorado River Basin Water Board plans and policies.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA 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.

A. Influent Monitoring

This General Order carries forward the treatment plant influent monitoring requirements. Influent monitoring is required to assess the effectiveness of the groundwater remediation activity and treatment performance.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed 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 almost all NPDES permits

(including the proposed General 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 CWC, and Colorado River Basin Water Board's policies. The MRP also contains sampling program specific for 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.

Monitoring for those pollutants expected to be present in the discharge from the groundwater treatment facility, will be required as shown in the proposed MRP and as required by the SIP. Effluent monitoring requirements are unchanged from the previous General Order.

C. Whole Effluent Toxicity Testing Requirements

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 and 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.

This requirement establishes conditions and protocol by which compliance with the Basin Plan narrative water quality objective for toxicity will be demonstrated. Conditions include required monitoring and evaluation of the effluent for chronic toxicity and numerical values for chronic toxicity evaluation to be used as 'triggers' for initiating accelerated monitoring and toxicity reduction evaluation(s).

The WET testing requirements contained in the MRP, section V were developed based on the Draft National Whole Effluent Toxicity Implementation Guidance Under the NPDES Program developed by U.S. EPA (Docket ID. No. OW-2004-0037) and the Test of Significant Toxicity Implementation (EPA 833-R-10-003) and Technical (EPA 833-R10-002) Documents. This is the most current guidance available to the Colorado River Basin Water Board.

The U.S. Environmental Protection Agency (EPA or the Agency) has developed a new statistical approach that assesses the whole effluent toxicity (WET) measurement of wastewater effects on specific test organisms' ability to survive, grow, and reproduce. The new 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 EPA's Technical Support Document (TSD) (U.S. EPA 1991) and implemented under EPA's WET National Pollutant Discharge Elimination System (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.

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 NPDES WET reasonable potential (RP) and permit compliance determinations. Once the WET test has been conducted, the TST approach can be 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 IWC or a receiving water concentration (RWC) compared to a control concentration. Using the TST approach, permitting authorities will have more confidence when making NPDES 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 EPA'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 (U.S. EPA 1995, 2002a, 2002b, 2002c) by the approved EPA 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.

This Order includes a reopener to allow the requirements of this section to be revised pending the issuance of final guidance or policies developed by either the U.S. EPA or State Water Board.

D. Receiving Water Monitoring

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 largely unchanged from the previous General Order.

2. Groundwater – Not Applicable

VIII. PUBLIC PARTICIPATION

The Colorado River Basin Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the discharge of extracted and treated groundwater resulting from the cleanup of groundwater polluted by VOCs. As a step in the WDR adoption process, the Colorado River Basin Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

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 following the Desert Sun, Imperial Valley Press, Press Enterprise, San Bernardino Sun, and Palo Verde Times newspapers.

The public had access to the agenda and any changes in dates and locations through the Colorado River Basin Water Board's website at: <http://www.waterboards.ca.gov/coloradoriver>.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Colorado River Basin Water Board at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260.

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 September 8, 2015.

C. Public Hearing

The Colorado River Basin Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	September 17, 2015
Time:	9:00 AM
Location:	California Regional Water Quality Control Board Colorado River Basin Region Board Room 73-720 Fred Waring Drive, Suite 100 Palm Desert, CA 92260

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

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 the California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, 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. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

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 Colorado River Basin Water Board by calling (760) 346-7491.

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.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Anders Wistrom at (760) 776-8964.