CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

May 7, 2013

Mr. Freidoon Rastegar
Engineering Director
Nano H2O
750 Lairport Street
El Segundo, CA 90245

Dear Mr. Rastegar:

TRANSMITTAL OF THE WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT – NANOH20 INC., NANOH2O FACILITY, EL SEGUNDO, CALIFORNIA (NPDES NO. CA0064602, CI-9940)

Our letter dated March 13, 2013, transmitted the tentative waste discharge requirements for your permit to discharge wastes under the National Pollutant Discharge Elimination System (NPDES) Program.

Pursuant to Division 7 of the California Water Code, this Regional Water Board at a public hearing held on May 2, 2012, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. R4-2013-0077.

Order No. R4-2013-0077 serves as an NPDES permit, and it expires on April 10, 2018. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the Monitoring and Reporting Program (MRP) on the effective date (June 1, 2013) of Order No. R4-2013-0077. Your first quarterly monitoring report for the period of June 1, 2013 through June 30, 2013 is due by August 15, 2013.

When submitting monitoring or technical reports to the Regional Water Board as required by your Monitoring and Reporting Program, please continue to send them ATTN: Information Technology Unit and include a reference to Compliance File CI-9940 and NPDES No. CA0064602. This will assure that the reports are directed to the appropriate electronic file and staff. Also please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

The Regional Water Board is implementing a paperless office system to reduce paper use, increase efficiency and provide a more effective way for our staff, the public and interested parties to view water quality documents. Therefore, please convert all regulatory documents, submissions, data and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed above. If you need additional

information regarding electronic submittal of documents please visit the Regional Water Board's website listed above and navigate to Paperless Office.

We are sending the hard copy of the Permit to the Discharger only. For those on the mailing list or other interested parties who would like access to a copy of the Order, please go to the Regional Water Board's website at:
http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/by_permits_tools.shtml.

If you have any questions, please contact Jau Ren Chen at (213) 576-6656.

Sincerely,

Cassandra D. Owens, Chief
Industrial Permitting Unit (NPDES)

Enclosures

cc: **(VIA EMAIL ONLY)**
David Smith, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
NPDES Wastewater Unit, State Water Resources Control Board, Division of Water Quality
Kenneth Wong, U.S Army Corps of Engineers
Bryant Chesney, NOAA, National Marine Fisheries Service
Jane Touth, Department of Interior, U.S. Fish and Wildlife Service
William Paznokas, Department of Fish and Game, Region 5
Tim Smith, Los Angeles County, Department of Public Works, Waste Management Division
Teresa Henry, California Coastal Commission, South Coast Region
Angelo Bellomo, Los Angeles County, Department of Health Services
Kristen James, Heal the Bay
Liz Crosson, Los Angeles Waterkeeper
Anna Kheyfets, Natural Resources Defense Council
Jason Weiner, Ventura Coastkeeper
Barbara Voss, Los Angeles County Economic Development Corporation
Ted Shove, City of El Segundo
Gil Busick, City of El Segundo
Tod Sword, Southern California Edison
Andre Carter, NanoH2O Inc.
Jae Kim, Tetra Tech

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

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ORDER NO. R4-2013-0077
NPDES NO. CA0064602

WASTE DISCHARGE REQUIREMENTS FOR THE NANOH2O INC., NANOH2O FACILITY

The following Discharger is subject to waste discharge requirements (WDR's) as set forth in this Order:

Table 1. Discharger Information

Discharger	**NanoH2O Inc.**
Name of Facility	**NanoH2O, El Segundo**
Facility Address	**750 Lairport Street**
	El Segundo, California 90245
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	**Treated wastewater**	**33°, 55', 33" N**	**118°, 23', 32" W**	**Dominguez Channel**

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**May 2, 2013**
This Order shall become effective on:	**June 1, 2013**
This Order shall expire on:	**April 10, 2018**
The Discharger shall file a Report of Waste Discharge as an application for renewal of waste discharge requirements in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**October 12, 2017**
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Quality Control Board have classified this discharge as follows:	**Minor discharge**

I, Samuel Unger, 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, Los Angeles Region, on May 2, 2013.

Samuel Unger

Samuel Unger, P.E., Executive Officer

(Tentative: March 13, 2013; Adopted: May 2, 2013)

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List of Attachments

I. FACILITY INFORMATION

Information describing the NanoH2O Facility (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board), finds:

A. Legal Authorities. This Order serves as WDR's 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. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.

B. Background and Rationale for Requirements. The Regional 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 J are also incorporated into this Order.

C. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

D. Consideration of Public Comment. The Regional 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 of this Order.

THEREFORE, IT IS HEREBY ORDERED that 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 and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged shall be limited to a maximum of 0.645 million gallons per day (MGD) of treated wastewaters from Discharge Point 001. The discharge of wastes from accidental spills or other sources is prohibited.

B. Discharges of water, untreated waste water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, the Dominguez Channel, or other waters of the State, are prohibited.

C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.

D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board as required by the federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

G. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

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

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Total Suspended Solids	mg/L	50	75	---	---
	lbs/day[1]	270	400	--	--
Turbidity	NTU	50	75	---	---
BOD_5 @ 20 °C	mg/L	20	30	---	---
	lbs/day[1]	110	160	---	---
Oil and Grease	mg/L	10	15	---	---
	lbs/day[1]	54	81	---	---
Chlorine, Total Residual	mg/L	---	0.1	---	---
	lbs/day[1]	---	0.54	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Sulfides	mg/L	---	0.1	---	---
	lbs/day[1]	---	0.54	---	---
Copper, Total Recoverable (Dry-weather)[4]	µg/L	7.0	14	---	---
	lbs/day[1]	0.038	0.075	---	---
Copper, Total Recoverable (Wet-weather)[3]	µg/L	4.8	10	---	---
	lbs/day[1]	0.026	0.054	---	---
Lead, Total Recoverable (Wet-weather)[3]	µg/L	21	66	---	---
	lbs/day[1]	0.11	0.36	---	---
Selenium, Total Recoverable (All-weather)	µg/L	4.1	8.2	---	---
	lbs/day[1]	0.022	0.044	---	---
Zinc, Total Recoverable (Dry-weather)[4]	µg/L	60	120	---	---
	lbs/day[1]	0.32	0.65	---	---
Zinc, Total Recoverable (Wet-weather)[3]	µg/L	35	70	---	---
	lbs/day[1]	0.19	0.38	---	---
Acute Toxicity	% survival and Pass or Fail for TST approach	[2,6]			
Chronic Toxicity	TU_c and Pass or Fail for TST approach	[5,6]			

1. The mass emission rates are based on the maximum permitted flow rate of 0.645 MGD at Discharge Point 001, and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The acute toxicity of the effluent shall be such that:
   (i) the average survival in the undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
   (ii) no single test producing less than 70% survival.
3. Wet-weather effluent limits are applicable when the maximum daily flow in the Dominguez Channel is equal to or greater than 63 cubic feet per second (cfs) as measured at Los Angeles County Department of Public Works' flow gage S-28. This gage is located in Dominguez Channel at Vermont Avenue.
4. Dry-weather effluent limits are applicable when the maximum daily flow in the Dominguez Channel is less than 63 cfs.
5. The Order includes a chronic testing toxicity limit defined as an exceedance of 1.0 TUc in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TUc in a critical like stage test.)
6. The EPA Test of Significant Toxicity (TST) approach is used to demonstrate that the instream waste concentration is not toxic.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

The discharge shall not cause the following in the Dominguez Channel.

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.

2. Surface water temperature to rise greater than 5°F above the natural temperature of the receiving waters at any time or place. At no time the temperature be raised above 80^0 F as a result of waste discharged.

3. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.

4. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2002-011. Resolution No. 2002-011 revised the ammonia water quality objectives for inland surface waters characteristic of freshwater in the 1994 Basin Plan, to be consistent with the *"1999 Update of Ambient Water Quality Criteria for Ammonia"*. Adopted on April 28, 2002, Resolution No. 2002-011 was approved by State Water Board, Office of Administrative Law (OAL) and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.

5. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.

6. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.

7. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.

8. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

9. Accumulation of bottom deposits or aquatic growths.

10. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

11. The presence of substances that result in increases of BOD that adversely affect beneficial uses.

12. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.

13. Alteration of turbidity, or apparent color beyond present natural background levels.

14. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.

15. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

16. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

17. Create nuisance, or adversely affect beneficial uses of the receiving water.

18. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.

2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

b. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of wastewater to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

c. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.

d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the Federal CWA and amendments thereto.

e. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

f. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

g. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

i. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

j. The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and the appropriate filing fee.

k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture an intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board.

n. The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

p. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

i. Name and general composition of the chemical,

ii. Frequency of use,

iii. Quantities to be used,

iv. Proposed discharge concentrations, and

v. USEPA registration number, if applicable.

r. 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.

s. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, AMEL or MDEL, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213) 576-6600 within 24

hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional 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.

t. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, 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 Order.

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.

c. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, requirements for the implementation of the watershed management approach or to include new MLs.

d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Dominguez Channel.

e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.

f. This 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 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 Order as a result of the special condition monitoring data.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Chronic Toxicity Limit and Monitoring Requirements

The Order contains a chronic toxicity limit defined as an exceedence of 1.0 TUc in a critical life stage test for 100% effluent (The monthly median for chronic toxicity of 100% effluent shall not exceed 1 TUc in a critical life stage test). The Discharger shall monitor the effluent annually for chronic toxicity to determine the presence of chronic toxicity. If the chronic toxicity of the effluent exceeds 1.0 TUc (where TUc = 100/NOEC), the Discharger shall immediately implement accelerated chronic toxicity testing, as required in Section V.B of the Monitoring and Reporting Program (Attachment E).

b. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan

The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This plan shall describe the steps the permittee 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 will be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency;

ii. A description of the facility's method of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility;

iii. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (Section V of the MRP, Attachment E, provides references for the guidance manuals that should be used for performing TIEs).

c. Harbor Toxics TMDL Water Column, Sediment, and Fish Tissue Monitoring for Dominguez Channel, Torrance Lateral, and Dominguez Channel Estuary Compliance Monitoring Program.

As defined in the Harbor Toxics TMDL, the Discharger is a "responsible party" because it is an "Individual Industrial Permittee". As such either individually or with a collaborating group, the discharger shall develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column, sediment and fish tissue in the Dominguez Channel, Torrance Lateral, and Dominguez Channel Estuary. These plans shall follow the "TMDL Element-Monitoring Plan" provisions in Attachment A to Resolution No. 11-008. The Monitoring Plan and QAPP shall be submitted **20 months** after the effective date of the TMDL (March 23, 2012) for public review and subsequent Executive Officer approval. The Discharger shall begin monitoring **6 months** after the Monitoring Plan and QAPP are approved by the Executive Officer, unless otherwise directed by the Executive Officer.

The compliance monitoring plan shall include:

Water Column Monitoring. Water and total suspended solids samples shall be collected at the outlet of the storm drains discharging to the channel and the estuary. Water column and total suspended solids samples shall be monitored three times per year, during two wet weather events and one dry weather event. The first large storm event of the season shall be included as one of the wet weather monitoring events. Water samples and total suspended solid samples shall be analyzed at a minimum for metals (lead, zinc, and copper), DDT, PCBs, Benzo[a]anthracene, Benzo[a]pyrene, Chrysene, Phenanthrene, and Pyrene. Sampling shall be designed to collect sufficient volumes of suspended solids to allow for analysis of the pollutants in the bulk sediment. Analysis must include general water chemistry (temperature, dissolved oxygen, pH, and electrical conductivity), a flow measurement, and toxicity during each sampling event.

Sediment Monitoring. Sediment quality objective evaluation monitoring, as detailed in the SQO Part 1 (sediment triad sampling), shall be performed once per five years and shall include the full chemical suite, two sediment toxicity test, and four benthic indices. Between sediment triad monitoring events, sediment chemistry parameters shall be monitored once per five years.

Fish Tissue Monitoring. Fish tissue samples shall be collected every two years from the Dominguez Channel Estuary and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs. The target species in the Dominguez Channel Estuary shall be selected based on residency, local abundance and fish size at the time of field collection. Tissues analyzed shall be based on the most common preparation for the selected fish species.

3. Storm Water Pollution Prevention Plan, Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP)

The Discharger shall submit, **within 90 days** of the effective date of this Order a SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment G.

b. Spill Prevention Control and Contingency (SPCC) Plan

This Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a SPCC Plan that describes the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

The SWPPP and SPCC Plan shall be reviewed at a minimum once per year and updated as needed. Any changes or revisions shall be submitted within 30 days of revisions.

4. Construction, Operation and Maintenance Specifications

The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.

5. Other Special Provisions – Not Applicable

6. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

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

A. Single Constituent Effluent Limitation.

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. Effluent Limitations Expressed as a Sum of Several Constituents.

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

C. Effluent Limitations Expressed as a Median

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

1. If the number of measurements (n) is odd, then the median will be calculated as = X(n+1)/2, or

2. If the number of measurements (n) is even, then the median will be calculated as = [Xn/2 + X(n/2)+1], i.e. the midpoint between the n/2 and n/2+1 data points.

D. Mass-based Effluent Limitations.

In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for “Not Detected” (ND) and the estimated concentration for “Detected, but Not Quantified” (DNQ) for the calculation of the monthly average concentration. To be consistent with Limitations and Discharge Requirements, Section VII.B, if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

E. Multiple Sample Data.

When determining compliance with an AMEL or 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:

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

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

F. Average Monthly Effluent Limitation (AMEL).

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

1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;

2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

   When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

   When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

3. In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL, then the Discharger is in violation of the AMEL.

G. Maximum Daily Effluent Limitations (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day

only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

H. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and 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).

I. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and 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).

ATTACHMENT A – DEFINITIONS

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

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

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

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

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

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

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

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

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

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the

dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

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

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

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

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

Inland Surface Waters
All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

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

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

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

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (*n*) is odd, then the median = $X_{(n+1)/2}$. If *n* is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the *n*/2 and *n*/2+1).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, 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.

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

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

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

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

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional 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 or Regional Water Board.

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

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Regional Water Board 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.

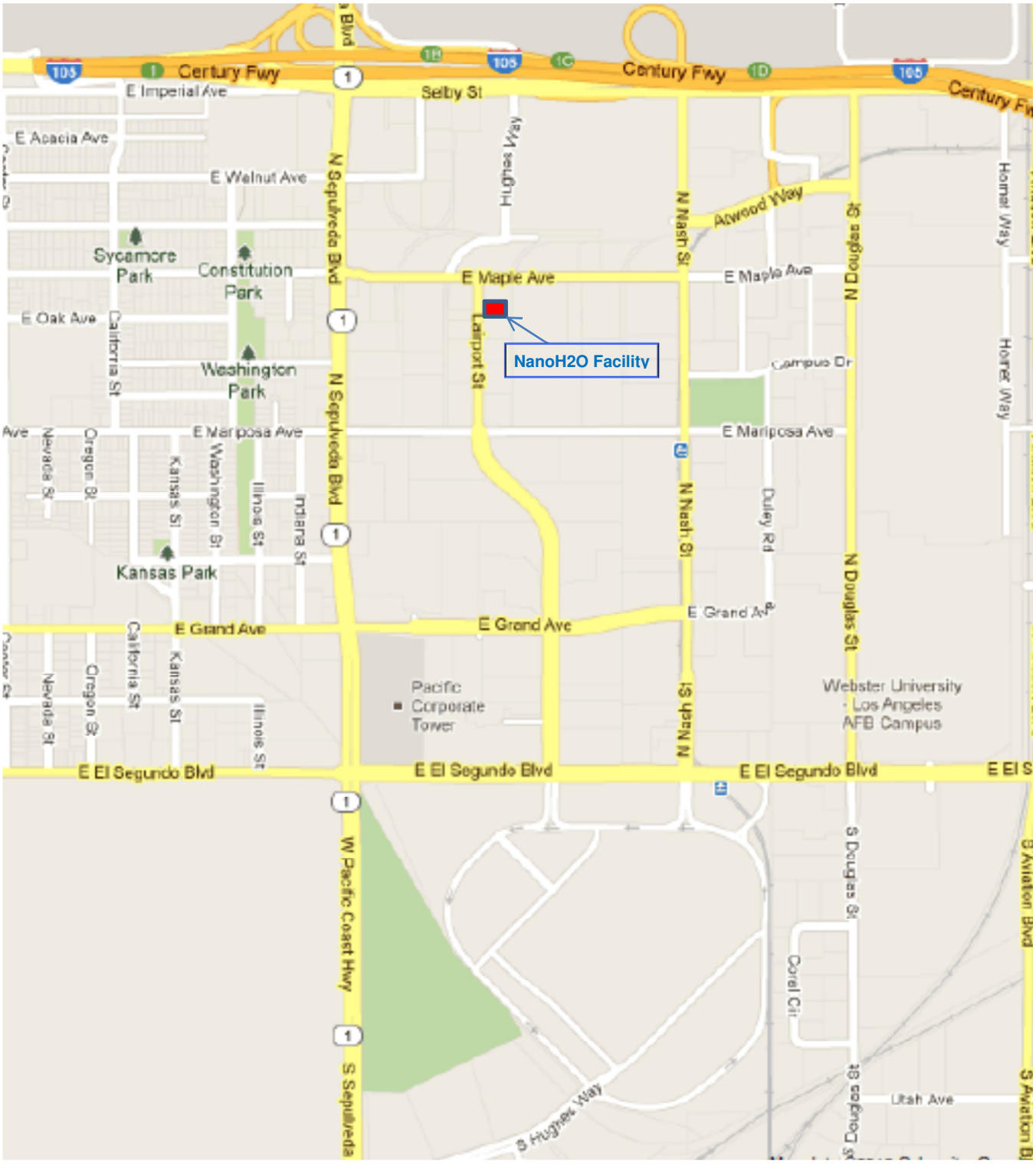
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first 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.)

ACRONYMS AND ABBREVIATIONS

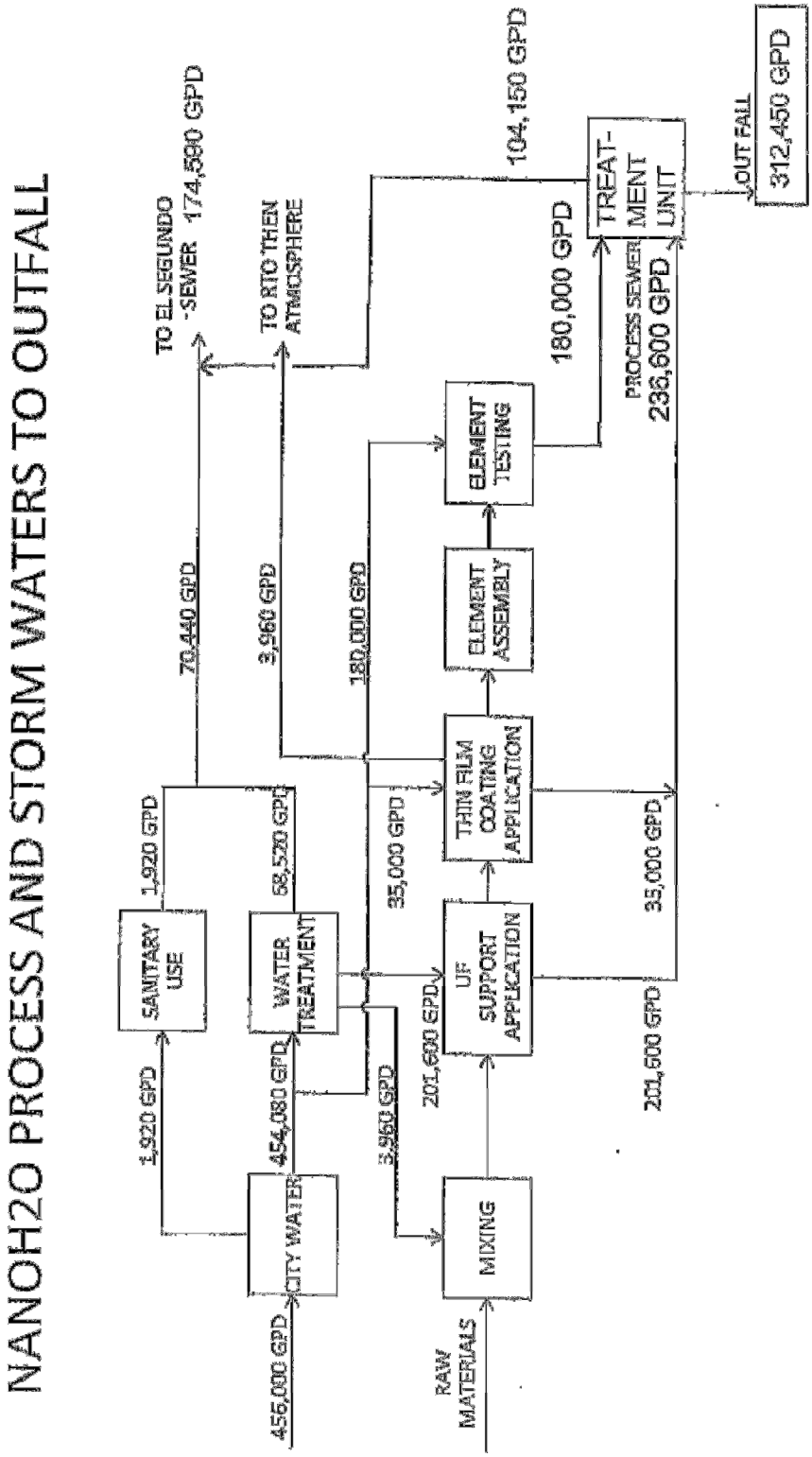
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	NanoH2O, Inc.
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	NanoH2O Facility
g/kg	grams per kilogram
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
ng/L	nanograms per liter
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PAHs	Polynuclear Aromatic Hydrocarbons

pg/L ..... picograms per liter
PMEL..... Proposed Maximum Daily Effluent Limitation
PMP..... Pollutant Minimization Plan
POTW..... Publicly Owned Treatment Works
ppm ..... parts per million
ppb ..... parts per billion
QA ..... Quality Assurance
QA/QC..... Quality Assurance/Quality Control
Ocean Plan..... Water Quality Control Plan for Ocean Waters of California
Regional Water Board..... California Regional Water Quality Control Board, Los Angeles Region
RPA ..... Reasonable Potential Analysis
SCP ..... Spill Contingency Plan
SIP..... State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)
SMR ..... Self Monitoring Reports
State Water Board ..... California State Water Resources Control Board
SWPPP ..... Storm Water Pollution Prevention Plan
TAC ..... Test Acceptability Criteria
Thermal Plan ..... Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California
TIE..... Toxicity Identification Evaluation
TMDL..... Total Maximum Daily Load
TOC..... Total Organic Carbon
TRE ..... Toxicity Reduction Evaluation
TSD ..... Technical Support Document
TSS ..... Total Suspended Solid
TU_c ..... Chronic Toxicity Unit
USEPA ..... United States Environmental Protection Agency
WDR..... Waste Discharge Requirements
WET ..... Whole Effluent Toxicity
WLA..... Waste Load Allocations
WQBELs..... Water Quality-Based Effluent Limitations
WQS..... Water Quality Standards
% ..... Percent

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the 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, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

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 Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 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 (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); 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. (40 C.F.R. § 122.41(i)(4).)

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 Regional 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 Regional 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 Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional 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 Regional Water Board. The Regional 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 under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (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 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 Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

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

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

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA 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 Order and other information requested by the Regional Water Board, State Water Board, or USEPA 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 Regional 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 Regional 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. § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional 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 Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data

submitted in the DMR or sludge reporting form specified by the Regional 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 Regional 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 Regional 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 could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)

3. 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 Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order 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 Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon

conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*section 122.41(a)(2)*] [*Water Code sections 13385 and 13387*].

C. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*section 122.41(a)(3)*].

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [*section 122.41(j)(5)*].

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*section 122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional 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 Regional 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 Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 9940)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Effluent sampling stations shall be established for Discharge Point 001 and shall be located where representative samples of that effluent can be obtained.

B. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.

C. The Regional Water Board shall be notified in writing of any change in the sampling station once established or in the methods for determining the quantities of pollutants in the individual waste streams.

D. Pollutants shall be analyzed using the analytical methods described in sections 136.3, 136.4, and 136.5 (revised May 18, 2012); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP. For purpose of monitoring pH and temperature, tests may be conducted at the field sampling location provided that all the requirements of the approved analytical methods for NPDES use in 40 CFR 136 are met.

E. For any analyses performed for which no procedure is specified in the USEPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

F. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP”.

G. The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) are those published by the State Water Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, February 24, 2005.

H. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

1. When the pollutant under consideration is not included in Attachment H

2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 18, 2012);

3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;

4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix; or,

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.

J. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits,

analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

K. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there is fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. A similar frequency shall be maintained for analyzing spiked samples.

M. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

N. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.

O. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:

1. Types of wastes and quantity of each type;

2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and

3. Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

P. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

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
001	**EFF-001**	A location where a representative sample of effluent can be obtained from Discharge Point 001 prior to discharging into the storm drain. (Latitude: 33º 55' 33"; Longitude: 118º 23' 32")
--	**RSW-001**	Dominguez Channel at Manhattan Beach Boulevard (Latitude: 33º 53' 14"; Longitude: 118º 20' 06")

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

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor the discharge of treated wastewaters at Monitoring Location EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gallons/day	Metered	1 / day	--
pH	s.u.	Grab	1 / monthly	[1]
Temperature	deg. F	Grab	1 / monthly	[1]
Total Suspended Solids (TSS)	mg/L	Grab	1 / monthly	[1]
Turbidity	NTU	Grab	1 / monthly	[1]
Biochemical Oxygen Demand (5-day @ 20 ºC) (BOD)	mg/L	Grab	1 / monthly	[1]
Oil and Grease	mg/L	Grab	1 / monthly	[1]
Chlorine, Total Residual	mg/L	Grab	1 / monthly	[1]
Sulfides	mg/L	Grab	1 / monthly	[1]
Salinity	parts per thousand	Grab	1 / monthly	[1]
Copper, Total Recoverable	µg/L	Grab	1 / monthly	[1]
Lead, Total Recoverable	µg/L	Grab	1 / monthly	[1]
Selenium, Total Recoverable	µg/L	Grab	1 / monthly	[1]
Zinc, Total Recoverable	µg/L	Grab	1 / monthly	[1]
Ammonia (as N)	mg/L	Grab	1 / quarter	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrite + Nitrate (as N)	mg/L	Grab	1 / quarter	[1]
Acute Toxicity	% survival and Pass or Fail for TST test	24-hour composite[4]	1 / year	[5]
Chronic Toxicity	TUc and Pass or Fail for TST test	24-hour composite[4]	1 / year	[5]
TCDD Equivalents[2]	µg/L	Grab	1 / year	[1]
Remaining Priority Pollutants[3] (excluding asbestos)	µg/L	Grab	1 / year	[1]

1. Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP (Attachment H of this permit package) or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. 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.

2. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to **zero**. USEPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD Equivalents) = Σ (C_x x TEF_x)
where:
C_x = concentration of, dioxin or furan congener x
TEF_x = TEF for congener x

Minimum Levels, and Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency Factors (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

3. Priority Pollutants as defined by the CTR defined in Finding II.K of the Limitations and Discharge Requirements of this Order, and included as Attachment I. All metals shall be reported as total recoverable.

4. 24-hour composite sample means a combination of no fewer than eight individual samples taken at intervals of not more than 1-hour such that the volumes of each of the individual samples and of the combination are proportional to the volumes of flow during each interval and during the 24-hour period respectively.
5. Refer to section V., Whole Effluent Toxicity Testing Requirements.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Definition of Acute Toxicity

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and

b. No single test shall produce less than 70% survival.

2. Acute Toxicity Effluent Monitoring Program

a. Method. The Discharger shall conduct acute toxicity tests on 24-hour composite 100% effluent, generally by methods specified in 40 CFR Part 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition to ensure compliance. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

b. Test Species. The fathead minnow, Pimephales promelas (Acute Toxicity Test Method 2000.0), shall be used as the test species for fresh water discharges.

c. Acute Toxicity Accelerated Monitoring. If either of the above requirements (sections 1.a and 1.b) is not met, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-week period. The Discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the close of the test and the additional tests shall begin within 5 business days of the receipt of the result. If the additional tests indicate compliance with the toxicity limitation, the Discharger may resume regular testing.

d. For this monitoring program to evaluate compliance with the acute toxicity WQBEL based on the acute toxicity objective defined in Item 1 above, the critical acute instream waste concentration (IWC) is set to 100% effluent. A 100% effluent sample and a control shall be tested. Acute toxicity test biological endpoint data shall be analyzed directly to report % survival in the 100% effluent sample.

e. Toxicity Identification Evaluation (TIE).

i. If the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall immediately begin a Toxicity Identification Evaluation (TIE) and implement the Initial Investigation Toxicity Reduction Evaluation (TRE) workplan. The TIE shall include all reasonable steps to identify the sources of toxicity. Once

the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

ii. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately begin a Toxicity Identification Evaluation (TIE) and implement Initial Investigation Toxicity Reduction Evaluation (TRE) workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Chronic Toxicity

1. Definition of Chronic Toxicity

Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Chronic toxicity shall be measured in TUc, where TUc = 100/NOEC. The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

This Order includes a chronic toxicity limit defined as an exceedance of 1.0 TUc in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed, 1 TUc in a critical life stage test.)

2. Chronic Toxicity Effluent Monitoring Program

a. Test Species and Methods:

i. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100% effluent samples. For freshwater discharge, the Discharger shall conduct the chronic toxicity test in accordance with USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002 (EPA/821/R-02/013) or a more recent edition.

ii. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.

iii. The Discharger shall conduct the first chronic toxicity test screening for three consecutive months in the first required chronic toxicity testing. Re-screening is required every 3 years. The Discharger shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

iv. After the screening period, monitoring shall be conducted annually using the most sensitive species.

v. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

vi. For this monitoring program to evaluate compliance with the chronic toxicity WQBEL based on the chronic toxicity WLA in the Harbor Toxics TMDL, the critical chronic instream waste concentration (IWC) is set at 100% effluent. A 100%, 75%, 50%, 25% and 12.5% effluent sample and a control shall be tested. Chronic toxicity test biological endpoint data shall be statistically analyzed using appropriate hypothesis testing approaches, specified in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R-02/013, 2002:Table 1A, 40CFR Part 136) to report TU_c=100/NOEC.

b. Chronic Toxicity Accelerated Monitoring.

If the chronic toxicity of the effluent exceeds the monthly trigger median of 1.0 TUc, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-week period. The Discharger shall ensure that they receive results of a failing chronic toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 5 business days of the receipt of the result.

i. If any three out of the initial test and the six additional tests results exceed 1.0 TUc, the Discharger shall immediately implement the Initial Investigation TRE workplan.

ii. If implementation of the initial investigation TRE workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the normal sampling frequency required in this MRP.

iii. If all of the six additional tests required above do not exceed 1 TUc, then the Discharger may return to the normal sampling frequency.

iv. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

C. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and/or EPA/821-R-02-014), then the Discharger must resample and retest at the earliest time possible.

3. Control and dilution water should be receiving water (if non-toxic) or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the water the test species are grown in (culture water), a second control using culture water shall be used.

D. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manuals EPA/600/2 88/070 (industrial) or EPA/833B 99/002 (municipal) as guidance. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

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

A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,

If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section V.E.3. for guidance manuals.

E. Additional Toxicity Monitoring and Toxicity Identification Evaluation (TIE) for the Test of Significant Toxicity t-Test Approach

1. If acute and/or chronic toxicity is detected (i.e., reported as "Fail" for the TST hypothesis test) at an effluent monitoring station during a discharge event, then the Permittee shall continue toxicity testing during discharge events at the monitoring station-but not more frequently than weekly-until the nature and cause(s) of the toxicity is defined and/or eliminated. A toxicity test sample is immediately subject to TIE procedures to **identify** the toxic chemical(s), if:

a. The acute toxicity test shows a Percent Effect value ≥50% at the IWC. A TIE shall be performed to identify the causes of acute toxicity using the same species and test method and, as guidance, U.S.EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993) and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996).

b. The chronic toxicity test shows a Percent Effect value ≥50% at the IWC. A TIE shall be performed to identify the causes of chronic toxicity using the same species and test method and, as guidance, U.S.EPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effects, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993) and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054

2. The TIE should be conducted on the test species demonstrating the most sensitive toxicity response at a sampling station. A TIE may be conducted on a different test species

demonstrating a toxicity response with a caveat that once the toxicant(s) is identified, the most sensitive test species triggering the TIE shall be further tested to verify that the toxicant has been identified and addressed.

F. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:

a. Further actions to investigate and identify the cause of toxicity;

b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

c. A schedule for these actions.

2. The following section summarizes the stepwise approach used in conducting the TRE:

a. Step 1 includes basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;

b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals;

c. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity;

d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

e. Step 5 evaluates in-plant treatment options; and

f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity (or six consecutive chronic toxicity test results are less than or equal to 1.0 TUc or six consecutive acute toxicity test results are greater than 90% survival).

3. The Discharger shall initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the U.S. EPA acute manual, chronic manual, EPA/600/6

91/005F (Phase I)/EPA/600/R 96 054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in Section V.A.2.d and V.B.2.b. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.

6. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

G. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test.

a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

H. Reporting

1. Toxicity monitoring results submitted to the Regional Water Board shall be consistent with the requirements identified in Section X of the MRP. The Regional Water Board shall be notified no later than 30 days from completion of each aspect of the analysis for TIEs/TREs..

2. The SMR required by Section V of the MRP shall include:

a. A full laboratory report for each toxicity test prepared according to the appropriate test methods manual chapter on Report Preparation, including:

i. The acute toxicity test results reported as the "Percent Effect", and "Pass" or "Fail" for the TST hypothesis t-test.

ii. The chronic toxicity test results reported as the "Percent Effect", and "Pass" or "Fail" for the TST hypothesis t-test.

iii. The dates of sample collection and initiation of each toxicity test.

iv. Test species with biological endpoint values for each concentration tested.

v. Reference toxicant test results.

vi. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

vii. TRE/TIE testing results.

viii. A printout of CETIS (Comprehensive Environmental Toxicity Information System) program results.

b. All results for effluent and receiving water parameters monitored concurrently with the toxicity test.

c. TIEs (Phases I, II, and III) that have been completed or are being conducted, by monitoring station.

d. The development, implementation, and results for each TRE Corrective Action Plan, beginning quarterly following the identification of each pollutant or pollutant class causing toxicity.

3. The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW 001

1. The Discharger shall monitor the receiving water at RSW 001 as follows:

Table E-3. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	S.U.	Grab	1 / Year	[1, 2]
Temperature	°F	Grab	1 / Year	[1, 2]
Salinity	mg/L	Grab	1 / Year	[1, 2]
Hardness	mg/L	Grab	1 / Year	[1, 2]
TCDD Equivalents [3]	µg/L	Grab	1 / Year	[1]
Priority Pollutants [4] (excluding asbestos)	µg/L	Grab	1 / Year	[1, 2]

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

[2] Receiving water pH, salinity, hardness, and temperature shall be analyzed at the same time the samples are collected for Priority Pollutants analysis.

3. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to **zero**. USEPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD Equivalents) = Σ (C_x x TEF_x)
where:
C_x = concentration of, dioxin or furan congener x
TEF_x = TEF for congener x

Minimum Levels, and Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalency Factors (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

4. Priority Pollutants as defined by the CTR defined in Finding II.K of the Limitations and Discharge Requirements of this Order, and included as Attachment I. All metals shall be reported as total recoverable.

IX. HARBOR TOXICS TMDL MONITORING

A. Dominguez Channel Water Column Sampling.

Water column and total suspended solids samples shall be collected during two wet weather events and one dry weather event each year. Both media should be analyzed for the chemical suite, (lead, zinc, copper, DDT, PCBs, Benzo[a]anthracene, Benzo[a]pyrene, Chrysene, Phenanthrene, and pyrene), temperature, dissolved oxygen, pH, electrical conductivity, and a flow measurement at a minimum. Sufficient volumes of suspended solids are required to allow analysis of the pollutants in the bulk sediment.

B. Sediment Monitoring

Every five years sediment chemistry samples shall be collected. The analysis shall include chemistry suite , two toxicity tests and four benthic indices as specified in the SQO Part 1. .

C. Fish Tissue Monitoring.

Fish tissue samples shall be collected every two years from the Dominguez Channel Estuary and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs. The target species shall be selected based on residency, local abundance and fish size at the time of field collection. Tissues analyzed shall be based on the most common preparation for the selected fish species.

X. REGIONAL MONITORING REQUIREMENTS

A. Specific Requirements

1. The Discharger may be required to participate in the development of Regional Monitoring program(s) to address pollutants as specified in the Harbor Toxics TMDL regional surveys, including benthic infauna, sediment chemistry, and fish communities.

2. Bight Regional Monitoring. Regular regional monitoring for the Southern California Bight has been established, occurring at five year intervals, and is coordinated the Southern California Coastal Water Research Project (SCCWRP) with discharger agencies and numerous other entities. The next (fifth) regional monitoring program (Bight ’13) is expected to take place during 2013. Participation in the Bight Regional Monitoring Program is required under this Order. Revisions to the Discharger’s monitoring program at the direction of the Regional Board and USEPA may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site specific water issues. These revisions may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Regional Water Board Executive Officer and USEPA Director upon written notification to the Discharger.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

5. The Discharger shall report the results of acute and chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.G.

B. Self Monitoring Reports (SMR's)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (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 directions for SMR submittal in the event there will be service interruption for electronic submittal.

   Until such notification is given, the Discharger shall submit SMRs that are less than 10 MB by email to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to disk and mailed to:

   California Regional Water Quality Control Board
   Los Angeles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013

2. 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 quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Daily	June 1, 2013	Any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly SMR
Monthly	June 1, 2013	1st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	July 1, 2013	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Annually	June 1, 2013	January 1 through December 31	February 15 of the following year

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). 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.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

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.

5. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this 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).

6. Multiple Sample Data. When determining compliance with an AMEL or 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.

7. The Discharger shall submit SMRs 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 electronic submittal of data is required and 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 SMR. 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.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

C. Other Reports

1. Within **90 days** of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:

i. SWPPP

ii. SPCC Plan

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section I, the Regional Water Board incorporates this Fact Sheet as findings of the Regional 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 Order.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	**4B192627001**
Discharger	**NanoH2O Inc.**
Name of Facility	**NanoH2O, El Segundo**
Facility Address	**750 Lairport Street**
	El Segundo, California 90245
	Los Angeles County
Facility Contact, Title and Phone	**Andre Carter, Facilities Engineer, 424-218-4006**
Authorized Person to Sign and Submit Reports	**Freidoon Rastegar, Director of Engineering, 424-218-4013**
Mailing Address	**SAME**
Billing Address	**SAME**
Type of Facility	**Manufacture of Reverse Osmosis Membrane**
Major or Minor Facility	**Minor**
Threat to Water Quality	**2**
Complexity	**C**
Pretreatment Program	**N/A**
Reclamation Requirements	**N/A**
Facility Permitted Flow	**0.645 million gallons per day**
Facility Design Flow	**N/A**
Watershed	**Dominguez Channel Watershed**
Receiving Water	**Dominguez Channel**
Receiving Water Type	**Inland Surface Water**

A. NanoH2O Inc. (hereinafter Discharger) is the owner and operator of NanoH2O Facility (hereinafter Facility), a manufacturer for reverse osmosis members.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater to the Dominguez Channel, a water of the United States. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

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

C. The Discharger filed a report of waste discharge and submitted an application for its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on April 25, 2012. A revised application was received on December 17, 2012. Supplemental information was requested on December 31, 2012, and received on February 8, 2013. The application was deemed complete on May 1, 2012. A site visit was conducted on June 26, 2012, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

II. FACILITY DESCRIPTION

NanoH2O Inc. is the owner and operator of the NanoH2O Facility located at 750 Lairport Street, El Segundo, California. NanoH2O Inc. designs, develops, manufactures and markets reverse osmosis membranes that are used in a variety of water treatment applications including the desalination of seawater.

The membrane filter elements are formed by casting a roll sheet of nonwoven polyester with a thin layer of support polymer then immediately passing the cast polyester through a series of two water baths. This bonds the polymer and polyester to form an ultrafiltration membrane. The Discharger rinses a BOD contributing component from the untrafiltration membrane. The rinse water is sent to the reverse osmosis (RO) wastewater treatment unit to produce a wastewater stream that will be discharged into the storm drain. The brine containing the high BOD component stream will be discharged to the El Segundo sewer system.

In the next step, two thin film coatings are dip coated onto the ultrafiltration membrane followed by drying. The membrane is rinsed with water after these two applications followed by a final dip coating, then drying to produce the product membrane sheet material. The coating rinse waters are sent to the RO wastewater treatment unit to produce wastewaters which will be discharged into the storm drain. The brine containing the organic laden water will be directed to the EL Segundo sewer system.

The membrane sheet is cut into individual sheets then assembled into a spiral wound cylindrical filter element. After the elements have been assembled, each membrane filter is tested by pumping a salt water solution with salinity approximately equal to that of seawater through it at normal operational pressure. This test solution is stored in a feed tank prior to its use for the membrane tests, subsequently it is recycled back to the tank. After multiple cycles of testing, the testing salt water goes to the RO treatment unit. The produced wastewater will be discharged into the storm drain. The brine from the RO unit will be discharged to the El Segundo sewer system.

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger proposed to design and install a RO treatment unit using the RO membrane manufactured at the Facility. Wastewaters from the processes at the Facility will be treated by

the onsite RO unit prior to discharge to the storm drain. The brine from the RO unit will be discharged to the El Segundo sewer system.

The Facility is permitted to discharge up to 0.645 million gallons per day (mgd) of treated wastewater through Discharge Point 001.

B. Discharge Points and Receiving Waters

Treated wastewaters are discharged through Discharge Point 001 into the storm drain and, then, it flows to Storm Drain Basin 18 (Basin) located in the City of El Segundo. During severe storm events, the waters in the Basin may be pumped to the Dominguez Channel through a local storm drain system.

Table F-2. Discharge Description

Discharge Point No.	Location		Effluent Description	Flow (mgd)
	Latitude: N	Longitude: W		
001	33° 55' 33"	118° 23' 32"	Treated wastewaters	0.645

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

This is a new permit for discharging RO treated wastewaters to the storm drain. No monitoring data for the treated wastewaters are available.

D. Compliance Summary – Not Applicable

E. Planned Changes

The Discharger will install a reverse osmosis (RO) unit to treat the wastewaters generated at the Facility prior to discharge.

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 Order serves as WDR's 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 Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Los Angeles Regional Water Quality Control Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Dominguez Channel are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Dominguez Channel	Existing: Non-contact Water Recreation (REC-2); and Rare, Threatened or Endangered Species (RARE). Potential: Municipal and Domestic Supply (MUN); Water Contact Recreation (REC-1); Warm Freshwater Habitat (WARM); and Wildlife Habitat (WILD)

Requirements of this Order implement the Basin Plan.

Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The amendment reflects the revised water quality criteria developed by USEPA in the *"1999 Update of Ambient Water Quality Criteria for Ammonia,"* December 1999. The 1999 Update contains USEPA's most recent freshwater aquatic life criteria for ammonia and supersedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA's 1999 ammonia criteria update.

2. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. Requirements of this Order implement the Thermal Plan.

3. **Sediment Quality.** The State Water Board adopted the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality on September 16, 2008, and it became effective on August 25, 2009. This plan supersedes other narrative sediment quality objectives, and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries. Requirements of this Order implement sediment quality objectives of this Plan.

4. **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.

5. **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 Regional 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.

6. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

7. **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.

8. **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 limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state including protecting rare, threatened, or endangered species. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional

Water Board plans to develop and adopt TMDLs that will specify waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development.

The Facility discharges into the Dominguez Channel, above the Estuary. The 2010 State Water Board's California 303(d) List classifies the lined portion of the Dominguez Channel above Vermont Avenue as impaired. The pollutants of concern include ammonia, copper, diazinon, indicator bacteria, lead, toxicity and zinc. The inclusion of the Dominguez Channel on the 2010 303(d) list documents the waterbody's lack of assimilative capacity for the pollutants of concern. A TMDL is developed for the pollutants of concern in a 303(d)-listed waterbody to facilitate the waterbody's recovery of its ability to fully support its beneficial uses.

Toxic Pollutants TMDL for Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (Harbor Waters Toxic Pollutants TMDL): The Harbor Waters Toxic Pollutants TMDL was approved by the Regional Water Board on July 5, 2011 (Resolution No. R11-008). The State Water Board approved the TMDL on February 7, 2012; OAL and U.S. EPA approvals were received on March 22, 2012, and March 23, 2012, respectively. This TMDL became effective on March 23, 2012. The Harbor Waters Toxic Pollutants TMDL assigned freshwater concentration-based WLAs for copper, lead, and zinc as well as a freshwater chronic toxicity allocation of 1 TUc for the discharges during wet weather. This permit implements the applicable WLAs as required in this TMDL.

E. Other Plans, Polices and Regulations – Not Applicable

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.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. Section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitation on a case-by-case basis limitation based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and existing permit provisions, and are consistent with the requirements set for other discharges regulated by NPDES permits to the Dominguez Channel.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, 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 Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with Part 125, 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 Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

Currently, no numerical technology-based ELGs exist for the reverse osmosis membrane manufacturer. The technology-based requirements in this Order are based on case-by-case numeric limitations developed using BPJ in accordance with Section 125.3. Effluent limitations for TSS, oil and grease, BOD_5, turbidity, sulfides, and chlorine are based on water quality objectives contained in the Basin Plan. The limitations for these pollutants are consistent with technology-based limitations included in other Orders within the State for similar types of discharges.

Table F-4. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD_5 20°C	mg/L	20	30
TSS	mg/L	50	75
Oil & Grease	mg/L	10	15
Turbidity	NTU	50	75
Sulfide	mg/L	--	1.0
Chlorine, Total Residual	mg/L	--	0.1

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

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Dominguez Channel are summarized in Section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to the Dominguez Channel. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Dominguez Channel a water of the United States in the vicinity of the discharge (above the Estuary).

Some water quality criteria are hardness dependent. Because no hardness data of the receiving water (Dominguez Channel) are available, the default hardness value of 100 mg/L used in the CTR table is applied to calculate CTR criteria of affected metals.

Table F-5 below summarizes the applicable water quality criteria/objective for priority pollutants that had been reported in detectable concentrations in the untreated effluent.

Table F-5. Summary of Applicable Water Quality Criteria

CTR. No.	Parameter	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms Only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
2	Arsenic	150	340	150	N/A			--
5a	Chromium (III)*	204.95	1719.43	204.95				Narrative
5b	Chromium (VI)	11.43	16.29	11.43				Narrative
6	Copper*	9.33	14	9.33				--
9	Nickel*	52.16	469.17	52.16				4,600
10	Selenium	5.0	--	5.0				Narrative
13	Zinc*	118.60	119.82	119.82				--
20	Bromoform	360	--	--				360
22	Chlorobenzene	21,000	--	--				21,000
23	Chlorodibromo methane	34	--	--				34
26	Chloroform	No Criteria	--	--				--
27	Dichlorobromo methane	46	--	--				46
35	Methyl Chloride	No Criteria	--	--				--

"N/A" indicates the receiving water body is not characterized as saltwater, nor are the water quality criteria for the protection of human health for the consumption of water and organisms applicable.
* Based on a hardness value of 100 mg/L as $CaCO_3$.

Numeric criterion for TCDD equivalents:

The CTR establishes a numeric water quality objective for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) of 1.4 x 10^{-8} µg/L for the protection of human health, when aquatic organisms are consumed. When CTR was promulgated, U.S.EPA stated its support of the regulation of other dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs) in NPDES permits. For California waters, USEPA stated specifically, "if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limitations for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme" [65 Fed. Reg. 31682, 31695 (2000)]. This procedure, developed by the World Health Organization (WHO) in 1988, uses a set of toxicity equivalency factors (TEFs) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-TCDD. When the CTR was promulgated, USEPA also stated that the Agency will continue to assess the risks posed by dioxin to public health and the water quality criteria for dioxin that it had promulgated. To determine if the discharge of dioxin or dioxin-like compounds from the Facility has reasonable potential to cause or contribute to a violation of the Basin Plan's narrative water quality objective regarding bioaccumulation, Regional Water Board staff has therefore used TEFs to express the measured concentrations of 16 dioxin congeners in effluent and background samples as 2,3,7,8-TCDD. These "equivalent" concentrations are then compared to the numeric criterion, established by the CTR for 2,3,7,8-TCDD of 1.4 x 10^{-8} µg/L.

On July 5, 2011, the Regional Water Board adopted the Harbor Waters Toxic Pollutants TMDL (Resolution No. R11-008). The State Water Board approved the TMDL on February 7, 2012; OAL and USEPA approvals were received on March 22, 2012, and March 23, 2012, respectively. This TMDL became effective on March 23, 2012. This TMDL assigned concentration-based WLAs for copper, lead, and zinc and a chronic toxicity of 1 TUc as a trigger for the wet weather discharges to the Dominguez Channel. This permit implements the applicable WLAs as required in the TMDL.

Table F-6 summarizes the applicable wet-weather WLAs for copper, lead, and zinc contained in the Harbor Waters Toxic Pollutants TMDL applicable to Dominguez Channel freshwater. These WLAs are applicable to the discharges at Discharge Point 001 to Dominguez Channel.

Table F-6. WLAs for Wet-weather Discharge to Dominguez Channel – Discharge Point 001

Parameter	Units	WLA
		Wet-weather
Copper, Total Recoverable	µg/L	9.7
Lead, Total Recoverable	µg/L	42.7
Zinc, Total Recoverable	µg/L	69.7

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes

effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1) Trigger 1 – If the MEC ≥ C, a limit is needed.

2) Trigger 2 – If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The Discharger will install an onsite RO unit for treating the process water and testing salt water prior to their discharge. Currently, only monitoring data of the untreated process waters are available. Due to the lack of data of the treated wastewaters, Regional Water Board staff uses a conservative approach by utilizing the monitoring data of the untreated process water for the evaluation of reasonable potential. A summary of the RPA results and the associated water quality criteria is as follows:

Table F-7. Summary Reasonable Potential Analysis – Discharge Point No. 001

CTR No.	Constituent	Applicable CTR Criteria (C)	Max. Effluent Conc.* (MEC)	Max. Detected Receiving Water Conc. (B)	Wet Weather TMDL WLAs	RPA Result - Need Limit?	Reason
		µg/L	µg/L	µg/L			
6	Copper, Total Recoverable	9.33	64	--	Yes	Yes	MEC>C, TMDL
7	Lead, Total Recoverable	3.18	ND	--	Yes	Yes	TMDL
10	Selenium, Total Recoverable	5	20	--	No	Yes	MEC>C, TMDL
13	Zinc, Total Recoverable	119.82	198	--	Yes	Yes	MEC>C, TMDL

* Based on monitoring data of untreated wastewaters.

4. WQBEL Calculations

The WQBELs for CTR/NTR constituents are calculated according to procedures outlined in the SIP, as described below.

a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:

i. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.

b. WQBELs (final) for total recoverable copper, total recoverable lead, total recoverable selenium and total recoverable zinc have been calculated using the WLAs provided in the Harbor Waters Toxic Pollutants TMDL for Dominguez Channel and the procedures specified in Section 1.4 of the SIP.

c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is being allowed. However, in accordance with the reopener provision in Section VI.C.1.e in the tentative Order, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

d. WQBELs Calculation Example

Using total recoverable copper as an example, the following demonstrates how WQBELs were established for this Order.

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of aquatic life AMEL and MDEL:

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

$ECA = C + D(C-B)$ when $C > B$, and

$ECA = C$ when $C \leq B$,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value of 100 mg/L (as CaCO3) was used for development of hardness-dependant criteria for Discharge Point 001, and a pH of 7.8 was used for pH-dependant criteria.

D = The dilution credit, and

B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

ECA = C

For total recoverable copper the applicable water quality criteria are (reference Table F-5):

ECA_{acute} = 14 µg/L

$ECA_{chronic}$= 9.33 µg/L

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

$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99}$

$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99}$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For total recoverable copper the following data was used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$	ECA Multiplier$_{chronic\ 99}$
3	0.6	0.321	0.527

LTA_{acute} = 14 µg/L x 0.321 = 4.494 µg/L

$LTA_{chronic}$ = 9.33 µg/L x 0.527 = 4.917 µg/L

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$

For total recoverable copper, the most limiting LTA was the LTA_{acute}

LTA = 4.494 µg/L

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as an Average Monthly Effluent Limitation (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier\ 95}$

$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier\ 99}$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For total recoverable copper, the following data was used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.6	3.11	1.55

$AMEL_{aquatic\ life} = 4.494 \times 1.55 = 6.97 µg/L$

$MDEL_{aquatic\ life} = 4.494 \times 3.11 = 14.0$ µg/L

Calculation of human health AMEL and MDEL:

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$AMEL_{human\ health} = ECA_{human\ health}$

However, for total recoverable copper:

$ECA_{human\ health}$ = Not Available. The CTR does not contain a numeric copper criterion protective of human health; therefore, it was not possible to develop a copper AMEL based on human health criteria.

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$$

A total recoverable copper $MDEL_{human\ health}$ could not be calculated because a total recoverable copper $AMEL_{human\ health}$ was not available. There are no criteria protective of human health for total recoverable copper; therefore, none of the limitations for total recoverable copper are based on human health criteria.

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For total recoverable copper:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
7.0 µg/L	14 µg/L	Not Applicable	Not Applicable

5. Final WQBELs

Summary of Water Quality-based Effluent Limitations
Discharge Point 001

Table F-8. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable (Dry-weather)	µg/L	7.0	14	---	---
Copper, Total Recoverable (Wet-weather)	µg/L	4.8	10	---	---
Lead, Total Recoverable (Wet-weather)	µg/L	21	66		
Selenium, Total Recoverable (All-weather)	µg/L	4.1	8.2	---	---
Zinc, Total Recoverable (Dry-weather)	µg/L	60	120	---	---
Zinc, Total Recoverable (Wet-weather)	µg/L	35	70	---	---

6. 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 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.

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 responses by 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. This Order contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival.

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.

D. Final Effluent Limitation Considerations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o) of the CWA establishes statutory languages prohibiting the backsliding of effluent limits in NPDES permits. Section 402(o) of the CWA and federal regulations at 40 C.F.R. section 122.44 outlines specific exceptions to the general prohibitions against establishment of less stringent limitations. 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. Since this is a new discharge and all effluent limitations are newly prescribed, there is no anti-backsliding issue with this permit.

2. Satisfaction of Antidegradation Policy

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 antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

The final limitations in this Order were developed based on the CTR or an effective TMDL, and they meet the requirements of the SIP. These limitations hold the Discharger to performance levels that will not cause or contribute to water quality impairment. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Therefore, the issuance of this permit is consistent with the state's antidegradation policy

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 BOD, TSS, oil and grease, turbidity, sulfide and residual chlorine. Restrictions on BOD, TSS, oil and grease, turbidity, sulfide and residual chlorine are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum,

applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

In addition to the technology-based effluent limitations, the SWPPP, and the SPCC Plan will also serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. The procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR implemented by the SIP, which was approved by 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.

Summary of Final Effluent Limitations
Discharge Point 001

Table F-9. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations				Basis[2]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	pH Units	--	--	6.5	8.5	BP
Temperature	°F	--	--	--	86	Thermal Plan, WP
Total Suspended Solids	mg/L	50	75	---	---	BPJ, BP
	lbs/day[1]	270	400	--	--	
Turbidity	NTU	50	75	---	---	BPJ, BP
BOD_5 @ 20 °C	mg/L	20	30	---	---	BPJ, BP
	lbs/day[1]	110	160	---	---	
Oil and Grease	mg/L	10	15	---	---	BPJ, BP
	lbs/day[1]	54	81	---	---	
Chlorine, Total Residual	mg/L	---	0.1	---	---	BPJ, BP
	lbs/day[1]	---	0.54	---	---	
Sulfides	mg/L	---	0.1	---	---	BPJ, BP
	lbs/day[1]	---	0.54	---	---	
Copper, Total Recoverable (Dry-weather)[4]	µg/L	7.0	14	---	---	BPJ, CTR
	lbs/day[1]	0.038	0.075	---	---	
Copper, Total Recoverable (Wet-weather)[3]	µg/L	4.8	10	---	---	TMDL
	lbs/day[1]	0.026	0.054	---	---	

Parameter	Units	Effluent Limitations				Basis[2]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Lead, Total Recoverable (Wet-weather)[3]	µg/L	21	66	---	---	TMDL
	lbs/day[1]	0.11	0.36	---	---	
Selenium, Total Recoverable (All-weather)	µg/L	4.1	8.2	---	---	BPJ, CTR
	lbs/day[1]	0.022	0.044	---	---	
Zinc, Total Recoverable (Dry-weather)[4]	µg/L	60	120	---	---	BPJ, CTR
	lbs/day[1]	0.32	0.65	---	---	
Zinc, Total Recoverable (Wet-weather)[3]	µg/L	35	70	---	---	TMDL
	lbs/day[1]	0.19	0.38	---	---	
Chronic Toxicity	TUc and Pass or Fail for the TST test		1			TMDL
Acute Toxicity	% survival and Pass or Fail for the TST test	Average survival for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.				BP

1. The mass emission rates are based on the maximum permitted flow rate of 0.645 MGD at Discharge Point 001, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. BP = Basin Plan; Thermal Plan = California Thermal Plan; BPJ = Best Professional Judgment; CTR = California Toxics Rule; WP = White Paper; TMDL = Harbor Waters Toxic Pollutants TMDL.
3. Wet-weather effluent limits are applicable when the maximum daily flow in the Dominguez Channel is equal to or greater than 63 cubic feet per second (cfs) as measured at Los Angeles County Department of Public Works' flow gage S-28. This gage is located in Dominguez Channel at Vermont Avenue.
4. Dry-weather effluent limits are applicable when the maximum daily flow in the Dominguez Channel is less than 63 cfs.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

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 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

These provisions are based on section 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions.

3. Best Management Practices and Pollution Prevention

These provisions are based on section 122.44(k) and include the requirement to develop and implement a SWPPP, and SPCC Plan.

4. Construction, Operation, and Maintenance Specifications

a. This provision is based on the requirements of section 122.41(e).

5. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E, establishes monitoring and reporting 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 – Not Applicable

B. Effluent Monitoring

Monitoring for those pollutants expected to be present in the discharge at Discharge Point 001 will be required as shown in the MRP. To determine compliance with effluent limitations, this Order requires monthly monitoring at Discharge Point 001 for pH, temperature, BOD5, TSS, oil and grease, turbidity, sulfides, residual chlorine, copper, lead, selenium, and zinc. In addition, this Order requires daily flow monitoring and quarterly monitoring for ammonia and nitrate plus nitrite (as N).

According to the SIP, the Discharger is required to monitor the effluent for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct effluent monitoring of the CTR priority pollutants annually.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality 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.

The WET requirements establish conditions and protocol by which compliance with the Basin Plan narrative water quality objective for toxicity will be demonstrated and in accordance with Section 4.0 of the SIP. Conditions include required monitoring and evaluation of the effluent for acute and chronic toxicity and numerical values for acute and chronic toxicity evaluations.

D. Receiving Water Monitoring

1. Surface Water

According to the SIP, the Discharger is required to monitor the receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct annual receiving water monitoring for the CTR priority pollutants at Monitoring Location RSW-001. The Discharger must analyze temperature, pH, salinity, and hardness of the receiving water at the same time the samples are collected for priority pollutants analysis.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements – Not Applicable

VIII. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDR's that will serve as an NPDES permit for NanoH2O Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDR's and has encouraged public participation in the WDR adoption process

A. Notification of Interested Parties

The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided to all interested parties.

The public had access to the agenda and any changes in dates and locations through the Los Angeles Regional Water Board's website at:
http://www.waterboards.ca.gov/losangeles

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process electronically at losangeles@waterboards.ca.gov with a copy to jrchen@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board offices by 5:00 p.m. on **April 12, 2013**.

C. Public Hearing

The Regional 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: May 2, 2013
Time: 9:00 A.M.
Location: Metropolitan Water District of Southern California, Board Room
700 North Alameda Street
Los Angeles, California

Interested persons were invited to attend. At the public hearing, the Regional 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 aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 calendar days of the Regional Water Board's action:

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 (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected

at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDR's and NPDES permit should contact the Regional 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 Jau Ren Chen at (213) 576-6656.

Attachment G – Storm Water Pollution Prevention Plan Requirements

I. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be developed and submitted to the Regional Water Board within 90 days following the adoption of this Order. The SWPPP shall be implemented for each facility covered by this Permit within 10 days of approval from the Regional Water Board, or 6-months from the date of the submittal of the SWPPP to the Regional Water Board (whichever comes first).

II. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site- specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

III. Planning and Organization

A. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Attachment E of this Permit. The SWPPP shall clearly identify the Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

B. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION
Form Pollution Prevention Team Review other plans

ASSESSMENT PHASE
Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE
Non-structural BMPs Structural BMPs Select activity and site-specific BMPs

IMPLEMENTATION PHASE

Train employees
Implement BMPs
Conduct recordkeeping and reporting

EVALUATION / MONITORING

Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

A. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

B. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

C. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

E. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

V. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials

shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. Description of Potential Pollutant Sources

A. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

1. **Industrial Processes.** Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

2. **Material Handling and Storage Areas.** Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

3. **Dust and Particulate Generating Activities.** Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on USEPA Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

   The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

5. **Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this

investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges (other boiler blowdown and boiler condensate permitted under the Order) that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D of the storm water general permit are prohibited by this Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D of the general storm water permit are authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

6. **Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

B. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

VII. Assessment of Potential Pollutant Sources

A. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:

1. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

2. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

B. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section VIII below.

VIII. Storm Water Best Management Practices

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B

EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or

prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.

2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

8. **Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

9. **Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

10. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

B. Structural BMPs.

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

1. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

2. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

3. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

4. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

5. **Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

A. A review of all visual observation records, inspection records, and sampling and analysis results.

B. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

C. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP General Requirements

A. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

B. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.

E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

F. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

The Minimum Levels (MLs) in ppb (µg/L) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5

Table 2d – PESTICIDES – PCBs*	GC
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR – Colorimetric

ATTACHMENT I – LIST OF PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods*
1	Antimony	7440360	Methods in 40 CFR part 136
2	Arsenic	7440382	Methods in 40 CFR part 136
3	Beryllium	7440417	Methods in 40 CFR part 136
4	Cadmium	7440439	Methods in 40 CFR part 136
5a	Chromium (III)	16065831	Methods in 40 CFR part 136
5a	Chromium (VI)	18540299	Methods in 40 CFR part 136
6	Copper	7440508	Methods in 40 CFR part 136
7	Lead	7439921	Methods in 40 CFR part 136
8	Mercury	7439976	Methods in 40 CFR part 136
9	Nickel	7440020	Methods in 40 CFR part 136
10	Selenium	7782492	Methods in 40 CFR part 136
11	Silver	7440224	Methods in 40 CFR part 136
12	Thallium	7440280	Methods in 40 CFR part 136
13	Zinc	7440666	Methods in 40 CFR part 136
14	Cyanide	57125	Methods in 40 CFR part 136
15	Asbestos	1332214	Methods in 40 CFR part 136
16	2,3,7,8-TCDD	1746016	Methods in 40 CFR part 136
17	Acrolein	107028	Methods in 40 CFR part 136
18	Acrylonitrile	107131	Methods in 40 CFR part 136
19	Benzene	71432	Methods in 40 CFR part 136
20	Bromoform	75252	Methods in 40 CFR part 136
21	Carbon Tetrachloride	56235	Methods in 40 CFR part 136
22	Chlorobenzene	108907	Methods in 40 CFR part 136
23	Chlorodibromomethane	124481	Methods in 40 CFR part 136
24	Chloroethane	75003	Methods in 40 CFR part 136
25	2-Chloroethylvinyl Ether	110758	Methods in 40 CFR part 136
26	Chloroform	67663	Methods in 40 CFR part 136
27	Dichlorobromomethane	75274	Methods in 40 CFR part 136
28	1,1-Dichloroethane	75343	Methods in 40 CFR part 136
29	1,2-Dichloroethane	107062	Methods in 40 CFR part 136
30	1,1-Dichloroethylene	75354	Methods in 40 CFR part 136
31	1,2-Dichloropropane	78875	Methods in 40 CFR part 136
32	1,3-Dichloropropylene	542756	Methods in 40 CFR part 136
33	Ethylbenzene	100414	Methods in 40 CFR part 136
34	Methyl Bromide	74839	Methods in 40 CFR part 136
35	Methyl Chloride	74873	Methods in 40 CFR part 136
36	Methylene Chloride	75092	Methods in 40 CFR part 136
37	1,1,2,2-Tetrachloroethane	79345	Methods in 40 CFR part 136
38	Tetrachloroethylene	127184	Methods in 40 CFR part 136
39	Toluene	108883	Methods in 40 CFR part 136
40	1,2-Trans-Dichloroethylene	156605	Methods in 40 CFR part 136
41	1,1,1-Trichloroethane	71556	Methods in 40 CFR part 136
42	1,12-Trichloroethane	79005	Methods in 40 CFR part 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods*
43	Trichloroethylene	79016	Methods in 40 CFR part 136
44	Vinyl Chloride	75014	Methods in 40 CFR part 136
45	2-Chlorophenol	95578	Methods in 40 CFR part 136
46	2,4-Dichlorophenol	120832	Methods in 40 CFR part 136
47	2,4-Dimethylphenol	105679	Methods in 40 CFR part 136
48	2-Methyl-4,6-Dinitrophenol	534521	Methods in 40 CFR part 136
49	2,4-Dinitrophenol	51285	Methods in 40 CFR part 136
50	2-Nitrophenol	88755	Methods in 40 CFR part 136
51	4-Nitrophenol	100027	Methods in 40 CFR part 136
52	3-Methyl-4-Chlorophenol	59507	Methods in 40 CFR part 136
53	Pentachlorophenol	87865	Methods in 40 CFR part 136
54	Phenol	108952	Methods in 40 CFR part 136
55	2,4,6-Trichlorophenol	88062	Methods in 40 CFR part 136
56	Acenaphthene	83329	Methods in 40 CFR part 136
57	Acenaphthylene	208968	Methods in 40 CFR part 136
58	Anthracene	120127	Methods in 40 CFR part 136
59	Benzidine	92875	Methods in 40 CFR part 136
60	Benzo(a)Anthracene	56553	Methods in 40 CFR part 136
61	Benzo(a)Pyrene	50328	Methods in 40 CFR part 136
62	Benzo(b)Fluoranthene	205992	Methods in 40 CFR part 136
63	Benzo(ghi)Perylene	191242	Methods in 40 CFR part 136
64	Benzo(k)Fluoranthene	207089	Methods in 40 CFR part 136
65	Bis(2-Chloroethoxy)Methane	111911	Methods in 40 CFR part 136
66	Bis(2-Chloroethyl)Ether	111444	Methods in 40 CFR part 136
67	Bis(2-Chloroisopropyl)Ether	108601	Methods in 40 CFR part 136
68	Bis(2-Ethylhexyl)Phthalate	117817	Methods in 40 CFR part 136
69	4-Bromophenyl Phenyl Ether	101553	Methods in 40 CFR part 136
70	Butylbenzyl Phthalate	85687	Methods in 40 CFR part 136
71	2-Chloronaphthalene	91587	Methods in 40 CFR part 136
72	4-Chlorophenyl Phenyl Ether	7005723	Methods in 40 CFR part 136
73	Chrysene	218019	Methods in 40 CFR part 136
74	Dibenzo(a,h)Anthracene	53703	Methods in 40 CFR part 136
75	1,2-Dichlorobenzene	95501	Methods in 40 CFR part 136
76	1,3-Dichlorobenzene	541731	Methods in 40 CFR part 136
77	1,4-Dichlorobenzene	106467	Methods in 40 CFR part 136
78	3,3'-Dichlorobenzidine	91941	Methods in 40 CFR part 136
79	Diethyl Phthalate	84662	Methods in 40 CFR part 136
80	Dimethyl Phthalate	131113	Methods in 40 CFR part 136
81	Di-n-Butyl Phthalate	84742	Methods in 40 CFR part 136
82	2,4-Dinitrotoluene	121142	Methods in 40 CFR part 136
83	2,6-Dinitrotoluene	606202	Methods in 40 CFR part 136
84	Di-n-Octyl Phthalate	117840	Methods in 40 CFR part 136
85	1,2-Diphenylhydrazine	122667	Methods in 40 CFR part 136
86	Fluoranthene	206440	Methods in 40 CFR part 136
87	Fluorene	86737	Methods in 40 CFR part 136
88	Hexachlorobenzene	118741	Methods in 40 CFR part 136
89	Hexachlorobutadiene	87863	Methods in 40 CFR part 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods*
90	Hexachlorocyclopentadiene	77474	Methods in 40 CFR part 136
91	Hexachloroethane	67721	Methods in 40 CFR part 136
92	Indeno(1,2,3-cd)Pyrene	193395	Methods in 40 CFR part 136
93	Isophorone	78591	Methods in 40 CFR part 136
94	Naphthalene	91203	Methods in 40 CFR part 136
95	Nitrobenzene	98953	Methods in 40 CFR part 136
96	N-Nitrosodimethylamine	62759	Methods in 40 CFR part 136
97	N-Nitrosodi-n-Propylamine	621647	Methods in 40 CFR part 136
98	N-Nitrosodiphenylamine	86306	Methods in 40 CFR part 136
99	Phenanthrene	85018	Methods in 40 CFR part 136
100	Pyrene	129000	Methods in 40 CFR part 136
101	1,2,4-Trichlorobenzene	120821	Methods in 40 CFR part 136
102	Aldrin	309002	Methods in 40 CFR part 136
103	alpha-BHC	319846	Methods in 40 CFR part 136
104	beta-BHC	319857	Methods in 40 CFR part 136
105	gamma-BHC	58899	Methods in 40 CFR part 136
106	delta-BHC	319868	Methods in 40 CFR part 136
107	Chlordane	57749	Methods in 40 CFR part 136
108	4,4'-DDT	50293	Methods in 40 CFR part 136
109	4,4'-DDE	72559	Methods in 40 CFR part 136
110	4,4'-DDD	72548	Methods in 40 CFR part 136
111	Dieldrin	60571	Methods in 40 CFR part 136
112	alpha-Endosulfan	959988	Methods in 40 CFR part 136
113	beta-Endosulfan	33213659	Methods in 40 CFR part 136
114	Endosulfan Sulfate	1031078	Methods in 40 CFR part 136
115	Endrin	72208	Methods in 40 CFR part 136
116	Endrin Aldehyde	7421934	Methods in 40 CFR part 136
117	Heptachlor	76448	Methods in 40 CFR part 136
118	Heptachlor Epoxide	1024573	Methods in 40 CFR part 136
119	PCB-1016	12674112	Methods in 40 CFR part 136
120	PCB-1221	11104282	Methods in 40 CFR part 136
121	PCB-1232	11141165	Methods in 40 CFR part 136
122	PCB-1242	53469219	Methods in 40 CFR part 136
123	PCB-1248	12672296	Methods in 40 CFR part 136
124	PCB-1254	11097691	Methods in 40 CFR part 136
125	PCB-1260	11096825	Methods in 40 CFR part 136
126	Toxaphene	8001352	Methods in 40 CFR part 136

* Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 (revised May 18, 2012); for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP (Attachment H of this permit package) or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. 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.

ATTACHMENT J – RPA ANALYSIS FOR CTR CONSTITUENTS

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
1	Antimony	ug/L	0.6	20				4300.00	4300.00	No	No	N				
2	Arsenic	ug/L	0.6	7	340.00	150.00			150.00	No	No	N				
3	Beryllium	ug/L	0.6	No Criteria				Narrative	No Criteria	No Criteria	No Criteria	N				
4	Cadmium	ug/L	0.6		4.52	2.46		Narrative	2.46			N				
5a	Chromium (III)			10	1736.51	206.98		Narrative	206.98	No	No	N				
5b	Chromium (VI)	ug/L	0.6		16.29	11.43		Narrative	11.43			N				
6	Copper	ug/L	0.6	64	14.00	9.33			9.33	Yes	Yes	N				
7	Lead	ug/L	0.6		81.65	3.18		Narrative	3.18			N				
8	Mercury	ug/L	0.6		Res	Res		0.051	0.051			N				
9	Nickel	ug/L	0.6	18	469.17	52.16		4600.00	52.16	No	No	N				
10	Selenium	ug/L	0.6	20		5.00		Narrative	5.00	Yes	Yes	N				
11	Silver	ug/L	0.6		4.06				4.06			N				
12	Thallium	ug/L	0.6	5				6.30	6.30	No	No	N				
13	Zinc	ug/L	0.6	198	119.82	119.82			119.82	Yes	Yes	N				
14	Cyanide	ug/L	0.6		22.00	5.20		220000.00	5.20			N				
15	Asbestos	Fibers/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
16	2,3,7,8 TCDD	ug/L						0.000000014	0.000000014			N				
	TCDD Equivalents	ug/L		1.789E-05				0.000000014	0.000000014	Yes	Yes	N				
17	Acrolein	ug/L	0.6	200				780	780	No	No	N				
18	Acrylonitrile	ug/L	0.6					0.66	0.660			N				
19	Benzene	ug/L	0.6	5				71	71.0	No	No	N				
20	Bromoform	ug/L	0.6	5.4				360	360.0	No	No	N				
21	Carbon Tetrachloride	ug/L	0.6					4.4	4.40			N				
22	Chlorobenzene	ug/L	0.6	3.57				21000	21000	No	No	N				
23	Chlorodibromomethane	ug/L	0.6	5				34	34.00	No	No	N				
24	Chloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
26	Chloroform	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
27	Dichlorobromomethane	ug/L	0.6	2.1				46	46.00	No	No	N				
28	1,1-Dichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
29	1,2-Dichloroethane	ug/L	0.6	5				99	99.00	No	No	N				
30	1,1-Dichloroethylene	ug/L	0.6					3.2	3.200			N				
31	1,2-Dichloropropane	ug/L	0.6	5				39	39.00	No	No	N				
32	1,3-Dichloropropylene	ug/L	0.6	5				1700	1700	No	No	N				
33	Ethylbenzene	ug/L	0.6	5				29000	29000	No	No	N				
34	Methyl Bromide	ug/L	0.6	5				4000	4000	No	No	N				
35	Methyl Chloride	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
36	Methylene Chloride	ug/L	0.6	5				1600	1600.0	No	No	N				
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	5				11	11.00	No	No	N				
38	Tetrachloroethylene	ug/L	0.6	5				8.85	8.9	No	No	N				
39	Toluene	ug/L	0.6	2.8				200000	200000	No	No	N				
40	1,2-Trans-Dichloroethylene	ug/L	0.6	5				140000	140000	No	No	N				
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
42	1,1,2-Trichloroethane	ug/L	0.6	5				42	42.0	No	No	N				
43	Trichloroethylene	ug/L	0.6	5				81	81.0	No	No	N				
44	Vinyl Chloride	ug/L	0.6	5				525	525	No	No	N				
45	2-Chlorophenol	ug/L	0.6	10				400	400	No	No	N				
46	2,4-Dichlorophenol	ug/L	0.6	10				790	790	No	No	N				
47	2,4-Dimethylphenol	ug/L	0.6	10				2300	2300	No	No	N				
48	4,6-dinitro-o-resol	ug/L	0.6	10				765	765.0	No	No	N				
49	2,4-Dinitrophenol	ug/L	0.6	10				14000	14000	No	No	N				
50	2-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
51	4-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
52	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
53	Pentachlorophenol	ug/L	0.6		19.49	14.95		8.2	8.20			N				
54	Phenol	ug/L	0.6	10				4600000	4600000	No	No	N				
55	2,4,6-Trichlorophenol	ug/L	0.6					6.5	6.5			N				
56	Acenaphthene	ug/L	0.6	10				2700	2700	No	No	N				
57	Acenaphthylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
58	Anthracene	ug/L	0.6	10				110000	110000	No	No	N				
59	Benzidine	ug/L	0.6					0.00054	0.00054			N				
60	Benzo(a)Anthracene	ug/L	0.6					0.049	0.0490			N				

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	No detected value of B, Step 7		No	Ud;MEC<C & no B									
2	Arsenic	No detected value of B, Step 7		No	Ud;MEC<C & no B									
3	Beryllium	No Criteria	No Criteria	Uc	No Criteria									
4	Cadmium	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
5a	Chromium (III)	No detected value of B, Step 7		No	Ud;MEC<C & no B									
5b	Chromium (VI)	No detected value of B, Step 7		Ud	No effluent data & no B									
6	Copper	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.321	4.49	0.527	4.92	4.49	1.55
7	Lead	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
8	Mercury	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
9	Nickel	No detected value of B, Step 7		No	Ud;MEC<C & no B									
10	Selenium	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32		0.53	2.64	2.64	1.55
11	Silver	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
12	Thallium	No detected value of B, Step 7		No	Ud;MEC<C & no B									
13	Zinc	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32	38.47	0.53	63.20	38.47	1.55
14	Cyanide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
15	Asbestos	No Criteria	No Criteria	Uc	No Criteria									
16	2,3,7,8 TCDD	No detected value of B, Step 7		Ud	No effluent data & no B									
	TCDD Equivalents	No detected value of B, Step 7		Ud	No effluent data & no B									
17	Acrolein	No detected value of B, Step 7		No	Ud;MEC<C & no B									
18	Acrylonitrile	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
19	Benzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
20	Bromoform	No detected value of B, Step 7		No	Ud;MEC<C & no B									
21	Carbon Tetrachloride	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
22	Chlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
23	Chlorodibromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
24	Chloroethane	No Criteria	No Criteria	Uc	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Uc	No Criteria									
26	Chloroform	No Criteria	No Criteria	Uc	No Criteria									
27	Dichlorobromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
28	1,1-Dichloroethane	No Criteria	No Criteria	Uc	No Criteria									
29	1,2-Dichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
30	1,1-Dichloroethylene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
31	1,2-Dichloropropane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
32	1,3-Dichloropropylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
33	Ethylbenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
34	Methyl Bromide	No detected value of B, Step 7		No	Ud;MEC<C & no B									
35	Methyl Chloride	No Criteria	No Criteria	Uc	No Criteria									
36	Methylene Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
38	Tetrachloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
39	Toluene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
40	1,2-Trans-Dichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Uc	No Criteria									
42	1,1,2-Trichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
43	Trichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
44	Vinyl Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
45	2-Chlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
46	2,4-Dichlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
47	2,4-Dimethylphenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
48	4,6-dinitro-o-resol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
49	2,4-Dinitrophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
50	2-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
51	4-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
52	3-Methyl-4-Chlorophenol	No Criteria	No Criteria	Uc	No Criteria									
53	Pentachlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
54	Phenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
55	2,4,6-Trichlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
56	Acenaphthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
57	Acenaphthylene	No Criteria	No Criteria	Uc	No Criteria									
58	Anthracene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
59	Benzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
60	Benzo(a)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
1	Antimony							No Limit
2	Arsenic							No Limit
3	Beryllium							No Limit
4	Cadmium							No Limit
5a	Chromium (III)							No Limit
5b	Chromium (VI)							No Limit
6	Copper	6.98	3.11	13.99908		7.0	14	
7	Lead							No Limit
8	Mercury							No Limit
9	Nickel							No Limit
10	Selenium	4.09	3.11	8.213345		4.1	8.2	
11	Silver							No Limit
12	Thallium							No Limit
13	Zinc	59.72	3.11	119.8164		60	120	
14	Cyanide							No Limit
15	Asbestos							No Limit
16	2,3,7,8 TCDD							No Limit
	TCDD Equivalents							No Limit
17	Acrolein							No Limit
18	Acrylonitrile							No Limit
19	Benzene							No Limit
20	Bromoform							No Limit
21	Carbon Tetrachloride							No Limit
22	Chlorobenzene							No Limit
23	Chlorodibromomethane							No Limit
24	Chloroethane							No Limit
25	2-Chloroethylvinyl ether							No Limit
26	Chloroform							No Limit
27	Dichlorobromomethane							No Limit
28	1,1-Dichloroethane							No Limit
29	1,2-Dichloroethane							No Limit
30	1,1-Dichloroethylene							No Limit
31	1,2-Dichloropropane							No Limit
32	1,3-Dichloropropylene							No Limit
33	Ethylbenzene							No Limit
34	Methyl Bromide							No Limit
35	Methyl Chloride							No Limit
36	Methylene Chloride							No Limit
37	1,1,2,2-Tetrachloroethane							No Limit
38	Tetrachloroethylene							No Limit
39	Toluene							No Limit
40	1,2-Trans-Dichloroethylene							No Limit
41	1,1,1-Trichloroethane							No Limit
42	1,1,2-Trichloroethane							No Limit
43	Trichloroethylene							No Limit
44	Vinyl Chloride							No Limit
45	2-Chlorophenol							No Limit
46	2,4-Dichlorophenol							No Limit
47	2,4-Dimethylphenol							No Limit
48	4,6-dinitro-o-resol							No Limit
49	2,4-Dinitrophenol							No Limit
50	2-Nitrophenol							No Limit
51	4-Nitrophenol							No Limit
52	3-Methyl-4-Chlorophenol							No Limit
53	Pentachlorophenol							No Limit
54	Phenol							No Limit
55	2,4,6-Trichlorophenol							No Limit
56	Acenaphthene							No Limit
57	Acenaphthylene							No Limit
58	Anthracene							No Limit
59	Benzidine							No Limit
60	Benzo(a)Anthracene							No Limit

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
61	Benzo(a)Pyrene	ug/L	0.6					0.049	0.0490			N				
62	Benzo(b)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
64	Benzo(k)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
66	Bis(2-Chloroethyl)Ether	ug/L	0.6					1.4	1.400			N				
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	10				170000	170000	No	No	N				
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6					5.9	5.9			N				
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
70	Butylbenzyl Phthalate	ug/L	0.6	10				5200	5200	No	No	N				
71	2-Chloronaphthalene	ug/L	0.6	10				4300	4300	No	No	N				
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
73	Chrysene	ug/L	0.6					0.049	0.0490			N				
74	Dibenzo(a,h)Anthracene	ug/L	0.6					0.049	0.0490			N				
75	1,2-Dichlorobenzene	ug/L	0.6	5				17000	17000	No	No	N				
76	1,3-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
77	1,4-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
78	3,3 Dichlorobenzidine	ug/L	0.6					0.077	0.08			N				
79	Diethyl Phthalate	ug/L	0.6	10				120000	120000	No	No	N				
80	Dimethyl Phthalate	ug/L	0.6	10				2900000	2900000	No	No	N				
81	Di-n-Butyl Phthalate	ug/L	0.6	10				12000	12000	No	No	N				
82	2,4-Dinitrotoluene	ug/L	0.6					9.10	9.10			N				
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
85	1,2-Diphenylhydrazine	ug/L	0.6					0.54	0.540			N				
86	Fluoranthene	ug/L	0.6	10				370	370	No	No	N				
87	Fluorene	ug/L	0.6	10				14000	14000	No	No	N				
88	Hexachlorobenzene	ug/L	0.6					0.00077	0.00077			N				
89	Hexachlorobutadiene	ug/L	0.6	10				50	50.00	No	No	N				
90	Hexachlorocyclopentadiene	ug/L	0.6	10				17000	17000	No	No	N				
91	Hexachloroethane	ug/L	0.6					8.9	8.9			N				
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6					0.049	0.0490			N				
93	Isophorone	ug/L	0.6	10				600	600.0	No	No	N				
94	Naphthalene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
95	Nitrobenzene	ug/L	0.6	10				1900	1900	No	No	N				
96	N-Nitrosodimethylamine	ug/L	0.6					8.10	8.10000			N				
97	N-Nitrosodi-n-Propylamine	ug/L	0.6					1.40	1.400			N				
98	N-Nitrosodiphenylamine	ug/L	0.6	10				16	16.0	No	No	N				
99	Phenanthrene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
100	Pyrene	ug/L	0.6	10				11000	11000	No	No	N				
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
102	Aldrin	ug/L	0.6		3.00			0.00014	0.00014			N				
103	alpha-BHC	ug/L	0.6					0.013	0.0130			N				
104	beta-BHC	ug/L	0.6	0.03				0.046	0.046	No	No	N				
105	gamma-BHC	ug/L	0.6	0.03	0.95			0.063	0.063	No	No	N				
106	delta-BHC	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
107	Chlordane	ug/L	0.6		2.4	0.0043		0.00059	0.00059			N				
108	4,4'-DDT	ug/L	0.6		1.1	0.001		0.00059	0.00059			N				
109	4,4'-DDE (linked to DDT)	ug/L	0.6					0.00059	0.00059			N				
110	4,4'-DDD	ug/L	0.6					0.00084	0.00084			N				
111	Dieldrin	ug/L	0.6		0.24	0.056		0.00014	0.00014			N				
112	alpha-Endosulfan	ug/L	0.6	0.03	0.22	0.056		240	0.0560	No	No	N				
113	beta-Endolsulfan	ug/L	0.6		0.22	0.056		240	0.0560			N				
114	Endosulfan Sulfate	ug/L	0.6	0.06				240	240	No	No	N				
115	Endrin	ug/L	0.6		0.086	0.036		0.81	0.0360			N				
116	Endrin Aldehyde	ug/L	0.6	0.13				0.81	0.81	No	No	N				
117	Heptachlor	ug/L	0.6		0.52	0.0038		0.00021	0.00021			N				
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038		0.00011	0.00011			N				
119-125	**PCBs sum (2)**	ug/L	0.6			0.014		0.00017	0.00017			N				
126	Toxaphene	ug/L	0.6		0.73	0.0002		0.00075	0.0002			N				

Notes: Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
61	Benzo(a)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
62	Benzo(b)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Uc	No Criteria									
64	Benzo(k)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Uc	No Criteria									
66	Bis(2-Chloroethyl)Ether	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
67	Bis(2-Chloroisopropyl)Ether	No detected value of B, Step 7		No	Ud;MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
70	Butylbenzyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
71	2-Chloronaphthalene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
73	Chrysene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
74	Dibenzo(a,h)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
75	1,2-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
76	1,3-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
77	1,4-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
78	3,3 Dichlorobenzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
79	Diethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
80	Dimethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
81	Di-n-Butyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
82	2,4-Dinitrotoluene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Uc	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Uc	No Criteria									
85	1,2-Diphenylhydrazine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
86	Fluoranthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
87	Fluorene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
88	Hexachlorobenzene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
89	Hexachlorobutadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
90	Hexachlorocyclopentadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
91	Hexachloroethane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
92	Indeno(1,2,3-cd)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
93	Isophorone	No detected value of B, Step 7		No	Ud;MEC<C & no B									
94	Naphthalene	No Criteria	No Criteria	Uc	No Criteria									
95	Nitrobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
96	N-Nitrosodimethylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
97	N-Nitrosodi-n-Propylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
98	N-Nitrosodiphenylamine	No detected value of B, Step 7		No	Ud;MEC<C & no B									
99	Phenanthrene	No Criteria	No Criteria	Uc	No Criteria									
100	Pyrene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Uc	No Criteria									
102	Aldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
103	alpha-BHC	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
104	beta-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
105	gamma-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
106	delta-BHC	No Criteria	No Criteria	Uc	No Criteria									
107	Chlordane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
108	4,4'-DDT	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
109	4,4'-DDE (linked to DDT)	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
110	4,4'-DDD	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
111	Dieldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
112	alpha-Endosulfan	No detected value of B, Step 7		No	Ud;MEC<C & no B									
113	beta-Endolsulfan	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
114	Endosulfan Sulfate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
115	Endrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
116	Endrin Aldehyde	No detected value of B, Step 7		No	Ud;MEC<C & no B									
117	Heptachlor	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
118	Heptachlor Epoxide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
119-125	**PCBs sum (2)**	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
126	Toxaphene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
61	Benzo(a)Pyrene							No Limit
62	Benzo(b)Fluoranthene							No Limit
63	Benzo(ghi)Perylene							No Limit
64	Benzo(k)Fluoranthene							No Limit
65	Bis(2-Chloroethoxy)Methane							No Limit
66	Bis(2-Chloroethyl)Ether							No Limit
67	Bis(2-Chloroisopropyl)Ether							No Limit
68	Bis(2-Ethylhexyl)Phthalate							No Limit
69	4-Bromophenyl Phenyl Ether							No Limit
70	Butylbenzyl Phthalate							No Limit
71	2-Chloronaphthalene							No Limit
72	4-Chlorophenyl Phenyl Ether							No Limit
73	Chrysene							No Limit
74	Dibenzo(a,h)Anthracene							No Limit
75	1,2-Dichlorobenzene							No Limit
76	1,3-Dichlorobenzene							No Limit
77	1,4-Dichlorobenzene							No Limit
78	3,3 Dichlorobenzidine							No Limit
79	Diethyl Phthalate							No Limit
80	Dimethyl Phthalate							No Limit
81	Di-n-Butyl Phthalate							No Limit
82	2,4-Dinitrotoluene							No Limit
83	2,6-Dinitrotoluene							No Limit
84	Di-n-Octyl Phthalate							No Limit
85	1,2-Diphenylhydrazine							No Limit
86	Fluoranthene							No Limit
87	Fluorene							No Limit
88	Hexachlorobenzene							No Limit
89	Hexachlorobutadiene							No Limit
90	Hexachlorocyclopentadiene							No Limit
91	Hexachloroethane							No Limit
92	Indeno(1,2,3-cd)Pyrene							No Limit
93	Isophorone							No Limit
94	Naphthalene							No Limit
95	Nitrobenzene							No Limit
96	N-Nitrosodimethylamine							No Limit
97	N-Nitrosodi-n-Propylamine							No Limit
98	N-Nitrosodiphenylamine							No Limit
99	Phenanthrene							No Limit
100	Pyrene							No Limit
101	1,2,4-Trichlorobenzene							No Limit
102	Aldrin							No Limit
103	alpha-BHC							No Limit
104	beta-BHC							No Limit
105	gamma-BHC							No Limit
106	delta-BHC							No Limit
107	Chlordane							No Limit
108	4,4'-DDT							No Limit
109	4,4'-DDE (linked to DDT)							No Limit
110	4,4'-DDD							No Limit
111	Dieldrin							No Limit
112	alpha-Endosulfan							No Limit
113	beta-Endolsulfan							No Limit
114	Endosulfan Sulfate							No Limit
115	Endrin							No Limit
116	Endrin Aldehyde							No Limit
117	Heptachlor							No Limit
118	Heptachlor Epoxide							No Limit
119-125	**PCBs sum (2)**							No Limit
126	Toxaphene							No Limit

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
1	Antimony	ug/L	0.6	20				4300.00	4300.00	No	No	N				
2	Arsenic	ug/L	0.6	7	340.00	150.00			150.00	No	No	N				
3	Beryllium	ug/L	0.6	No Criteria				Narrative	No Criteria	No Criteria	No Criteria	N				
4	Cadmium	ug/L	0.6		4.52	2.46		Narrative	2.46			N				
5a	Chromium (III)			10	1736.51	206.98		Narrative	206.98	No	No	N				
5b	Chromium (VI)	ug/L	0.6		16.29	11.43		Narrative	11.43			N				
6	Copper	ug/L	0.6	64	14.00	9.33			9.33	Yes	Yes	N				
7	Lead	ug/L	0.6		81.65	3.18		Narrative	3.18			N				
8	Mercury	ug/L	0.6		Res	Res		0.051	0.051			N				
9	Nickel	ug/L	0.6	18	469.17	52.16		4600.00	52.16	No	No	N				
10	Selenium	ug/L	0.6	20		5.00		Narrative	5.00	Yes	Yes	N				
11	Silver	ug/L	0.6		4.06				4.06			N				
12	Thallium	ug/L	0.6	5				6.30	6.30	No	No	N				
13	Zinc	ug/L	0.6	198	119.82	119.82			119.82	Yes	Yes	N				
14	Cyanide	ug/L	0.6		22.00	5.20		220000.00	5.20			N				
15	Asbestos	Fibers/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
16	2,3,7,8 TCDD	ug/L						0.000000014	0.000000014			N				
	TCDD Equivalents	ug/L		1.789E-05				0.000000014	0.000000014	Yes	Yes	N				
17	Acrolein	ug/L	0.6	200				780	780	No	No	N				
18	Acrylonitrile	ug/L	0.6					0.66	0.660			N				
19	Benzene	ug/L	0.6	5				71	71.0	No	No	N				
20	Bromoform	ug/L	0.6	5.4				360	360.0	No	No	N				
21	Carbon Tetrachloride	ug/L	0.6					4.4	4.40			N				
22	Chlorobenzene	ug/L	0.6	3.57				21000	21000	No	No	N				
23	Chlorodibromomethane	ug/L	0.6	5				34	34.00	No	No	N				
24	Chloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
26	Chloroform	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
27	Dichlorobromomethane	ug/L	0.6	2.1				46	46.00	No	No	N				
28	1,1-Dichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
29	1,2-Dichloroethane	ug/L	0.6	5				99	99.00	No	No	N				
30	1,1-Dichloroethylene	ug/L	0.6					3.2	3.200			N				
31	1,2-Dichloropropane	ug/L	0.6	5				39	39.00	No	No	N				
32	1,3-Dichloropropylene	ug/L	0.6	5				1700	1700	No	No	N				
33	Ethylbenzene	ug/L	0.6	5				29000	29000	No	No	N				
34	Methyl Bromide	ug/L	0.6	5				4000	4000	No	No	N				
35	Methyl Chloride	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
36	Methylene Chloride	ug/L	0.6	5				1600	1600.0	No	No	N				
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	5				11	11.00	No	No	N				
38	Tetrachloroethylene	ug/L	0.6	5				8.85	8.9	No	No	N				
39	Toluene	ug/L	0.6	2.8				200000	200000	No	No	N				
40	1,2-Trans-Dichloroethylene	ug/L	0.6	5				140000	140000	No	No	N				
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
42	1,1,2-Trichloroethane	ug/L	0.6	5				42	42.0	No	No	N				
43	Trichloroethylene	ug/L	0.6	5				81	81.0	No	No	N				
44	Vinyl Chloride	ug/L	0.6	5				525	525	No	No	N				
45	2-Chlorophenol	ug/L	0.6	10				400	400	No	No	N				
46	2,4-Dichlorophenol	ug/L	0.6	10				790	790	No	No	N				
47	2,4-Dimethylphenol	ug/L	0.6	10				2300	2300	No	No	N				
48	4,6-dinitro-o-resol	ug/L	0.6	10				765	765.0	No	No	N				
49	2,4-Dinitrophenol	ug/L	0.6	10				14000	14000	No	No	N				
50	2-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
51	4-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
52	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
53	Pentachlorophenol	ug/L	0.6		19.49	14.95		8.2	8.20			N				
54	Phenol	ug/L	0.6	10				4600000	4600000	No	No	N				
55	2,4,6-Trichlorophenol	ug/L	0.6					6.5	6.5			N				
56	Acenaphthene	ug/L	0.6	10				2700	2700	No	No	N				
57	Acenaphthylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
58	Anthracene	ug/L	0.6	10				110000	110000	No	No	N				
59	Benzidine	ug/L	0.6					0.00054	0.00054			N				
60	Benzo(a)Anthracene	ug/L	0.6					0.049	0.0490			N				

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	No detected value of B, Step 7		No	Ud;MEC<C & no B									
2	Arsenic	No detected value of B, Step 7		No	Ud;MEC<C & no B									
3	Beryllium	No Criteria	No Criteria	Uc	No Criteria									
4	Cadmium	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
5a	Chromium (III)	No detected value of B, Step 7		No	Ud;MEC<C & no B									
5b	Chromium (VI)	No detected value of B, Step 7		Ud	No effluent data & no B									
6	Copper	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.321	4.49	0.527	4.92	4.49	1.55
7	Lead	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
8	Mercury	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
9	Nickel	No detected value of B, Step 7		No	Ud;MEC<C & no B									
10	Selenium	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32		0.53	2.64	2.64	1.55
11	Silver	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
12	Thallium	No detected value of B, Step 7		No	Ud;MEC<C & no B									
13	Zinc	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32	38.47	0.53	63.20	38.47	1.55
14	Cyanide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
15	Asbestos	No Criteria	No Criteria	Uc	No Criteria									
16	2,3,7,8 TCDD	No detected value of B, Step 7		Ud	No effluent data & no B									
	TCDD Equivalents	No detected value of B, Step 7		Ud	No effluent data & no B									
17	Acrolein	No detected value of B, Step 7		No	Ud;MEC<C & no B									
18	Acrylonitrile	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
19	Benzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
20	Bromoform	No detected value of B, Step 7		No	Ud;MEC<C & no B									
21	Carbon Tetrachloride	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
22	Chlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
23	Chlorodibromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
24	Chloroethane	No Criteria	No Criteria	Uc	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Uc	No Criteria									
26	Chloroform	No Criteria	No Criteria	Uc	No Criteria									
27	Dichlorobromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
28	1,1-Dichloroethane	No Criteria	No Criteria	Uc	No Criteria									
29	1,2-Dichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
30	1,1-Dichloroethylene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
31	1,2-Dichloropropane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
32	1,3-Dichloropropylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
33	Ethylbenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
34	Methyl Bromide	No detected value of B, Step 7		No	Ud;MEC<C & no B									
35	Methyl Chloride	No Criteria	No Criteria	Uc	No Criteria									
36	Methylene Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
38	Tetrachloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
39	Toluene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
40	1,2-Trans-Dichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Uc	No Criteria									
42	1,1,2-Trichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
43	Trichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
44	Vinyl Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
45	2-Chlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
46	2,4-Dichlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
47	2,4-Dimethylphenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
48	4,6-dinitro-o-resol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
49	2,4-Dinitrophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
50	2-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
51	4-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
52	3-Methyl-4-Chlorophenol	No Criteria	No Criteria	Uc	No Criteria									
53	Pentachlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
54	Phenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
55	2,4,6-Trichlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
56	Acenaphthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
57	Acenaphthylene	No Criteria	No Criteria	Uc	No Criteria									
58	Anthracene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
59	Benzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
60	Benzo(a)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
1	Antimony							No Limit
2	Arsenic							No Limit
3	Beryllium							No Limit
4	Cadmium							No Limit
5a	Chromium (III)							No Limit
5b	Chromium (VI)							No Limit
6	Copper	6.98	3.11	13.99908		7.0	14	
7	Lead							No Limit
8	Mercury							No Limit
9	Nickel							No Limit
10	Selenium	4.09	3.11	8.213345		4.1	8.2	
11	Silver							No Limit
12	Thallium							No Limit
13	Zinc	59.72	3.11	119.8164		60	120	
14	Cyanide							No Limit
15	Asbestos							No Limit
16	2,3,7,8 TCDD							No Limit
	TCDD Equivalents							No Limit
17	Acrolein							No Limit
18	Acrylonitrile							No Limit
19	Benzene							No Limit
20	Bromoform							No Limit
21	Carbon Tetrachloride							No Limit
22	Chlorobenzene							No Limit
23	Chlorodibromomethane							No Limit
24	Chloroethane							No Limit
25	2-Chloroethylvinyl ether							No Limit
26	Chloroform							No Limit
27	Dichlorobromomethane							No Limit
28	1,1-Dichloroethane							No Limit
29	1,2-Dichloroethane							No Limit
30	1,1-Dichloroethylene							No Limit
31	1,2-Dichloropropane							No Limit
32	1,3-Dichloropropylene							No Limit
33	Ethylbenzene							No Limit
34	Methyl Bromide							No Limit
35	Methyl Chloride							No Limit
36	Methylene Chloride							No Limit
37	1,1,2,2-Tetrachloroethane							No Limit
38	Tetrachloroethylene							No Limit
39	Toluene							No Limit
40	1,2-Trans-Dichloroethylene							No Limit
41	1,1,1-Trichloroethane							No Limit
42	1,1,2-Trichloroethane							No Limit
43	Trichloroethylene							No Limit
44	Vinyl Chloride							No Limit
45	2-Chlorophenol							No Limit
46	2,4-Dichlorophenol							No Limit
47	2,4-Dimethylphenol							No Limit
48	4,6-dinitro-o-resol							No Limit
49	2,4-Dinitrophenol							No Limit
50	2-Nitrophenol							No Limit
51	4-Nitrophenol							No Limit
52	3-Methyl-4-Chlorophenol							No Limit
53	Pentachlorophenol							No Limit
54	Phenol							No Limit
55	2,4,6-Trichlorophenol							No Limit
56	Acenaphthene							No Limit
57	Acenaphthylene							No Limit
58	Anthracene							No Limit
59	Benzidine							No Limit
60	Benzo(a)Anthracene							No Limit

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
61	Benzo(a)Pyrene	ug/L	0.6					0.049	0.0490			N				
62	Benzo(b)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
64	Benzo(k)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
66	Bis(2-Chloroethyl)Ether	ug/L	0.6					1.4	1.400			N				
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	10				170000	170000	No	No	N				
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6					5.9	5.9			N				
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
70	Butylbenzyl Phthalate	ug/L	0.6	10				5200	5200	No	No	N				
71	2-Chloronaphthalene	ug/L	0.6	10				4300	4300	No	No	N				
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
73	Chrysene	ug/L	0.6					0.049	0.0490			N				
74	Dibenzo(a,h)Anthracene	ug/L	0.6					0.049	0.0490			N				
75	1,2-Dichlorobenzene	ug/L	0.6	5				17000	17000	No	No	N				
76	1,3-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
77	1,4-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
78	3,3 Dichlorobenzidine	ug/L	0.6					0.077	0.08			N				
79	Diethyl Phthalate	ug/L	0.6	10				120000	120000	No	No	N				
80	Dimethyl Phthalate	ug/L	0.6	10				2900000	2900000	No	No	N				
81	Di-n-Butyl Phthalate	ug/L	0.6	10				12000	12000	No	No	N				
82	2,4-Dinitrotoluene	ug/L	0.6					9.10	9.10			N				
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
85	1,2-Diphenylhydrazine	ug/L	0.6					0.54	0.540			N				
86	Fluoranthene	ug/L	0.6	10				370	370	No	No	N				
87	Fluorene	ug/L	0.6	10				14000	14000	No	No	N				
88	Hexachlorobenzene	ug/L	0.6					0.00077	0.00077			N				
89	Hexachlorobutadiene	ug/L	0.6	10				50	50.00	No	No	N				
90	Hexachlorocyclopentadiene	ug/L	0.6	10				17000	17000	No	No	N				
91	Hexachloroethane	ug/L	0.6					8.9	8.9			N				
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6					0.049	0.0490			N				
93	Isophorone	ug/L	0.6	10				600	600.0	No	No	N				
94	Naphthalene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
95	Nitrobenzene	ug/L	0.6	10				1900	1900	No	No	N				
96	N-Nitrosodimethylamine	ug/L	0.6					8.10	8.10000			N				
97	N-Nitrosodi-n-Propylamine	ug/L	0.6					1.40	1.400			N				
98	N-Nitrosodiphenylamine	ug/L	0.6	10				16	16.0	No	No	N				
99	Phenanthrene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
100	Pyrene	ug/L	0.6	10				11000	11000	No	No	N				
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
102	Aldrin	ug/L	0.6		3.00			0.00014	0.00014			N				
103	alpha-BHC	ug/L	0.6					0.013	0.0130			N				
104	beta-BHC	ug/L	0.6	0.03				0.046	0.046	No	No	N				
105	gamma-BHC	ug/L	0.6	0.03	0.95			0.063	0.063	No	No	N				
106	delta-BHC	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
107	Chlordane	ug/L	0.6		2.4	0.0043		0.00059	0.00059			N				
108	4,4'-DDT	ug/L	0.6		1.1	0.001		0.00059	0.00059			N				
109	4,4'-DDE (linked to DDT)	ug/L	0.6					0.00059	0.00059			N				
110	4,4'-DDD	ug/L	0.6					0.00084	0.00084			N				
111	Dieldrin	ug/L	0.6		0.24	0.056		0.00014	0.00014			N				
112	alpha-Endosulfan	ug/L	0.6	0.03	0.22	0.056		240	0.0560	No	No	N				
113	beta-Endolsulfan	ug/L	0.6		0.22	0.056		240	0.0560			N				
114	Endosulfan Sulfate	ug/L	0.6	0.06				240	240	No	No	N				
115	Endrin	ug/L	0.6		0.086	0.036		0.81	0.0360			N				
116	Endrin Aldehyde	ug/L	0.6	0.13				0.81	0.81	No	No	N				
117	Heptachlor	ug/L	0.6		0.52	0.0038		0.00021	0.00021			N				
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038		0.00011	0.00011			N				
119-125	**PCBs sum (2)**	ug/L	0.6			0.014		0.00017	0.00017			N				
126	Toxaphene	ug/L	0.6		0.73	0.0002		0.00075	0.0002			N				

Notes: Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
61	Benzo(a)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
62	Benzo(b)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Uc	No Criteria									
64	Benzo(k)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Uc	No Criteria									
66	Bis(2-Chloroethyl)Ether	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
67	Bis(2-Chloroisopropyl)Ether	No detected value of B, Step 7		No	Ud;MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
70	Butylbenzyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
71	2-Chloronaphthalene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
73	Chrysene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
74	Dibenzo(a,h)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
75	1,2-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
76	1,3-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
77	1,4-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
78	3,3 Dichlorobenzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
79	Diethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
80	Dimethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
81	Di-n-Butyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
82	2,4-Dinitrotoluene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Uc	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Uc	No Criteria									
85	1,2-Diphenylhydrazine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
86	Fluoranthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
87	Fluorene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
88	Hexachlorobenzene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
89	Hexachlorobutadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
90	Hexachlorocyclopentadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
91	Hexachloroethane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
92	Indeno(1,2,3-cd)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
93	Isophorone	No detected value of B, Step 7		No	Ud;MEC<C & no B									
94	Naphthalene	No Criteria	No Criteria	Uc	No Criteria									
95	Nitrobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
96	N-Nitrosodimethylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
97	N-Nitrosodi-n-Propylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
98	N-Nitrosodiphenylamine	No detected value of B, Step 7		No	Ud;MEC<C & no B									
99	Phenanthrene	No Criteria	No Criteria	Uc	No Criteria									
100	Pyrene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Uc	No Criteria									
102	Aldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
103	alpha-BHC	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
104	beta-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
105	gamma-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
106	delta-BHC	No Criteria	No Criteria	Uc	No Criteria									
107	Chlordane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
108	4,4'-DDT	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
109	4,4'-DDE (linked to DDT)	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
110	4,4'-DDD	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
111	Dieldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
112	alpha-Endosulfan	No detected value of B, Step 7		No	Ud;MEC<C & no B									
113	beta-Endolsulfan	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
114	Endosulfan Sulfate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
115	Endrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
116	Endrin Aldehyde	No detected value of B, Step 7		No	Ud;MEC<C & no B									
117	Heptachlor	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
118	Heptachlor Epoxide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
119-125	**PCBs sum (2)**	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
126	Toxaphene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
61	Benzo(a)Pyrene							No Limit
62	Benzo(b)Fluoranthene							No Limit
63	Benzo(ghi)Perylene							No Limit
64	Benzo(k)Fluoranthene							No Limit
65	Bis(2-Chloroethoxy)Methane							No Limit
66	Bis(2-Chloroethyl)Ether							No Limit
67	Bis(2-Chloroisopropyl)Ether							No Limit
68	Bis(2-Ethylhexyl)Phthalate							No Limit
69	4-Bromophenyl Phenyl Ether							No Limit
70	Butylbenzyl Phthalate							No Limit
71	2-Chloronaphthalene							No Limit
72	4-Chlorophenyl Phenyl Ether							No Limit
73	Chrysene							No Limit
74	Dibenzo(a,h)Anthracene							No Limit
75	1,2-Dichlorobenzene							No Limit
76	1,3-Dichlorobenzene							No Limit
77	1,4-Dichlorobenzene							No Limit
78	3,3 Dichlorobenzidine							No Limit
79	Diethyl Phthalate							No Limit
80	Dimethyl Phthalate							No Limit
81	Di-n-Butyl Phthalate							No Limit
82	2,4-Dinitrotoluene							No Limit
83	2,6-Dinitrotoluene							No Limit
84	Di-n-Octyl Phthalate							No Limit
85	1,2-Diphenylhydrazine							No Limit
86	Fluoranthene							No Limit
87	Fluorene							No Limit
88	Hexachlorobenzene							No Limit
89	Hexachlorobutadiene							No Limit
90	Hexachlorocyclopentadiene							No Limit
91	Hexachloroethane							No Limit
92	Indeno(1,2,3-cd)Pyrene							No Limit
93	Isophorone							No Limit
94	Naphthalene							No Limit
95	Nitrobenzene							No Limit
96	N-Nitrosodimethylamine							No Limit
97	N-Nitrosodi-n-Propylamine							No Limit
98	N-Nitrosodiphenylamine							No Limit
99	Phenanthrene							No Limit
100	Pyrene							No Limit
101	1,2,4-Trichlorobenzene							No Limit
102	Aldrin							No Limit
103	alpha-BHC							No Limit
104	beta-BHC							No Limit
105	gamma-BHC							No Limit
106	delta-BHC							No Limit
107	Chlordane							No Limit
108	4,4'-DDT							No Limit
109	4,4'-DDE (linked to DDT)							No Limit
110	4,4'-DDD							No Limit
111	Dieldrin							No Limit
112	alpha-Endosulfan							No Limit
113	beta-Endolsulfan							No Limit
114	Endosulfan Sulfate							No Limit
115	Endrin							No Limit
116	Endrin Aldehyde							No Limit
117	Heptachlor							No Limit
118	Heptachlor Epoxide							No Limit
119-125	**PCBs sum (2)**							No Limit
126	Toxaphene							No Limit

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
1	Antimony	ug/L	0.6	20				4300.00	4300.00	No	No	N				
2	Arsenic	ug/L	0.6	7	340.00	150.00			150.00	No	No	N				
3	Beryllium	ug/L	0.6	No Criteria				Narrative	No Criteria	No Criteria	No Criteria	N				
4	Cadmium	ug/L	0.6		4.52	2.46		Narrative	2.46			N				
5a	Chromium (III)			10	1736.51	206.98		Narrative	206.98	No	No	N				
5b	Chromium (VI)	ug/L	0.6		16.29	11.43		Narrative	11.43			N				
6	Copper	ug/L	0.6	64	14.00	9.33			9.33	Yes	Yes	N				
7	Lead	ug/L	0.6		81.65	3.18		Narrative	3.18			N				
8	Mercury	ug/L	0.6		Res	Res		0.051	0.051			N				
9	Nickel	ug/L	0.6	18	469.17	52.16		4600.00	52.16	No	No	N				
10	Selenium	ug/L	0.6	20		5.00		Narrative	5.00	Yes	Yes	N				
11	Silver	ug/L	0.6		4.06				4.06			N				
12	Thallium	ug/L	0.6	5				6.30	6.30	No	No	N				
13	Zinc	ug/L	0.6	198	119.82	119.82			119.82	Yes	Yes	N				
14	Cyanide	ug/L	0.6		22.00	5.20		220000.00	5.20			N				
15	Asbestos	Fibers/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
16	2,3,7,8 TCDD	ug/L						0.000000014	0.000000014			N				
	TCDD Equivalents	ug/L		1.789E-05				0.000000014	0.000000014	Yes	Yes	N				
17	Acrolein	ug/L	0.6	200				780	780	No	No	N				
18	Acrylonitrile	ug/L	0.6					0.66	0.660			N				
19	Benzene	ug/L	0.6	5				71	71.0	No	No	N				
20	Bromoform	ug/L	0.6	5.4				360	360.0	No	No	N				
21	Carbon Tetrachloride	ug/L	0.6					4.4	4.40			N				
22	Chlorobenzene	ug/L	0.6	3.57				21000	21000	No	No	N				
23	Chlorodibromomethane	ug/L	0.6	5				34	34.00	No	No	N				
24	Chloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
26	Chloroform	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
27	Dichlorobromomethane	ug/L	0.6	2.1				46	46.00	No	No	N				
28	1,1-Dichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
29	1,2-Dichloroethane	ug/L	0.6	5				99	99.00	No	No	N				
30	1,1-Dichloroethylene	ug/L	0.6					3.2	3.200			N				
31	1,2-Dichloropropane	ug/L	0.6	5				39	39.00	No	No	N				
32	1,3-Dichloropropylene	ug/L	0.6	5				1700	1700	No	No	N				
33	Ethylbenzene	ug/L	0.6	5				29000	29000	No	No	N				
34	Methyl Bromide	ug/L	0.6	5				4000	4000	No	No	N				
35	Methyl Chloride	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
36	Methylene Chloride	ug/L	0.6	5				1600	1600.0	No	No	N				
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	5				11	11.00	No	No	N				
38	Tetrachloroethylene	ug/L	0.6	5				8.85	8.9	No	No	N				
39	Toluene	ug/L	0.6	2.8				200000	200000	No	No	N				
40	1,2-Trans-Dichloroethylene	ug/L	0.6	5				140000	140000	No	No	N				
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
42	1,1,2-Trichloroethane	ug/L	0.6	5				42	42.0	No	No	N				
43	Trichloroethylene	ug/L	0.6	5				81	81.0	No	No	N				
44	Vinyl Chloride	ug/L	0.6	5				525	525	No	No	N				
45	2-Chlorophenol	ug/L	0.6	10				400	400	No	No	N				
46	2,4-Dichlorophenol	ug/L	0.6	10				790	790	No	No	N				
47	2,4-Dimethylphenol	ug/L	0.6	10				2300	2300	No	No	N				
48	4,6-dinitro-o-resol	ug/L	0.6	10				765	765.0	No	No	N				
49	2,4-Dinitrophenol	ug/L	0.6	10				14000	14000	No	No	N				
50	2-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
51	4-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
52	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
53	Pentachlorophenol	ug/L	0.6		19.49	14.95		8.2	8.20			N				
54	Phenol	ug/L	0.6	10				4600000	4600000	No	No	N				
55	2,4,6-Trichlorophenol	ug/L	0.6					6.5	6.5			N				
56	Acenaphthene	ug/L	0.6	10				2700	2700	No	No	N				
57	Acenaphthylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
58	Anthracene	ug/L	0.6	10				110000	110000	No	No	N				
59	Benzidine	ug/L	0.6					0.00054	0.00054			N				
60	Benzo(a)Anthracene	ug/L	0.6					0.049	0.0490			N				

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	No detected value of B, Step 7		No	Ud;MEC<C & no B									
2	Arsenic	No detected value of B, Step 7		No	Ud;MEC<C & no B									
3	Beryllium	No Criteria	No Criteria	Uc	No Criteria									
4	Cadmium	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
5a	Chromium (III)	No detected value of B, Step 7		No	Ud;MEC<C & no B									
5b	Chromium (VI)	No detected value of B, Step 7		Ud	No effluent data & no B									
6	Copper	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.321	4.49	0.527	4.92	4.49	1.55
7	Lead	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
8	Mercury	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
9	Nickel	No detected value of B, Step 7		No	Ud;MEC<C & no B									
10	Selenium	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32		0.53	2.64	2.64	1.55
11	Silver	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
12	Thallium	No detected value of B, Step 7		No	Ud;MEC<C & no B									
13	Zinc	No detected value of B, Step 7		Yes	MEC>=C		2.01		0.32	38.47	0.53	63.20	38.47	1.55
14	Cyanide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
15	Asbestos	No Criteria	No Criteria	Uc	No Criteria									
16	2,3,7,8 TCDD	No detected value of B, Step 7		Ud	No effluent data & no B									
	TCDD Equivalents	No detected value of B, Step 7		Ud	No effluent data & no B									
17	Acrolein	No detected value of B, Step 7		No	Ud;MEC<C & no B									
18	Acrylonitrile	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
19	Benzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
20	Bromoform	No detected value of B, Step 7		No	Ud;MEC<C & no B									
21	Carbon Tetrachloride	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
22	Chlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
23	Chlorodibromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
24	Chloroethane	No Criteria	No Criteria	Uc	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Uc	No Criteria									
26	Chloroform	No Criteria	No Criteria	Uc	No Criteria									
27	Dichlorobromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
28	1,1-Dichloroethane	No Criteria	No Criteria	Uc	No Criteria									
29	1,2-Dichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
30	1,1-Dichloroethylene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
31	1,2-Dichloropropane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
32	1,3-Dichloropropylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
33	Ethylbenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
34	Methyl Bromide	No detected value of B, Step 7		No	Ud;MEC<C & no B									
35	Methyl Chloride	No Criteria	No Criteria	Uc	No Criteria									
36	Methylene Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
38	Tetrachloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
39	Toluene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
40	1,2-Trans-Dichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Uc	No Criteria									
42	1,1,2-Trichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
43	Trichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
44	Vinyl Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
45	2-Chlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
46	2,4-Dichlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
47	2,4-Dimethylphenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
48	4,6-dinitro-o-resol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
49	2,4-Dinitrophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
50	2-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
51	4-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
52	3-Methyl-4-Chlorophenol	No Criteria	No Criteria	Uc	No Criteria									
53	Pentachlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
54	Phenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
55	2,4,6-Trichlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
56	Acenaphthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
57	Acenaphthylene	No Criteria	No Criteria	Uc	No Criteria									
58	Anthracene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
59	Benzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
60	Benzo(a)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
1	Antimony							No Limit
2	Arsenic							No Limit
3	Beryllium							No Limit
4	Cadmium							No Limit
5a	Chromium (III)							No Limit
5b	Chromium (VI)							No Limit
6	Copper	6.98	3.11	13.99908		7.0	14	
7	Lead							No Limit
8	Mercury							No Limit
9	Nickel							No Limit
10	Selenium	4.09	3.11	8.213345		4.1	8.2	
11	Silver							No Limit
12	Thallium							No Limit
13	Zinc	59.72	3.11	119.8164		60	120	
14	Cyanide							No Limit
15	Asbestos							No Limit
16	2,3,7,8 TCDD							No Limit
	TCDD Equivalents							No Limit
17	Acrolein							No Limit
18	Acrylonitrile							No Limit
19	Benzene							No Limit
20	Bromoform							No Limit
21	Carbon Tetrachloride							No Limit
22	Chlorobenzene							No Limit
23	Chlorodibromomethane							No Limit
24	Chloroethane							No Limit
25	2-Chloroethylvinyl ether							No Limit
26	Chloroform							No Limit
27	Dichlorobromomethane							No Limit
28	1,1-Dichloroethane							No Limit
29	1,2-Dichloroethane							No Limit
30	1,1-Dichloroethylene							No Limit
31	1,2-Dichloropropane							No Limit
32	1,3-Dichloropropylene							No Limit
33	Ethylbenzene							No Limit
34	Methyl Bromide							No Limit
35	Methyl Chloride							No Limit
36	Methylene Chloride							No Limit
37	1,1,2,2-Tetrachloroethane							No Limit
38	Tetrachloroethylene							No Limit
39	Toluene							No Limit
40	1,2-Trans-Dichloroethylene							No Limit
41	1,1,1-Trichloroethane							No Limit
42	1,1,2-Trichloroethane							No Limit
43	Trichloroethylene							No Limit
44	Vinyl Chloride							No Limit
45	2-Chlorophenol							No Limit
46	2,4-Dichlorophenol							No Limit
47	2,4-Dimethylphenol							No Limit
48	4,6-dinitro-o-resol							No Limit
49	2,4-Dinitrophenol							No Limit
50	2-Nitrophenol							No Limit
51	4-Nitrophenol							No Limit
52	3-Methyl-4-Chlorophenol							No Limit
53	Pentachlorophenol							No Limit
54	Phenol							No Limit
55	2,4,6-Trichlorophenol							No Limit
56	Acenaphthene							No Limit
57	Acenaphthylene							No Limit
58	Anthracene							No Limit
59	Benzidine							No Limit
60	Benzo(a)Anthracene							No Limit

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Dry Weather)
NanoH2O Facility, Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:									
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
61	Benzo(a)Pyrene	ug/L	0.6					0.049	0.0490			N				
62	Benzo(b)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
64	Benzo(k)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
66	Bis(2-Chloroethyl)Ether	ug/L	0.6					1.4	1.400			N				
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	10				170000	170000	No	No	N				
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6					5.9	5.9			N				
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
70	Butylbenzyl Phthalate	ug/L	0.6	10				5200	5200	No	No	N				
71	2-Chloronaphthalene	ug/L	0.6	10				4300	4300	No	No	N				
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
73	Chrysene	ug/L	0.6					0.049	0.0490			N				
74	Dibenzo(a,h)Anthracene	ug/L	0.6					0.049	0.0490			N				
75	1,2-Dichlorobenzene	ug/L	0.6	5				17000	17000	No	No	N				
76	1,3-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
77	1,4-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
78	3,3 Dichlorobenzidine	ug/L	0.6					0.077	0.08			N				
79	Diethyl Phthalate	ug/L	0.6	10				120000	120000	No	No	N				
80	Dimethyl Phthalate	ug/L	0.6	10				2900000	2900000	No	No	N				
81	Di-n-Butyl Phthalate	ug/L	0.6	10				12000	12000	No	No	N				
82	2,4-Dinitrotoluene	ug/L	0.6					9.10	9.10			N				
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
85	1,2-Diphenylhydrazine	ug/L	0.6					0.54	0.540			N				
86	Fluoranthene	ug/L	0.6	10				370	370	No	No	N				
87	Fluorene	ug/L	0.6	10				14000	14000	No	No	N				
88	Hexachlorobenzene	ug/L	0.6					0.00077	0.00077			N				
89	Hexachlorobutadiene	ug/L	0.6	10				50	50.00	No	No	N				
90	Hexachlorocyclopentadiene	ug/L	0.6	10				17000	17000	No	No	N				
91	Hexachloroethane	ug/L	0.6					8.9	8.9			N				
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6					0.049	0.0490			N				
93	Isophorone	ug/L	0.6	10				600	600.0	No	No	N				
94	Naphthalene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
95	Nitrobenzene	ug/L	0.6	10				1900	1900	No	No	N				
96	N-Nitrosodimethylamine	ug/L	0.6					8.10	8.10000			N				
97	N-Nitrosodi-n-Propylamine	ug/L	0.6					1.40	1.400			N				
98	N-Nitrosodiphenylamine	ug/L	0.6	10				16	16.0	No	No	N				
99	Phenanthrene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
100	Pyrene	ug/L	0.6	10				11000	11000	No	No	N				
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
102	Aldrin	ug/L	0.6		3.00			0.00014	0.00014			N				
103	alpha-BHC	ug/L	0.6					0.013	0.0130			N				
104	beta-BHC	ug/L	0.6	0.03				0.046	0.046	No	No	N				
105	gamma-BHC	ug/L	0.6	0.03	0.95			0.063	0.063	No	No	N				
106	delta-BHC	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
107	Chlordane	ug/L	0.6		2.4	0.0043		0.00059	0.00059			N				
108	4,4'-DDT	ug/L	0.6		1.1	0.001		0.00059	0.00059			N				
109	4,4'-DDE (linked to DDT)	ug/L	0.6					0.00059	0.00059			N				
110	4,4'-DDD	ug/L	0.6					0.00084	0.00084			N				
111	Dieldrin	ug/L	0.6		0.24	0.056		0.00014	0.00014			N				
112	alpha-Endosulfan	ug/L	0.6	0.03	0.22	0.056		240	0.0560	No	No	N				
113	beta-Endolsulfan	ug/L	0.6		0.22	0.056		240	0.0560			N				
114	Endosulfan Sulfate	ug/L	0.6	0.06				240	240	No	No	N				
115	Endrin	ug/L	0.6		0.086	0.036		0.81	0.0360			N				
116	Endrin Aldehyde	ug/L	0.6	0.13				0.81	0.81	No	No	N				
117	Heptachlor	ug/L	0.6		0.52	0.0038		0.00021	0.00021			N				
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038		0.00011	0.00011			N				
119-125	**PCBs sum (2)**	ug/L	0.6			0.014		0.00017	0.00017			N				
126	Toxaphene	ug/L	0.6		0.73	0.0002		0.00075	0.0002			N				

Notes: Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
CTR#						Organisms only			Saltwater / Freshwater / Basin Plan					
	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
61	Benzo(a)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
62	Benzo(b)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Uc	No Criteria									
64	Benzo(k)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Uc	No Criteria									
66	Bis(2-Chloroethyl)Ether	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
67	Bis(2-Chloroisopropyl)Ether	No detected value of B, Step 7		No	Ud;MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
70	Butylbenzyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
71	2-Chloronaphthalene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
73	Chrysene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
74	Dibenzo(a,h)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
75	1,2-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
76	1,3-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
77	1,4-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
78	3,3 Dichlorobenzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
79	Diethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
80	Dimethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
81	Di-n-Butyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
82	2,4-Dinitrotoluene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Uc	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Uc	No Criteria									
85	1,2-Diphenylhydrazine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
86	Fluoranthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
87	Fluorene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
88	Hexachlorobenzene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
89	Hexachlorobutadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
90	Hexachlorocyclopentadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
91	Hexachloroethane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
92	Indeno(1,2,3-cd)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
93	Isophorone	No detected value of B, Step 7		No	Ud;MEC<C & no B									
94	Naphthalene	No Criteria	No Criteria	Uc	No Criteria									
95	Nitrobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
96	N-Nitrosodimethylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
97	N-Nitrosodi-n-Propylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
98	N-Nitrosodiphenylamine	No detected value of B, Step 7		No	Ud;MEC<C & no B									
99	Phenanthrene	No Criteria	No Criteria	Uc	No Criteria									
100	Pyrene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Uc	No Criteria									
102	Aldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
103	alpha-BHC	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
104	beta-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
105	gamma-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
106	delta-BHC	No Criteria	No Criteria	Uc	No Criteria									
107	Chlordane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
108	4,4'-DDT	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
109	4,4'-DDE (linked to DDT)	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
110	4,4'-DDD	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
111	Dieldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
112	alpha-Endosulfan	No detected value of B, Step 7		No	Ud;MEC<C & no B									
113	beta-Endolsulfan	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
114	Endosulfan Sulfate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
115	Endrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
116	Endrin Aldehyde	No detected value of B, Step 7		No	Ud;MEC<C & no B									
117	Heptachlor	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
118	Heptachlor Epoxide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
119-125	**PCBs sum (2)**	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
126	Toxaphene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

CTR#	Parameters					LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life		Lowest AMEL	Lowest MDEL	
61	Benzo(a)Pyrene							No Limit
62	Benzo(b)Fluoranthene							No Limit
63	Benzo(ghi)Perylene							No Limit
64	Benzo(k)Fluoranthene							No Limit
65	Bis(2-Chloroethoxy)Methane							No Limit
66	Bis(2-Chloroethyl)Ether							No Limit
67	Bis(2-Chloroisopropyl)Ether							No Limit
68	Bis(2-Ethylhexyl)Phthalate							No Limit
69	4-Bromophenyl Phenyl Ether							No Limit
70	Butylbenzyl Phthalate							No Limit
71	2-Chloronaphthalene							No Limit
72	4-Chlorophenyl Phenyl Ether							No Limit
73	Chrysene							No Limit
74	Dibenzo(a,h)Anthracene							No Limit
75	1,2-Dichlorobenzene							No Limit
76	1,3-Dichlorobenzene							No Limit
77	1,4-Dichlorobenzene							No Limit
78	3,3 Dichlorobenzidine							No Limit
79	Diethyl Phthalate							No Limit
80	Dimethyl Phthalate							No Limit
81	Di-n-Butyl Phthalate							No Limit
82	2,4-Dinitrotoluene							No Limit
83	2,6-Dinitrotoluene							No Limit
84	Di-n-Octyl Phthalate							No Limit
85	1,2-Diphenylhydrazine							No Limit
86	Fluoranthene							No Limit
87	Fluorene							No Limit
88	Hexachlorobenzene							No Limit
89	Hexachlorobutadiene							No Limit
90	Hexachlorocyclopentadiene							No Limit
91	Hexachloroethane							No Limit
92	Indeno(1,2,3-cd)Pyrene							No Limit
93	Isophorone							No Limit
94	Naphthalene							No Limit
95	Nitrobenzene							No Limit
96	N-Nitrosodimethylamine							No Limit
97	N-Nitrosodi-n-Propylamine							No Limit
98	N-Nitrosodiphenylamine							No Limit
99	Phenanthrene							No Limit
100	Pyrene							No Limit
101	1,2,4-Trichlorobenzene							No Limit
102	Aldrin							No Limit
103	alpha-BHC							No Limit
104	beta-BHC							No Limit
105	gamma-BHC							No Limit
106	delta-BHC							No Limit
107	Chlordane							No Limit
108	4,4'-DDT							No Limit
109	4,4'-DDE (linked to DDT)							No Limit
110	4,4'-DDD							No Limit
111	Dieldrin							No Limit
112	alpha-Endosulfan							No Limit
113	beta-Endolsulfan							No Limit
114	Endosulfan Sulfate							No Limit
115	Endrin							No Limit
116	Endrin Aldehyde							No Limit
117	Heptachlor							No Limit
118	Heptachlor Epoxide							No Limit
119-125	**PCBs sum (2)**							No Limit
126	Toxaphene							No Limit

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Wet Weather)
NanoH2O Facility, Discharge Point 001

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				Lowest C or wet wather WLAs	REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:			MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
					C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only								
1	Antimony	ug/L	0.6	20				4300.00	4300.00	No	No	N				
2	Arsenic	ug/L	0.6	7	340.00	150.00			150.00	No	No	N				
3	Beryllium	ug/L	0.6	No Criteria				Narrative	No Criteria	No Criteria	No Criteria	N				
4	Cadmium	ug/L	0.6		4.52	2.46		Narrative	2.46			N				
5a	Chromium (III)			10	1736.51	206.98		Narrative	206.98	No	No	N				
5b	Chromium (VI)	ug/L	0.6		16.29	11.43		Narrative	11.43			N				
6	Copper (wet weather)	ug/L	0.6	64	9.70				9.70	N/A	N/A	N				
7	Lead (wet weather)	ug/L	0.6		42.70			Narrative	42.70	N/A	N/A	N				
8	Mercury	ug/L	0.6		Res	Res		0.051	0.051			N				
9	Nickel	ug/L	0.6	18	469.17	52.16		4600.00	52.16	No	No	N				
10	Selenium (all weather)	ug/L	0.6	20		5.00		Narrative	5.00	Yes	Yes	N				
11	Silver	ug/L	0.6		4.06				4.06			N				
12	Thallium	ug/L	0.6	5				6.30	6.30	No	No	N				
13	Zinc (wet weather)	ug/L	0.6	198	69.70				69.70	N/A	N/A	N				
14	Cyanide	ug/L	0.6		22.00	5.20		220000.00	5.20			N				
15	Asbestos	Fibers/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
16	2,3,7,8 TCDD	ug/L						0.000000014	0.000000014			N				
	TCDD Equivalents	ug/L		1.789E-05				0.000000014	0.000000014	Yes	Yes	N				
17	Acrolein	ug/L	0.6	200				780	780	No	No	N				
18	Acrylonitrile	ug/L	0.6					0.66	0.660			N				
19	Benzene	ug/L	0.6	5				71	71.0	No	No	N				
20	Bromoform	ug/L	0.6	5.4				360	360.0	No	No	N				
21	Carbon Tetrachloride	ug/L	0.6					4.4	4.40			N				
22	Chlorobenzene	ug/L	0.6	3.57				21000	21000	No	No	N				
23	Chlorodibromomethane	ug/L	0.6	5				34	34.00	No	No	N				
24	Chloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
26	Chloroform	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
27	Dichlorobromomethane	ug/L	0.6	2.1				46	46.00	No	No	N				
28	1,1-Dichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
29	1,2-Dichloroethane	ug/L	0.6	5				99	99.00	No	No	N				
30	1,1-Dichloroethylene	ug/L	0.6					3.2	3.200			N				
31	1,2-Dichloropropane	ug/L	0.6	5				39	39.00	No	No	N				
32	1,3-Dichloropropylene	ug/L	0.6	5				1700	1700	No	No	N				
33	Ethylbenzene	ug/L	0.6	5				29000	29000	No	No	N				
34	Methyl Bromide	ug/L	0.6	5				4000	4000	No	No	N				
35	Methyl Chloride	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
36	Methylene Chloride	ug/L	0.6	5				1600	1600.0	No	No	N				
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	5				11	11.00	No	No	N				
38	Tetrachloroethylene	ug/L	0.6	5				8.85	8.9	No	No	N				
39	Toluene	ug/L	0.6	2.8				200000	200000	No	No	N				
40	1,2-Trans-Dichloroethylene	ug/L	0.6	5				140000	140000	No	No	N				
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
42	1,1,2-Trichloroethane	ug/L	0.6	5				42	42.0	No	No	N				
43	Trichloroethylene	ug/L	0.6	5				81	81.0	No	No	N				
44	Vinyl Chloride	ug/L	0.6	5				525	525	No	No	N				
45	2-Chlorophenol	ug/L	0.6	10				400	400	No	No	N				
46	2,4-Dichlorophenol	ug/L	0.6	10				790	790	No	No	N				
47	2,4-Dimethylphenol	ug/L	0.6	10				2300	2300	No	No	N				
48	4,6-dinitro-o-resol	ug/L	0.6	10				765	765.0	No	No	N				
49	2,4-Dinitrophenol	ug/L	0.6	10				14000	14000	No	No	N				
50	2-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
51	4-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
52	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
53	Pentachlorophenol	ug/L	0.6		19.49	14.95		8.2	8.20			N				
54	Phenol	ug/L	0.6	10				4600000	4600000	No	No	N				
55	2,4,6-Trichlorophenol	ug/L	0.6					6.5	6.5			N				
56	Acenaphthene	ug/L	0.6	10				2700	2700	No	No	N				
57	Acenaphthylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
58	Anthracene	ug/L	0.6	10				110000	110000	No	No	N				
59	Benzidine	ug/L	0.6					0.00054	0.00054			N				
60	Benzo(a)Anthracene	ug/L	0.6					0.049	0.0490			N				

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
						Organisms only			Saltwater / Freshwater / Basin Plan					
CTR#	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
1	Antimony	No detected value of B, Step 7		No	Ud;MEC<C & no B									
2	Arsenic	No detected value of B, Step 7		No	Ud;MEC<C & no B									
3	Beryllium	No Criteria	No Criteria	Uc	No Criteria									
4	Cadmium	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
5a	Chromium (III)	No detected value of B, Step 7		No	Ud;MEC<C & no B									
5b	Chromium (VI)	No detected value of B, Step 7		Ud	No effluent data & no B									
6	Copper (wet weather)	No detected value of B, Step 7	TMDL WLA	Yes	TMDL		2.01		0.321	3.11			3.11	1.55
7	Lead (wet weather)	No detected value of B, Step 7	TMDL WLA	Yes	TMDL				0.321	13.71			13.71	1.55
8	Mercury	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
9	Nickel	No detected value of B, Step 7		No	Ud;MEC<C & no B									
10	Selenium (all weather)	No detected value of B, Step 7		Yes	MEC>=C		2.01				0.53	2.64	2.64	1.55
11	Silver	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
12	Thallium	No detected value of B, Step 7		No	Ud;MEC<C & no B									
13	Zinc (wet weather)	No detected value of B, Step 7	TMDL WLA	Yes	TMDL		2.01		0.321	22.38			22.38	1.55
14	Cyanide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
15	Asbestos	No Criteria	No Criteria	Uc	No Criteria									
16	2,3,7,8 TCDD	No detected value of B, Step 7		Ud	No effluent data & no B									
	TCDD Equivalents	No detected value of B, Step 7		Ud	No effluent data & no B									
17	Acrolein	No detected value of B, Step 7		No	Ud;MEC<C & no B									
18	Acrylonitrile	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
19	Benzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
20	Bromoform	No detected value of B, Step 7		No	Ud;MEC<C & no B									
21	Carbon Tetrachloride	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
22	Chlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
23	Chlorodibromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
24	Chloroethane	No Criteria	No Criteria	Uc	No Criteria									
25	2-Chloroethylvinyl ether	No Criteria	No Criteria	Uc	No Criteria									
26	Chloroform	No Criteria	No Criteria	Uc	No Criteria									
27	Dichlorobromomethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
28	1,1-Dichloroethane	No Criteria	No Criteria	Uc	No Criteria									
29	1,2-Dichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
30	1,1-Dichloroethylene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
31	1,2-Dichloropropane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
32	1,3-Dichloropropylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
33	Ethylbenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
34	Methyl Bromide	No detected value of B, Step 7		No	Ud;MEC<C & no B									
35	Methyl Chloride	No Criteria	No Criteria	Uc	No Criteria									
36	Methylene Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
37	1,1,2,2-Tetrachloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
38	Tetrachloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
39	Toluene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
40	1,2-Trans-Dichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
41	1,1,1-Trichloroethane	No Criteria	No Criteria	Uc	No Criteria									
42	1,1,2-Trichloroethane	No detected value of B, Step 7		No	Ud;MEC<C & no B									
43	Trichloroethylene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
44	Vinyl Chloride	No detected value of B, Step 7		No	Ud;MEC<C & no B									
45	2-Chlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
46	2,4-Dichlorophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
47	2,4-Dimethylphenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
48	4,6-dinitro-o-resol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
49	2,4-Dinitrophenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
50	2-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
51	4-Nitrophenol	No Criteria	No Criteria	Uc	No Criteria									
52	3-Methyl-4-Chlorophenol	No Criteria	No Criteria	Uc	No Criteria									
53	Pentachlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
54	Phenol	No detected value of B, Step 7		No	Ud;MEC<C & no B									
55	2,4,6-Trichlorophenol	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
56	Acenaphthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
57	Acenaphthylene	No Criteria	No Criteria	Uc	No Criteria									
58	Anthracene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
59	Benzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
60	Benzo(a)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

CTR#	Parameters				LIMITS		Recommendation
		AMEL aq life	MDEL multiplier 99	MDEL aq life	Lowest AMEL	Lowest MDEL	
1	Antimony						No Limit
2	Arsenic						No Limit
3	Beryllium						No Limit
4	Cadmium						No Limit
5a	Chromium (III)						No Limit
5b	Chromium (VI)						No Limit
6	Copper (wet weather)	4.84	3.11	9.7	4.8	10	
7	Lead (wet weather)	21.25	3.11	66.1	21	66	No Limit
8	Mercury						No Limit
9	Nickel						No Limit
10	Selenium (all weather)	4.09	3.11	8.2	4.1	8.2	
11	Silver						No Limit
12	Thallium						No Limit
13	Zinc (wet weather)	34.74	3.11	69.7	35	70	
14	Cyanide						No Limit
15	Asbestos						No Limit
16	2,3,7,8 TCDD						No Limit
	TCDD Equivalents						No Limit
17	Acrolein						No Limit
18	Acrylonitrile						No Limit
19	Benzene						No Limit
20	Bromoform						No Limit
21	Carbon Tetrachloride						No Limit
22	Chlorobenzene						No Limit
23	Chlorodibromomethane						No Limit
24	Chloroethane						No Limit
25	2-Chloroethylvinyl ether						No Limit
26	Chloroform						No Limit
27	Dichlorobromomethane						No Limit
28	1,1-Dichloroethane						No Limit
29	1,2-Dichloroethane						No Limit
30	1,1-Dichloroethylene						No Limit
31	1,2-Dichloropropane						No Limit
32	1,3-Dichloropropylene						No Limit
33	Ethylbenzene						No Limit
34	Methyl Bromide						No Limit
35	Methyl Chloride						No Limit
36	Methylene Chloride						No Limit
37	1,1,2,2-Tetrachloroethane						No Limit
38	Tetrachloroethylene						No Limit
39	Toluene						No Limit
40	1,2-Trans-Dichloroethylene						No Limit
41	1,1,1-Trichloroethane						No Limit
42	1,1,2-Trichloroethane						No Limit
43	Trichloroethylene						No Limit
44	Vinyl Chloride						No Limit
45	2-Chlorophenol						No Limit
46	2,4-Dichlorophenol						No Limit
47	2,4-Dimethylphenol						No Limit
48	4,6-dinitro-o-resol						No Limit
49	2,4-Dinitrophenol						No Limit
50	2-Nitrophenol						No Limit
51	4-Nitrophenol						No Limit
52	3-Methyl-4-Chlorophenol						No Limit
53	Pentachlorophenol						No Limit
54	Phenol						No Limit
55	2,4,6-Trichlorophenol						No Limit
56	Acenaphthene						No Limit
57	Acenaphthylene						No Limit
58	Anthracene						No Limit
59	Benzidine						No Limit
60	Benzo(a)Anthracene						No Limit

Attachment J
Reasonable Potential Analysis and Effluent Limitations (Wet Weather)
NanoH2O Facility, Discharge Point 001

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				Lowest C or wet wather WLAs	REASONABLE POTENTIAL						
					Freshwater		Human Health for consumption of:			MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL) (ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?
					C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only								
61	Benzo(a)Pyrene	ug/L	0.6					0.049	0.0490			N				
62	Benzo(b)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
64	Benzo(k)Fluoranthene	ug/L	0.6					0.049	0.0490			N				
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
66	Bis(2-Chloroethyl)Ether	ug/L	0.6					1.4	1.400			N				
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	10				170000	170000	No	No	N				
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6					5.9	5.9			N				
69	4-Bromophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
70	Butylbenzyl Phthalate	ug/L	0.6	10				5200	5200	No	No	N				
71	2-Chloronaphthalene	ug/L	0.6	10				4300	4300	No	No	N				
72	4-Chlorophenyl Phenyl Ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
73	Chrysene	ug/L	0.6					0.049	0.0490			N				
74	Dibenzo(a,h)Anthracene	ug/L	0.6					0.049	0.0490			N				
75	1,2-Dichlorobenzene	ug/L	0.6	5				17000	17000	No	No	N				
76	1,3-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
77	1,4-Dichlorobenzene	ug/L	0.6	5				2600	2600	No	No	N				
78	3,3 Dichlorobenzidine	ug/L	0.6					0.077	0.08			N				
79	Diethyl Phthalate	ug/L	0.6	10				120000	120000	No	No	N				
80	Dimethyl Phthalate	ug/L	0.6	10				2900000	2900000	No	No	N				
81	Di-n-Butyl Phthalate	ug/L	0.6	10				12000	12000	No	No	N				
82	2,4-Dinitrotoluene	ug/L	0.6					9.10	9.10			N				
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
85	1,2-Diphenylhydrazine	ug/L	0.6					0.54	0.540			N				
86	Fluoranthene	ug/L	0.6	10				370	370	No	No	N				
87	Fluorene	ug/L	0.6	10				14000	14000	No	No	N				
88	Hexachlorobenzene	ug/L	0.6					0.00077	0.00077			N				
89	Hexachlorobutadiene	ug/L	0.6	10				50	50.00	No	No	N				
90	Hexachlorocyclopentadiene	ug/L	0.6	10				17000	17000	No	No	N				
91	Hexachloroethane	ug/L	0.6					8.9	8.9			N				
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6					0.049	0.0490			N				
93	Isophorone	ug/L	0.6	10				600	600.0	No	No	N				
94	Naphthalene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
95	Nitrobenzene	ug/L	0.6	10				1900	1900	No	No	N				
96	N-Nitrosodimethylamine	ug/L	0.6					8.10	8.10000			N				
97	N-Nitrosodi-n-Propylamine	ug/L	0.6					1.40	1.400			N				
98	N-Nitrosodiphenylamine	ug/L	0.6	10				16	16.0	No	No	N				
99	Phenanthrene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
100	Pyrene	ug/L	0.6	10				11000	11000	No	No	N				
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
102	Aldrin	ug/L	0.6		3.00			0.00014	0.00014			N				
103	alpha-BHC	ug/L	0.6					0.013	0.0130			N				
104	beta-BHC	ug/L	0.6	0.03				0.046	0.046	No	No	N				
105	gamma-BHC	ug/L	0.6	0.03	0.95			0.063	0.063	No	No	N				
106	delta-BHC	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	N				
107	Chlordane	ug/L	0.6		2.4	0.0043		0.00059	0.00059			N				
108	4,4'-DDT	ug/L	0.6		1.1	0.001		0.00059	0.00059			N				
109	4,4'-DDE (linked to DDT)	ug/L	0.6					0.00059	0.00059			N				
110	4,4'-DDD	ug/L	0.6					0.00084	0.00084			N				
111	Dieldrin	ug/L	0.6		0.24	0.056		0.00014	0.00014			N				
112	alpha-Endosulfan	ug/L	0.6	0.03	0.22	0.056		240	0.0560	No	No	N				
113	beta-Endolsulfan	ug/L	0.6		0.22	0.056		240	0.0560			N				
114	Endosulfan Sulfate	ug/L	0.6	0.06				240	240	No	No	N				
115	Endrin	ug/L	0.6		0.086	0.036		0.81	0.0360			N				
116	Endrin Aldehyde	ug/L	0.6	0.13				0.81	0.81	No	No	N				
117	Heptachlor	ug/L	0.6		0.52	0.0038		0.00021	0.00021			N				
118	Heptachlor Epoxide	ug/L	0.6		0.52	0.0038		0.00011	0.00011			N				
119-125	**PCBs sum (2)**	ug/L	0.6			0.014		0.00017	0.00017			N				
126	Toxaphene	ug/L	0.6		0.73	0.0002		0.00075	0.0002			N				

Notes: Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data
Wet weather waste load allocations are in red color.

		ANALYSIS (RPA)				HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS					
						Organisms only			Saltwater / Freshwater / Basin Plan					
CTR#	Parameters	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95
61	Benzo(a)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
62	Benzo(b)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
63	Benzo(ghi)Perylene	No Criteria	No Criteria	Uc	No Criteria									
64	Benzo(k)Fluoranthene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria	Uc	No Criteria									
66	Bis(2-Chloroethyl)Ether	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
67	Bis(2-Chloroisopropyl)Ether	No detected value of B, Step 7		No	Ud;MEC<C & no B									
68	Bis(2-Ethylhexyl)Phthalate	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
70	Butylbenzyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
71	2-Chloronaphthalene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria	Uc	No Criteria									
73	Chrysene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
74	Dibenzo(a,h)Anthracene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
75	1,2-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
76	1,3-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
77	1,4-Dichlorobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
78	3,3 Dichlorobenzidine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
79	Diethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
80	Dimethyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
81	Di-n-Butyl Phthalate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
82	2,4-Dinitrotoluene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
83	2,6-Dinitrotoluene	No Criteria	No Criteria	Uc	No Criteria									
84	Di-n-Octyl Phthalate	No Criteria	No Criteria	Uc	No Criteria									
85	1,2-Diphenylhydrazine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
86	Fluoranthene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
87	Fluorene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
88	Hexachlorobenzene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
89	Hexachlorobutadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
90	Hexachlorocyclopentadiene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
91	Hexachloroethane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
92	Indeno(1,2,3-cd)Pyrene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
93	Isophorone	No detected value of B, Step 7		No	Ud;MEC<C & no B									
94	Naphthalene	No Criteria	No Criteria	Uc	No Criteria									
95	Nitrobenzene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
96	N-Nitrosodimethylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
97	N-Nitrosodi-n-Propylamine	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
98	N-Nitrosodiphenylamine	No detected value of B, Step 7		No	Ud;MEC<C & no B									
99	Phenanthrene	No Criteria	No Criteria	Uc	No Criteria									
100	Pyrene	No detected value of B, Step 7		No	Ud;MEC<C & no B									
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria	Uc	No Criteria									
102	Aldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
103	alpha-BHC	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
104	beta-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
105	gamma-BHC	No detected value of B, Step 7		No	Ud;MEC<C & no B									
106	delta-BHC	No Criteria	No Criteria	Uc	No Criteria									
107	Chlordane	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
108	4,4'-DDT	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
109	4,4'-DDE (linked to DDT)	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
110	4,4'-DDD	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
111	Dieldrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
112	alpha-Endosulfan	No detected value of B, Step 7		No	Ud;MEC<C & no B									
113	beta-Endolsulfan	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
114	Endosulfan Sulfate	No detected value of B, Step 7		No	Ud;MEC<C & no B									
115	Endrin	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
116	Endrin Aldehyde	No detected value of B, Step 7		No	Ud;MEC<C & no B									
117	Heptachlor	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
118	Heptachlor Epoxide	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
119-125	**PCBs sum (2)**	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									
126	Toxaphene	No detected value of B, Step 7		No	UD;Effluent ND,MDL>C & No									

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack

CTR#	Parameters	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS Lowest AMEL	LIMITS Lowest MDEL	Recommendation
61	Benzo(a)Pyrene						No Limit
62	Benzo(b)Fluoranthene						No Limit
63	Benzo(ghi)Perylene						No Limit
64	Benzo(k)Fluoranthene						No Limit
65	Bis(2-Chloroethoxy)Methane						No Limit
66	Bis(2-Chloroethyl)Ether						No Limit
67	Bis(2-Chloroisopropyl)Ether						No Limit
68	Bis(2-Ethylhexyl)Phthalate						No Limit
69	4-Bromophenyl Phenyl Ether						No Limit
70	Butylbenzyl Phthalate						No Limit
71	2-Chloronaphthalene						No Limit
72	4-Chlorophenyl Phenyl Ether						No Limit
73	Chrysene						No Limit
74	Dibenzo(a,h)Anthracene						No Limit
75	1,2-Dichlorobenzene						No Limit
76	1,3-Dichlorobenzene						No Limit
77	1,4-Dichlorobenzene						No Limit
78	3,3 Dichlorobenzidine						No Limit
79	Diethyl Phthalate						No Limit
80	Dimethyl Phthalate						No Limit
81	Di-n-Butyl Phthalate						No Limit
82	2,4-Dinitrotoluene						No Limit
83	2,6-Dinitrotoluene						No Limit
84	Di-n-Octyl Phthalate						No Limit
85	1,2-Diphenylhydrazine						No Limit
86	Fluoranthene						No Limit
87	Fluorene						No Limit
88	Hexachlorobenzene						No Limit
89	Hexachlorobutadiene						No Limit
90	Hexachlorocyclopentadiene						No Limit
91	Hexachloroethane						No Limit
92	Indeno(1,2,3-cd)Pyrene						No Limit
93	Isophorone						No Limit
94	Naphthalene						No Limit
95	Nitrobenzene						No Limit
96	N-Nitrosodimethylamine						No Limit
97	N-Nitrosodi-n-Propylamine						No Limit
98	N-Nitrosodiphenylamine						No Limit
99	Phenanthrene						No Limit
100	Pyrene						No Limit
101	1,2,4-Trichlorobenzene						No Limit
102	Aldrin						No Limit
103	alpha-BHC						No Limit
104	beta-BHC						No Limit
105	gamma-BHC						No Limit
106	delta-BHC						No Limit
107	Chlordane						No Limit
108	4,4'-DDT						No Limit
109	4,4'-DDE (linked to DDT)						No Limit
110	4,4'-DDD						No Limit
111	Dieldrin						No Limit
112	alpha-Endosulfan						No Limit
113	beta-Endolsulfan						No Limit
114	Endosulfan Sulfate						No Limit
115	Endrin						No Limit
116	Endrin Aldehyde						No Limit
117	Heptachlor						No Limit
118	Heptachlor Epoxide						No Limit
119-125	**PCBs sum (2)**						No Limit
126	Toxaphene						No Limit

Notes: Ud = Undetermined due to lack
Uc = Undetermined due to lack