CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

WASTE DISCHARGE REQUIREMENTS
ORDER NO. R9-2005-0091
NPDES PERMIT NO. CA0107336

The Discharger listed in *Table 1. Discharger*, shall comply with the conditions and prohibitions set forth in this Order.

Table 1. Discharger.

Discharger	**Anheuser-Busch, Inc.**
Name of Facility	**SeaWorld, San Diego**
Facility Address	**500 Sea World Drive**
	San Diego, CA 92109
	San Diego County

The conditions and prohibitions established in this Order are applicable to the discharge from the discharge points listed in *Table 2. Discharge Locations.*

Table 2. Discharge Locations.

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	East treatment system effluent	32° 46' 03" N	117° 13' 33" W	Mission Bay
002	West treatment system effluent	32° 46' 04" N	117° 13' 40" W	Mission Bay

The adoption date, effective date, and expiration date for this Order are listed in *Table 3. Order Information.*

Table 3. Order Information.

This Order was adopted by the Regional Board on:	**April 13, 2005**
This Order shall become effective on:	**April 23, 2005**
This Order shall expire on:	**April 13, 2010**
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Board have classified this discharge as a **major** discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, **not later than October 15, 2009** as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 2000-25 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the federal CWA, and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

I, John H. Robertus, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on April 13, 2005.

JOHN H. ROBERTUS, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

ORDER NO. R9-2005-0091
NPDES NO. CA0107336

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I. FACILITY INFORMATION

The following Discharger listed in *Table 4. Facility Information* is regulated pursuant to the conditions set forth in this Order.

Table 4. Facility Information

Discharger	**Anheuser-Busch, Inc.**
Name of Facility	**SeaWorld San Diego**
Facility Address	**500 Sea World Drive**
	San Diego, CA 92102
	San Diego County
Facility Contact, Title, and Phone	**Kevin Carr, Environmental Director, (619) 226-3934**
Mailing Address	**500 Sea World Drive**
Type of Facility	**Amusement Park**
Facility Design Flow	**9.36 million gallons per day**

II. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds:

A. Background. Anheuser-Busch, Inc. (hereinafter Discharger) is currently discharging pursuant to Order No. 2000-25 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0107336. The Discharger submitted a Report of Waste Discharge dated November 19, 2004, and applied for an NPDES permit renewal to discharge up to 9.36 million gallons per day (mgd) of treated wastewater from SeaWorld San Diego.

B. Facility Description. The Discharger owns and operates an aquatic amusement park that houses various marine animals. The Discharger proposes to discharge up to 9.36 MGD of wastewater from exhibit pools, intermittent flows during pool draining and cleaning operations, runoff from landscape irrigation, and facility wash down water. Storm water is discharged from the facility during rain events. The Discharger pumps seawater from Mission Bay through two intake structures (East and West) for use in its mammal pools, aquaria, and other exhibits. Prior to discharge into Mission Bay, the effluent is directed to one of two treatment systems operated by the Discharger. The East and West Effluent Treatment facilities are chlorination/dechlorination treatment systems. The wastewater is filtered via one-inch screens, and diversion chambers transfer the water to chlorine contact chambers. Sodium hypochlorite is injected at three prechlorination points in each collection system prior to the contact chamber. A final sodium hypochlorite injection point is located just prior to the contact chamber. Residual chlorine is neutralized prior to discharge to Mission Bay by the injection of sodium bisulfite (West side) or sodium sulfite (East side). The combined treated wastewater is discharged to Mission Bay through two outfalls. Outfall

No. 001 (East) has a maximum discharge rate of 3.24 mgd and is located at 32° 46' 03" North latitude and 117° 13' 33" West longitude. Outfall No. 002 (West) has a maximum discharge rate of 6.12 mgd and is located at 32° 46' 04" North latitude and 117° 13' 40" West longitude.

C. **Legal Authorities.** This Order is 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 (CWC). This Order is the NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

D. **Background and Rationale for Requirements.** This Regional Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through J contain background information and detailed rationale for Order requirements and are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. **California Environmental Quality Act (CEQA).** According to Section 13389 of the CWC, this permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.)

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. No technology-based effluent limitations exist for this discharge or similar discharges. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Threat to Water Quality and Complexity.** Pursuant to Title 23, Division 3, Chapter 9, Article 1, Section 2200 of the California Code of Regulations (CCR), this Regional Board has assigned a Threat to Water Quality (TTWQ) and Complexity (CPLX) to the Discharger. The Discharger is assigned a TTWQ of Category 2, and a CPLX of Category A.

H. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBEL) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBEL may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

The 2002 State Water Resource Control Board's (State Board) California 303(d) list classifies Mission Bay as impaired because of bacteria, lead, and eutrophication. Currently there is no proposed date for the total maximum daily load (TMDL) completion for any of these pollutants in the receiving water body. Upon the completion of the TMDL for Mission Bay, this Regional Board may re-open this Order to include TMDL allocations.

The Discharger chlorinates and dechlorinates the effluent prior to discharge to Mission Bay. It is unlikely the Discharger will contribute to the impairment of the water body for bacteria indicators. The Discharger conducted an eutrophication study during 2000 – 2001 and concluded that the effluent from the Facility is not causing or contributing to eutrophication in Mission Bay. Available effluent data does not indicate that the discharge will contribute to the impairment of the receiving water for lead.

I. **Water Quality Regional Control Plans.** This Regional Board adopted a Water Quality Control Plan for the San Diego Region [hereinafter Basin Plan] on September 8, 1994. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to Mission Bay are listed in *Table 5. Beneficial Uses of Mission Bay*.

Table 5. Beneficial Uses of Mission Bay.

Outfall Number	Receiving Water Name	Beneficial Use(s)
001 and 002	**Mission Bay**	Existing: Industrial Services Supply (IND) Contact Water Recreation (REC-1) Non-contact Water Recreation (REC-2) Commercial and Sport Fishing (COMM) Estuarine Habitat (EST) Rare, Threatened, or Endangered Species (RARE) Marine Habitat (MAR) Migration of Aquatic Organisms (MIGR) Wildlife Habitat (WILD) Shellfish Harvesting (SHELL) Intermittent: None. Potential: None.

The State Board adopted a 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. This plan contains temperature objectives for inland surface waters and enclosed bays and estuaries.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

J. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the *National Toxics Rule* (NTR) on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the *California Toxics Rule* (CTR) on May 18, 2000, which was

amended on February 13, 2001. These Rules contain water quality standards for priority pollutants applicable to this discharge.

K. **State Implementation Policy.** On March 2, 2000, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). On April 28, 2000, the SIP became effective for regulating discharges of priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and for priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. On May 18, 2000, the SIP became effective for regulating priority pollutant criteria promulgated by the U.S. EPA through the CTR.

L. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed five years from the date that the permit is issued or reissued nor may it extend beyond ten years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds one year, the permit must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules and interim effluent limitations or discharge specifications.

M. **Antidegradation Policy.** Pursuant to 40 CFR 131.12 the State water quality standards must include an anti-degradation policy consistent with the Federal policy. The State Board established California's anti-degradation policy in State Board Resolution No. 68-16, which incorporates the requirements of the Federal anti-degradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified. The permitted discharge complies with the anti-degradation provision of 40 CFR 131.12 and State Board Resolution No. 68-16.

N. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the Clean Water Act (CWA) and federal regulations at 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the current permit, with some exceptions where limitations may be relaxed. Based on new data provided by the Discharger, an effluent limitation for halomethanes has not been continued from the current permit. The removal of the effluent limitation for halomethanes is in compliance with all State and Federal Anti-Backsliding requirements. All other effluent limitations contained in this Order are as stringent as the effluent limitations in the current Order.

O. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires all NPDES permits to specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement Federal and State requirements. This Monitoring and Reporting Program is Attachment E in this Order.

P. **Standard and Special Provisions.** According to 40 CFR 122.41 and 122.42, Standard Provisions apply to all NPDES discharges and must be included in every NPDES permit. Standard Provisions are provided in Attachment D to this Order. This Regional Board has also included in this Order special provisions applicable to the Discharger. A detailed rationale for the special provisions contained in this Order is in the Fact Sheet, Attachment F.

Q. **Notification of Interested Parties.** This Regional Board has notified the discharger and interested agencies and persons of its intent to adopt Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification details are in the Fact Sheet of this Order.

R. **Consideration of Public Comment.** This Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge. Public Hearing details are in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

A. Compliance with the Basin Plan Prohibitions is required by this Order.

B. Discharges of waste in a manner or to a location which have not been specifically authorized by this Order and for which valid waste discharge requirements are not in force are prohibited.

C. Aquaria and pool draining operations are prohibited during a storm water by-pass discharge event. The discharge must minimize the use of the storm water by-passes at Outfall Nos. 001 and 002.

D. The discharge of wastewater and storm water in excess of the effluent limitations in Section IV.A.1. of this Order are prohibited unless the Discharger obtains revised waste discharge requirements authorizing an increased discharge.

E. The discharge shall not cause pollution, contamination, or nuisance, as those terms are defined in CWC 13050, as a result of the treatment or discharge of wastes.

F. Collected screenings, sludge, and other solids removed from liquid wastes, shall be disposed of in a manner which complies with local, state and federal statutes and regulations.

G. Odors, vectors, and other nuisances of waste origin beyond the limits of the property controlled by discharger are prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Outfall No. 001 (East Outfall)

1. Effluent Limitations

a. The discharge of wastewater from exhibit pools, intermittent flows during pool draining and cleaning operations, runoff from landscape irrigation, facility wash down water, and storm water from Outfall No. 001 shall maintain compliance with the effluent limitations listed in *Table 6. Effluent Limitations for Outfall No. 001*.

Table 6. Effluent Limitations for Outfall No. 001.

Parameter	Units	Effluent Limitations				
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	--	--	3.24	--	--
pH	Units	--	--	--	7.0	9.0
Oil and Grease	mg/L	--	25	--	--	75
	lbs/day[1]	--	676	--	--	2,026
Turbidity	NTU	--	75	--	--	225
Settleable Solids	ml/L	--	1.0	--	--	3.0
Suspended Solids	mg/L	Narrative[2]				
Ammonia	mg/L	--	--	--	--	0.55
	lbs/day[1]	--	--	--	--	15
Chlorine Residual	mg/L	--	0.21	--	--	0.42
	lbs/day[1]	--	5.7	--	--	11.3
Copper[3]	µg/L	24	38.13	76.5	--	--
	lbs/day[1]	0.65	1.0	2.1	--	--
Silver[3]	µg/L	6.5	23.16	36	--	--
	lbs/day[1]	0.2	0.6	1.0	--	--
Enterococcus	CFU/100 mL	--	35	--	--	104
Fecal Coliform	MPN/100 mL	Narrative[4]				
Total Coliform	MPN/100 mL	Narrative[5]				
Acute Toxicity	TUa	--	1.5	--	--	2.5
Chronic Toxicity	TUc	--	--	22	--	--

1 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.

2 The discharge of aquaria wastewater through Outfall No. 001 shall contain no increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum in the concentration of total suspended solids when compared to the intake water.

3 Metals are expressed as total recoverable.

4 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.

5 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three tube dilution test is used.

b. The discharge of wastewater from exhibit pools, intermittent flows during pool draining and cleaning operations, runoff from landscape irrigation, facility wash down water, and storm water from Outfall No. 002 shall maintain compliance with the effluent limitations summarized in *Table 7. Final Effluent Limitations for Outfall No. 002*.

Table 7. Effluent Limitations for Outfall No. 002.

Parameter	Units	Effluent Limitations				
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	mgd	--	--	6.12	--	--
pH	Units	--	--	--	7.0	9.0
Oil and Grease	mg/L	--	25	--	--	75
	lbs/day[1]	--	1,276	--	--	3,828
Turbidity	NTU	--	75	--	--	225
Settleable Solids	ml/L	--	1.0	--	--	3.0
Suspended Solids	mg/L	Narrative[2]				
Ammonia	mg/L	--	--	--	--	0.55
	lbs/day[1]	--	--	--	--	28.1
Chlorine Residual	mg/L	--	0.21	--	--	0.42
	lbs/day[1]	--	10.7	--	--	21.4
Copper[3]	µg/L	24	38.13	76.5	--	--
	lbs/day[1]	1.2	1.9	3.9	--	--
Silver[3]	µg/L	6.5	23.16	36	--	--
	lbs/day[1]	0.33	1.2	1.8	--	--
Enterococcus	CFU/100 mL	--	35	--	--	104
Fecal Coliform	MPN/100 mL	Narrative[4]				
Total Coliform	MPN/100 mL	Narrative[5]				
Acute Toxicity	TUa	--	1.5	--	--	2.5
Chronic Toxicity	TUc	--	--	22	--	--

1 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.

2 The discharge of aquaria wastewater through Outfall No. 002 shall contain no increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum in the concentration of total suspended solids when compared to the intake water.

3 Metals are expressed as total recoverable.

4 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.

5 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three tube dilution test is used.

2. Interim Effluent Limitations (Not Applicable)

V. LAND DISCHARGE SPECIFICATIONS (NOT APPLICABLE)

VI. RECLAMATION SPECIFICATIONS (NOT APPLICABLE)

VII. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in Mission Bay:

1. Physical Characteristics

   a. In bays and estuaries, the most probable number of coliform organisms in the upper 60 feet of the water column shall be less then 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 (100 per ml).

   b. Waters designated for contact recreation (REC-1) beneficial use shall not exceed the values specified in the U.S. EPA Bacteriological Criteria For Water Contact Recreation, designated for contact recreation in the Federal Register, Volume 51, No. 45, Friday, March 7, 1986, 8012-8016.

   c. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other resources in inland surface waters, coastal lagoon or bay and estuary shall not be impaired.

   d. Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.

   e. Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses.

f. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

g. Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.

h. Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other Regional water resources used for human consumption shall not be impaired in inland surface waters and bays and estuaries.

i. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

The transparency of waters in lagoons and estuaries shall not be less than 50% of the depth at locations where measurement is made by means of a standard Secchi disk, except where lesser transparency is caused by rainfall runoff from undisturbed natural areas and dredging projects conducted in conformance with waste discharge requirements of the Regional Board. With these two exceptions, increases in turbidity attributable to controllable water quality factors shall not exceed: 20% over natural turbidity levels at locations with a natural turbidity of 0 to 50 NTU; 10 NTU at locations with a natural turbidity of 50 to 100 NTU; and 10% over the natural turbidity level in locations with a natural turbidity of greater than 100 NTU.

2. Chemical Characteristics

a. The discharge of wastes shall not cause the concentrations of un-ionized ammonia (NH_3) to exceed 0.025 mg/L (as N).

b. Inland surface waters, bays and estuaries and coastal lagoon waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.

c. Changes in normal ambient pH levels shall not exceed 0.2 units in waters designated estuarine beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0.

3. Radioactivity

a. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.

4. Toxicity

   a. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

   b. Inland surface waters, enclosed bays, and estuaries shall not contain toxic pollutants in excess of the numerical objectives applicable to California specified in 40 CFR 131.38.

5. Pesticides

   a. No individual pesticide or combination of pesticides shall be present in the water column, sediments or biota at concentrations(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms.

VIII. GROUNDWATER LIMITATIONS (NOT APPLICABLE)

IX. PROVISIONS

A. Standard Provisions

The Discharger shall comply with the Federal and Regional Board Standard Provisions contained in this section. The Federal Standard Provisions are in Attachment D of this Order. Where the Standard Provisions contained within this section and the Standard Provisions conflict, the more stringent of the two requirements apply.

1. **Federal Standard Provisions.** The following sections of 40 CFR are incorporated into this permit by reference and are included in Attachment D to this Order:

   a. 122.5 *Effect of a permit*

   b. 122.21 *Application for a permit*

   c. 122.22 *Signatories to permit applications and reports*

   d. 122.41 *Conditions applicable to all permits*

   e. 122.61 *Transfer of permits*

   f. 122.62 *Modification or revocation of permits*

   g. 122.63 *Minor modifications of permits*

   h. 122.64 *Termination of permits*

2. **Regional Board Standard Provisions.** The Discharger shall comply with the following provisions:

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

   b. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

   c. Upon application by any affected person, or on its own motion, this Regional Board may review and revise this permit.

   d. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

   e. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those pursuant to the CWA.

      Nothing in this Order shall protect the discharger from its liabilities under federal, state, or local laws. Except as provided for in 40 CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the discharger from civil or criminal penalties for noncompliance.

      Nothing in this Order shall preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or may be subject to under Section 311 of the CWA.

      Nothing in this Order shall preclude institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authoring preserved by Section 510 of the CWA.

   f. Any noncompliance with this permit is a violation of the California Water Code and/or the federal Clean Water Act and is grounds for denial of an application for permit modification.

   g. No discharge of waste into waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.

h. For the purposes of this permit, the term *permittee* used in parts of 40 CFR incorporated into this permit by reference and/or applicable to this permit shall have the same meaning as the term *discharger* used elsewhere in this permit.

i. After this permit expires, the terms and conditions of this permit may be administratively continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits are complied with.

j. Any application submitted by the discharger for reissuance or modification of this permit shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the California Water Code and the California Code of Regulations.

k. Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this permit will be considered confidential, and all such information and documents shall be available for review by the public at the office of the Regional Board.

l. The discharger shall conduct appropriate analyses on any sample provided by U.S. EPA as part of the discharge monitoring quality assurance (DMQA) program. The results of such analyses shall be submitted to U.S. EPA's DMQA manager.

m. The handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the state in a manner, which causes or threatens to cause a condition of pollution, contamination, or nuisance, as those terms are defined in CWC 13050, is prohibited.

n. The discharger shall comply with any interim effluent limitations as established by addendum, enforcement action or revised waste discharge requirements, which have been or may be adopted by this Regional Board.

o. A copy of this Order shall be maintained on-site at the facility, and shall be available to operating personnel at all times.

p. This Order shall become effective 10 days after the date of its adoption, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.

q. **This Order expires on April 13, 2010**. However, it will continue in force and effect until superseded by a new permit or rescinded.

r. This Order does not apply to discharges of radioactive materials regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.).

X. MONITORING AND REPORTING PROGRAM REQUIREMENTS

1. This Order expires on **April 13, 2010**. 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 new waste discharge requirements. The Discharger must file a complete Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date, as an application for issuance of new waste discharge requirements.

2. The discharger shall comply with Monitoring and Reporting Program No. R9-2005-0091 (Attachment E), and future revisions thereto.

   Monitoring data shall be submitted on a copy of the Monitoring and Reporting Form in Attachment G.

   Reports required to be submitted to this Regional Board shall be sent to:

   Industrial Compliance Unit
   California Regional Water Quality Control Board
   San Diego Region
   9174 Sky Park Court, Suite 100
   San Diego, California 92123-4340

   Notifications required to be provided to this Regional Board shall be made to:

   Telephone - (858) 467-2952 or
   Facsimile - (858) 571-6972

3. The Discharger, after notification by the State or Regional Board, may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self monitoring reports is required, the Discharger shall submit discharge monitoring reports (DMR) in accordance with the requirements described further below.

   The DMR must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy to:

   State Water Resources Control Board
   Discharge Monitoring Report Processing Center
   Post Office Box 671
   Sacramento, CA 95812

   All discharge monitoring results must be reported on the official U.S. EPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self generated or modified cannot be accepted.

XI. SPECIAL PROVISIONS

1. Re-opener Provisions

a. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

i. Violation of any terms or conditions of this Order;

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

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

The filing of a request by the discharger for modifications, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.

b. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

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

d. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new Minimum Levels (ML).

e. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, or the adoption of a total maximum daily load (TMDL) allocation for Mission Bay.

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

g. This Order may be reopened and modified to revise the toxicity language once that language becomes standardized.

h. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 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 and permit, and endangerment to human health or the environment resulting from the permitted activity.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program for Mission Bay as directed by this Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated sampling effort, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the receiving water.

b. The Discharger shall conduct CTR monitoring once during the term of the permit as established in Section IV.A. of the MRP. Monitoring shall be conducted between February 1, 2009 and July 31, 2009. The results of this CTR monitoring data shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

c. Because storm water may mix or commingle with other waste waters, and because the Discharger conducts chlorination at various locations throughout the storm water/wastewater collection system, the Discharger shall conduct sampling of storm water by-passes from the Facility to evaluate the presence of potential pollutants. Within two years after the adoption date of Order No. R9-2005-0091, the Discharger shall conduct two monitoring events of the storm water by-pass discharge points during active storm water by-passes. Sampling shall be conducted at representative storm water discharge locations during normal operational hours. The results of the storm water by-pass monitoring shall be submitted to this Regional Board no later than 90 days following the second sampling event. The Discharger shall collect grab samples for all pollutants specified in Section IX.D. of the MRP.

3. Best Management Practices and Pollution Prevention

a. **Best Management Practices Plan.**

The Discharger shall establish and implement a best management practices (BMP) plan to reduce pollution to Mission Bay and minimize pollutants contact with storm water. The BMP shall be continued from the current Order. The following BMP shall be conducted to maximize capture and treatment of any wastewater, and reduce or eliminate any mixing with storm water:

i. Aquaria and pool draining activities shall be halted during a storm water by-pass discharge event.

ii. All paved areas shall be swept down periodically to minimize storm water pollutant loading into Mission Bay.

iii. A periodic wash down following the periodic sweep is authorized. Care shall be taken to direct as much of the wash down as possible into the treatment system.

b. Within one year after the adoption of this Order, the Discharger shall develop and implement the Storm Water Pollution Prevention Plan (SWPPP) Requirements as specified in Attachment I of Order No. R9-2005-0091. The SWPPP shall incorporate the BMP established in Section XI.3.a. of this Order.

4. Compliance Schedules (Not Applicable)

5. Construction, Operation and Maintenance Specifications (Not Applicable)

6. Special Provisions for Municipal Facilities (POTW only) (Not Applicable)

7. Other Special Provisions

XII. COMPLIANCE DETERMINATION

Compliance with effluent limitations or discharge specifications shall be determined as follows:

1. If only one sample is collected during the time period associated with the effluent limitations (e.g., 30-day average or 6-month median), the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.

2. Analytical data shall be reported uncensored with detection limits and quantitation limits identified. For any effluent limitation, compliance shall be determined using appropriate statistical methods to evaluate multiple samples. Sufficient sampling and analyses shall be conducted to determine compliance.

3. Calculations for limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order or Monitoring and Reporting Program No. R9-2005-0091.

4. When determining compliance based on a single sample, with a single effluent limitation which applies to a group of chemicals (e.g. PCBs) concentrations of individual members of the group may be considered to be zero if the analytical response for individual chemicals falls below the MDL for that parameter.

5. The 6-month median effluent concentration limitation shall apply as a moving median of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be zero for days on which no discharge occurred. The 6-month median receiving water limitation shall apply as a moving median of daily values for any 180-day period.

6. Average monthly discharge limitation means the highest allowable average concentration over a running 30-day period, calculated as the sum of all measured concentrations during a 30-day period divided by the number of measured concentrations during that period.

7. Average weekly discharge limitation means the highest allowable average of concentration over a running 7-day period, calculated as the sum of all measured concentrations during a running 7-day period divided by the number of measured concentrations during that period.

8. The daily maximum effluent concentration limitation shall apply to grab samples. The daily maximum receiving water limitation shall apply to grab sample determinations.

9. The instantaneous maximum effluent concentration limitation shall apply to grab sample. The instantaneous maximum receiving water limitation shall apply to grab sample.

10. The mass emission rate (MER), in pounds per day, shall be obtained from the following calculation for any calendar day:

    mass emission rate (lb/day) = 8.34 x Q x C

    In which Q and C are the flow rate in million gallons per day and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor. If a composite sample is taken, then C is the concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited.

11. Compliance with the acute toxicity limitation shall be determined using the following formula:

$$TUa = \frac{100}{96 - hr\ LC\ 50\%}$$

    Where Lethal Concentration 50% (LC 50) (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Appendix III, Chapter II of the 2001 Ocean Plan. If specific identifiable substances in wastewater can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

    Where it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log (100 - S)}{1.7}$$

    Where: S = percent survival in 100 % waste. If S > 99, TUa shall be reported as zero

12. Compliance with the Chronic Toxicity effluent limitation established in the Final Effluent Limitations for Outfall Nos. 001 and 002 (section IV.A.1. of this Order) shall be determined using critical life stage toxicity tests in accordance with procedures prescribed by the Ocean Plan (2001) and restated in MRP R9-2005-0091. Chronic Toxicity (TUc) shall be expressed as Toxic Units Chronic (TUc), where:

    TUc = 100 / NOEL

    where NOEL is the No Observed Effect Level and is expressed as the maximum percent of effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed below.

13. The discharger shall develop a Toxicity Reduction Evaluation (TRE) work plan in accordance with the TRE procedures established by the U.S. EPA in the following guidance manuals:

    a. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070)

    b. Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F)

    c. Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080)

    d. Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081)

    The Discharger shall submit the TRE work plan to this Regional Board within 180 days of the adoption of this Order. The TRE work plan shall be subject to the approval of this Regional Board and shall be modified as directed by this Regional Board.

14. If toxicity effluent limitations identified in Discharge Specification IV.A.1 of this Order are exceeded, then within 15 days of the exceedence, the discharger shall begin conducting six additional toxicity tests over a six-month (at least one sample per calendar month) period and provide the results to this Regional Board. The additional monthly toxicity tests will be incorporated into the semiannual discharge monitoring reports submitted pursuant to MRP No. R9-2005-0091.

    If the additional monthly tests indicate that toxicity effluent limitations are being consistently violated (at least three exceedences out of the six tests), this Regional Board may recommend that the discharger conduct a TRE and a Toxic Identification Evaluation (TIE), as identified in the approved TRE work plan.

    If the Discharger conducts the TRE/TIE, the Discharger shall, within 15 days of completion of the TRE/TIE, submit the results of the TRE/TIE, including a summary of findings, identified sources of toxicity, a list of corrective actions necessary to achieve consistent

compliance with all the toxicity limitations of this Order and prevent recurrence of violations of those limitations and a time schedule for implementations of such corrective actions. The corrective actions and time schedule shall be modified at the direction of this Regional Board.

15. Dischargers are out of compliance with an effluent limitation or discharge specification if the concentration of the constituent in the monitoring sample is greater than the effluent limitation or discharge specification and greater than or equal to the Minimum Level (ML).

ATTACHMENT A – DEFINITIONS

Average Monthly Effluent Limitation (AMEL): average monthly discharge limitation means the highest allowable average concentration over a running 30-day period, calculated as the sum of all measured concentrations during a 30-day period divided by the number of measured concentrations during that period.

Average Weekly Effluent Limitation (AWEL): average weekly discharge limitation means the highest allowable average of concentration over a running 7-day period, calculated as the sum of all measured concentrations during a running 7-day period divided by the number of measured concentrations during that period.

Daily Discharge: the total mass of the constituent discharged over the day for a constituent with limitations expressed in units of mass or the arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

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.

Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

SeaWorld San Diego
Order No. R9-2005-0091
NPDES No. CA0107336

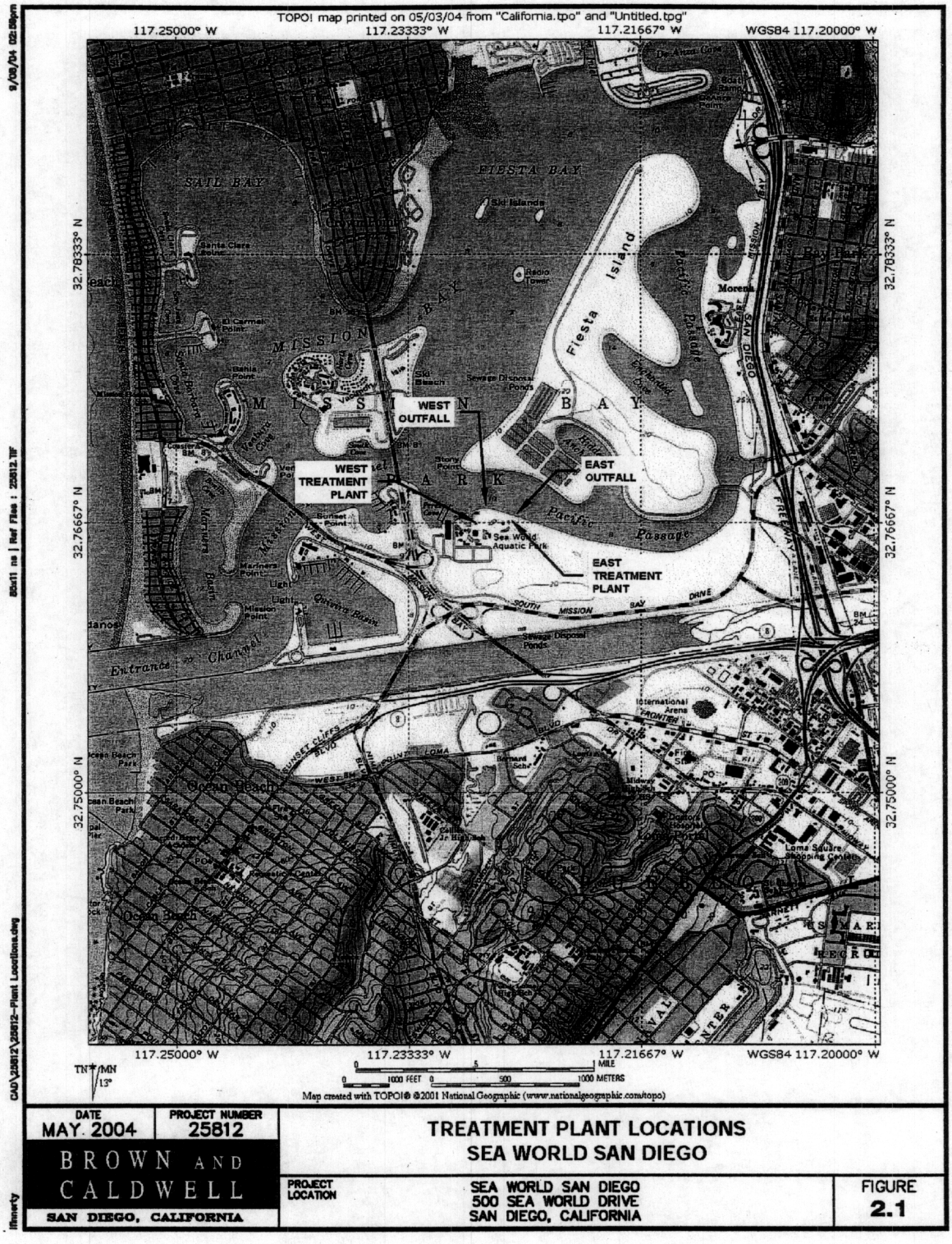

Figure 2-1. Topography and Location of Sea World San Diego

Attachment B - Topographic Map

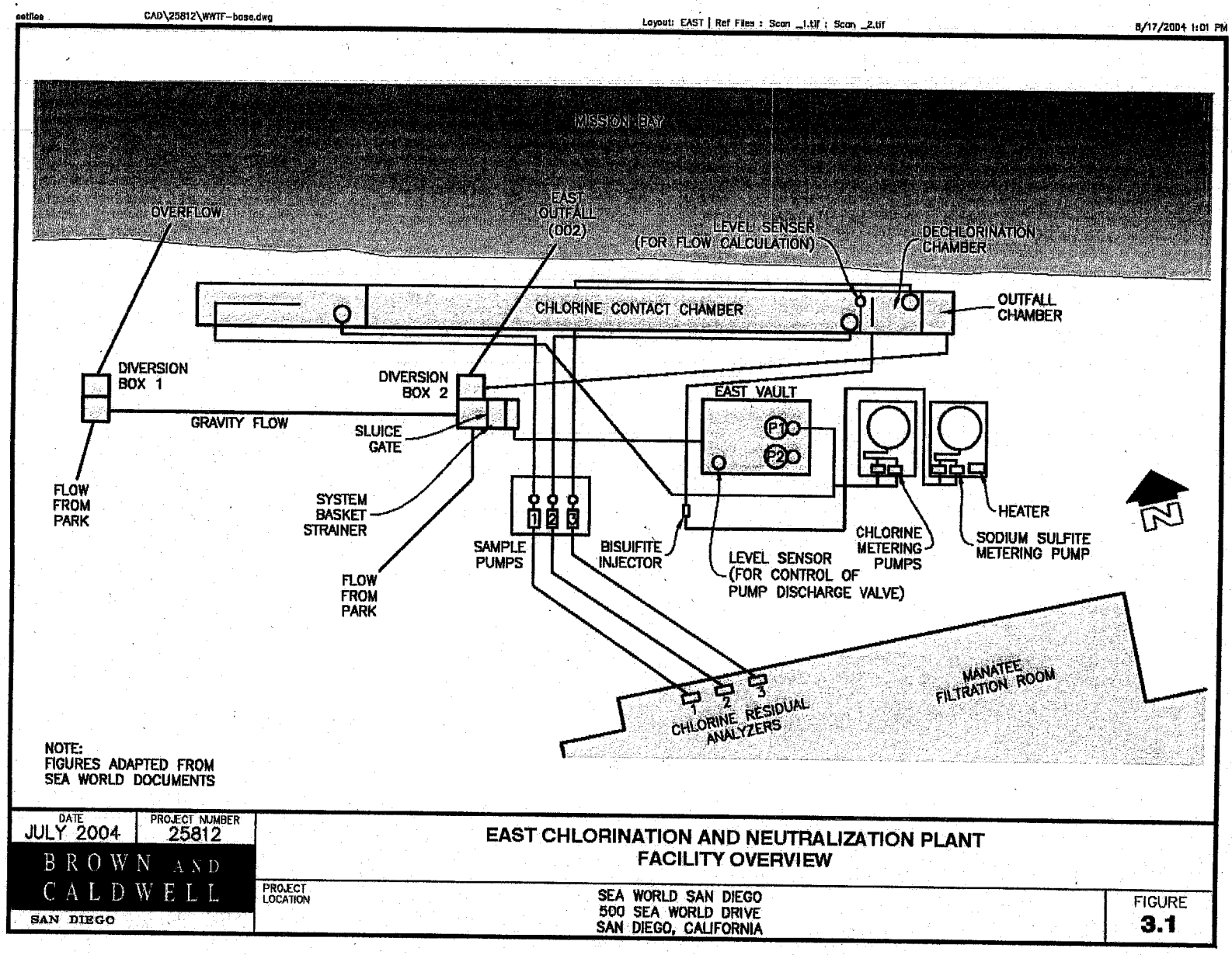

Figure 3-1. East Water Treatment Facility

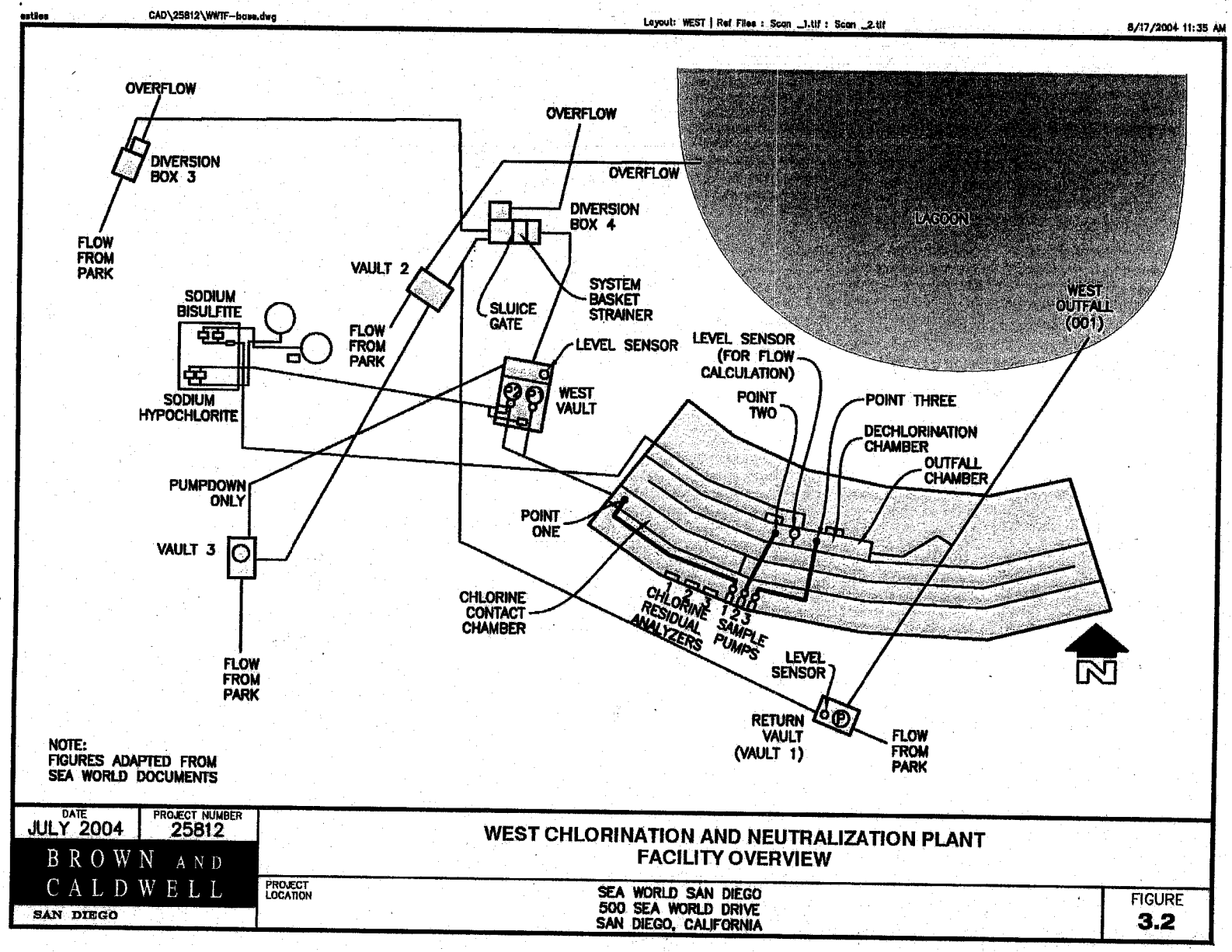

Figure 3-2. West Water Treatment Facility

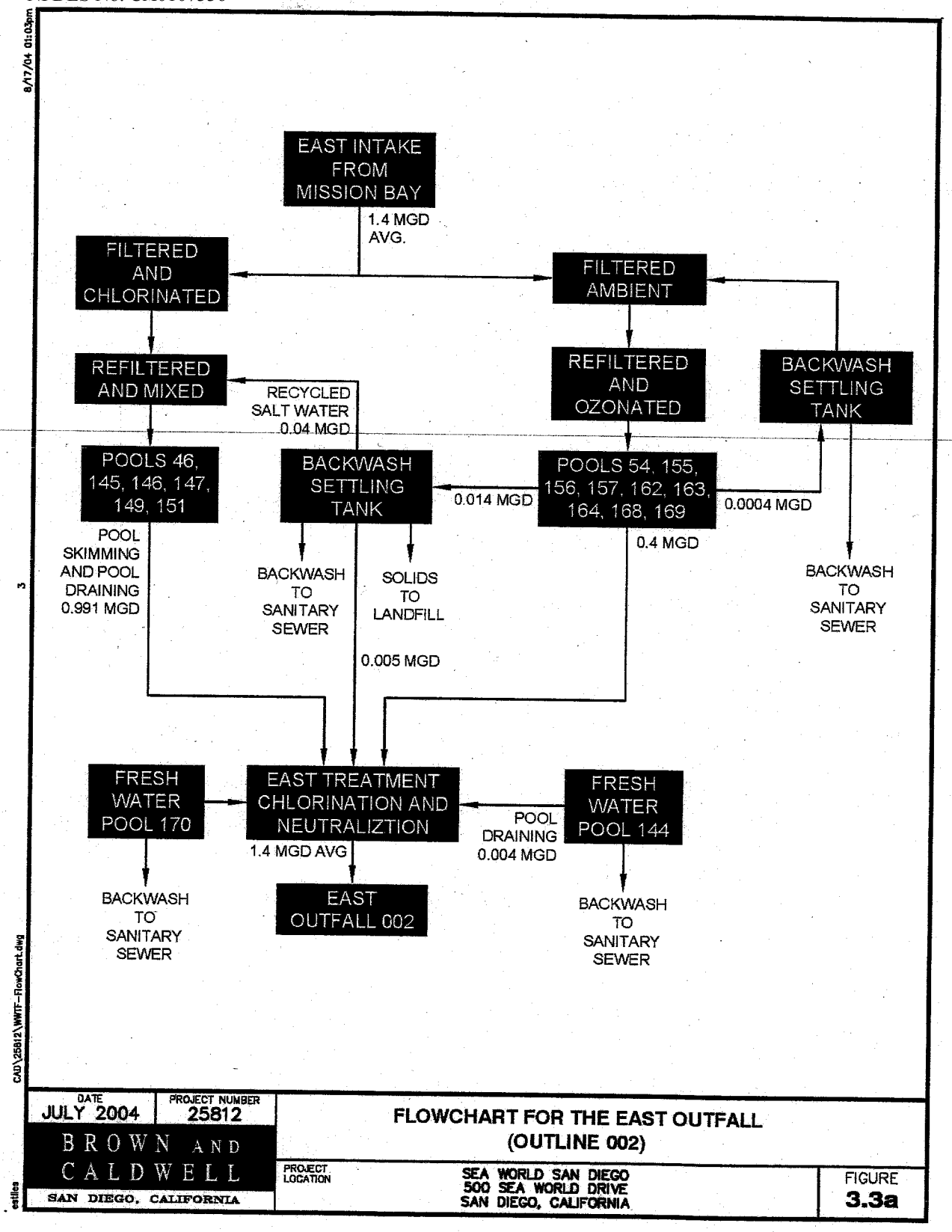

Figure 3-3a. Flow Schematic for East Outfall

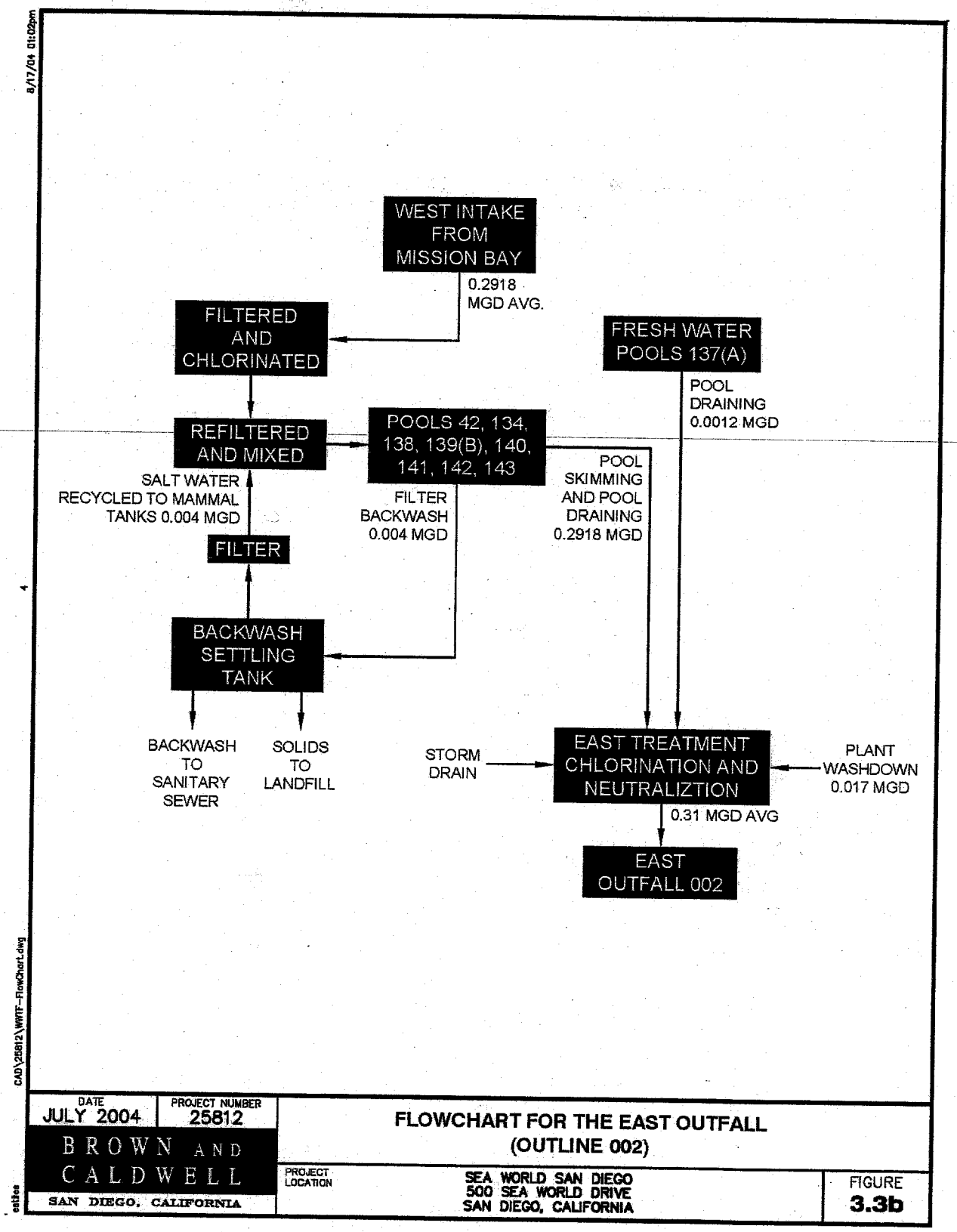

Figure 3-3b. Flow Schematic for East Outfall

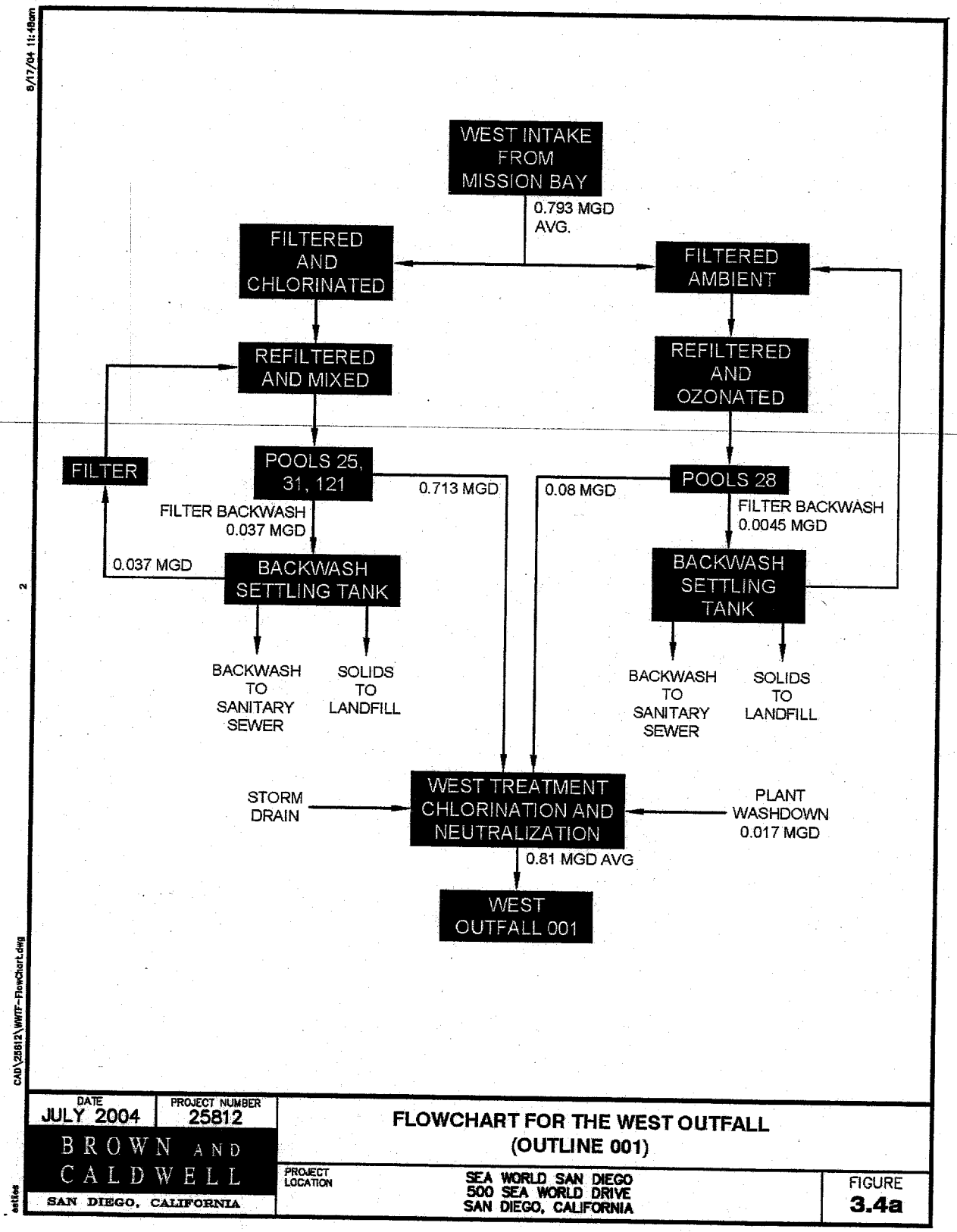

Figure 3-4a. Flow Schematic for West Outfall

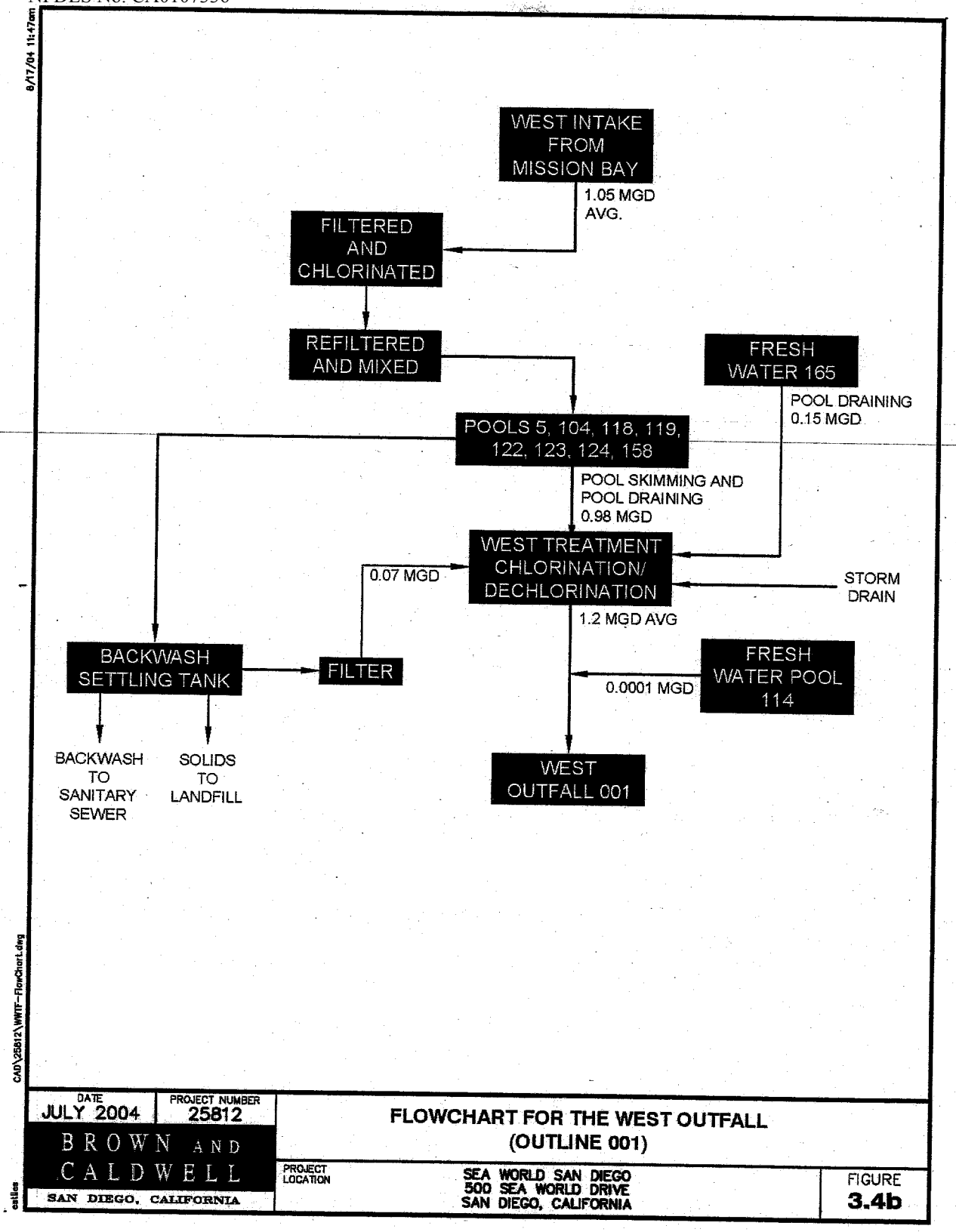

Figure 3-4b. Flow Schematic for West Outfall

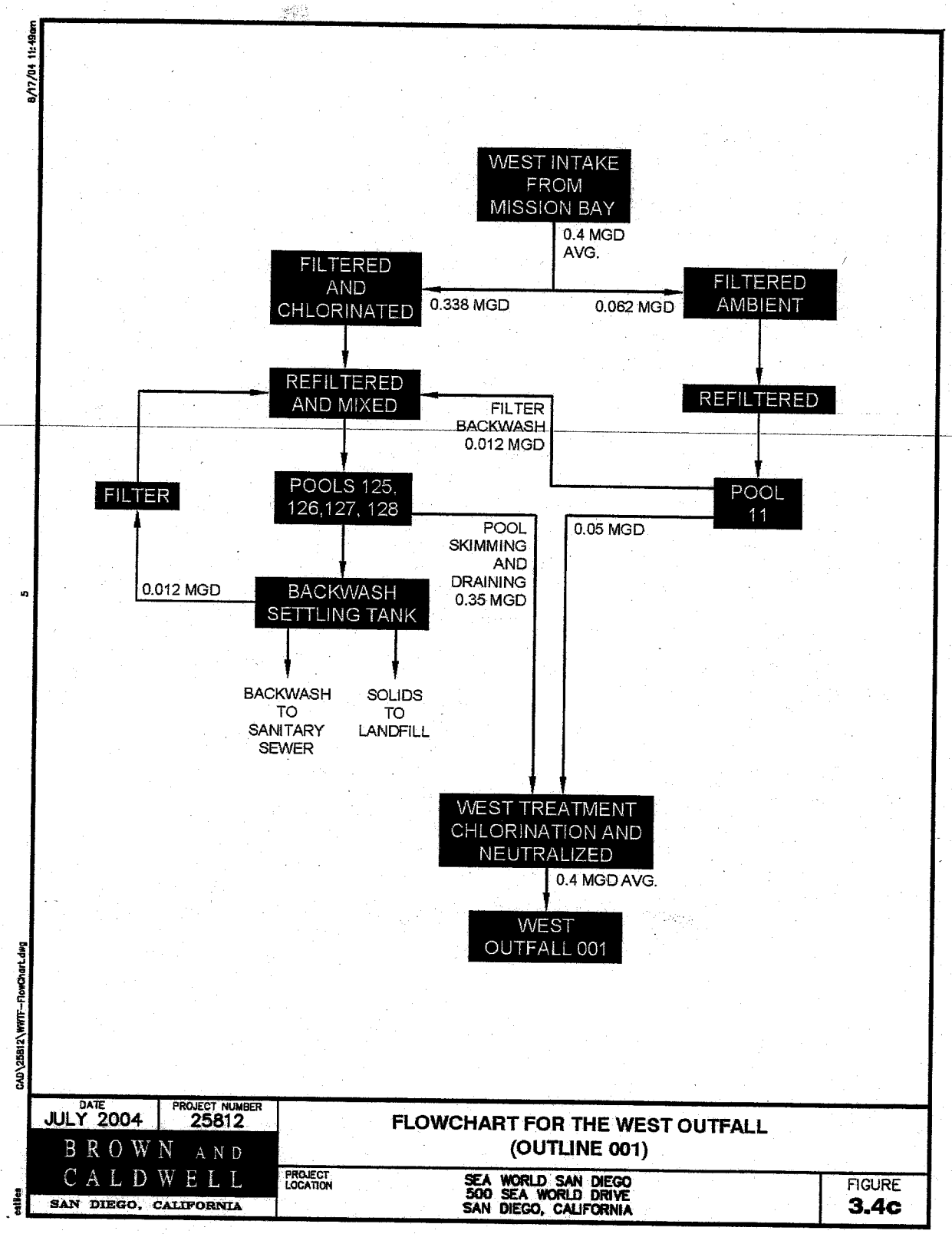

Figure 3-4c. Flow Schematic for West Outfall

ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. FEDERAL STANDARD PROVISIONS

A. Standard Provisions – Permit Compliance

1. Duty to Comply

a. 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 (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application. [*40 CFR §122.41(a)*]

b. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act 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 been modified to incorporate the requirement. [*40 CFR §122.41(a)(1)*]

2. 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 CFR §122.41(c)*]

3. 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 CFR §122.41(d)*]

4. 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 CFR §122.41(e)*]

5. Property Rights

a. This Order does not convey any property rights of any sort or any exclusive privileges. [*40 CFR §122.41(g)*]

b. 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 CFR §122.5(c)*]

6. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), 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 CFR §122.41(i)*] [*CWC 13383(c)*]:

a. 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 CFR §122.41(i)(1)*];

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [*40 CFR §122.41(i)(2)*];

c. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [*40 CFR §122.41(i)(3)*];

d. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location. [*40 CFR §122.41(i)(4)*]

7. Bypass

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. [*40 CFR §122.41(m)(1)(i)*]

(2) "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 CFR §122.41(m)(1)(ii)*]

b. 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 A.7.c. and A.7.e below [*40 CFR §122.41(m)(2)*]

c. Prohibition of bypass – Bypass is prohibited, and the Regional Board may take enforcement action against a Discharger for bypass, unless [*40 CFR §122.41(m)(4)(i)*]:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; [*40 CFR §122.41(m)(4)(A)*];

(2) 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 CFR §122.41(m)(4)(B)*]; and

(3) The Discharger submitted notice to the Regional Board as required under Standard Provision A.7.e below. [*40 CFR §122.41(m)(4)(C)*]

d. The Regional Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance A.7.c. above. [*40 CFR §122.41(m)(4)(ii)*]

e. Notice

(1) 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 CFR §122.41(m)(3)(i)*]

(2) Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting E.5. below. [*40 CFR §122.41(m)(3)(ii)*]

8. 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 permittee. 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 CFR §122.41(n)(1)*]

a. 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 paragraph 8.b of this section 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 CFR §122.41(n)(2)*]

b. 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 CFR §122.41(n)(3)*]:

(1) An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];

(2) The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];

(3) The Discharger submitted notice of the upset as required in Standard Provisions – Reporting E.5.b(2). [*40 CFR §122.41(n)(3)(iii)*]; and

(4) The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance A.3. above. [*40 CFR §122.41(n)(3)(iv)*].

c. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR §122.41(n)(4)*].

B. Standard Provisions – Permit Action

1. 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 CFR §122.41(f)*]

2. 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 CFR §122.41(b)*]

3. Transfers

This Order is not transferable to any person except after notice to the Regional Board. The Regional 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 CWC. [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*]

C. Standard Provisions – Monitoring

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [*40 CFR §122.41(j)(1)*]

2. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the-case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order. [*40 CFR §122.41(j)(4)*] [*40 CFR §122.44(i)(1)(iv)*]

D. Standard Provisions – Records

1. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of

at least five years (or longer as required by 40 CFR 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 Board Executive Officer at any time. [*40 CFR §122.41(j)(2)*]

2. Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];

b. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];

c. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];

d. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];

e. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and

f. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*]

3. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

a. The name and address of any permit applicant or Discharger [*40 CFR §122.7(b)(1)*];

b. Permit applications and attachments, permits and effluent data [*40 CFR §122.7(b)(2)*].

E. Standard Provisions – Reporting

1. Duty to Provide Information

The Discharger shall furnish to the Regional Board, SWRCB, or U.S. EPA within a reasonable time, any information which the Regional Board, SWRCB, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Board, SWRCB, or U.S. EPA copies of records required to be kept by this Order. [*40 CFR §122.41(h)*] [*CWC 13267*]

2. Signatory and Certification Requirements

a. All applications, reports, or information submitted to the Regional Board, SWRCB, and/or U.S. EPA shall be signed and certified in accordance with paragraph (b) and (c) of this provision. [*40 CFR §122.41(k)*]

b. All permit applications shall be signed as follows:

(1) For a corporation: 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 CFR §122.22(a)(1)*]

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; [*40 CFR §122.22(a)(2)*] or

(3) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). [*40 CFR §122.22(a)(3)*]

c. All reports required by this Order and other information requested by the Regional Board, SWRCB, or U.S. EPA shall be signed by a person described in paragraph (b) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (b) of this provision [*40 CFR §122.22(b)(1)*];

(2) The authorization specified 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 CFR §122.22(b)(2)*] and,

(3) The written authorization is submitted to the Regional Board, SWRCB, or U.S. EPA. [*40 CFR §122.22(b)(3)*]

d. If an authorization under paragraph (c) of this provision 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 paragraph (c) of this provision must be submitted to the Regional Board, SWRCB or U.S. EPA prior to or together with any reports, information, or applications, to be signed by an authorized representative. [40 CFR §122.22(c)]

e. Any person signing a document under paragraph (b) or (c) of this provision 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 CFR §122.22(d)*]

3. Monitoring Reports

a. Monitoring results shall be reported at the intervals specified in Attachment E, the Monitoring and Reporting Program in this Order. [*40 CFR §122.41(l)(4)*]

b. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Board or SWRCB for reporting results of monitoring of sludge use or disposal practices. [*40 CFR §122.41(l)(4)(i)*]

c. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR 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 Board. [*40 CFR §122.41(l)(4)(ii)*]

d. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. [*40 CFR §122.41(l)(4)(iii)*]

4. 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 CFR §122.41(l)(5)*]

5. Twenty-four Hour Reporting

a. 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 CFR §122.41(l)(6)(i)*]

b. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

(1) Any unanticipated bypass that exceeds any effluent limitation in this Order. [*40 CFR §122.41(l)(6)(ii)(A)*]

(2) Any upset that exceeds any effluent limitation in this Order. [*40 CFR §122.41(l)(6)(ii)(B)*]

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours. [*40 CFR §122.41(l)(6)(ii)(C)*]

c. The Regional 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 CFR §122.41(l)(6)(iii)*]

6. Planned Changes

The Discharger shall give notice to the Regional 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 CFR §122.41(l)(1)*]:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b); [*40 CFR §122.41(l)(1)(i)*] or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions - Notification Levels G.1.a) [*40 CFR §122.41(l)(1)(ii)*]

c. 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 CFR §122.41(l)(1)(iii)*]

7. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. [*40 CFR §122.41(l)(2)*]

8. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Provision E.5. [*40 CFR §122.41(l)(7)*]

9. 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 Board, SWRCB, or U.S. EPA, the Discharger shall promptly submit such facts or information. [*40 CFR §122.41(l)(8)*]

F. Standard Provisions – Enforcement

1. 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 Clean Water Act, 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. [*40 CFR §122.41(a)(2)*] [*CWC Sections 13385 and 13387*]

2. Any person may be assessed an administrative penalty by the Regional 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. [*40 CFR §122.41(a)(3)*]

3. 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. [*40 CFR §122.41(j)(5)*].

4. 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. [*40 CFR §122.41(k)(2)*]

G. Additional Provisions – Notification Levels

1. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Board as soon as they know or have reason to believe [*40 CFR §122.42(a)*]:

a. 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 CFR §122.42(a)(1)*]:

(1) 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

(2) 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 CFR §122.42(a)(1)(ii)*];

(3) Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(1)(iii)*]; or

(4) The level established by the Regional Board in accordance with 40 CFR §122.44(f). [*40 CFR §122.42(a)(1)(iv)*]

b. 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 CFR §122.42(a)(2)*]:

(1) 500 micrograms per liter (µg/L) [*40 CFR §122.42(a)(2)(i)*];

(2) 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(2)(ii)*];

(3) Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(2)(iii)*]; or

(4) The level established by the Regional Board in accordance with 40 CFR §122.44(f). [*40 CFR §122.42(a)(2)(iv)*]

2. Publicly-owned Treatment Works (Not Applicable)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

ATTACHMENT G - MONITORING AND REPORTING FORM

ORDER NO. R9-2005-0091
NPDES PERMIT NO. CA0107336

Please check and label the applicable reporting period:

- ❑ Monthly _____
- ❑ Quarterly _____
- ❑ Semi-annual _____
- ❑ Annual _____

Date___/___/_____

Constituent	Sample Type	Minimum Sampling Frequency	Sample Date	Results East-Influent	Results West Influent	Units
Total Coliform	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
Fecal Coliform	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
Enterococcus	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
	Grab	Weekly				MPN/100 mL
Suspended Solids	24 hr. - Composite	Quarterly				mg/L

Effluent Monitoring Outfall No. 001 (East)

Constituent	Units	Sample Type	Minimum Sampling Frequency	Sample Date	Results	Effluent Limitations				
						6-Month Median	Monthly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	Continuous	Daily	N/A	[1]	--	--	3.24	--	--
Temperature	°C	Grab	Monthly			--	--	--	--	--
pH (Units)	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
Total Coliform	MPN/100 mL	Grab	Weekly			The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three tube dilution test is used.				
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
Fecal Coliform	MPN/100 mL	Grab	Weekly			The fecal coliform concentration based on a minimum of not les than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.				
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
Entercoccus	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	5.7	--	--	11.3
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	5.7	--	--	11.3
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	5.7	--	--	11.3
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	5.7	--	--	11.3
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	5.7	--	--	11.3

Constituent	Units	Sample Type	Minimum Sampling Frequency	Sample Date	Results	Effluent Limitations				
						6-Month Median	Monthly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Suspended Solids	mg/L	24-hr. Composite	Quarterly		The discharge of aquaria wastewater through Outfall No. 001 shall contain no increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum when compared to the intake water.					
Settleable Solids	ml/L	Grab	Quarterly			--	1.0	--	--	3.0
Oil and Grease	mg/L	Grab	Semi-annual			--	25	--	--	75
	lbs/day	Calculate				--	676	--	--	2,026
Turbidity	NTU	24-hr. Composite	Semi-annual			--	75	--	--	225
Copper[2]	µg/L	24-hr. Composite	Semi-annual			24	38.13	76.5	--	--
	lbs/day	Calculated				0.65	1.0	2.1	--	--
Silver[2]	µg/L	24-hr. Composite	Semi-annual			6.5	23.16	36	--	--
	lbs/day	Calculated				0.2	0.6	1.0	--	--
Ammonia	mg/L	24-hr. Composite	Semi-annual			--	--	--	--	0.55
	lbs/day	Calculated				--	--	--	--	15
Acute Toxicity	TUa	24-hr. Composite	Annual			--	1.5	--	--	2.5
Chronic Toxicity	TUc	24-hr. Composite	Once every 5-years			--	--	22	--	--

1 Daily flow values shall be submitted as an attachment to this form.

2 Metals shall be reported as total recoverable.

Effluent Monitoring Outfall No. 002 (West)

Constituent	Units	Sample Type	Minimum Sampling Frequency	Sample Date	Results	Effluent Limitations				
						6-Month Median	Monthly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	Continuous	Daily	N/A	[1]	--	--	6.12	--	--
Temperature	°C	Grab	Monthly			--	--	--	--	--
pH (Units)	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
	Units	Grab	Weekly			--	--	--	7.0	9.0
Total Coliform	MPN/100 mL	Grab	Weekly			The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three tube dilution test is used.				
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
Fecal Coliform	MPN/100 mL	Grab	Weekly			The fecal coliform concentration based on a minimum of not les than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.				
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
	MPN/100 mL	Grab	Weekly							
Entercoccus	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
	CFU/100 mL	Grab	Weekly			--	35	--	--	104
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	10.7	--	--	21.4
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	10.7	--	--	21.4
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	10.7	--	--	21.4
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	10.7	--	--	21.4
Residual Chlorine	mg/L	Grab	Weekly			--	0.21	--	--	0.42
	lbs/day	Calculate				--	10.7	--	--	21.4

Constituent	Units	Sample Type	Minimum Sampling Frequency	Sample Date	Results	Effluent Limitations				
						6-Month Median	Monthly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Suspended Solids	mg/L	24-hr. Composite	Quarterly		The discharge of aquaria wastewater through Outfall No. 001 shall contain no increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum when compared to the intake water.					
Settleable Solids	ml/L	Grab	Quarterly			--	1.0	--	--	3.0
Oil and Grease	mg/L	Grab	Semi-annual			--	25	--	--	75
	lbs/day	Calculate				--	1,276	--	--	3,828
Turbidity	NTU	24-hr. Composite	Semi-annual			--	75	--	--	225
Copper[2]	µg/L	24-hr. Composite	Semi-annual			24	38.13	76.5	--	--
	lbs/day	Calculated				1.2	1.9	3.9	--	--
Silver[2]	µg/L	24-hr. Composite	Semi-annual			6.5	23.16	36	--	--
	lbs/day	Calculated				0.33	1.2	1.8	--	--
Ammonia	mg/L	24-hr. Composite	Semi-annual			--	--	--	--	0.55
	lbs/day	Calculated				--	--	--	--	28.1
Acute Toxicity	TUa	24-hr. Composite	Annual			--	1.5	--	--	2.5
Chronic Toxicity	TUc	24-hr. Composite	Once every 5-years			--	--	22	--	--

1 Daily flow values shall be submitted as an attachment to this form.
2 Metals shall be reported as total recoverable.

Additional data needed to determine compliance with the effluent limitations established in Order No. R9-2005-0091 shall be submitted as an attachment to this Monitoring and Reporting Form.

Certification Statement:

Pursuant to Section E. of Attachment D, this report must be signed and certified by the Discharger or a duly authorized representative of that person as follows:

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.

_____ _____

Signed under Penalty of Perjury Date

_____

Print Name

Attachment H - RPA for Outfall 001 (East)

					Basin Plan	CTR Water Quality Criteria (ug/L)							REASONABLE POTENTIAL ANALYSIS (RPA)										HUMAN HEALTH CALCULATIONS		
					Municipal Only	Freshwater		Saltwater		Human Health for consumption of:													Organisms only		
CTR#	Parameters	Units	CV	MEC	MCL	C acute = CMC tot	C chronic = CCC tot	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)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	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
1	Antimony	ug/L	0.6	0.167							4300.00	4300.00	No	No	Y	N		0.113		B<C, Step 7		No	MEC<C & B<C			
2	Arsenic	ug/L	0.6	1.19				69.00	36.00			36.00	No	No	Y	N		0.907		B<C, Step 7		No	MEC<C & B<C			
3	Beryllium	ug/L	0.6	No Criteria							Narrative	No Criteria	No Criteria	No Criteria	Y	N		0.022		No Criteria	No Criteria	Uc	No Criteria			
4	Cadmium	ug/L	0.6	0.107				42.25	9.36		Narrative	9.36	No	No	Y	N		0.22		B<C, Step 7		No	MEC<C & B<C			
5a	Chromium (III)		0.6	No Criteria							Narrative	No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria			
5b	Chromium (VI)	ug/L	0.6	2.21				1107.75	50.35		Narrative	50.35	No	No	Y	N		2.2		B<C, Step 7		No	MEC<C & B<C			
6	Copper	ug/L	0.6	29.9				5.78	3.73			3.73	Yes	Yes	Y	N		1.69		B<C, Step 7		Yes	MEC>C		2.01	
7	Lead	ug/L	0.6	0.822				220.82	8.52		Narrative	8.52	No	No	Y	N		0.124		B<C, Step 7		No	MEC<C & B<C			
8	Mercury	ug/L	0.6					Reserved	Reserved			0.051	0.051			Y	Y	0.5	Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
9	Nickel	ug/L	0.6	0.947				74.75	8.28		4600.00	8.28	No	No	Y	N		0.356		B<C, Step 7		No	MEC<C & B<C			
10	Selenium	ug/L	0.6	0.083				290.58	71.14		Narrative	71.14	No	No	Y	N		0.025		B<C, Step 7		No	MEC<C & B<C			
11	Silver	ug/L	0.6	20				2.24				2.24	Yes	Yes	Y	N		0.134		B<C, Step 7		Yes	MEC>C		2.01	
12	Thallium	ug/L	0.6	1							6.30	6.30	No	No	Y	N		0.007		B<C, Step 7		No	MEC<C & B<C			
13	Zinc	ug/L	0.6	15.3				95.14	85.62			85.62	No	No	Y	N		3.46		B<C, Step 7		No	MEC<C & B<C			
14	Cyanide	ug/L	0.6					1.00	1.00		220000.00	1.00			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
15	Asbestos	Fibers/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria			
16	2,3,7,8 TCDD	ug/L	0.6								0.000000014	0.000000014			N					No detected value of B, Step 7		Ud	No effluent data & no B			
17	Acrolein	ug/L	0.6								780	780			N					No detected value of B, Step 7		Ud	No effluent data & no B			
18	Acrylonitrile	ug/L	0.6								0.66	0.660			N					No detected value of B, Step 7		Ud	No effluent data & no B			
19	Benzene	ug/L	0.6	2							71	71.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
20	Bromoform	ug/L	0.6	68.2							360	360.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
21	Carbon Tetrachloride	ug/L	0.6	2							4.4	4.40	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
22	Chlorobenzene	ug/L	0.6	2							21000	21000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
23	Chlorodibromomethane	ug/L	0.6	3.35							34	34.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
24	Chloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y				No Criteria	No Criteria	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	0.33							46	46.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
28	1,1-Dichloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
29	1,2-Dichloroethane	ug/L	0.6	2							99	99.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
30	1,1-Dichloroethylene	ug/L	0.6	2							3.2	3.200	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
31	1,2-Dichloropropane	ug/L	0.6	1							39	39.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
32	1,3-Dichloropropylene	ug/L	0.6								1700	1700			N					No detected value of B, Step 7		Ud	No effluent data & no B			
33	Ethylbenzene	ug/L	0.6	2							29000	29000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
34	Methyl Bromide	ug/L	0.6	2							4000	4000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
35	Methyl Chloride	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6								1600	1600.0			N					No detected value of B, Step 7		Ud	No effluent data & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	1							11	11.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
38	Tetrachloroethylene	ug/L	0.6	2							8.85	8.9	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
39	Toluene	ug/L	0.6	2							200000	200000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	1							140000	140000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
42	1,1,2-Trichloroethane	ug/L	0.6	2							42	42.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
43	Trichloroethylene	ug/L	0.6	2							81	81.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
44	Vinyl Chloride	ug/L	0.6	2							525	525	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
45	2-Chlorophenol	ug/L	0.6	5							400	400	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
46	2,4-Dichlorophenol	ug/L	0.6	5							790	790	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
47	2,4-Dimethylphenol	ug/L	0.6	2							2300	2300	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
48	4,6-dinitro-o-resol (aka2 methyl-4,6-Dinitrophenol)	ug/L	0.6	5							765	765.0	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
49	2,4-Dinitrophenol	ug/L	0.6	5							14000	14000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
50	2-Nitrophenol	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6	5				13.00	7.90		8.2	7.90	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
54	Phenol	ug/L	0.6	1							4600000	4600000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
55	2,4,6-Trichlorophenol	ug/L	0.6								6.5	6.5			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
56	Acenaphthene	ug/L	0.6	1							2700	2700	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
57	Acenaphthylene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
58	Anthracene	ug/L	0.6	10							110000	110000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
59	Benzidine	ug/L	0.6								0.00054	0.00054			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
60	Benzo(a)Anthracene	ug/L	0.6								0.049	0.0490			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
61	Benzo(a)Pyrene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
62	Benzo(b)Fluoranthene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
64	Benzo(k)Fluoranthene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
65	Bis(2-Chloroethoxy)Methan	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	1							1.4	1.400	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
67	Bis(2-Chloroisopropyl)Ethe	ug/L	0.6	2							170000	170000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	5							5.9	5.9	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
69	4-Bromophenyl Phenyl Eth	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	10							5200	5200	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
71	2-Chloronaphthalene	ug/L	0.6	10							4300	4300	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
72	4-Chlorophenyl Phenyl Eth	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
73	Chrysene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
74	Dibenzo(a,h)Anthracene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
75	1,2-Dichlorobenzene	ug/L	0.6	2							17000	17000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
76	1,3-Dichlorobenzene	ug/L	0.6	1							2600	2600	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
77	1,4-Dichlorobenzene	ug/L	0.6	1							2600	2600	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
78	3,3 Dichlorobenzidine	ug/L	0.6								0.077	0.08			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
79	Diethyl Phthalate	ug/L	0.6	2							120000	120000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
80	Dimethyl Phthalate	ug/L	0.6	2							2900000	2900000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			

CTR#	Parameters	Units	CV	MEC	Basin Plan: Municipal Only — MCl	CTR Water Quality Criteria (ug/L): Freshwater — C acute = CMC tot	Freshwater — C chronic = CCC tot	Saltwater — C acute = CMC tot	Saltwater — C chronic = CCC tot	Human Health for consumption of: Water & organisms	Human Health for consumption of: Organisms only	Lowest C	REASONABLE POTENTIAL ANALYSIS (RPA): 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)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS: Organisms only — AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
81	Di-n-Butyl Phthalate	ug/L	0.6	10							12000	12000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
82	2,4-Dinitrotoluene	ug/L	0.6	5							9.10	9.10	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6								0.54	0.540			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
86	Fluoranthene	ug/L	0.6	1							370	370	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
87	Fluorene	ug/L	0.6	10							14000	14000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
88	Hexachlorobenzene	ug/L	0.6								0.00077	0.00077			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
89	Hexachlorobutadiene	ug/L	0.6								50	50.00			N					No detected value of B, Step 7		Ud	No effluent data & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	5							17000	17000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
91	Hexachloroethane	ug/L	0.6	1							8.9	8.9	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
93	Isophorone	ug/L	0.6	1							600	600.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
94	Naphthalene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1							1900	1900	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
96	N-Nitrosodimethylamine	ug/L	0.6	5							8.10	8.10000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6								1.40	1.400			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
98	N-Nitrosodiphenylamine	ug/L	0.6	1							16	16.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
99	Phenanthrene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
100	Pyrene	ug/L	0.6	10							11000	11000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
102	Aldrin	ug/L	0.6					1.30			0.00014	0.00014			Y	Y				No detected value of B, Step 7		No	UD; effluent data and B are N			
103	alpha-BHC	ug/L	0.6	0.01							0.013	0.0130	No	No	Y	Y				No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
104	beta-BHC	ug/L	0.6	0.005							0.046	0.046	No	No	Y	Y	0.005		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
105	gamma-BHC	ug/L	0.6	0.02				0.16			0.063	0.063	No	No	Y	Y	0.02		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
106	delta-BHC	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	0.005		N	No Criteria	No Criteria	Uc	No Criteria			
107	Chlordane	ug/L	0.6					0.09	0.004		0.00059	0.00059			Y	Y	0.1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
108	4,4'-DDT	ug/L	0.6					0.13	0.001		0.00059	0.00059			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
109	4,4'-DDE (linked to DDT)	ug/L	0.6								0.00059	0.00059			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
110	4,4'-DDD	ug/L	0.6								0.00084	0.00084			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
111	Dieldrin	ug/L	0.6					0.71	0.0019		0.00014	0.00014			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
112	alpha-Endosulfan	ug/L	0.6					0.034	0.0087		240	0.0087			Y	Y	0.02		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
113	beta-Endolsulfan	ug/L	0.6					0.034	0.0087		240	0.0087			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
114	Endosulfan Sulfate	ug/L	0.6	0.05							240	240	No	No	Y	Y	0.05		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
115	Endrin	ug/L	0.6					0.037	0.0023		0.81	0.0023			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
116	Endrin Aldehyde	ug/L	0.6	0.01							0.81	0.81	No	No	Y	Y	0.01		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
117	Heptachlor	ug/L	0.6					0.053	0.0036		0.00021	0.00021			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
118	Heptachlor Epoxide	ug/L	0.6					0.053	0.0036		0.00011	0.00011			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
119-125	**PCBs sum (2)**	ug/L	0.6						0.03		0.00017	0.00017			N					No detected value of B, Step 7		No	Ud	No effluent data & no B			
126	Toxaphene	ug/L	0.6					0.21	0.0002		0.00075	0.0002			Y	Y	0.5		Y	No detected value of B, Step 7		No	UD; effluent data and B are 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

Attachment H - RPA f

CTR#	Parameters	AQUATIC LIFE CALCULATIONS — Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
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	0.32	29.43	0.53	24.56	24.56	1.55	38.13	3.11	76.4991	38.13	76.50		
7	Lead												No Limit	
8	Mercury												No Limit	
9	Nickel												No Limit	
10	Selenium												No Limit	
11	Silver	0.32	14.92	0.53		14.92	1.55	23.16	3.11	46.466	23.16133	46.46600		
12	Thallium												No Limit	
13	Zinc												No Limit	
14	Cyanide												No Limit	
15	Asbestos												No Limit	
16	2,3,7,8 TCDD												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 (aka2 methyl-4,6-Dinitrophenol)												No Limit	
49	2,4-Dinitrophenol												No Limit	
50	2-Nitrophenol												No Limit	
51	4-Nitrophenol												No Limit	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)												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	
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)Methan												No Limit	
66	Bis(2-Chloroethyl)Ether												No Limit	
67	Bis(2-Chloroisopropyl)Ethe												No Limit	
68	Bis(2-Ethylhexyl)Phthalate												No Limit	
69	4-Bromophenyl Phenyl Eth												No Limit	
70	Butylbenzyl Phthalate												No Limit	
71	2-Chloronaphthalene												No Limit	
72	4-Chlorophenyl Phenyl Eth												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	

CTR#	Parameters	AQUATIC LIFE CALCULATIONS — Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
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 of data
Uc = Undetermined due to lack of CTR
C = Water Quality Criteria
B = Background receiving water data

Attachment H - RPA for Outfall No. 002 (West)

CTR#	Parameters	Units	CV	MEC	Basin Plan: Municipal Only MCl	CTR Water Quality Criteria (ug/L): Freshwater C acute = CMC tot	Freshwater C chronic = CCC tot	Saltwater C acute = CMC tot	Saltwater C chronic = CCC tot	Human Health for consumption of: Water & organisms	Human Health for consumption of: Organisms only	Lowest C	REASONABLE POTENTIAL ANALYSIS (RPA): 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)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason	HUMAN HEALTH CALCULATIONS: Organisms only AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh
1	Antimony	ug/L	0.6	0.139							4300.00	4300.00	No	No	Y	N		0.113		B<C, Step 7		No	MEC<C & B<C			
2	Arsenic	ug/L	0.6	1.12				69.00	36.00			36.00	No	No	Y	N		0.907		B<C, Step 7		No	MEC<C & B<C			
3	Beryllium	ug/L	0.6	No Criteria							Narrative	No Criteria	No Criteria	No Criteria	Y	N		0.022		No Criteria	No Criteria	Uc	No Criteria			
4	Cadmium	ug/L	0.6	0.042				42.25	9.36		Narrative	9.36	No	No	Y	N		0.22		B<C, Step 7		No	MEC<C & B<C			
5a	Chromium (III)		0.6	No Criteria							Narrative	No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria			
5b	Chromium (VI)	ug/L	0.6	1.45				1107.75	50.35		Narrative	50.35	No	No	Y	N		2.2		B<C, Step 7		No	MEC<C & B<C			
6	Copper	ug/L	0.6	28.5				5.78	3.73			3.73	Yes	Yes	Y	N		1.69		B<C, Step 7		Yes	MEC>C		2.01	
7	Lead	ug/L	0.6	0.32				220.82	8.52		Narrative	8.52	No	No	Y	N		0.124		B<C, Step 7		No	MEC<C & B<C			
8	Mercury	ug/L	0.6					Reserved	Reserved		0.051	0.051			Y	Y	0.5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
9	Nickel	ug/L	0.6	0.434				74.75	8.28		4600.00	8.28	No	No	Y	N		0.356		B<C, Step 7		No	MEC<C & B<C			
10	Selenium	ug/L	0.6	0.038				290.58	71.14		Narrative	71.14	No	No	Y	N		0.025		B<C, Step 7		No	MEC<C & B<C			
11	Silver	ug/L	0.6	20				2.24				2.24	Yes	Yes	Y	N		0.134		B<C, Step 7		Yes	MEC>C		2.01	
12	Thallium	ug/L	0.6	1							6.30	6.30	No	No	Y	N		0.007		B<C, Step 7		No	MEC<C & B<C			
13	Zinc	ug/L	0.6	6.27				95.14	85.62			85.62	No	No	Y	N		3.46		B<C, Step 7		No	MEC<C & B<C			
14	Cyanide	ug/L	0.6					1.00	1.00		220000.00	1.00			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
15	Asbestos	Fibers/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria			
16	2,3,7,8 TCDD	ug/L	0.6								0.000000014	0.000000014			N					No detected value of B, Step 7		Ud	No effluent data & no B			
17	Acrolein	ug/L	0.6								780	780			N					No detected value of B, Step 7		Ud	No effluent data & no B			
18	Acrylonitrile	ug/L	0.6								0.66	0.660			N					No detected value of B, Step 7		Ud	No effluent data & no B			
19	Benzene	ug/L	0.6	2							71	71.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
20	Bromoform	ug/L	0.6	53							360	360.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
21	Carbon Tetrachloride	ug/L	0.6	2							4.4	4.40	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
22	Chlorobenzene	ug/L	0.6	2							21000	21000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
23	Chlorodibromomethane	ug/L	0.6	3.1							34	34.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
24	Chloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
26	Chloroform	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y				No Criteria	No Criteria	Uc	No Criteria			
27	Dichlorobromomethane	ug/L	0.6	1.3							46	46.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
28	1,1-Dichloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
29	1,2-Dichloroethane	ug/L	0.6	2							99	99.00	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
30	1,1-Dichloroethylene	ug/L	0.6	2							3.2	3.200	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
31	1,2-Dichloropropane	ug/L	0.6	1							39	39.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
32	1,3-Dichloropropylene	ug/L	0.6								1700	1700			N					No detected value of B, Step 7		Ud	No effluent data & no B			
33	Ethylbenzene	ug/L	0.6	2							29000	29000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
34	Methyl Bromide	ug/L	0.6	2							4000	4000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
35	Methyl Chloride	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
36	Methylene Chloride	ug/L	0.6								1600	1600.0			N					No detected value of B, Step 7		Ud	No effluent data & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	1							11	11.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
38	Tetrachloroethylene	ug/L	0.6	2							8.85	8.9	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
39	Toluene	ug/L	0.6	2							200000	200000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	1							140000	140000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	2		N	No Criteria	No Criteria	Uc	No Criteria			
42	1,1,2-Trichloroethane	ug/L	0.6	2							42	42.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
43	Trichloroethylene	ug/L	0.6	2							81	81.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
44	Vinyl Chloride	ug/L	0.6	2							525	525	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
45	2-Chlorophenol	ug/L	0.6	5							400	400	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
46	2,4-Dichlorophenol	ug/L	0.6	5							790	790	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
47	2,4-Dimethylphenol	ug/L	0.6	2							2300	2300	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
48	4,6-dinitro-o-resol (aka2 methyl-4,6-Dinitrophenol)	ug/L	0.6	5							765	765.0	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
49	2,4-Dinitrophenol	ug/L	0.6	5							14000	14000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
50	2-Nitrophenol	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
51	4-Nitrophenol	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
53	Pentachlorophenol	ug/L	0.6	5				13.00	7.90		8.2	7.90	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
54	Phenol	ug/L	0.6	1							4600000	4600000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
55	2,4,6-Trichlorophenol	ug/L	0.6								6.5	6.5			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
56	Acenaphthene	ug/L	0.6	1							2700	2700	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
57	Acenaphthylene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
58	Anthracene	ug/L	0.6	10							110000	110000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
59	Benzidine	ug/L	0.6								0.00054	0.00054			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
60	Benzo(a)Anthracene	ug/L	0.6								0.049	0.0490			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
61	Benzo(a)Pyrene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
62	Benzo(b)Fluoranthene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
63	Benzo(ghi)Perylene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
64	Benzo(k)Fluoranthene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
65	Bis(2-Chloroethoxy)Methan	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	1							1.4	1.400	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
67	Bis(2-Chloroisopropyl)Ethe	ug/L	0.6	2							170000	170000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
68	Bis(2-Ethylhexyl)Phthalate	ug/L	0.6	5							5.9	5.9	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
69	4-Bromophenyl Phenyl Eth	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
70	Butylbenzyl Phthalate	ug/L	0.6	10							5200	5200	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
71	2-Chloronaphthalene	ug/L	0.6	10							4300	4300	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
72	4-Chlorophenyl Phenyl Eth	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
73	Chrysene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
74	Dibenzo(a,h)Anthracene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
75	1,2-Dichlorobenzene	ug/L	0.6	2							17000	17000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
76	1,3-Dichlorobenzene	ug/L	0.6	1							2600	2600	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
77	1,4-Dichlorobenzene	ug/L	0.6	1							2600	2600	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
78	3,3 Dichlorobenzidine	ug/L	0.6								0.077	0.08			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
79	Diethyl Phthalate	ug/L	0.6	2							120000	120000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
80	Dimethyl Phthalate	ug/L	0.6	2							2900000	2900000	No	No	Y	Y	2		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
81	Di-n-Butyl Phthalate	ug/L	0.6	10							12000	12000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
82	2,4-Dinitrotoluene	ug/L	0.6	5							9.10	9.10	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
84	Di-n-Octyl Phthalate	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria			
85	1,2-Diphenylhydrazine	ug/L	0.6								0.54	0.540			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
86	Fluoranthene	ug/L	0.6	1							370	370	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
87	Fluorene	ug/L	0.6	10							14000	14000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			

					Basin Plan	CTR Water Quality Criteria (ug/L)							REASONABLE POTENTIAL ANALYSIS (RPA)										HUMAN HEALTH CALCULATIONS		
CTR#					Municipal Only	Freshwater		Saltwater		Human Health for consumption of:													Organisms only		
	Parameters	Units	CV	MEC	MCI	C acute = CMC tot	C chronic = CCC tot	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)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	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
88	Hexachlorobenzene	ug/L	0.6								0.00077	0.00077			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
89	Hexachlorobutadiene	ug/L	0.6								50	50.00			N					No detected value of B, Step 7		Ud	No effluent data & no B			
90	Hexachlorocyclopentadiene	ug/L	0.6	5							17000	17000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
91	Hexachloroethane	ug/L	0.6	1							8.9	8.9	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
92	Indeno(1,2,3-cd)Pyrene	ug/L	0.6								0.049	0.0490			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
93	Isophorone	ug/L	0.6	1							600	600.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
94	Naphthalene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria			
95	Nitrobenzene	ug/L	0.6	1							1900	1900	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
96	N-Nitrosodimethylamine	ug/L	0.6	5							8.10	8.10000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
97	N-Nitrosodi-n-Propylamine	ug/L	0.6								1.40	1.400			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
98	N-Nitrosodiphenylamine	ug/L	0.6	1							16	16.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
99	Phenanthrene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
100	Pyrene	ug/L	0.6	10							11000	11000	No	No	Y	Y	10		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria			
102	Aldrin	ug/L	0.6					1.30			0.00014	0.00014			Y	Y				No detected value of B, Step 7		No	UD; effluent data and B are N			
103	alpha-BHC	ug/L	0.6	0.01							0.013	0.0130	No	No	Y	Y				No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
104	beta-BHC	ug/L	0.6	0.005							0.046	0.046	No	No	Y	Y	0.005		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
105	gamma-BHC	ug/L	0.6	0.02				0.16			0.063	0.063	No	No	Y	Y	0.02		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
106	delta-BHC	ug/L	0.6	No Criteria								No Criteria	No Criteria	No Criteria	Y	Y	0.005		N	No Criteria	No Criteria	Uc	No Criteria			
107	Chlordane	ug/L	0.6					0.09	0.004		0.00059	0.00059			Y	Y	0.1		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
108	4,4'-DDT	ug/L	0.6					0.13	0.001		0.00059	0.00059			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
109	4,4'-DDE (linked to DDT)	ug/L	0.6								0.00059	0.00059			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
110	4,4'-DDD	ug/L	0.6								0.00084	0.00084			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
111	Dieldrin	ug/L	0.6					0.71	0.0019		0.00014	0.00014			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
112	alpha-Endosulfan	ug/L	0.6					0.034	0.0087		240	0.0087			Y	Y	0.02		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
113	beta-Endolsulfan	ug/L	0.6					0.034	0.0087		240	0.0087			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
114	Endosulfan Sulfate	ug/L	0.6	0.05							240	240	No	No	Y	Y	0.05		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
115	Endrin	ug/L	0.6					0.037	0.0023		0.81	0.0023			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
116	Endrin Aldehyde	ug/L	0.6	0.01							0.81	0.81	No	No	Y	Y	0.01		N	No detected value of B, Step 7		No	Ud;MEC<C & B is ND			
117	Heptachlor	ug/L	0.6					0.053	0.0036		0.00021	0.00021			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
118	Heptachlor Epoxide	ug/L	0.6					0.053	0.0036		0.00011	0.00011			Y	Y	0.01		Y	No detected value of B, Step 7		No	UD; effluent data and B are N			
119-125	**PCBs sum (2)**	ug/L	0.6						0.03		0.00017	0.00017			N					No detected value of B, Step 7		Ud	No effluent data & no B			
126	Toxaphene	ug/L	0.6					0.21	0.0002		0.00075	0.0002			Y	Y	0.5		Y	No detected value of B, Step 7		No	UD; effluent data and B are 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

Attachment H - RPA I

CTR#	Parameters	AQUATIC LIFE CALCULATIONS — Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
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	0.32	29.43	0.53	24.56	24.56	1.55	38.13	3.11	76.4991	38.13	76.50		
7	Lead												No Limit	
8	Mercury												No Limit	
9	Nickel												No Limit	
10	Selenium												No Limit	
11	Silver	0.32	14.92	0.53		14.92	1.55	23.16	3.11	46.466	23.16133	46.46600		
12	Thallium												No Limit	
13	Zinc												No Limit	
14	Cyanide												No Limit	
15	Asbestos												No Limit	
16	2,3,7,8 TCDD												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 (aka2 methyl-4,6-Dinitrophenol)												No Limit	
49	2,4-Dinitrophenol												No Limit	
50	2-Nitrophenol												No Limit	
51	4-Nitrophenol												No Limit	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)												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	
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)Methan												No Limit	
66	Bis(2-Chloroethyl)Ether												No Limit	
67	Bis(2-Chloroisopropyl)Ethe												No Limit	
68	Bis(2-Ethylhexyl)Phthalate												No Limit	
69	4-Bromophenyl Phenyl Eth												No Limit	
70	Butylbenzyl Phthalate												No Limit	
71	2-Chloronaphthalene												No Limit	
72	4-Chlorophenyl Phenyl Eth												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	

CTR#	Parameters	AQUATIC LIFE CALCULATIONS – Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
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 of data
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C = Water Quality Criteria
B = Background receiving water data

ATTACHMENT I

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. *Implementation Schedule*

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for storm water discharges from SeaWorld San Diego.

The Discharger shall continue to implement its existing SWPPP. The discharger shall implement any necessary revisions to its SWPPP to comply with the requirements herein no later than May 1, 2006.

2. *Objectives*

a. The discharger's SWPPP shall be prepared to achieve these objectives:

i. To identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of facility's industrial storm water discharges and authorized non-storm water discharges;

ii. To identify, describe and implement site-specific Best Management Practices (BMP) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges;

iii. To identify and implement timely revisions and/or updates to the SWPPP.

b. To achieve the SWPPP objectives, the discharger shall prepare written facility-specific SWPPP in accordance with all applicable SWPPP requirements of this Section. The SWPPP shall include all required maps, descriptions, schedules, checklists, and relevant copies or specific references to other documents that satisfy the requirements of this Section.

3. *Planning and Organization*

a. SWPPP Checklist

Upon completing the facility's SWPPP, the discharger shall prepare the SWPPP Checklist (Item A-1) located at the end of this section. For each requirement listed, the discharger shall identify the page number where the requirement is located in the SWPPP (or the title, page number, and location of any reference documents), the implementation date or last revision date, and any SWPPP requirements that may not be applicable to the facility.

b. Pollution Prevention Team

i. The SWPPP shall identify specific 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 storm water monitoring program activities required of this Order.

ii. The SWPPP shall clearly identify the responsibilities, duties, and activities of each team member.

iii. The SWPPP shall identify, as appropriate, alternate individuals to perform the required SWPPP and monitoring program activities when team members are temporarily unavailable (due to vacation, illness, out of town meetings, etc.)

c. Review Other Requirements and Existing Facility Plans

i. The SWPPP shall be developed, implemented, and revised as necessary to be consistent with any applicable municipal, State, and Federal requirements that pertain to the requirements of this Order. For example, a municipal storm water management agency may require specific BMP implementation activities.

ii. The SWPPP may incorporate or reference the elements of the discharger's existing plans, procedures, or regulatory compliance documents that contain storm water pollution control practices or otherwise relate to the requirements of this Order. For example, facilities subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials, or facilities subject to regional air quality emission controls may already have evaluated industrial activities that emit dust or particulate pollutants.

4. *Site Map*

The SWPPP shall include a site map. The site map shall be provided on an 8-1/2 x 11 inch or larger sheet and include notes, legends, north arrow and other data as appropriate to ensure that the site map is clear and understandable. If necessary, the discharger may provide the required information on multiple site maps. The following information shall be included on the site map:

a. Outlines of the facility boundary, storm water drainage areas within the facility boundary, and portions of any drainage area impacted by discharges from surrounding areas. Include the flow direction of each drainage area; on-site surface water bodies; areas of soil erosion; and location(s) of near-by water bodies (such as

rivers, lakes, wetlands, etc.) or municipal storm drain inlets that may receive the facility's storm water discharges and authorized non-storm water discharges.

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 *Description of Potential Pollutant Sources,* Section A.6.a.iv, below, have occurred.

e. Areas of industrial activity. Identify 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 reusing areas, and other of industrial activity which may have potential pollutant sources.

5. *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 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.

6. *Description of Potential Pollutant Sources*

a. For each area identified in *Section A.4.e.*, the SWPPP shall include a narrative description of the facility's industrial activities, potential pollutant sources, and potential pollutants that could be exposed to storm water or authorized non-storm water discharges. At a minimum, the following industrial activities shall be described as applicable:

i. Industrial Processes

Describe each industrial process including the manufacturing, cleaning, maintenance, recycling, disposal or other activities related to the process. Include the type, characteristics, and approximate quantity of significant materials used in

or resulting from the process. Areas protected by containment structures and the corresponding containment capacity shall be identified and described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, including the 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. Areas protected by containment structure and the corresponding containment capacity shall be identified and described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulate pollutants that may be deposited within the facility's boundaries. Include their discharge locations and the type, characteristics, and quantity of dust and particulate pollutants that may be deposited within the facility's boundaries. Identify the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Identify and describe materials that spill or leak in significant quantities in storm water discharges or non-storm water discharges upon adoption of this Order. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) 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 location, characteristics, and approximate quantity of the materials 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 spills or leaks of the material do not reoccur.

v. Non-Storm Water Discharges

(1) Dischargers shall inspect the facility to identify all non-storm water discharges, sources, and drainage areas. All drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

(2) All non-storm water discharges shall be described. The description shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area and shall identify whether the discharge is an authorized or unauthorized non-storm water discharge in accordance with Subsection 11. Examples of unauthorized

non-storm water discharges are rinse and wash water (whether detergents are used or not), contact and non-contact cooling water, boiler blow-down, etc.

vi. 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.

7. *Assessment of Potential Pollutant Sources*

a. The SWPPP shall include a narrative assessment of all areas of industrial activity and potential pollutant sources as described in *A.6.* above. To determine the likelihood that significant materials will be exposed to storm water or authorized non-storm water discharges, the assessment shall include consideration of the quantity, characteristics, and locations of each significant material handled, produced, stored, recycled, or disposed; the direct and indirect pathways that significant materials may be exposed to storm water or authorized non-storm water discharges; history of spills or leaks; non-storm water discharges; prior sampling, visual observation, and inspection records; discharges from adjoining areas; and the effectiveness of existing BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

b. Based upon the assessment above, the SWPPP shall identify any areas of industrial activity and corresponding pollutant sources where significant materials are likely to be exposed to storm water or authorized non-storm water discharges and where additional BMP are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

8. *Storm Water Best Management Practices*

a. The SWPPP shall include a narrative description of BMP implemented at the facility. The BMP, when developed and implemented, shall be effective in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges.

The BMP narrative description shall include:

i. The type of pollutants the BMP are designed to reduce or prevent.

ii. The frequency, time(s) of day, or conditions when the BMP are scheduled for implementation.

iii. The locations within each area of industrial activity or pollutant source where the BMP shall be implemented.

iv. Identification of the person and/or position responsible for implementing the BMP.

v. The procedures, including maintenance procedures, and/or instructions to implement the BMP.

vi. The equipment and tools necessary to implement the BMP.

b. The discharger shall consider non-structural BMP for implementation at the facility. Non-structural BMP generally consist of processes, prohibitions, procedures, training, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. Below is a list of non-structural BMP that shall be considered:

i. Good Housekeeping

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

ii. Preventative Maintenance

Preventative maintenance includes the regular inspection and maintenance of storm water structural controls (i.e. catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. 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.

iv. 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.

v. Employee Training Program

This includes the development of a program to train personnel responsible for implementing the various compliance activities of this Order including BMP implementation, inspections and evaluations, monitoring activities, and storm water compliance management. The training program shall include:

(1) A description of the training program and any training manuals or training materials.

(2) A discussion of the appropriate training frequency.

(3) A discussion of the appropriate personnel to receive training.

(4) A training schedule.

(5) Documentation of all completed training classes and the personnel who received training.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste or recyclable materials.

vii. Record Keeping 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.

viii. 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.

ix. Inspections

Periodic visual inspections of a facility are necessary to ensure that the SWPPP addresses any significant changes to the facility's operations or BMP implementation procedures.

(1) A minimum of four quarterly visual inspections of all storm water drainage areas and associated potential pollutant sources shall be completed each reporting year. The annual comprehensive site compliance evaluation described in *subsection 9* may substitute for one of the quarterly inspections.

(2) Tracking and follow-up procedures shall be described to ensure appropriate corrective actions and/or SWPPP revisions are implemented.

(3) A summary of the corrective actions and SWPPP revisions resulting from quarterly inspections shall be reported in the annual report.

(4) Dischargers shall certify in the annual report that each quarterly visual inspection was completed.

(5) All corrective actions and SWPPP revisions shall be implemented in accordance with *subsection 10.d. and e*.

x. Quality Assurance

This includes the management procedures to ensure that the appropriate staff adequately implements all elements of the SWPPP and Monitoring Program.

c. Structural BMP

Where non-structural BMP identified in *Section A.8.b.* above are not effective, structural BMP shall be considered. Structural BMP typically 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 BMP that shall be considered:

i. Overhead Coverage

This includes structures that protect materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundment, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

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

iv. Secondary Containment Structures

This includes containment structures around storage tanks and other areas that collect any leaks or spills.

v. Treatment

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

d. The SWPPP shall include a summary identifying each area of industrial activity and associated pollutant sources, pollutants, and BMP in a table similar to *Item A-3* at the end of this section.

9. *Annual Comprehensive Site Compliance Evaluation*

The discharger shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted no less than eight months from 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 areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system. A visual inspection of equipment needed to implement the SWPPP.

c. A review and evaluation of all BMP, both structural and non-structural, for each area of industrial activity and associated potential pollutant sources to determine whether the BMP are properly designed, implemented, and are effective in reducing and preventing pollutants in storm water discharges and authorized non-storm water discharges.

d. An evaluation report that includes:

i. Identification of personnel performing the evaluation,

ii. Date(s) of the evaluation,

iii. Summary and implementation dates of all significant corrective actions and SWPPP revisions for the reporting year,

iv. Schedule for implementing any incomplete corrective actions and SWPPP revisions,

v. Any incidents of non-compliance and the corrective actions taken, and

vi. A certification that the discharger has completed the quarterly inspections specified in *Storm Water Best Management Practices, Subsection 8.b.ix*, above and that the discharger is complying with this Order. If the above certification cannot be provided, explain in the evaluation report why the discharger is not complying with this Order.

vii. 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 *Reporting Requirement F.8* of this Order.

10. *SWPPP General Requirements*

a. The SWPPP shall be retained at the facility and made available upon request of a representative of the Regional Water Board, USEPA, or local storm water management agency (local agency).

b. Upon notification by the Regional Board and/or local agency that the SWPPP does not meet one or more of the minimum requirements of this Section, the discharger shall revise the SWPPP and implement additional BMP that are effective in reducing and eliminating pollutants in storm water discharges and authorized non-storm water discharges. As requested, the discharger shall provide an implementation schedule and/or completion certification to the Regional Board and/or local agency.

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; or

ii. Cause a new area of industrial activity at the facility to be exposed to storm water; or

iii. Begin an industrial activity that would introduce a new pollutant source at the facility.

d. The discharger shall revise the SWPPP and implement the appropriate BMP in a timely manner and in no case more than 90 days after a discharger determines that the SWPPP is in violation of any Order requirement.

e. When any part of the SWPPP is infeasible to implement by the deadlines specified above due to proposed significant structural changes, the discharger shall:

i. Submit a report to the Regional Board that:

(1) Identifies the portion of the SWPPP that is infeasible to implement by the deadline;

(2) Provides justification for a time extension, provides a schedule for completing and implementing that portion of the SWPPP; and

(3) Describes the BMP that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

ii. Comply with any request by the Regional Board to modify the report required in *Subsection i.* above, or provide certification that the SWPPP revisions have been implemented.

f. The SWPPP shall be provided, upon request, to the Regional Board, USEPA, local storm water management agency, or Compliance Inspection Designees. The Regional Board under Section 308(b) of the Clean Water Act considers the SWPPP a report that shall be available to the public.

11. *Authorized Non-Storm Water Discharges Special Requirements*

a. The following non-storm water discharges are authorized provided they satisfy the conditions of *Subsection b.,* below:

i. Fire-hydrant flushing;

ii. Potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems;

iii. Drinking fountain water; atmospheric condensate, including refrigeration, air conditioning, and compressor condensate;

iv. Irrigation drainage and landscape watering;

v. Natural springs, ground water, and foundation and footing drainage; and

vi. Seawater infiltration where the seawater is discharged back into the sea water source.

b. The non-storm water discharges identified in *subsection a.*, above, are authorized by this Order if all the following conditions are satisfied:

i. The non-storm water discharges comply this Order.

ii. The non-storm water discharges comply with local agency ordinances and requirements.

iii. BMP are specifically included in the SWPPP to: (1) prevent or reduce the contact of non-storm water discharges with significant materials or equipment, and (2) minimize, to the extent practicable, the flow or volume of non-storm water discharges.

iv. The non-storm water discharges do not contain significant quantities of pollutants.

v. The monitoring program includes quarterly visual observations of non-storm water discharges and sources to ensure adequate BMP implementation and effectiveness.

vi. The non-storm water discharges are reported and described in the annual report.

c. This Regional Board or local storm water management agency may establish additional monitoring and reporting requirements for any non-storm water discharge authorized by this Order.

d. Discharges from fire fighting activities are authorized by this Order and are not subject to the conditions of *Subsection 11.b*.

DEFINITIONS

1. *Best Management Practices* (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. The BMP also include treatment measures, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The BMP may include any type of pollution prevention and pollution control measure necessary to achieve compliance with this Order.

2. *Clean Water Act* (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; 33 USC. 1251 et seq.

3. *Facility* is a collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

4. *Non-Storm Water Discharge* means any discharge to storm sewer systems that is not composed entirely of storm water.

5. *Significant Materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERLCA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

6. *Significant Quantities* is the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.

7. *Significant Spills* includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR 110.10 and 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

8. *Storm water* means storm water runoff, snowmelt runoff, and storm water surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

9. *Storm water discharge associated with industrial activity* means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 CFR Part 122. For the facilities identified in the Fact Sheet of this Order, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for residual treatment, storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities referenced in this paragraph) include those facilities designated under 40 CFR 122.26(a)(1)(v).

ACRONYM LIST

BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Federal Superfund)
CFR	Code of Federal Regulations
CWA	Clean Water Act
Order	General Industrial Activities Storm Water Permit
GMP	Group Monitoring Plan

NEC	No Exposure Certification
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
O&G	Oil and Grease
RCRA	Resource, Conservation, and Recovery Act
Regional Board	Regional Water Quality Control Board
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act of 1986
SIC	Standard Industrial Classification
SMCRA	Surface Mining Control and Reclamation Act
SPCC	Spill Prevention Control and Countermeasures
State Board	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TOC	Total Organic Carbon
TSS	Total Suspended Solids
U.S. EPA	U.S. Environmental Protection Agency
WDID	Waste Discharger Identification
WDR	Waste Discharge Requirement

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

FACILITY NAME _____

WDID# _____

FACILITY CONTACT
Name _____
Title _____
Company _____
Street Address _____
City, State _____
Zip _____

CONSULTANT CONTACT
Name
Title
Company
Street Address
City, State
Zip

STORM WATER POLLUTION PREVENTION PLAN	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Signed Certification (F. 11, Reporting Requirements)			
Pollution Prevention Team (A.3.b)			
Existing Facility Plans (A.3.c)			
Facility Site Map(s)			
Facility boundaries (A.4.a)			
Drainage areas (A.4.a)			
Direction of flow (A.4.a)			
On-site water bodies (A.4.a)			
Areas of soil erosion (A.4.a)			
Nearby water bodies (A.4.a)			
Municipal storm drain inlets (A.4.a)			
Points of discharge (A.4.b)			
Structural control measures (A.4.b)			
Impervious areas (A.4.c) (paved areas, buildings, covered areas, roofed areas)			
Location of directly exposed materials (A.4.d)			
Locations of significant spills and leaks (A.4.d)			
Storage areas / Storage tanks (A.4.e)			
Shipping and receiving areas (A.4.e)			
Fueling areas (A.4.e)			
Vehicle and equipment storage and maintenance (A.4.e)			
Material handling / Material processing (A.4.e)			
Waste treatment / Waste disposal (A.4.e)			
Dust generation / Particulate generation (A.4.e)			
Cleaning areas / Rinsing areas (A.4.e)			
Other areas of industrial activities (A.4.e)			

List of Significant Materials (A.5)			
For each material listed:			
Storage location			
Receiving and shipping location			
Handling location			
Quantity			
Frequency			
Description of Potential Pollution Sources (A.6)			
Industrial processes (A.6.a.i)			
Material handling and storage areas (A.6.a.ii)			
Dust and particulate generating activities (A.6.a.iii)			
Significant spills and leaks (A.6.a.iv)			
Non-storm water discharges (A.6.a.v)			
Soil erosion (A.6.a.vi)			
Assessment of Potential Pollutant Sources (A.7)			
Areas likely to be sources of pollutants (A.7.a)			
Pollutants likely to be present (A.7.b)			
Storm Water Best Management Practices (A.8)			
Non-structural BMP (A.8.b)			
Good housekeeping (A.8.b.i)			
Preventative maintenance (A.8.b.ii)			
Spill response (A.8.b.iii)			
Material handling and storage (A.8.b.iv)			
Employee training (A.8.b.v)			
Waste handling / Waste recycling (A.8.b.vi)			
Recordkeeping and internal reporting (A.8.b.vii)			
Erosion control and site stabilization (A.8.b.viii)			
Inspections (A.8.b.ix)			
Quality assurance (A.8.b.x)			
Structural BMP (A.8.c)			
Overhead coverage (A.8.c.i)			
Retention ponds (A.8.c.ii)			
Control devices (A.8.c.iii)			
Secondary containment structures (A.8.c.iv)			
Treatment (A.8.c.v)			
Industrial Activity BMP/ Pollutant Summary (A.8.d)			
Annual Comprehensive Site Compliance Evaluation (A.9)			
Review of visual observations, (A.9.a) inspections, and sampling analysis			
Visual inspection of potential pollution sources (A.9.b)			
Review and evaluation of BMP (A.9.c)			
Evaluation report (A.9.d)			

ITEM A-2
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 BMP *Structural BMP *Select activity and site-specific BMP

IMPLEMENTATION PHASE *Train employees *Implement BMP *Collect and review records

EVALUATION / MONITORING *Conduct annual site evaluation *Review monitoring information *Evaluate BMP *Review and revise SWPPP

ITEM A-3
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	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.
		Spills caused by topping off fuel tanks	fuel oil	
		Hosing or washing down fuel area	fuel oil	
		Leaking storage tanks	fuel oil	
		Rainfall running off fueling area, and rainfall running onto and off fueling area	fuel oil	

Attachment J – CTR Monitoring Requirements

The Discharger shall conduct effluent monitoring for the priority pollutants (except for 2,3,7,8-TCDD) for which there are no effluent limitations established in the permit. In addition, the Regional Board is requiring that the Discharger conduct receiving water monitoring for the priority pollutants, and at the same time effluent samples are collected. Further, the Discharger must analyze pH of the receiving water concurrent with the analysis for the priority pollutants.

This monitoring shall occur at the following locations:

Outfall locations. (Outfall Nos. M-001 and M-002).
Receiving water. A monitoring location shall be established 50 feet from each outfall (R-001 and R-002).

The Discharger shall conduct the following CTR monitoring once during the term of the permit. Monitoring shall be conducted between February 1, 2009 and July 31, 2009. The results of this CTR monitoring data shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

Constituent	Units	Type of Sample
pH	Standard units	Grab
Hardness (as $CaCO_3$)	mg/L	Grab
Salinity	g/L	Grab
Antimony	µg/L	Grab
Arsenic [2]	µg/L	Grab
Beryllium	µg/L	Grab
Cadmium [2]	µg/L	Grab
Chromium III [2]	µg/L	Grab
Chromium VI [2]	µg/L	Grab
Copper [2]	µg/L	Grab
Lead [2]	µg/L	Grab
Mercury	µg/L	Grab
Nickel[2]	µg/L	Grab
Selenium	µg/L	Grab
Silver [2]	µg/L	Grab
Thallium	µg/L	Grab
Zinc [2]	µg/L	Grab
Cyanide	µg/L	Grab
Asbestos	Fibers/L	Grab
Acrolein	µg/L	Grab
Acrylonitrile	µg/L	Grab

Constituent	Units	Type of Sample
Bromoform	µg/L	Grab
Carbon Tetrachloride	µg/L	Grab
Chlorobenzene	µg/L	Grab
Chlorodibromomethane (Dibromochloromethane)	µg/L	Grab
Chloroethane	µg/L	Grab
2-Chloroethylvinyl ether	µg/L	Grab
Chloroform	µg/L	Grab
Dichlorobromomethane (Bromodichloromethane)	µg/L	Grab
1,1-Dichloroethane	µg/L	Grab
1,2-Dichloropropane	µg/L	Grab
1,3-Dichloropropylene	µg/L	Grab
Methyl Bromide (Bromomethane)	µg/L	Grab
Methyl Chloride (Chloromethane)	µg/L	Grab
Methylene Chloride	µg/L	Grab
1,1,2,2-Tetrachloroethane	µg/L	Grab
1,1,2-Trichloroethane	µg/L	Grab
Vinyl Chloride	µg/L	Grab
1,2-Dichlorobenzene	µg/L	Grab
1,3-Dichlorobenzene	µg/L	Grab
1,4-Dichlorobenzene	µg/L	Grab
2-Chlorophenol	µg/L	Grab
2,4-Dichlorophenol	µg/L	Grab
2,4-Dimethylphenol	µg/L	Grab
2-Methyl- 4,6-Dinitrophenol	µg/L	Grab
2,4-Dinitrophenol	µg/L	Grab
2-Nitrophenol	µg/L	Grab
4-Nitrophenol	µg/L	Grab
3-Methyl 4-Chlorophenol	µg/L	Grab
Pentachlorophenol	µg/L	Grab
Phenol	µg/L	Grab
2,4,6-Trichlorophenol	µg/L	Grab
Acenaphthene	µg/L	Grab
Acenaphthylene	µg/L	Grab
Anthracene	µg/L	Grab
Benzidine	µg/L	Grab
Benzo(a)Anthracene	µg/L	Grab
Benzo(a)Pyrene	µg/L	Grab

Constituent	Units	Type of Sample
Benzo(b)Fluoranthene	µg/L	Grab
Benzo(ghi)Perylene	µg/L	Grab
Benzo(k)Fluoranthene	µg/L	Grab
Bis(2-Chloroethoxy)Methane	µg/L	Grab
Bis(2-Chloroethyl)Ether	µg/L	Grab
Bis(2-Chloroisopropyl)Ether	µg/L	Grab
Bis(2-Ethylhexyl)Phthalate	µg/L	Grab
4-Bromophenyl Phenyl Ether	µg/L	Grab
Butylbenzyl Phthalate	µg/L	Grab
2-Chloronaphthalene	µg/L	Grab
4-Chlorophenyl Phenyl Ether	µg/L	Grab
Chrysene	µg/L	Grab
Dibenzo(a,h)Anthracene	µg/L	Grab
3,3 Dichlorobenzidine	µg/L	Grab
Diethyl Phthalate	µg/L	Grab
Dimethyl Phthalate	µg/L	Grab
Di-n-Butyl Phthalate	µg/L	Grab
2,4-Dinitrotoluene	µg/L	Grab
2,6-Dinitrotoluene	µg/L	Grab
Di-n-Octyl Phthalate	µg/L	Grab
1,2-Diphenylhydrazine	µg/L	Grab
Fluoranthene	µg/L	Grab
Fluorene	µg/L	Grab
Hexachlorobenzene	µg/L	Grab
Hexachlorobutadiene	µg/L	Grab
Hexachlorocyclopentadiene	µg/L	Grab
Hexachloroethane	µg/L	Grab
Indeno(1,2,3-cd)Pyrene	µg/L	Grab
Isophorone	µg/L	Grab
Naphthalene	µg/L	Grab
Nitrobenzene	µg/L	Grab
N-Nitrosodimethylamine	µg/L	Grab
N-Nitrosodi-n-Propylamine	µg/L	Grab
N-Nitrosodiphenylamine	µg/L	Grab
Phenanthrene	µg/L	Grab
Pyrene	µg/L	Grab
1,2,4-Trichlorobenzene	µg/L	Grab
Aldrin	µg/L	Grab
alpha-BHC (hexachloro-cyclohexane)	µg/L	Grab
beta-BHC	µg/L	Grab

Constituent	Units	Type of Sample
gamma-BHC	µg/L	Grab
delta-BHC	µg/L	Grab
Chlordane	µg/L	Grab
4,4'-DDT	µg/L	Grab
4,4'-DDE (linked to DDT)	µg/L	Grab
4,4'-DDD	µg/L	Grab
Dieldrin	µg/L	Grab
alpha-Endosulfan	µg/L	Grab
beta-Endolsulfan	µg/L	Grab
Endosulfan Sulfate	µg/L	Grab
Endrin	µg/L	Grab
Endrin Aldehyde	µg/L	Grab
Heptachlor	µg/L	Grab
Heptachlor Epoxide	µg/L	Grab
PCBs sum[3]	µg/L	Grab
Toxaphene	µg/L	Grab

[1]Monitoring and analysis for pH, hardness, and salinity is required for receiving water only.
[2] Measured as total recoverable.
[3]PCBs sum refers to sum of PCB Arochlors 1016, 1221, 1232, 1242, 1248, 1254, and 1260

The Discharger shall conduct effluent monitoring for 2,3,7,8 TCDD, once during the permit term (between February 1, 2009 and July 31, 2009) of the permit term and submitted with the Report of Waste Discharge, a minimum of 180 days prior to the expiration date of this Order. The SIP requires monitoring for 2,3,7,8-TCDD and the 17 congeners listed in the table below. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

Congeners	TEF
2,3,7,8-Tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1

Congeners	TEF
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Please note that the report for this required monitoring must be submitted with the Report of Waste Discharge and submitted to the Regional Board as an attachment to the Report of Waste Discharge no later than 180 days prior to the expiration date of Order No. R9-2005-0091.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

ATTACHMENT E

MONITORING AND REPORTING PROGRAM

ORDER NO. R9-2005-0091
NPDES PERMIT NO. CA0107336

TABLE OF CONTENTS

LIST OF TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR 122.48 requires that NPDES permits specify monitoring and reporting requirements. The California Water Code (CWC) sections 13267 and 13383 authorize this Regional Board to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements to implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

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

B. Monitoring must be conducted according to United States Environmental Protection Agency (U.S. EPA) test procedures approved under Title 40, United States Code of Federal Regulations (CFR), Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* as amended, unless other test procedures are specified in Order No. R9-2005-0091 and /or this Monitoring and Reporting Program and/or this Regional Board.

C. A copy of the monitoring reports signed, and certified as required by Reporting Requirement E.2. of Attachment D of Order No. R9-2005-0091 shall be submitted to the Regional Board at the address listed in Section X.B.7 of this Monitoring and Reporting Program.

D. 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 Order No. R9-2005-0091 and this Monitoring and Reporting Program, and records of all data used to complete the application for Order No. R9-2005-0091. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended by request of this Regional Board or by the U.S. EPA at any time.

E. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services. Or by a laboratory approved by this Regional Board.

F. The Discharger shall report in its cover letter all instances of noncompliance not reported under Section E.5. of Attachment D to Order No. R9-2005-0091 at the time monitoring reports are submitted. The reports shall contain the information listed in Section E.5. of Attachment D to Order No. R9-2005-0091.

G. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

H. Monitoring results shall be reported at intervals and in a manner specified in Order No. R9-2005-0091 or in this Monitoring and Reporting Program.

I. This Monitoring and Reporting Program may be modified by this Regional Board, as appropriate.

II. MONITORING LOCATIONS

The Discharger shall establish monitoring locations as listed in *Table 1. Monitoring Locations*.

Table 1. Monitoring Locations.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	E-INF	**Representative sample location for East intake system.**
--	W-INF	**Representative sample location for West intake system.**
001	M-001	**Representative sample location for East treatment system effluent. (**32 º 46' 03" N; 117 º 13' 33" W)
002	M-002	**Representative sample location for West treatment system effluent. (**32 º 46' 04" N; 117 º 13' 40" W)
--	R-001	**Receiving Water sample location approximately 50 feet from the East Outfall location (001)**
--	R-001	**Receiving Water sample location approximately 50 feet from the West Outfall location (002)**

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations E-INF (East Intake) and W-INF (West Intake)

1. The Discharger shall monitor the influent to the facility at E-INF and W-INF as specified in *Table 2. Influent Monitoring Requirements*.

Table 2. Influent Monitoring Requirements.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Suspended Solids	mg/L	24-hr. composite	Quarterly	[1]
Fecal Coliform	MPN/100 mL	Grab	Weekly	[1]
Total Coliform	MPN/100 mL	Grab	Weekly	[1]
Enterococcus	MPN/100 mL	Grab	Weekly	[1]

[1] All sample analysis shall be done in accordance with 40 CFR 136.3.

2. Influent samples shall be collected on the same day as, and shortly before the collection of effluent samples.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001 (East Effluent Sampling Location) and M-002 (West Effluent Sampling Location).

1. The Discharger shall monitor the East effluent discharge at M-001 and the West effluent discharge at M-002 as specified in *Table 3. Effluent Monitoring Requirements*.

Table 3. Effluent Monitoring Requirements.

Parameter	Units	Sample Type	Monitoring Frequency	Required Test Method
Flow	MGD	Continuous	Continuous	1
pH	Units	Grab/Continuous	Weekly	1
Total Coliform	MPN/100 mL	Grab	Weekly	1
Fecal Coliform	MPN/100 mL	Grab	Weekly	1
Enterococcus	CFU/100 mL	Grab	Weekly	1
Residual Chlorine	µg/L	Grab/Continuous	Weekly	1
	lbs/day[3]	Calculated[3]		
Temperature	°C	Grab/Continuous	Monthly	1
Suspended Solids	mg/L	24 hr. composite	Quarterly	1
Settleable Solids	ml/L	Grab	Quarterly	1
Oil and Grease	mg/L	Grab	Semi-annual	1
	lbs/day[3]	Calculated[3]		
Turbidity	NTU	24 hr. composite	Semi-annual	1
Copper[2]	µg/L	24 hr. composite	Semi-annual	1
	lbs/day[3]	Calculated[3]		
Silver[2]	µg/L	24 hr. composite	Semi-annual	1
	lbs/day[3]	Calculated[3]		
Ammonia	mg/L	24 hr. composite	Semi-annual	1
	lbs/day[3]	Calculated[3]		
Acute Toxicity[4]	TUa	24 hr composite	Annual	1
Chronic toxicity[4,5]	TUc	24 hr composite	Once in five years.	1

[1] All parameters shall be analyzed by the methods specified in 40 CFR 136.3.
[2] All metals shall be reported as total recoverable.
[3] lbs/day shall be calculated by the discharger for each monitoring event using the following formula:

lbs/day = 0.00834 * effluent concentration (µg/l) * Q

where:

Q = flow rate, million gallons per day (MGD)

[4] Whole Effluent Toxicity Monitoring requirements are specified in Section V of this MRP.

[5] Chronic toxicity results are due one year prior to the expiration date of the permit.

2. Samples shall not be collected within three days following a storm event.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

Acute toxicity monitoring shall be conducted annually. The Discharger shall conduct annual toxicity test on 24-hour composite effluent samples. The Discharger shall conduct 96-hour static-renewal tests with the top smelt, *Atherinops affinis*. The effluent concentrations will be 100%, and a laboratory control. The effluent tests must be conducted with concurrent reference toxicant tests. Both the reference toxicant and the effluent test must meet all test acceptability criteria as specified. If the test acceptability criteria are not achieved, then the permittee must re-sample and re-test within 14 days. If acceptable test results are not achieved on the retest, a toxicity reduction evaluation may be requested by this Regional Board.

Acute toxicity is to be calculated using the following formula:

$$TUa = \frac{100}{96 - hr\ LC\ 50\%}$$

Where Lethal Concentration 50% (LC 50) shall be determined by static or continuous flow bioassay techniques using standard test species. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the aquatic environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substance.

$$TUa = \frac{Log\ (100 - S)}{1.7}$$

Where:

S = percentage survival in 100% waste
If S > 99, TUa shall be reported as zero

Compliance with the acute toxicity effluent limitation shall be determined by short-term (acute) toxicity tests on undiluted effluent using an established protocol, e.g., American Society for Testing and Materials (ASTM), American Public Health Association, US EPA, or SWRCB.

B. Chronic Toxicity

Critical life stage toxicity tests shall be performed to measure chronic toxicity (TUc). Testing shall be performed using methods outlined in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (Chapman, G.A., D.L. Denton, and J.M. Lazorchak, 1995) or *Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project* (SWRCB, 1996).

Chronic toxicity is to be calculated using the following formula:

$$TUc = \frac{100}{NOEL}$$

Where: No Observed Effect Level (NOEL) is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test as listed in Appendix II of the 2001 Ocean Plan.

Other tests may be used, if they have been approved for such testing by the State Water Resources Control Board. Dilution and control water should be obtained from an unaffected area of the receiving waters. The Discharger shall meet the chronic toxicity effluent limitation after initial dilution of the effluent has taken place. The chronic toxicity test species are listed in *Table 4. Approved Tests for Chronic Toxicity*.

A minimum of three test species with approved test protocols shall be used to measure compliance with the chronic toxicity objective. The test species shall include a fish, an invertebrate and an aquatic plant. After initial screening, monitoring may be reduced to the most sensitive species. Dilution and control water should be obtained from an unaffected area of the receiving waters or from another saltwater source such as filtered seawater from Scripps Institution of Oceanography. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

Table 4. Approved Tests for Chronic Toxicity.

Species	Test	Tier [1]	Reference [2]
giant kelp, *Macrocystis pyrifera*	percent germination; germ tube length	1	a, c
red abalone, *Haliotis rufescens*	abnormal shell development	1	a, c
oyster, *Crassostrea gigas*; mussels, *Mytilus spp*.	abnormal shell development; percent survival	1	a, c
urchin, *Strongylocentrotus purpuratus*; sand dollar, *Dendraster excentricus*	percent normal development	1	a, c
urchin, *Strongylocentrotus purpuratus*; sand dollar, *Dendraster excentricus*	percent fertilization	1	a, c

Species	Test	Tier [1]	Reference [2]
shrimp, *Homesimysis costata*	percent survival; growth	1	a, c
shrimp, *Mysidopsis bahia*	percent survival; fecundity	2	b, d
top smelt, *Atherinops affinis*	larval growth rate; percent survival	1	a, c
Silversides, *Menidia beryllina*	larval growth rate; percent survival	2	b, d

[1] First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the discharger can use a second tier test method following approval by the Regional Water Board.
[2] Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. U.S. EPA Report No. EPA/600/R-95/136.

b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms. U.S. EPA Report No. EPA-600-4-91-003.

c. SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. 96-1WQ.

Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler 9eds). 1998. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

C. Toxicity Reduction Evaluation

If requested by this Regional Board, the discharger shall develop a Toxicity Reduction Evaluation (TRE) work plan in accordance with the TRE procedures established by the U.S. EPA in the following guidance manuals:

1. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070).

2. Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F).

3. Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080).

4. Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081).

If toxicity effluent limitations identified in Discharge Specification IV.A.1 of this Order are exceeded, then within 15 days of the exceedence, the discharger shall begin conducting six additional toxicity tests over a six-month (at least one sample per calendar month) period and provide the results to the Regional Board. The additional monthly toxicity tests will be incorporated into the semiannual discharge monitoring reports submitted pursuant to MRP No. R9-2005-0091.

If the additional monthly tests indicate that toxicity effluent limitations are being consistently violated (at least three exceedences out of the six tests), the Regional Board may recommend that the discharger conduct a TRE and a Toxic Identification Evaluation (TIE), as identified in the approved TRE work plan.

If the Discharger conducts the TRE/TIE, the Discharger shall, within 15 days of completion of the TRE/TIE, submit the results of the TRE/TIE, including a summary of findings, identified sources of toxicity, a list of corrective actions necessary to achieve consistent compliance with all the toxicity limitations of this Order and prevent recurrence of violations of those limitations and a time schedule for implementations of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Regional Board.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECLAMATION MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Visual Storm Water Observations

The Discharger shall conduct visual observations of all storm water discharges for storm water by-pass discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. The presence/absence of each of these parameters shall be documented for each storm water discharge location.

IX. OTHER MONITORING REQUIREMENTS

A. Priority Pollutant Monitoring.

The Discharger shall conduct effluent monitoring for the priority pollutants for which there are no effluent limitations established in the permit and listed in Attachment J. In addition, the Discharger shall conduct receiving water monitoring for the priority pollutants, at the same time effluent samples are collected. Further, the Discharger must analyze the pH of the receiving water concurrent with the analysis for the priority pollutants.

This monitoring shall occur at the following locations:

1. Outfall locations. (Outfall Nos. M-001 and M-002).

2. Receiving water. A monitoring location shall be established 50 feet from each outfall (R-001 and R-002).

The Discharger shall conduct CTR monitoring once during the term of the permit. Monitoring shall be conducted between February 1, 2009 and July 31, 2009. The results of this CTR monitoring data shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

B. Regional Watershed/Ocean Monitoring

The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional watershed or ocean monitoring program for Mission Bay as directed by this Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During the coordinated monitoring effort, the discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to Mission Bay.

C. Special Studies

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for influent and effluent. In addition to core monitoring requirements, the Discharger may be required to conducted additional monitoring. Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core monitoring program. The Discharger shall implement special studies as directed by this Regional Board.

The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program for Mission Bay as directed by this Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated sampling effort, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the receiving water.

D. Storm Water Sampling

The Discharger shall conduct sampling of storm water by-passes from the Facility to evaluate the presence of potential pollutants. Within two years after the adoption date of Order No. R9-2005-0091, the Discharger shall conduct two monitoring events of the storm water by-pass discharge points during active storm water by-passes. Sampling shall be conducted at representative storm water discharge locations during normal operational hours. The results of the storm water by-pass monitoring shall be submitted to this Regional Board no later than 90 days following the second sampling event. The Discharger shall collect grab samples for all pollutants specified in *Table 5. Storm Water By-Pass Monitoring*.

Table 5. Storm Water By-Pass Monitoring.

Pollutant	Unit	Sample Type
pH	Units	Grab
Temperature	°F	Grab
Total Coliform	MPN/100 mL	Grab
Fecal Coliform	MPN/100 mL	Grab
Enterococcus	CFU/100 mL	Grab
Residual Chlorine	µg/L	Grab
Suspended Solids	mg/L	Grab
Settleable Solids	ml/L	Grab
Grease and Oil	mg/L	Grab
Turbidity	NTU	Grab
Silver	µg/L	Grab
Copper	µg/L	Grab
Ammonia	mg/L	Grab

[1] All sampling and analysis shall be conducted pursuant to 40 CFR 136.
[2] Results shall be expressed as total recoverable.

E. Storm Water Pollution Control Plan Required Monitoring

1. A minimum of four quarterly visual inspections of all storm water drainage areas and associated potential pollutant sources shall be completed each reporting year. The annual comprehensive site compliance evaluation described in Section 9 of Attachment I may substitute for one of the quarterly inspections.

2. Any changes and follow-up procedures shall be documented to ensure appropriate corrective actions and/or SWPPP revisions are implemented.

3. A summary of the corrective actions and SWPPP revisions resulting from quarterly inspections shall be reported in the annual report.

4. Dischargers shall certify in the annual report that each quarterly visual inspections were completed.

X. 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 and the general monitoring and reporting requirements below. In cases where the monitoring and reporting requirements contained within this section, and the Standard Provisions (Attachment D) conflict, the more stringent of the two requirements apply.

2. The discharger shall file a new Report of Waste Discharge not less than 180 days prior to the following:

   a. Addition of any industrial waste to the discharge or the addition of a new process or product resulting in a change in the character of the wastes.

   b. Significant change in disposal method (e.g. change in the method of treatment which would significantly alter the nature of the waste).

   c. Significant change in disposal area (e.g. moving the discharge to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems).

   d. Increase in flow beyond that specified in this Order.

   e. Other circumstances, which result in a material change in character, amount, or location or the waste discharge.

3. The discharger must notify this Regional Board, in writing, at least 30 days in advance of any proposed transfer of this facility to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable after the transfer date.

4. Except for data determined to be confidential, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the California Regional Water Quality Control Board, San Diego Region and the United States Environmental Protection Agency, Region IX. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent monitoring data shall not be considered confidential.

B. Self Monitoring Reports

1. At any time during the term of this permit, the Discharger, after notification by the State or Regional Board, may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self-monitoring reports is required, the Discharger shall submit self-monitoring reports in accordance with the requirements described further below.

2. The Discharger shall submit monthly, quarterly, semiannual, and annual Self Monitoring Reports including the results of all required monitoring and monitoring conducted in addition to the minimum required monitoring and using USEPA approved test methods or other test methods specified in this Order. Monthly reports shall be due on the 1st day of the second month following the end of each calendar month; Quarterly reports shall be due on

May 1, August 1, November 1, and February 1 following each calendar quarter; Semiannual reports shall be due on August 1 and February 1 following each semiannual period; Annual reports shall be due on February 1 following each calendar year.

3. Monitoring periods for all required monitoring shall commence according to the schedule specified in *Table 6. Monitoring Periods*.

Table 6. Monitoring Periods.

Sampling Frequency	Monitoring Period Starts On . . .	Monitoring Period	Reporting Due with SMR on . . .
Continuous	**April 13, 2005**	All	First day of second month following month of sampling
Daily	**April 13, 2005**	Calendar day (Midnight through 11:59 PM) (Alternatively, specify 24-hour period that constitutes a day)	First day of second month following month of sampling
Weekly	**April 24, 2005**	Sunday through Saturday	First day of second month following month of sampling
Monthly	**May 1, 2005**	1st day of calendar month through last day of calendar month	First day of second month following month of sampling
Quarterly	**July 1, 2005**	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Semiannual	**July 1, 2005**	January 1 through June 30 July 1 through December 31	August 1 February 1
Annual	**January 1 2006**	January 1 through December 31	February 1
1 / 5 years	February 1, 2009 through July 31, 2009	Over the term of the permit	April 13, 2009

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory current Method Detection Limit (MDL) as determined by the procedure in 40 CFR Part 136.

5. The Discharger shall submit data on a copy of the Monitoring and Reporting Form provided as Attachment G. Additional data, and data required to be submitted as an attachment to the reporting form must be arranged in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.

6. Self Monitoring Reports must be submitted to the Regional Board, signed and certified as required by the standard provisions (Attachment D).

7. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDR, discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation. Monitoring results must be reported on forms approved by this Regional Board. Self Monitoring Reports shall be submitted to the addresses listed in *Table 7. Regional Board Address*.

Table 7. Regional Board Address.

Submit monitoring reports to:
California Regional Water Quality Control Board San Diego Region 9174 Sky Park Court, Suite 100 San Diego, California 92123-4340 Attention: Industrial Compliance Unit

Notifications required to be provided to this Regional Board shall be made to:

Telephone – (858) 467-2952 or

Facsimile – (858) 571-6972

C. Discharge Monitoring Reports

1. As described in Section X.B.1 above, at any time during the term of this permit, the Discharger, after notification by the State or Regional Board, may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self-monitoring reports is required, the Discharger shall submit discharge monitoring reports (DMR) in accordance with the requirements described further below.

2. DMR must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy to the address listed *Table 8. State Board Address*.

Table 8. State Board Address.

Submit DMR to:
State Water Resources Control Board Discharge Monitoring Report Processing Center Post Office Box 671 Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self generated or modified cannot be accepted.

D. Self Monitoring Form

As specified in Section VII.B.4 of this Monitoring and Reporting Program, the Discharger shall submit data to the Regional Board using a copy of the Monitoring and Reporting Form provided as Attachment G to Order No. R9-2005-0091. Additional monitoring data and applicable signatory requirements should be submitted as an attachment to this form.

E. Other Reports (Not Applicable)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 9, SAN DIEGO REGION

ATTACHMENT F

FACT SHEET

ORDER NO. R9-2005-0091
NPDES PERMIT NO. CA0107336

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the specific legal requirements and detailed technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

Administrative information for the Facility is summarized in *Table 1. Facility Information*.

Table 1. Facility Information.

WDID	**9 000000083**
Discharger	**Anheuser-Busch, Inc.**
Name of Facility	**SeaWorld, City of San Diego**
Facility Address	**500 SeaWorld Drive**
	San Diego, CA 92109
	San Diego County
Facility Contact, Title and Phone	**Kevin Carr, Environmental Director, (619) 226-3934**
Authorized Person to Sign and Submit Reports	**Andrew Fischthorn, Executive Vice President and General Manager, (619) 226-3934**
Mailing Address	**500 SeaWorld Drive, San Diego, CA 92109**
Billing Address	**500 SeaWorld Drive, San Diego, CA 92109**
Type of Facility	**Amusement Park, SIC # 7995**
Threat to Water Quality	**2**
Complexity	**A**
Pretreatment Program	**NA**
Reclamation Requirements	**None**
Facility Permitted Flow	**Total of 9.36 million gallons per day (mgd)**
Facility Design Flow	**Total of 9.36 mgd**
Watershed	
Receiving Water	**Mission Bay**
Receiving Water Type	**Bay**

Anheuser-Busch, Inc. (hereinafter Discharger) is the owner and operator of SeaWorld (hereinafter Facility) an amusement park.

The Facility discharges wastewater to Mission Bay, a water of the United States and is currently regulated by Regional Board Order No. 2000-25 which was adopted on April 12, 2000 and expired on March 8, 2005. Order No. 2000-25 was administratively continued after the permit expiration date.

On November 19, 2004 the Discharger submitted a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDR) and National Pollutant Discharge Elimination System (NPDES) permit. On January 26, 2005 supplemental information was requested, and was received on January 27, 2005. An NPDES inspection was

conducted on February 17, 2005 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

SeaWorld is an Anheuser-Busch Adventure Park located on Mission Bay in San Diego, California. The Facility is primarily an aquatic amusement park and houses various marine animals and consists of approximately 189.4 acres. The Discharger pumps seawater from Mission Bay through two intake structures, an East and West intake, for use in its mammal pools, aquaria, and other exhibits.

The West Intake consists of two pumps that pump up to 6.12 million gallons per day (mgd) of seawater from Mission Bay to either a set of filters for mammal pools or a set of filters for fish exhibits. The East Intake consists of four pumps with a total capacity to pump up to 3.24 mgd of seawater into the Facility. Both intake streams are separate and each contains its own treatment system and outfall.

Seawater pumped from Mission Bay is filtered and disinfected to produce a suitable habitat for the exhibit animals tolerant to chlorine. For exhibit animals sensitive to chlorine, the intake water is filtered and treated using ozonation and ultraviolet (UV) treatment.

Approximately 88,000 gallons a day of backwash water from the intake filters is discharged into the sanitary sewer system.

The Facility contains two effluent treatment systems, one located on the east side of the Facility, and one located on the west side of the Facility. Both treatment systems are similar.

Prior to discharge, wastewater streams on each side of the Facility combine with a storm water stream originating from storm drains located throughout the site. Storm drains located in areas with a history of high solids accumulation have had filters installed. The combined effluent stream is chlorinated, velocities are reduced to induce settling, and the combined waste stream is discharged to Mission Bay.

The inspection report for the NPDES compliance inspection conducted on February 11, 2004 notes that during large storms and after the treatment system is at full capacity, storm water is by-passed directly to Mission Bay. Prohibition A.4. of the current Order prohibits aquaria and pool draining operations upon the commencement of a storm event. During the February 11, 2004 inspection, it was noted that the Facility representative stated that storm water bypasses occur roughly 2 - 3 times a year. During the most recent NPDES compliance inspection, conducted on February 17, 2005, it was noted that the storm water collection system remains unchanged from the current report description. During the February 17, 2005 inspection, the Facility representative stated that since January 2005 at least six storm water by-passes have occurred. Two storm water by-pass points are located in the West treatment/collection system, four storm water by-pass points are located in the East treatment/collection system. Various storm water by-pass discharge points were observed during the February 17, 2005 inspection. Receiving water impairment was not observed on the date of the inspection.

Provision E.33 of Order No. 2000-25 requires the Discharger to develop and implement a 12-month study of potential eutrophication impacts from the Facility on Mission Bay. The study evaluated dissolved oxygen, BOD, nitrates and phosphates in the effluent and the receiving water area. On January 18, 2002, the eutrophication study report was completed. The study concluded that the effluent discharges from the Facility are not causing eutrophication in Mission Bay.

A. Description of Wastewater Treatment or Controls

The East and West Effluent Treatment facilities are chlorination/dechlorination treatment systems. The wastewater is filtered through 1-inch stainless steel screens. Diversion chambers transfer the water to chlorine contact chambers. Sodium hypochlorite is injected at three prechlorination points in each collection system prior to the contact chamber. A final sodium hypochlorite injection point is located just prior to the contact chamber. Residual chlorine is neutralized prior to discharge to Mission Bay by the injection of sodium bisulfate (West side) or sodium sulfate (East side).

The effluent treatment systems are designed to accommodate a total combined maximum effluent flow of 9.36 MGD. The daily flow data submitted by the Discharger to this Regional Board between April 1, 2000 through May 31, 2004, in accordance with Monitoring and Reporting Program No. 2000-25 is summarized in *Table 2. Daily Flow Volumes*.

Table 2. Daily Flow Volumes.

	East Outfall	West Outfall	Total (West and East)
Average Flow	1.13	2.01	3.14
Maximum Flow	2.11	4.224	5.73

Flow diagrams for the East and West intake and discharge systems are provided in Attachment C.

B. Outfalls and Receiving Waters

The Discharger proposes to discharge up to 9.36 MGD of wastewater from exhibit pools, intermittent flows during pool draining and cleaning operations, runoff from landscape irrigation, and facility wash down water. Storm water is also discharged during rain events. The combined treated wastewater is discharged to Mission Bay through two outfalls. Outfall No. 001 (East) has a maximum discharge rate of 3.24 MGD and is located at 32° 46' 03" North latitude and 117° 13' 33" West longitude. Outfall No. 002 (West) has a maximum discharge rate of 6.12 MGD and is located at 32° 46' 04" North latitude and 117° 13' 40" West longitude.

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

Effluent limitations contained in the existing Order for discharges from Outfall No. 001 (East) (Monitoring Location 001) and representative monitoring data from the term of the current Order are summarized in *Table 3. Effluent Limitations and Monitoring Data For Outfall No. 001*.

Table 3. Effluent Limitations and Monitoring Data for Outfall No. 001.

Parameter (units)	Effluent Limitations				Data from April 2000 through May 2004		
	6 Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum	6 Month Median	Highest Average Monthly Discharge	Highest Daily Discharge[1]
Flow (MGD)	--	--	3.24	--	--	--	2.114
Temperature (°C)	--	--	--	--	--	--	23
pH (units)	--	--	--	7.0 – 9.0[2]	--	--	6.8 – 8.0[3]
Enterococcus (CFU/100 mL)	--	35	--	104	--	57.6[4]	280[4]
Fecal Coliform (MPN/100 mL)	Narrative[5]				--	6.93[6]	2,400
Total Coliform (MPN/100 mL)	Narrative[7]				--	50[8]	5,000
Total Chlorine Residual (mg/L)	--	0.21	--	0.42	--	0.066	0.24
Suspended Solids (mg/L)[9]	--	10	15	--	--	66.5	115
Settleable Solids (ml/L)	--	1.0	--	3.0	--	<0.2	<0.2
Halomethanes (µg/L)	--	2,900	--	--	--	106	--
Grease and Oil (mg/L)	--	25	--	75	--	6	6
Turbidity (NTU)	--	75	--	225	--	<10	<10
Silver[10] (µg/L)	6.5	--	36	96	7.5	--	20
Copper[10] (µg/L)	24	--	220	620	8.72	--	29.9
Ammonia (mg/L)	--	--	--	0.55	--	--	0.66
Acute Toxicity (TUa)	--	1.5	--	2.5	--	0.97	--
Chronic Toxicity (TUc)	--	--	22	--	--	--	[11]

[1] Values also applicable to Instantaneous Maximum effluent limitations
[2] Within the limits of 7.0 and 9.0 at all times
[3] The lowest pH value reported to this Regional Board from April 2000 through May 2004 by the Discharger was 6.8 (units). The highest pH value reported to this Regional Board from April 2000 through May 2004 was 8.0 (units).
[4] Reported as MPN/100 mL.
[5] The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.
[6] Monthly log mean
[7] The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube dilution test is used.
[8] 30-day median

[9] The discharge of aquaria wastewater through the East and West outfalls shall contain no significant increase in the concentration of total suspended solids when compared to the intake water. Significant increase is defined as an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum. The discharger shall also remove 75% of the suspended solids from the influent stream any time that the influent suspended solids concentrations exceeds four times the effluent limits.

[10] These metals shall be expressed as total recoverable.

[11] Chronic Toxicity tests were performed using three species: bay mussel (Mytilus galloprovincialis), giant kelp (Macrocystis pyriferia), and Pacific top smelt. Results from the three sets of toxicity test consistently demonstrated an absence of chronic toxicity.

Effluent limitations contained in the existing Order for discharges from Outfall No. 002 (West) (Monitoring Location 002) and representative monitoring data from the term of the current Order are summarized in *Table 4. Effluent Limitations and Monitoring Data for Outfall No. 002*.

Table 4. Effluent Limitations and Monitoring Data for Outfall No. 002.

Parameter (units)	Effluent Limitations				Data from April 2000 through May 2004		
	6 Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum	6 Month Median	Highest Average Monthly Discharge	Highest Daily Discharge[1]
Flow (MGD)	--	--	6.12	--	--	--	4.224
Temperature (°C)	--	--	--	--	--	--	22.8
pH (units)	--	--	--	7.0 – 9.0[2]	--	--	7 – 8.0[3]
Enterococcus (CFU/100 mL)	--	35	--	104	--	7[4]	22[4]
Fecal Coliform (MPN/100 mL)	Narrative[5]				--	11.51[6]	1,700
Total Coliform (MPN/100 mL)	Narrative[7]				--	150[8]	3,000
Total Chlorine Residual (mg/L)	--	0.21	--	0.42	--	0.05	0.37
Suspended Solids (mg/L)[9]	--	Intake + 10	Intake + 15	--	--	68	126
Settleable Solids (ml/L)	--	1.0	--	3.0	--	<0.2	<0.2
Halomethanes (µg/L)	--	2,900	--	--	--	72.4	--
Grease and Oil (mg/L)	--	25	--	75	--	<5	<5
Turbidity (NTU)	--	75	--	225	--	<10	<10
Silver[10] (µg/L)	6.5	--	36	96	6.5	--	20
Copper[10] (µg/L)	24	--	220	620	12.2	--	28.5
Ammonia (mg/L)	--	--	--	0.55	--	--	0.28
Acute Toxicity (TUa)	--	1.5	--	2.5	--	0.69	--
Chronic Toxicity (TUc)	--	--	22	--	--	--	[11]

[1] Values also applicable to Instantaneous Maximum effluent limitations

[2] Within the limits of 7.0 and 9.0 at all times

[3] The lowest pH value reported to this Regional Board from April 2000 through May 2004 by the Discharger was 7 (units). The highest pH value reported to this Regional Board from April 2000 through May 2004 was 8.0 (units).

[4] Reported as MPN/100 mL.

[5] The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.

[6] Monthly log mean

[7] The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube dilution test is used.

[8] 30-day median

[9] The discharge of aquaria wastewater through the East and West outfalls shall contain no significant increase in the concentration of total suspended solids when compared to the intake water. Significant increase is defined as an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum. The discharger shall also remove 75% of the suspended solids from the influent stream any time that the influent suspended solids concentrations exceeds four times the effluent limits.

[10] These metals shall be expressed as total recoverable.

[11] Chronic Toxicity tests were performed using three species: bay mussel (Mytilus galloprovincialis), giant kelp (Macrocystis pyriferia), and Pacific top smelt. Results from the three sets of toxicity test consistently demonstrated an absence of chronic toxicity.

D. Compliance Summary

Effluent exceedences are summarized in *Table 5. Compliance Summary – Outfall No. 001 (East)* and *Table 6. Compliance Summary – Outfall No. 002 (West).*

Table 5. Compliance Summary - Outfall No. 001 (East).

Constituent	Monitoring Period	Type of Limit	Limit	Reported Value
Silver	1st Semi-annual 2000	6-month Median	6.5 ug/L	7.5 ug/L
Ammonia	2nd Semi-annual 2000	Daily Maximum	0.55 mg/L	0.66 mg/L
Suspended Solids	3rd Quarter 2000	Monthly Average	intake + 10 mg/L	66.5 mg/L (**+48.5 mg/L**)
Suspended Solids	3rd Quarter 2000	Daily Maximum	intake + 15 mg/L	115 mg/L (**+107 mg/L**)
Enterococcus	July 2000	Instantaneous Maximum	104 CFU/100 mL	130 MPN/100 mL
Enterococcus	Aug. 2000	Instantaneous Maximum	104 CFU/100 mL	220 MPN/100 mL
pH	Aug. 2002	Instantaneous maximum	between 7 - 9 units	6.8 units
Enterococcus	Oct. 2002	Instantaneous Maximum	104 CFU/100 mL	280 MPN/100 mL
Enterococcus	Oct. 2002	Monthly Average	35 CFU/100 mL	57.6 MPN/100 mL

Table 6. Compliance Summary - Outfall No. 002 (West).

Constituent	Monitoring Period	Type of Limit	Limit	Reported Value
Total Coliform	July 2000	[1]	[1]	**300/100 mL**
Total Coliform	August 2000	[1]	[1]	**300/100 mL**
Total Coliform	August 2000	Monthly Median		**150/100 mL**
Total Coliform	August 2002	[1]	[1]	**3,000/100 mL**
Fecal Coliform	August 2002	[2]	[2]	**1,700/100 mL**

1 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five tube decimal dilution test or 330/100 mL when a three tube dilution test is used.

2 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 40/100 mL.

During the NPDES compliance inspection conducted on February 17, 2005, effluent data from May 2004 through December 2004 were reviewed. Effluent limitation exceedences were identified from the Outfall No. 002 (West) and are summarized in *Table 7. Effluent Limitation Exceedences*.

Table 7. Effluent Limitation Exceedences.

Constituent	Monitoring Period	Type of Limit	Limit	Reported Value
Total Suspended Solids	December 2004	Monthly Average	11.5 mg/L (intake + 10)	40 mg/L
Total Suspended Solids	December 2004	Daily Maximum	16.1 mg/L (intake + 15)	40 mg/L

This Regional Board noted no other compliance issues during the current permit term.

E. Planned Changes (Not Applicable)

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

In addition to the regulatory framework established in the Findings of Order No. R9-2005-0091, the requirements contained in the Order are based on the requirements and authorities described in this section.

A. Water Quality Control Plans

On September 8, 1994 this Regional Board adopted a revised *Water Quality Control Plan for the San Diego Basin (9)* (herein after, Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for surface waters and groundwaters in the San Diego Basin. Existing beneficial uses for receiving waters are listed in *Table 8. Beneficial Uses of Mission Bay*.

Table 8. Beneficial Uses of Mission Bay.

Outfall Number	Receiving Water Name	Beneficial Use(s)
001 and 002	**Mission Bay**	Existing: Industrial Services Supply (IND) Contact Water Recreation (REC1) Non-contact Water Recreation (REC2) Commercial and Sport Fishing (COMM) Estuarine Habitat (EST) Rare, Threatened, or Endangered Species (RARE) Marine Habitat (MAR) Migration of Aquatic Organisms (MIGR) Wildlife Habitat (WILD) Shellfish Harvesting (SHELL) Intermittent: None. Potential: None.

B. Other Applicable Water Quality Plans, Policies and Regulations

1. Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), last amended on January 1, 2005, establishes the State Water Resources Control Board (State Board), and the Regional Boards as the principle state agencies responsible for control of water quality. The Porter-Cologne Act empowers the Regional Boards to formulate and adopt, for all areas within the regions, a Water Quality Control Plan (Basin Plan) which designates beneficial uses and establishes water quality objectives. Further, the Plan designates the Regional Boards with the authority to issue waste discharge requirements to regulate the discharge of waste to surface and ground waters of the state.

2. Ocean Plan

On November 16, 2000 the SWRCB adopted a revised Water Quality Control Plan for Ocean Waters of California (Ocean Plan). The Ocean Plan establishes water quality objectives for bacterial, physical, chemical, and biological characteristics, and for radioactivity. Further, the Ocean Plan establishes general requirements for management of waste discharge to the ocean, quality requirements for waste discharges, discharge prohibitions, and general provisions.

Permit prohibitions and objectives found in Order No. R9-2005-0091 are derived from the Basin Plan and the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). Beneficial uses to Mission Bay are similar to those of the ocean waters of the State. In order to protect the beneficial uses of Mission Bay, discharge specifications for some parameters in this Order were derived from the Ocean Plan.

3. **Thermal Plan**
The State Water Resources Control Board (hereinafter State Board) adopted a *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. The Plan contains temperature objectives for inland surface waters and enclosed bays and estuaries.

4. **National and California Toxic Rules**
U.S. EPA adopted the *National Toxics Rule* (NTR) on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the *California Toxics Rule* (CTR) on May 18, 2000, which was amended on February 13, 2001. These Rules contain water quality standards for priority pollutants applicable to this discharge.

5. **State Implementation Policy**
On March 2, 2000, The State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP*)*. On April 28, 2000, the SIP became effective for regulating discharges of priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and for priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. On May 18, 2000, the SIP became effective for regulating priority pollutant criteria promulgated by the U.S. EPA through the CTR.

6. **Establishing Limitations**
Pursuant to 40 CFR 122.44(a) permits must include applicable technology-based limitations and standards. Section 122.44(d) requires that permits include water quality-based effluent limitations (WQBEL) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR 122.44(d) specifies that WQBEL may be established using U.S. EPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

7. **Anti-Degradation**
Pursuant to 40 CFR 131.12 the State water quality standards must include an anti-degradation policy consistent with the Federal policy. The State Board established California's anti-degradation policy in State Board Resolution No. 68-16, which incorporates the requirements of the Federal anti-degradation policy. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified. The permitted discharge complies with the anti-degradation provision of 40 CFR 131.12 and State Board Resolution No. 68-16.

8. **Anti-Backsliding Requirements**

Sections 402(o)(2) and 303(d)(4) of the Clean Water Act (CWA) and federal regulations at 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the current permit, with some exceptions where limitations may be relaxed. Based on new data provided by the Discharger, an effluent limitation for halomethanes has not been continued from the current permit. The removal of the effluent limitation for halomethanes is in compliance with all State and Federal Anti-Backsliding requirements. All other effluent limitations contained in this Order are at least as stringent as the effluent limitations in the current Order.

9. **Current Order**
In some cases, existing waste discharge requirements and permit conditions (effluent limitations and other special conditions) contained in Order No. 2000-25 have been continued in this permit.

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

Section 303(d) of the CWA requires states to identify water bodies where water quality standards are not expected to be met after technology-based effluent limitations have been implemented for point sources. For all 303(d)-listed water bodies and pollutants this Regional Board plans to develop total maximum daily load (TMDL) allocations that will specify waste load allocations (WLA) for point sources and load allocations (LA) for non-point sources.

The U.S. EPA has approved the State's 303(d) list of impaired water bodies. Certain receiving waters in the San Diego County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Board's California 303(d) list classifies Mission Bay as impaired because of bacteria, lead and eutrophication. Currently there is no proposed date for the TMDL completion for any of these pollutants in the receiving water body. Upon the completion of the TMDL for Mission Bay, this Regional Board may reopen this Order to include TMDL allocations.

The Discharger chlorinates and dechlorinates the effluent prior to discharge to Mission Bay. It is unlikely the Discharger will contribute to the impairment of the water body for bacteria indicators. The Discharger conducted an eutrophication study during 2000 – 2001 and concluded that the effluent from the Facility is not causing or contributing to eutrophication in Mission Bay. Available effluent data does not indicate that the Discharger will contribute to the impairment of the receiving water for lead.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States.

The control of the discharge of pollutants is established through effluent limitations and other requirements in NPDES permits. The CWA establishes two principal basis for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that are established using cost factors, technical factors, and economic impact factors. Second, dischargers are required to meet WQBEL that are needed to protect beneficial uses of the receiving water.

The Discharger has installed pipe reducers at each of the two submerged discharge outfall pipes. The reducers increase the initial zone of dilution to a factor of 21:1 for each of the two discharge outfalls. A dilution factor of 21:1 has been allowed for discharges from Outfall Nos. 001 and 002 for chronic toxicity, ammonia, chlorine residual, copper, and silver.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, California Water Code, and previous permit provisions, and are consistent with the requirements set for other discharges regulated by NPDES permits adopted by this Regional Board.

1. Compliance with Discharge Prohibitions contained in the Basin Plan is a requirement of this Order.

2. Discharges of wastes in a manner or to a location which have not been specifically authorized by this Order and for which valid waste discharge requirements are not in force are prohibited.

3. Aquaria and pool draining operations are prohibited during a storm water by-pass discharge event in order to minimize the use of the storm water by-passes at Outfall Nos. 001 and 002.

4. The discharge of wastewater and storm water in excess of the effluent limitations in Section IV.D. of this Fact Sheet are prohibited unless the Discharger obtains revised waste discharge requirements authorizing an increased discharge.

5. The discharger shall not cause pollution, contamination, or nuisance, as those terms are defined in CWC 13050, as a result of the treatment or discharge of wastes.

6. Collected screenings, sludge, and other solids removed from liquid wastes, shall be disposed of in a manner approved by this Regional Board.

7. Odors, vectors, and other nuisances of waste origin beyond the limits of the property controlled by discharger are prohibited.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several factors:

a. Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional 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 nonconventional pollutants.

c. Best conventional pollutant control technology (BCT) is a standard for 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 evaluating the cost of attaining a reduction in pollutant discharge, the benefits that would result, and the cost effectiveness of additional industrial treatment beyond BPT.

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

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELG), BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to develop technology-based effluent limitations on a case-by-case basis where ELG are not available. Where BPJ is used, the permit writer must comply with 40 CFR 125.3.

The discharges from the Facility do not have ELG.

2. Applicable Technology-Based Effluent Limitations (Not Applicable)

C. Water Quality-Based Effluent Limitations (WQBEL)

1. Scope and Authority

As specified in 40 CFR § 122.44(d)(1)(i), permits are required to include WQBEL for pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBEL when necessary is intended to protect the designated uses for 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 water quality criteria contained in the CTR and NTR).

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the inland surface waters, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions, to protect beneficial uses.

Beneficial uses of Mission Bay are similar to those of the ocean. The Ocean Plan establishes water quality objectives for bacterial, physical, chemical, and biological characteristics, and for radioactivity. Further, the Ocean Plan establishes general requirements for management of waste discharge to the ocean, quality requirements for waste discharges, discharge prohibitions, and general provisions. In order to protect the beneficial uses of Mission Bay, discharge specifications for some parameters in this Order were derived from the Ocean Plan.

The Basin Plan establishes narrative water quality objectives for toxicity. The Basin Plan states that all waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. The Ocean Plan establishes numeric effluent limitations for acute toxicity and chronic toxicity.

The Basin Plan establishes a numeric water quality objective for un-ionized ammonia. The Basin Plan states that the discharge of wastes shall not cause concentrations of un-ionized ammonia (NH_3) to exceed 0.025 mg/L (as N) in inland surface waters, enclosed bays and estuaries and coastal lagoons.

The Basin Plan does not contain objectives for total residual chlorine, however it does contain narrative objectives prohibiting discharges that cause toxicity to aquatic organisms. This Regional Board has determined that residual chlorine is toxic to aquatic life. Numeric effluent limitations for residual chlorine were calculated using the effluent limitations contained within Table B of the Ocean Plan and compared to the current effluent limitations. The current effluent limitations are more stringent.

The Basin Plan establishes narrative water quality objectives for oil and grease. The Basin Plan states that waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses. Table A of the Ocean Plan establishes numeric effluent limitations for oil and grease. A monthly average effluent limitation of 25 mg/L and a daily maximum effluent limitation of 75 mg/L have been established based on the effluent limitations contained in the Ocean Plan.

The Basin Plan establishes narrative water quality objectives for pH. The Basin Plan prohibits the changes in normal ambient pH levels by 0.2 units in water bodies with designated marine, or estuarine, or saline beneficial uses. Further, the Basin Plan states that the pH of bays and estuaries shall not be depressed below 7.0 nor raised above 9.0.

The Basin Plan establishes numeric water quality objectives for enterococcus based on the U.S. EPA Bacteriological Criteria for Water Contact Recreation. The enterococci criteria for salt water are listed in *Table 9. Bacteriological Criteria for Water Contact Recreation (in salt water).*

Table 9. Bacteriological Criteria for Water Contact Recreation (in salt water).

Contact/Use	Enterococci (colonies per 100mL)
Steady State (all areas)	35
Maximum (designated beach)	104
Maximum (moderately or lightly used area)	276
Maximum (infrequently used area)	500

The Basin Plan establishes numeric water quality objectives for fecal coliform in waters designated for contact recreation. The Basin Plan states the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.

The Basin Plan establishes numeric water quality objectives for total coliform in waters where shellfish harvesting for human consumption, commercial, or sports purposes. The Basin Plan states that the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.

The Basin Plan establishes narrative water quality objectives for turbidity. The Basin Plan states *Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.* Numeric water quality criteria for turbidity have been derived from Table A of the Ocean Plan.

The Basin Plan specifies that waters shall not contain suspended solids and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses. Water quality criteria for settleable solids have been continued from the current permit. The current Order establishes effluent limitations for suspended solids based on the concentration contained within the intake water.

Section 4 of the Thermal Plan specifies narrative waste discharge requirements for temperature into enclosed bays.

Effluent limitations for halomethanes have been removed based on an analysis of the data submitted to this Regional Board during the current permit term. Halomethanes are defined in the current permit as the sum of bromoform, methyl bromide, methyl chloride, chlorodibromomethane, and dichlorobromomethane. In accordance with Section 1.3 of the SIP, a reasonable potential analysis (RPA) was performed based on water quality objectives outlined in the CTR, NTR, and Basin Plan. Based on the results of the RPA, the Discharger does not demonstrate reasonable potential to exceed water quality objectives for bromoform, methyl bromide, methyl chloride, chlorodibromomethane, and dichlorobromomethane. Further, semi-annual monitoring data submitted by the Discharger indicates that the established effluent limitations for halomethanes were not exceeded for the current permit. Thus, based on new data, and in compliance with State and Federal Anti-Backsliding regulations (Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l)), the current effluent limitation for halomethanes has not been continued to this Order.

3. Determining the Need for WQBEL

In accordance with Section 1.3 of the SIP, a RPA was conducted for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. This Regional Board analyzed effluent and receiving water data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBEL are required. The RPA evaluates water quality objectives specified in the CTR, NTR, and Basin Plan. To conduct the RPA, this Regional Board identified the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent, based on data provided by the Discharger in its NPDES permit application.

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 process analysis to complete a RPA:

a. Process Analysis 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.

b. Process Analysis 2 – If MEC<C and background water quality (B) > C, a limit is needed.

c. Process Analysis 3 – If other related information determines the need for WQBEL.

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

The RPA was performed for the priority pollutants for which effluent data were available. These data were used in the RPA and are summarized in Attachment H for Outfall Nos. 001 and 002.

Based on the RPA, there is reasonable potential to exceed water quality standards at both Outfall Nos. 001 and 002 for copper and silver. Effluent limitations and effluent monitoring requirements for copper and silver have been revised in accordance with the SIP.

4. WQBEL Calculations

a. Water quality based effluent limits are based on monitoring results and use the calculation process outlined in Section 1.4 of the SIP. WQBEL calculations are summarized in Attachment H.

b. WQBELS Calculation Example

The process for developing WQBEL for copper according to Section 1.4 of the SIP is shown in *Example 1. WQBEL Calculations According to the SIP*. Attachment H summarizes the development and calculation of all water quality-based effluent limitations for this Order using the process described below.

Example 1. WQBEL Calculations According to the SIP.

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 equation:

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

Where C = The priority pollutant criterion/objective,
D = The dilution credit, and
B = The ambient background concentration

As discussed below, for this Order, a dilution factor of 21:1 was used to calculate the effluent limitations established for copper and silver. Further, a background concentration of 1.69 µg/L was reported in the CTR data submitted with the NPDES permit application package. Therefore for copper:

ECA = 5.78 µg/L + (21)(5.78 µg/L -1.69 µg/L)

For copper the applicable water quality criteria are (reference Attachment H):

ECA_{acute}= 91.67 µg/L
$ECA_{chronic}$= 46.57 µg/L
$ECA_{human\ health}$= Not applicable

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.

$LTA_{acute} = ECA_{acute} * Multiplier_{acute}$

$LTA_{chronic} = ECA_{chronic} * Multiplier_{chronic}$

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 copper, the following data was used to develop the acute and chronic LTA using Table 1 of the SIP:

No. of Samples	CV	$Multiplier_{acute}$	$Multiplier_{chronic}$
<4	0.6	0.321	0.527

LTA_{acute} = 91.67 µg/L * 0.321 = 29.43 µg/L

$LTA_{chronic}$ = 46.57 µg/L * 0.527 = 24.56 µg/L>

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

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

For copper, the most limiting LTA was the $LTA_{chronic}$

LTA = 24.56 µg/L

Step 4: Calculate the water quality based effluent limits by multiplying the LTA by a factor (multiplier). Water quality-based effluent limits are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation

(MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedence 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 sample frequency (for AMEL) and whether it is 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 sample frequency. 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.

$AMEL_{aquatic\ life} = LTA * AMEL_{multiplier}$

$MDEL_{aquatic\ life} = LTA * MDEL_{multiplier}$

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 copper, the following data was used to develop the AMEL and MDEL for aquatic life using Table 2 of the SIP:

No. of Samples	CV	$Multiplier_{MDEL}$	$Multiplier_{AMEL}$
<4	0.6	3.11	1.55

$AMEL_{aquatic\ life} = 24.56\ \mu g/L * 1.55 = 38.13\ \mu g/L$

$MDEL_{aquatic\ life} = 24.56\ \mu g/L * 3.11 = 76.50\ \mu g/L$

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

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

For copper in this receiving water, the $ECA_{human\ health}$ is not applicable:

$AMEL_{human\ health}$ = Not applicable

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.

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

If human health criteria were applicable for copper in the receiving water, the following data would be used to develop the $MDEL_{human\ health}$:

No. of Samples	CV	$Multiplier_{MDEL}$	$Multiplier_{AMEL}$	Ratio
<4	0.6	3.11	1.55	2.01

$MDEL_{human\ health}$ = Not applicable

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 copper:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
38.13 µg/L	76.50 µg/L	N/A	N/A

The lowest (most restrictive) effluent limitations in this example are for aquatic life criteria and are specified in this Order. The SIP calculated WQBEL for copper and silver are listed in *Table 10. Summary of Water Quality-Based Effluent Limitations*.

Table 10. Summary of Water Quality-Based Effluent Limitations.

Constituent	Units	Calculated Effluent Limitations	
		Average Monthly	Daily Maximum
Copper	µg/L	38.13	76.50
Silver	µg/L	23.16	46.46

c. Effluent Limitations based on the Ocean Plan.

Beneficial uses to Mission Bay are similar to those of the ocean waters of the State. In order to protect the beneficial uses of Mission Bay, discharge specifications for oil and grease, turbidity, settleable solids, and chronic toxicity in this Order were derived from the Ocean Plan.

The process for developing WQBEL according to the Ocean Plan is shown in *Example 2. WQBEL Calculations According to the Ocean Plan*.

Example 2. WQBEL Calculations According to the Ocean Plan.

For each constituent requiring an effluent limit, identify the applicable water quality effluent limitation contained in Table B of the Ocean Plan. Effluent limitations for water quality objectives listed in Table B, with the exception of acute toxicity and radioactivity, may be determined through the use of the follow equation:

$$Ce = Co + Dm (Co – Cs)$$

Where
- Ce = The effluent concentration limit
- Co = The concentration (water quality objective) to be met at the completion of initial dilution
- Cs = Background seawater concentration
- Dm = Minimum probable initial dilution expressed as parts seawater per part wastewater.

As discussed below, for this Order, dilution factor of 21:1 was used to calculate the effluent limitations established for chronic toxicity and chlorine residual. Further, no background concentration of chronic toxicity was established. Therefore for chronic toxicity:

$$Ce = 1 \text{ TUc} + (21)(1 \text{ TUc} – 0 \text{ TUc})$$

Thus, for chronic toxicity the applicable water quality criteria is:

$$Ce = 22 \text{ TUc}$$

d. Mass-Based Limitation Calculation Example.

In compliance with 40 CFR section 122.45(f), mass-based limitations have also been established in this Order for conventional, nonconventional, and toxic pollutants. Generally, mass-based limitations ensure that proper treatment, and not dilution is employed to comply with the final effluent concentration limitations. The mass-based effluent limitations contained in this Order are based on a maximum total discharge flow rate of 3.24 MGD, established for Outfall No. 001 and a maximum total discharge flow rate of 6.12 MGD established for Outfall No. 002. When calculating the mass-based limitations for discharges, the appropriate flow, daily maximum limitations for daily maximum mass calculations, and the monthly average limitations when calculating the monthly average mass, should be substituted in the following equation:

Mass (lbs/day) = flow rate (MGD) X 8.34 X effluent limitation (mg/L)
where:
- mass = mass limitation for a pollutant (lbs/day)
- effluent limitation = concentration limitation for a pollutant (mg/L)
- flow rate = discharge flow rate (MGD)

Using copper's monthly average effluent limitation for Outfall No. 001 as an example, the following equation demonstrates how water quality based effluent limits were established for this Order.

Mass (lbs/day) = 3.24 (MGD) * 8.34 * 0.03813 (mg/L) = 1.0 lbs/day

In compliance with the procedures specified in 40 CFR 122.45(f), and outlined in this Fact Sheet, the WQBEL summarized in *Table 11. Summary of WQBEL for Outfall No. 001 (East) -- Monitoring Location 001* and *Table 12. Summary of WQBEL for Outfall No. 002 (West) -- Monitoring Location 002* have been established in this Order.

Table 11. Summary of WQBEL for Outfall No. 001 (East) -- Monitoring Location 001.

Parameter	Units	Effluent Limitations					Basis[1]
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	units	--	--	--	7.0	9.0	CO, BP
Oil and Grease	mg/L	--	25	--	--	75	OP
	lbs/day[2]	--	676	--	--	2,026	
Turbidity	NTU	--	75	--	--	225	OP
Settleable Solids	ml/L	--	1.0	--	--	3.0	OP
Suspended Solids	mg/L	Narrative[3]					BP
Ammonia	mg/L	--	--	--	--	0.55	BP
	lbs/day[2]	--	--	--	--	15	
Chlorine Residual	mg/L	--	0.21	--	--	0.42	CO
	lbs/day[2]	--	5.7	--	--	11.3	
Copper[4]	µg/L	24	38.13	76.5	--	--	CO, SIP
	lbs/day[2]	0.65	1.0	2.1	--	--	
Silver[4]	µg/L	6.5	23.16	36	--	--	CO, SIP
	lbs/day[2]	0.2	0.6	1.0	--	--	
Enterococcus	CFU/100 mL	--	35	--	--	104	BP
Fecal Coliform	MPN/100 mL	Narrative[5]					BP
Total Coliform	MPN/100 mL	Narrative[6]					BP
Acute Toxicity[7]	TUa	--	1.5	--	--	2.5	CO
Chronic Toxicity[8]	TUc	--	--	22	--	--	OP

1 CO = Current Order; BP = Basin Plan; OP = Ocean Plan; SIP = State Implementation Policy
2 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.
3 The discharge of aquaria wastewater through Outfall No. 001 shall not cause an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum in the concentration of total suspended solids when compared to the intake water.
4 Metals are expressed as total recoverable.

5 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.

6 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three tube dilution test is used.

Table 12. Summary of WQBEL for Outfall No. 002 (West) -- Monitoring Location 002.

Parameter	Units	Effluent Limitations					Basis[1]
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
pH	units	--	--	--	7.0	9.0	CO, BP
Oil and Grease	mg/L	--	25	--	--	75	OP
	lbs/day[2]	--	1,276	--	--	3,828	
Turbidity	NTU	--	75	--	--	225	OP
Settleable Solids	ml/L	--	1.0	--	--	3.0	OP
Suspended Solids	mg/L	Narrative[3]					BP
Ammonia	mg/L	--	--	--	--	0.55	BP
	lbs/day[2]	--	--	--	--	28.1	
Chlorine Residual	mg/L	--	0.21	--	--	0.42	CO
	lbs/day[2]	--	10.7	--	--	21.4	
Copper[4]	µg/L	24	38.13	76.5	--	--	CO, SIP
	lbs/day[2]	1.2	1.9	3.9	--	--	
Silver[4]	µg/L	6.5	23.16	36	--	--	CO, SIP
	lbs/day[2]	0.33	1.2	1.8	--	--	
Enterococcus	CFU/100 mL	--	35	--	--	104	BP
Fecal Coliform	MPN/100 mL	Narrative[5]					BP
Total Coliform	MPN/100 mL	Narrative[6]					BP
Acute Toxicity[7]	TUa	--	1.5	--	--	2.5	CO
Chronic Toxicity[8]	TUc	--	--	22	--	--	OP

1 CO = Current Order; BP = Basin Plan; OP = Ocean Plan; SIP = State Implementation Policy

2 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.

3 The discharge of aquaria wastewater through Outfall No. 002 shall not cause an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum in the concentration of total suspended solids when compared to the intake water.

4 Metals are expressed as total recoverable.

5 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.

6 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube dilution test is used.

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative *no toxics in toxic amounts* criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a 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 that produce detrimental responses in aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The Basin Plan further dictates that compliance with the toxicity objective shall, at a minimum be evaluated with a 96-hour acute bioassay and effluent limitations based upon acute bioassays of effluents be prescribed where appropriate.

a. This Order continues the acute toxicity effluent limitations from the current Order.

   Acute toxicity is calculated using the following formula:

$$TUa = \frac{100}{96 - hr\ LC\ 50\%}$$

   Where Lethal Concentration 50% (LC 50) shall be determined by static or continuous flow bioassay techniques using standard test species. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the aquatic environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substance.

$$TUa = \frac{Log\ (100 - S)}{1.7}$$

   Where:
   S = percentage survival in 100% waste
   If S > 99, TUa shall be reported as zero

Compliance with the acute toxicity effluent limitation shall be determined by short-term (acute) toxicity tests on undiluted effluent using an established protocol, e.g., American Society for Testing and Materials (ASTM), American Public Health Association, U.S. EPA, or SWRCB.

b. The Basin Plan does not specify numeric limitations for chronic toxicity. The current Order established daily maximum chronic toxicity effluent limitations based on effluent limitations contained in Table B of the Ocean Plan of 22 TUc.

The WET limit was calculated using Equations 1 and 2 of Section III.C.3 (Implementation Provisions for Table B) of the Ocean Plan, with a Dm value of 21.

The 2001 Ocean Plan establishes numeric objectives for chronic toxicity in Section II.D., Table B, with a chronic toxicity daily maximum effluent objective of 1.0 (TU_c). The minimal initial dilution has been determined and a dilution credit of 21:1 has been applied to this discharge. The Discharger shall meet the chronic toxicity effluent limitation after initial dilution of the effluent has taken place.

Chronic toxicity is calculated using the following formula:

$$TUc = \frac{100}{NOEL}$$

Where: No Observed Effect Level (NOEL) is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test as listed in Appendix II of the 2001 Ocean Plan.

If toxicity effluent limitations established in the Order are exceeded, then, within 15 days of the exceedence, the Discharger shall begin conducting six additional toxicity tests over a six-month period and provide the results to this Regional Board. If the additional monthly toxicity tests indicate that toxicity effluent limitations are being consistently violated, this Regional Board may require the Discharger to complete a toxicity reduction evaluation (TRE) and Toxic Identification Evaluation (TIE).

D. Final Effluent Limitations

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in reissued permits be at least as stringent as those in the existing permit.

The Discharger has installed pipe reducers at each of the two submerged discharge outfall pipes. The reducers increase the initial zone of dilution to 21:1 for each of the discharge

outfalls. Thus a dilution factor of 21:1 has been continued from the current Order for discharges from Outfall Nos. 001 and 002 for chronic toxicity, ammonia, chlorine residual copper, and silver.

Effluent limitations for copper and silver have been calculated according to the requirements contained in sections 1.3 and 1.4 of the SIP. The current Order does not contain monthly average effluent limitations for either copper or silver as required by the SIP, thus monthly average effluent limitations for copper and silver have been established in the Order. Further, the SIP-calculated daily maximum effluent limitations for copper and silver were compared to the current daily maximum effluent limitations contained in the current Order. The more stringent of the two limits was determined and established in this Order. Because the SIP-calculated daily maximum effluent limitation was more stringent than the current established daily maximum effluent limitation, thus the SIP-calculated daily maximum was established in this Order for copper. The current established daily maximum effluent limitation for silver was more stringent than the SIP-calculated daily maximum effluent limitation, thus the current daily maximum effluent limitation was continued to this Order. The SIP does not establish a procedure for establishing 6-month median and instantaneous maximum effluent limitations, thus the current 6-month median and instantaneous maximum effluent limitations for copper and silver were continued from the current Order.

The effluent limitation for ammonia, pH, enterococcus, fecal coliform, and total coliform have been continued from the current permit and are consistent with the requirements contained within Chapter 3 of the Basin Plan.

The Basin Plan establishes narrative water quality objectives for oil and grease. The effluent limitations for oil and grease have been continued from the current permit and are consistent with effluent limitations contained within Table A of the Ocean Plan.

The effluent limitations for turbidity were continued from the current permit and are consistent with effluent limitations contained within Table A of the Ocean Plan.

The Basin Plan contains narrative objectives for total residual chlorine. Numeric effluent limitations for residual chlorine were calculated using the effluent limitations contained within Table B of the Ocean Plan and compared to the current established effluent limitations. The current established effluent limitations were more stringent. Thus, in compliance with State and Federal Anti-Backsliding regulations (Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l)), the current established (and more stringent) effluent limitations for residual chlorine have been continued in this Order.

The Basin Plan specifies that waters shall not contain suspended solids and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses. Water quality criteria for settleable solids have been continued from the current permit and are consistent with the effluent limitations in Table A of the Ocean Plan. Table A of the Ocean Plan establishes a narrative effluent limitation for suspended solids, which states, *Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent*

stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.

The current Order establishes effluent limitations for suspended solids based on the concentration contained within the intake water.

Suspended solids data submitted by the Discharger to this Regional Board indicates normal intake discharge concentrations of well below 60 mg/L. The intake-based effluent limitations for suspended solids are consistently more stringent than 60 mg/L. Effluent limitations based on the intake, such as the current limitations, will be more protective of water quality than the effluent limitations for suspended solids contained within Table A of the Ocean Plan. Thus, the intake-based effluent limitations for suspended solids have been continued to this Order. The narrative portion of the effluent limitation has been revised. The current narrative portion of the effluent limitation stated, *The Discharger shall also remove 75% of the suspended solids from the influent stream any time that the influent suspended solids concentrations exceed four times the effluent limits [proposed in the current Order and based on intake concentrations].*

Because effluent limitations in the current Order were based on intake concentrations, it is not possible that the influent concentration of suspended solids exceed the effluent limitations contained within the current Order. Thus, this narrative portion of the effluent limitation for suspended solids has been removed for clarity and consistency.

The Basin Plan establishes narrative water quality objectives for toxicity. The Basin Plan states that all waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. The Ocean Plan establishes numeric effluent limitations for acute toxicity and chronic toxicity. The chronic toxicity effluent limitation from the Ocean Plan has been established in this Order. The acute toxicity effluent limitation was not considered for implementation into this Order because the Ocean Plan does not specify a method to calculate effluent limitations for acute toxicity for discharges with a dilution a ratio of less than 24:1. Thus, the acute toxicity effluent limitation from the current Order has been continued in this Order.

Effluent limitations for halomethanes have been removed based on an analysis of the data submitted to this Regional Board during the current permit term. Thus, based on new data, and in compliance with State and Federal Anti-Backsliding regulations (Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l)), the current effluent limitation for halomethanes have not been continued to this Order.

The proposed effluent limitations for this Order are listed in *Table 13. Effluent Limitations for Outfall No. 001 (East)* and *Table 14. Effluent Limitations for Outfall No. 002 (West).*

Table 13. Effluent Limitations for Outfall No. 001 (East).

Parameter	Units	Effluent Limitations					Basis[1]
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Flow	MGD	--	--	3.24	--	--	Design Capacity
pH	units	--	--	--	7.0	9.0	CO, BP
Oil and Grease	mg/L	--	25	--	--	75	OP
	lbs/day[2]	--	676	--	--	2,026	
Turbidity	NTU	--	75	--	--	225	OP
Settleable Solids	ml/L	--	1.0	--	--	3.0	OP
Suspended Solids	mg/L	Narrative[3]					BP
Ammonia	mg/L	--	--	--	--	0.55	BP
	lbs/day[2]	--	--	--	--	15	
Chlorine Residual	mg/L	--	0.21	--	--	0.42	CO
	lbs/day[2]	--	5.7	--	--	11.3	
Copper[4]	µg/L	24	38.13	76.5	--	--	CO, SIP
	lbs/day[2]	0.65	1.0	2.1	--	--	
Silver[4]	µg/L	6.5	23.16	36	--	--	CO, SIP
	lbs/day[2]	0.2	0.6	1.0	--	--	
Enterococcus	CFU/100 mL	--	35	--	--	104	BP
Fecal Coliform	MPN/100 mL	Narrative[5]					BP
Total Coliform	MPN/100 mL	Narrative[6]					BP
Acute Toxicity[7]	TUa	--	1.5	--	--	2.5	CO
Chronic Toxicity[8]	TUc	--	--	22	--	--	OP

1 CO = Current Order; BP = Basin Plan; OP = Ocean Plan; SIP = State Implementation Policy
2 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.
3 The discharge of aquaria wastewater through Outfall No. 001 shall contain not cause an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum, of the concentration of total suspended solids when compared to the intake water.
4 Metals are expressed as total recoverable.
5 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.
6 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube dilution test is used.

Table 14. Effluent Limitations for Outfall No. 002 (West).

Parameter	Units	Effluent Limitations					Basis[1]
		6 Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Flow	MGD	--	--	6.12	--	--	Design Capacity
pH	units	--	--	--	7.0	9.0	CO, BP
Oil and Grease	mg/L	--	25	--	--	75	OP
	lbs/day[2]	--	1,276	--	--	3,828	
Turbidity	NTU	--	75	--	--	225	OP
Settleable Solids	ml/L	--	1.0	--	--	3.0	OP
Suspended Solids	mg/L	Narrative[3]					BP
Ammonia	mg/L	--	--	--	--	0.55	BP
	lbs/day[2]	--	--	--	--	28.1	
Chlorine Residual	mg/L	--	0.21	--	--	0.42	CO
	lbs/day[2]	--	10.7	--	--	21.4	
Copper[4]	µg/L	24	38.13	76.5	--	--	CO, SIP
	lbs/day[2]	1.2	1.9	3.9	--	--	
Silver[4]	µg/L	6.5	23.16	36	--	--	CO, SIP
	lbs/day[2]	0.33	1.2	1.8	--	--	
Enterococcus	CFU/100 mL	--	35	--	--	104	BP
Fecal Coliform	MPN/100 mL	Narrative[5]					BP
Total Coliform	MPN/100 mL	Narrative[6]					BP
Acute Toxicity	TUa	--	1.5	--	--	2.5	CO
Chronic Toxicity	TUc	--	--	22	--	--	OP

1 CO = Current Order; BP = Basin Plan; OP = Ocean Plan; SIP = State Implementation Policy
2 Mass-based effluent limitations have been calculated based on a maximum flow value of 3.24 MGD.
3 The discharge of aquaria wastewater through Outfall No. 002 shall not contain an increase in excess of 10 mg/L for a monthly average or 15 mg/L for a daily maximum in the concentration of total suspended solids when compared to the intake water. Metals are expressed as total recoverable.
4 The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 mL.
5 The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube dilution test is used.

E. Interim Effluent Limitations (Not Applicable)

F. Land Discharge Specifications (Not Applicable)

G. Reclamation Specifications (Not Applicable)

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Narrative and numerical receiving water limitations have been established in Order No. R9-2005-0091 based on water quality objectives specified in Chapter 3 of the Basin Plan and the Ocean Plan to ensure the reasonable protection of beneficial uses and the prevention of nuisance.

A. Surface Water

The discharge of waste through Outfall Nos. 001 and 002 shall not cause violation of the Basin Plan water quality objectives, and the Ocean Plan water quality objectives specified in this Order. Compliance with the water quality objectives shall be determined, if needed, from samples collected at stations representative of the area determined by this Regional Board to be affected by the discharges.

B. Groundwater (Not Applicable)

VI. MONITORING AND REPORTING REQUIREMENTS

Pursuant to 40 CFR 122.48 all NPDES permits are required to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Boards to request technical and monitoring reports. Monitoring and Reporting Program (MRP) No. R9-2005-0091 establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in MRP No. R9-2005-0091.

A. Influent Monitoring

The current MRP No. 2000-25 requires weekly monitoring for total coliform and fecal coliform; and quarterly monitoring for suspended solids.

Influent sampling stations are established at each intake location where representative samples of the influent are obtained. Influent samples are collected on the same day as the collection of the effluent samples to help determine compliance with the effluent limitations.

Weekly influent monitoring shall be established for total coliform, fecal coliform, enterococcus. Quarterly influent monitoring shall be established for suspended solids.

The influent monitoring requirements of the MRP No. R9-2005-0091 are listed in *Table 15. Influent Monitoring Requirements*.

Table 15. Influent Monitoring Requirements.

Constituent[1]	Units	Sample Type	Frequency
Total Coliform	MPN/100 mL	Grab	Weekly
Fecal Coliform	MPN/100 mL	Grab	Weekly
Enterococcus	MPN/100 mL	Grab	Weekly
Suspended Solids	mg/L	24-hr. composite	Quarterly

B. Effluent Monitoring

The current MRP, MRP No. 2000-25, requires continuous monitoring for flow; weekly monitoring for pH, total coliform, fecal coliform, enterococcus, and total chlorine residual; monthly monitoring for temperature; quarterly monitoring for suspended solids, and settleable solids; semi-annual monitoring for halomethanes, grease and oil, turbidity, silver, copper, and ammonia; annual monitoring for acute toxicity; and monitoring for chronic toxicity once every five years.

Continuous monitoring for flow; weekly monitoring for pH, total coliform, fecal coliform, enterococcus, and total chlorine residual; monthly monitoring for temperature; quarterly monitoring for suspended solids, and settleable solids; semi-annual monitoring for grease and oil, turbidity, silver, copper, and ammonia; annual monitoring for acute toxicity; and monitoring for chronic toxicity once every five years has been continued in the MRP.

Monitoring for halomethanes has not been continued in the MRP.

Effluent monitoring requirements of MRP No. R9-2005-0091 are listed in *Table 16. Effluent Monitoring Requirements*. MRP No. R9-2005-0091 should be reviewed for greater detail regarding specific monitoring requirements.

Table 16. Effluent Monitoring Requirements.

Constituent[1]	Units	Sample Type	Frequency
Flow	MGD	Continuous	Continuous
pH	Units	Grab/Continuous	Weekly
Total Coliform	MPN/100 mL	Grab	Weekly
Fecal Coliform	MPN/100 mL	Grab	Weekly
Enterococcus	CFU/100 mL	Grab	
Residual Chlorine	µg/L	Grab/Continuous	Weekly
	Lbs/day[3]	Calculated[3]	
Temperature	°F	Grab/Continuous	Monthly
Suspended Solids	mg/L	24 hr. composite	Quarterly
	Lbs/day[3]	Calculated[3]	
Settleable Solids	ml/L	Grab	Quarterly
Grease and Oil	mg/L	Grab	Semi-annual
	Lbs/day[3]	Calculated[3]	
Turbidity	NTU	24 hr. composite	Semi-annual
Copper[2]	µg/L	24 hr. composite	Semi-annual
	Lbs/day[3]	Calculated[3]	
Silver[2]	µg/L	24 hr. composite	Semi-annual
	Lbs/day[3]	Calculated[3]	
Ammonia	mg/L	24 hr. composite	Semi-annual
	Lbs/day[3]	Calculated[3]	
Acute Toxicity	TUa	24 hr composite	Annual
Chronic Toxicity[4]	TUc	24 hr composite	Once over the term of the permit.

[1] All parameters shall be analyzed by the methods specified in 40 CFR 136.3.
[2] All metals shall be expressed as total recoverable.
[3] Lbs/day shall be calculated by the discharger for each monitoring event using the following formula:
Lbs/day = 0.00834 * effluent concentration limit (ug/L) * Q
where:
Q = flow rate, million gallons per day (MGD)

[4] Chronic toxicity results are due one year prior to the expiration date of the permit.

All monitoring procedures (including whole effluent toxicity testing procedures) must comply with monitoring procedures specified in the Basin Plan or 40 CFR 136.3.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity testing shall be conducted by the methods specified in Section IV.C.5. of this Fact Sheet and Section V of MRP No. R9-2005-0091.

D. Receiving Water Monitoring

1. Surface Water

a. Pursuant to the California Water Code, Section 13267, the Discharger is required to submit data sufficient for: (1) determining if water quality-based effluent limitations for priority pollutants are required, and (2) to calculate effluent limitations, if required. The *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (March 2, 2000) requires that the Regional Boards require periodic monitoring for which criteria or objectives apply and for which no effluent limitations have been established. Accordingly this Regional Board is requiring that the Discharger conduct receiving water monitoring for the priority pollutants once over the term of the permit, as specified in Section IX of Monitoring and Reporting Program R9-2005-0091 and further explained in Section VII.B.2.b. of this Fact Sheet.

b. The Discharger shall conduct daily visual observations of all storm water discharges during regular operational hours for all storm water by-pass discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. The presence/absence of each of these parameters shall be documented for each storm water discharge location.

2. Groundwater (Not Applicable)

E. Other Monitoring Requirements

1. Periodic visual inspections of a facility are necessary to ensure that the Storm Water Pollution Prevention Plan (SWPPP) identify any significant changes to the facility's operations or BMP implementation procedures. Visual storm water observations shall be conducted as specified in Section 8.b.ix.1. of Attachment I as part of the SWPPP requirements. Section 8.b.ix.1. of Attachment I requires a minimum of four quarterly visual inspections of all storm water drainage areas and associated potential pollutant sources shall be completed each reporting year.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

B. Special Provisions

1. Re-Opener Provisions

a. This Order may be re-opened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge by this Regional Board.

b. This Order may be re-opened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.

c. This Order may be re-opened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum level (ML).

d. This Order may be re-opened and modified to revise effluent limitations because of Basin Plan Amendments, such as an update of an objective or the adoption of a Total Maximum Daily Load (TMDL).

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

f. This Order may also be re-opened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 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 and permit, and endangerment to human health or the environment resulting from the permitted activity.

2. Special Studies and Additional Monitoring Requirements

Core monitoring may include intake monitoring, effluent monitoring, receiving water monitoring, and groundwater monitoring. This Order includes core monitoring for influent and effluent. In addition to core monitoring requirements, the Discharger may be required to conduct additional monitoring. Special studies are intended to be short-term and designed to address specific research or management issues that are not addressed by the routine core monitoring program. The Discharger shall implement special studies as directed by this Regional Board.

a. The Discharger shall participate and coordinate with state and local agencies and other dischargers in the San Diego Region in development and implementation of a regional monitoring program for Mission Bay as directed by this Regional Board. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the region. During a coordinated sampling effort,

the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the receiving water.

b. This Order will combine the periodic reporting requirements of the SIP with the existing permit monitoring requirements. This Regional Board is requiring, as part of the MRP, that the Discharger conduct effluent monitoring for the priority pollutants for which there are no effluent limitations established in the permit at least once over the term of this permit. In addition, this Regional Board is requiring that the Discharger conduct receiving water monitoring for the priority pollutants at the same time effluent samples are collected. Further, the Discharger must analyze pH and hardness of the receiving water concurrent with the analysis for the priority pollutants.

   This monitoring shall be conducted at the following locations:

   i. Effluent Outfalls (Outfall Nos. 001 and 002).

   ii. Receiving water. The monitoring locations shall be at least 50 feet from the Outfalls to Mission Bay.

   The Discharger shall conduct CTR monitoring once during the term of the permit as established in Section XI.2.B. of the Waste Discharge Requirements and Section IV.A. of the MRP. Monitoring shall be conducted February 1, 2009 and July 31, 2009. The results of this CTR monitoring data shall be submitted at least 180 days prior to the expiration date of this Order and shall be submitted with the Report of Waste Discharge.

c. Because storm water may mix or commingle with other waste waters, and because the Discharger conducts chlorination at various locations throughout the storm water/wastewater collection system, the Discharger shall conduct sampling of storm water by-passes from the Facility to evaluate the presence of potential pollutants. Within two years after the adoption date of Order No. R9-2005-0091, the Discharger shall conduct two monitoring events of the storm water by-pass discharge points during active storm water by-passes. Sampling shall be conducted at representative storm water discharge locations during normal operational hours. The results of the storm water by-pass monitoring shall be submitted to this Regional Board no later than 90 days following the second sampling event. The Discharger shall collect grab samples for all pollutants specified in *Table 17. Storm Water By-Pass Sampling*.

Table 17. Storm Water By-Pass Sampling.

Pollutant	Unit	Sample Type
pH	Units	Grab
Temperature	°F	Grab
Total Coliform	MPN/100 mL	Grab
Fecal Coliform	MPN/100 mL	Grab
Enterococcus	CFU/100 mL	Grab
Residual Chlorine	µg/L	Grab
Suspended Solids	mg/L	Grab
Settleable Solids	ml/L	Grab
Grease and Oil	mg/L	Grab
Turbidity	NTU	Grab
Silver	µg/L	Grab
Copper	µg/L	Grab
Ammonia	mg/L	Grab

3. Best Management Practices and Pollution Prevention

a. The Discharger shall establish and implement a best management practices (BMP) plan to reduce pollution to Mission Bay and minimize pollutants contact with storm water. The best management practices shall be continued from the current Order. The following BMP shall be conducted to maximize capture and treatment of any wastewater, and reduce or eliminate any mixing with storm water:

i. Aquaria and pool draining activities shall be halted during a storm water by-pass discharge event.

ii. All paved areas shall be swept down periodically to minimize storm water pollutant loading into Mission Bay.

iii. A periodic wash down following the periodic sweep is authorized. Care shall be taken to direct as much of the wash-down as possible into the treatment system.

b. The Discharger shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) Requirements as specified in Attachment I of Order No. R9-2005-0091. The SWPPP shall incorporate the BMP established in Section VII.B.3.a. of this Fact Sheet.

4. Compliance Schedules (Not Applicable)

5. Construction, Operation, and Maintenance Specifications (Not Applicable)

6. Special Provisions for Municipal Facilities (POTW only) (Not Applicable)

VIII. PUBLIC PARTICIPATION

This Regional Board is considering the issuance of waste discharge requirements (WDR) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for SeaWorld San Diego. This Regional Board has developed WDR. This Regional Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

This Regional Board has notified the Discharger and interested agencies and persons of its intent to adopt waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through publication in the San Diego Union Tribune on Friday March 11, 2005.

IX. WRITTEN COMMENTS

Interested persons are invited to submit written comments regarding the WDR. Comments should be submitted either in person or by mail, during business hours, to:

John H Robertus, Executive Officer
Attn: Industrial Compliance Unit
Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

To ensure that this Regional Board has the opportunity to fully consider written material, comments regarding Order No. R9-2005-0091 should be received in the Regional Board's office no later than 5:00 p.m. on March 30, 2005. Written material submitted after 5:00 p.m. on April 6, 2005 will not be provided to the Regional Board members and will not be considered by this Regional Board. Oral comments will be received at the hearing on April 13, 2005.

X. PUBLIC HEARING

In accordance with 40 CFR 124.10, this Regional Board must issue a public notice whenever NPDES permits have been prepared, and that the permits will be brought before this Regional Board at a public hearing. The public notice has been published in San Diego Union Tribune no less than 30 days prior to the scheduled public hearing.

Order No. R9-2005-0091, will be considered by this Regional Board at a public hearing beginning at 9:00 a.m. on April 13, 2005. The location of this meeting is as follows:

Date:	**April 13, 2005**
Time:	**9:00 a.m.**
Location:	**Regional Water Quality Control Board** **Regional Board Meeting Room** **9174 Sky Park Court, Suite 100** **San Diego, California 92123**

XI. INFORMATION AND COPYING

For additional information, interested persons may write the following address or contact Mr. Paul J. Richter of the Regional Board by e-mail at **prichter@waterboards.ca.gov** or by phone at (858) 627-3929.

Regional Water Quality Control Board, San Diego Region
Attn: ICU
9174 Sky Park Court, Suite 100
San Diego, California 92123

Copies of the applications, NPDES waste discharge requirements, and other documents (other than those that the Executive Officer maintains as confidential) are available at the Regional Board office for inspections and copying according to the following schedule (excluding holidays):

Monday and Thursday:	1:30 p.m. to 4:30 p.m.
Tuesday and Wednesday:	8:30 a.m. to 11:30 a.m.
	1:30 p.m. to 4:30 p.m.
Friday:	8:30 a.m. to 11:30 p.m.

An electronic copy of the Fact Sheet and Order can be accessed on the Regional Board web site: http://www.waterboards.ca.gov/sandiego.

XII. REGISTER OF INTERESTED PERSONS

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