



# California Regional Water Quality Control Board

## Los Angeles Region



Linda S. Adams  
Cal/EPA Secretary

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December 23, 2008

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NO. 7001 2510 0000 4661 0779

Mr. Tom Edgar  
Director of Administration  
Six Flags Magic Mountain & Hurricane Harbor  
26101 Magic Mountain Pkwy.  
Valencia, CA 91350

**AMENDMENT TO THE WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ORDER NO. R4-2005-0036) FOR MAGIC MOUNTAIN, LLC (FORMER SIX FLAGS THEME PARK, INC.,) SIX FLAGS MAGIC MOUNTAIN, VALENCIA, CA (NPDES NO. CA0003352, CI NO. 6045)**

Dear Mr. Edgar:

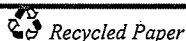
Our letter dated November 21, 2008, transmitted a revised tentative Order amending the waste discharge requirements in Order No. R4-2005-0036 (adopted on June 2, 2005) to incorporate the new information contained in the updated Report of Waste Discharge (ROWD) and the bacterial limitations based on the fresh water bacteria objectives in the Basin Plan.

Pursuant to Division 7 of the California Water Code, this Regional Board at a public hearing held on December 11, 2008, reviewed the tentative requirements, considered all comments received, and adopted Order No. R4-2008-0209 (copy enclosed) amending the waste discharge requirements for discharges from Six Flags Magic Mountain Facility. Order No. R4-2008-0209 serves as your permit under the NPDES Program and expires on May 10, 2010. Section 13376 of the California Water Code requires that an application for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the *Monitoring and Reporting Program* (MRP) contained Order No. R4-2008-0209. Your monitoring report for the January – March reporting period is due by May 15, 2009. All monitoring reports should be sent to the Regional Board, Attn: Information Technology Unit.

When submitting monitoring, technical reports, or any correspondence regarding the discharge under Order No. R4-2008-0209 to the Regional Water Board, please include a reference to *Compliance File No. CI 6045 and NPDES No. CA0003352* which will assure that the reports are directed to the appropriate file and staff. Please do not combine your discharge monitoring reports with other reports. Submit each type of report as a separate document.

**California Environmental Protection Agency**



*Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.*

Mr. Tom Edgar  
Six Flags Magic Mountain &  
Hurricane Harbor

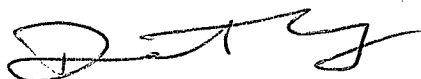
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December 23, 2008

We are sending the final copy of the amendment to the permit only to the Discharger. For those on the mailing list who would like access to a copy of the final amendment to the permit, please go the Regional Board's website <http://www.waterboards.ca.gov/losangeles/>

If you have any other questions, please call Rosario Aston at (213) 576-6653.

Sincerely,



*Jr* Cassandra D. Owens, Chief  
Industrial Permitting Unit

Enclosures

cc: **(Via Email Only)**

Environmental Protection Agency, Region 9, Permits Branch (WTR-5)  
U.S. Army Corps of Engineers  
NOAA, National Marine Fisheries Service  
Department of Interior, U.S. Fish and Wildlife Service  
Mr. Phil Isorena, State Water Resources Control Board, Division of Water Quality  
Ms. Stephanie Trotter, State Water Resources Control Board  
Ms. Jennifer Fordyce, Office of Chief Counsel, State Water Resources Control Board  
Mr. William Paznokas, Department of Fish and Game, Region 5  
Mr. Gary Yamamoto, California Department of Public Health  
California State Parks and Recreation  
California Coastal Commission, South Coast Region  
Los Angeles County, Department of Public Works, Waste Management Division  
Los Angeles County, Department of Health Services  
City of Santa Clarita  
City of Valencia  
Dr. Mark Gold, Heal the Bay  
Mr. Tom Ford, Santa Monica BayKeeper  
Mr. Daniel Cooper, Lawyers for Clean Water  
Mr. David Beckman, Natural Resources Defense Council  
Mr. Jae Kim, Tetra Tech  
Mr. Steven L. Hoch, Hatch & Parent  
Ms. Tracy Quinn, Kennedy/Jenks Consultants  
Mr. Bruce Thomas, Kennedy/Jenks Consultants

***California Environmental Protection Agency***



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State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

**ORDER NO. R4-2008-0209**  
**(Amending Order No. R4-2005-0036)**  
**NPDES PERMIT NO. CA0003352**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT**  
**AND**  
**WASTE DISCHARGE REQUIREMENTS**  
**FOR**  
**MAGIC MOUNTAIN, LLC**  
**(FORMER SIX FLAGS THEME PARKS, INCORPORATED)**  
**SIX FLAGS MAGIC MOUNTAIN**

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

**Background**

1. Magic Mountain, LLC (Discharger), discharges wastewater from the Six Flags Magic Mountain (Facility) under waste discharge requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit contained in Order No. 98-005 (NPDES Permit No. CA0003352) adopted by the Regional Board on January 26, 1998. Order No. 97-081 expired on January 10, 2003.
2. The Discharger filed a Report of Waste Discharge (ROWD) and applied for renewal of its WDRs and a NPDES permit on November 15, 2002.

The Regional Board adopted Order No. R4-2005-0036 on June 2, 2005, for Six Flags Theme Park, Inc., dba Six Flags Magic Mountain for discharges of wastewater from the Six Flags Magic Mountain to Santa Clara River. This Order also serves as a permit under the NPDES program.

On October 19, 2007, the Discharger submitted an updated ROWD to the Regional Board. The ROWD contained the name of the new owner/operator, an updated description of the Facility including the construction of a non-stormwater interceptor, and new Outfall locations/descriptions. The Outfall locations were changed because of safety concerns and access problems during sampling events. The most recent ROWD also included updates to the description of the types of wastes discharged.

**Purpose of Order**

3. The purpose of the Order is to amend the WDRs for the Six Flags Facility to reflect the information contained in the updated ROWD. This NPDES permit regulates the discharge of wastewater drainage/overflow from the water attractions as well as lakes and ponds, irrigation run-off, midway (walkway throughout the park) washdown, , and storm water run-off through two channels and one pipeline (Discharge Serial Nos. 001, 002, and 003), into the Santa Clara River, a water of the United States, above the Estuary. The points of discharge are located at Latitude 34° 25' 38.22" North, Longitude 118° 35' 31.74" West (Discharge Serial No. 001, referred to as the eastern channel), Latitude 34° 25' 52.68"

North, Longitude 118° 35' 46.38." West (Discharge Serial No. 002, referred to as piped storm drain system), and Latitude 34° 25' 51" North, Longitude 118° 35' 57.24" West (Discharge Serial No. 003, referred to as the western channel).

## Facility Description

4. Magic Mountain, LLC owns and operates the Facility located at 26101 West Magic Mountain Parkway, Valencia, California. Figure 1 depicts the location map. The Facility is an amusement theme park consisting of various rides, shows, landscaping, and water attractions. It occupies approximately 260 acres. The water attractions include various water fountains, features, rides, slides, and public swimming facilities. The water in these attractions is either chlorinated or filtered through sand filters to protect public health. The filter backwash water is plumbed to the sanitary sewer.

To maintain the fresh water appearance of the water attractions, some of the water from each attraction is allowed to overflow and it is drained and subsequently replaced with drinking water supplied by the Valencia Water Company. The drainage/overflow, along with washdown water, some irrigation runoff and storm water runoff flow into the drain lines and to the Outfalls.

### Non-stormwater Drain Interceptor

On March 12, 2007, the construction of a 24-inch drain bypass was completed. The drain bypass connects the flows from the two existing backbone drain lines (a 48-inch line along the east side of the park which currently discharges to Outfall 001, and a 24-inch line along the west side of the park which currently discharges to Outfall 002) to an existing open trapezoidal channel which runs along the westerly edge of the park to Outfall 003. The channel that discharges to Outfall 001 collects offsite storm water runoff from south of the park, and some minor drainage within the park.

The non-stormwater interceptor runs westerly through the existing parking lot. In addition to non-stormwater discharge, the 24-inch bypass pipe can also handle 10 percent of the 50-year storm event. Should a storm event exceed the design flows, or should there be any blockage in the interceptor, the non-stormwater and storm water runoff will continue to flow through Outfalls 001 and 002.

## Description of Wastes Discharged and Outfalls

5. Magic Mountain, LLC discharges up to 1.52 million gallons per day (mgd) of wastewater, and up to 2.5 million gallons of storm water runoff during storm events when the rainfall exceeds one inch, through Discharge Serial Nos. 001, 002, and 003 into a storm drain thence to the Santa Clara River, a water of the United States. The descriptions of wastewater discharged and the Outfalls follows:

**Discharge Serial No. 001:** Latitude 34° 25' 38.22" North, Longitude 118° 35' 31.74" West)

Outfall 001 is an open channel which runs along the eastern side of the Facility. The

discharge which consists of drainage and overflow from the water attractions in Hurricane Harbor as well as from lakes and ponds, surface water runoff from irrigation and midway (walkway throughout the park) washdown water, from the east side of the Facility, surface water from the main gate driveway, recreational vehicle (RV) parking, and east side general parking, and storm water runoff that flows through an underground pipe system beneath the Facility, then to Outfall 001. The discharge flows through a covered channel under the Facility access road and into an earthen ditch, a tributary to the Santa Clara River. The open channel also collects offsite storm water runoff.

Non-stormwater discharges are intercepted by the storm drain bypass system and diverted to Outfall 003. Therefore, during typical daily operations, only a negligible quantity of irrigation runoff downstream of the interceptor is discharged through Outfall 001.

The water attractions, lakes, and ponds located in the Outfall 001 tributary area, with water capacities of up to 1.4 million gallons, may be drained for cleaning or maintenance on an annual basis. These water attractions are not drained concurrently. The water that is drained from these water attractions during cleaning or maintenance is diverted to the storm drain bypass system and discharged to Outfall 003. During rain events when rainfall exceeds one inch, up to 1.0 mgd of storm water runoff is discharged through Outfall 001.

**Discharge Serial No. 002:** (Latitude 34° 25' 52.68" North, Longitude 118° 35' 46.38" West)

Outfall 002 is a piped storm drain system that collects wastewater from the central and northern portion of the Facility and then discharges offsite between Outfalls 001 and 003 into an earthen ditch that drains toward the Santa Clara River. The wastewater consists of drainage and overflow from lakes, and ponds, surface water runoff from irrigation and midway washdown water, including portions of the backstage and parking lot, and storm water runoff from the northern area of the Facility.

Non-stormwater discharges are intercepted by the storm drain bypass system and diverted to Outfall 003. Therefore, during typical daily operations, there is no discharge from Outfall 002.

During rain events when rainfall exceeds one inch, up to 0.050 mgd of storm water runoff is discharged through Outfall 002.

**Discharge Serial No. 003:** (Latitude 34° 25' 51" North, Longitude 118° 35' 57.24" West)

Outfall 003 is an open channel which runs along the western side of the Facility. The discharge through Outfall 003 is up to 1.3 mgd of non-stormwater, and up to 1.0 mgd of storm water runoff when rainfall exceeds one inch. The non-stormwater discharge consists of drainage and overflow from the water attractions, lakes and ponds, surface water runoff from irrigation and midway washdown water, including the overflow from backstage and employee parking lots, from the western area of the Facility. The open channel also collects offsite storm water runoff from the open space canyon areas to the south of the Facility, as well as non-stormwater discharge from Outfalls 001 and 002.

The water attractions, lakes, and ponds located in the Outfall 003 tributary area, with water capacities of up to 2.3 million gallons, may be drained for cleaning or maintenance on an annual basis and discharged to Outfall 003. These water attractions are not drained concurrently.

6. The discharge of lake and pond drainage from Discharge Serial Nos. 001 and 003 does not occur on the same day. The lakes and ponds may be drained for non-emergency cleaning and repair during the months of January, May, and October, but not concurrently. Sediments and sludge resulting from lake and pond cleaning are hauled to a legal land disposal site.
7. The Facility disinfects the water used at the park with sodium hypochlorite solution. Muriatic acid (hydrochloric acid) is used to reduce the pH which increases the effectiveness of the sodium hypochlorite. The water in the swimming facilities is filtered and chlorinated to protect public health (Title 22 and Title 24 of the California Department of Public Health). Detectable levels of residual chlorine are maintained in the water for incidental contact water attractions, lakes, and ponds.
8. Order No. R4-2005-0036 requires Magic Mountain, LLC to submit a report on various options for reuse of wastewater. The Discharger submitted a preliminary report dated December 5, 2005, that outlined the areas for potential reuse at the Facility.
9. Recently, Regional Board staff discovered an error in Order No. R4-2005-0036. Order No. R4-2005-0036 included effluent limits for total coliform and enterococcus, which were inadvertently based on the water quality objectives for Marine Waters Designated for Water Contact Recreation (REC-1) in the Water Quality Control Plan for the Los Angeles Region – June 13, 1994 (Basin Plan). The Facility discharges into the Santa Clara River, a freshwater body. Therefore, marine water quality objectives should not have been applied to the Facility's discharge. The bacterial limitations that are applicable to the Facility's discharges are based on the Fresh Water Designated for REC-1 in the Basin Plan for E. coli and fecal coliform. The fresh water quality objectives are the same as the marine waters objectives for fecal coliform. This Order implements the appropriate bacterial (i.e., fecal coliform and E. coli) limitations based on the fresh water bacteria objectives included in the Basin Plan.
10. The Monitoring and Reporting Program (Attachment T) of Order No. R4-2005-0036 is revised in this Order to change the monitoring frequency of fecal coliform from quarterly to weekly, add weekly monitoring for E.coli, and delete the monitoring requirements for total coliform and enterococcus. The Basin Plan specified *Geometric Mean Limits* and the Implementation Provisions for REC-1 Bacteria Objectives which states that "The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period)". These revisions reflect the conditions specified in the Basin Plan. Since total coliform and enterococcus are not included in the Basin Plan's Fresh Water bacteria objectives, the effluent and receiving water monitoring requirements for these constituents have been deleted.

### **Compliance Status**

11. A review of the effluent monitoring data for the period between the first Quarter 1999 and fourth Quarter 2004, indicated that the Discharger has had multiple exceedances of the existing effluent limitations for chloride, residual chlorine, lead, total dissolved solids (TDS), total suspended solids, and settleable solids. Further, the Discharger also has exceeded the effluent limitations once for oil and grease, boron, nitrogen (Nitrate + Nitrite), and during this monitoring period.

Because the Discharger could not immediately comply with the effluent limitations set forth for chloride in Order No. R4-2005-0036, the Regional Board also adopted Time Schedule Order (TSO No. R4-2005-0043) on June 29, 2005, prescribing interim limits for chloride discharges.

Three-hundred and eighteen (318) violations of Order Nos. 98-005, R4-2005-0036 and R4-2005-0043 were noted in the Discharger's self-monitoring reports during the periods June 2002 through November 2002, February 2003 through September 2003, May 2004 through June 2005, and July 2005 through August 2007. These violations include effluent limit exceedances for chloride, TDS, settleable solids, TSS, O&G, turbidity, BOD<sub>5</sub>, residual chlorine, copper, sulfate, and fecal coliform.

12. On November 25, 2002, the Regional Board issued a Mandatory Administrative Civil Liability (ACL) in the amount of \$33,000 against Six Flags for exceedance of the effluent limitations for TDS, settleable solids, chloride, nitrate + nitrite, residual chlorine, and oil and grease during the monitoring period of second Quarter 2000 through third Quarter 2001. Six Flags waived its right to a hearing and paid the Regional Board \$33,000 on December 6, 2002, for all identified violations.
13. On May 15, 2008, the Chief Deputy Executive Officer issued a Notice of Violation to Magic Mountain LLC (former Six Flags Theme Park Inc.) for violations of the waste discharge requirements contained in Order Nos. 98-005, R4-2005-0036, and R4-2005-0043 during the periods from second Quarter 2002 through fourth Quarter 2007. The violations include effluent limit exceedances for fecal coliform and other pollutants (i.e., chloride, total dissolved solids (TDS), settleable solids, total suspended solids (TSS), oil and grease, turbidity, biochemical oxygen demand (BOD), residual chlorine, copper, and sulfate), as well as reporting violations.
14. On September 5, 2008, the Chief Deputy Executive Officer issued Complaint No. R4-2008-0036 for Mandatory Minimum Penalties (MMP) in the amount of \$945,000 for violations of the NPDES permit requirements. On October 6, 2008, the Discharger waived its right to a hearing and paid the recommended penalty for all identified violations.

### **Storm Water Management and Best Management Practices**

15. The objective of the proposed Order is to protect the beneficial uses of receiving waters. To meet this objective, this Order requires Six Flags to develop and implement a Storm Water

Pollution Prevention Plan (SWPPP) consistent with the SWPPP requirements in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity [State Water Resources Control Board (State Board) Order No. 97-03-DWQ, NPDES Permit No. CAS000001]. Discharges comprised of drainage and overflow from the lakes and ponds, the midway (walkway throughout the park) wash-down water, irrigation runoff, and storm water occur at Six Flags. As a result, the proposed Order requires Six Flags to develop and implement a SWPPP and address storm water runoff and minimize pollutants from entering the Santa Clara River. The SWPPP should address specific areas of concern to include, but not limited to, the lakes and ponds, the walkway throughout the park, and irrigated areas, to determine if additional treatment is required to meet final effluent limitations. In addition, the SWPPP must identify measures that can be implemented at each area of the Theme Park (e.g., East and West Side Lakes and Ponds) to prevent contaminated storm water from discharging into the Santa Clara River.

16. The SWPPP shall also specify Best Management Practices (BMPs) that will be implemented to reduce the discharge of pollutants in the wastewater and in the storm water runoff to the maximum extent practicable. Further, the Discharger shall assure that wastewater and storm water discharges from the facility would neither cause, nor contribute to, the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water.

#### **Applicable Plans, Policies, and Regulations**

17. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) as amended on January 27, 1997 by Regional Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state anti-degradation policy (*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with all previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan.
18. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The Ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and U.S. Environmental Protection Agency (U.S. EPA) on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994



Basin Plan, they are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.

19. The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. Inland surface waters consist of rivers, streams, lakes, reservoirs, and inland wetlands. Beneficial uses for a surface water can be designated, whether or not they have been attained on a water body, in order to implement either federal or state mandates and goals (such as fishable and swimmable for regional waters).

20. The receiving water for the permitted discharge covered by this permit is the Santa Clara River, above the Estuary. The beneficial uses listed in the Basin Plan for the Santa Clara River (H.U. 403.51) are:

Existing Uses: Industrial service and process supplies, agricultural supply, groundwater recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, wildlife habitat, preservation of rare and endangered species, and wetland habitat.

Potential Uses: Municipal and domestic water supply.

21. The State Water Resources Control Board (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.

22. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR section 131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million ( $10^{-6}$ ), for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed five years from the date of permit issuance for a point source discharge if the Discharger demonstrates that it is infeasible to promptly comply with effluent limitations derived from the CTR criteria. CTR's Compliance Schedule provisions sunset on May 18, 2005. After this date, the provisions of the SIP allow for Compliance Schedules not to exceed five years from issuance or past May 1, 2011, whichever is sooner.

23. 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). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the National Toxics Rule (NTR), and to the 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. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent

limitations (WQBELs) and to calculate the effluent limitations. Because the discharge to the Santa Clara River is above the Estuary, the CTR criteria for fresh water or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in the proposed Order to protect the beneficial uses of the Santa Clara River in the vicinity of the discharge.

24. Under 40 CFR section 122.44(d), *Water Quality Standards and State Requirements*, "[l]imitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the Director [permitting authority] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that WQBELs may be set based on U.S. EPA criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses.
25. Effluent limitation guidelines requiring the application of best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT), were promulgated by the U.S. EPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the U.S. EPA effluent limitation guidelines are based on one of the following: best professional judgment (BPJ) of BPT, BCT or BAT; current plant performance; or WQBELs. The WQBELs are based on the Basin Plan, other State plans and policies, or U.S. EPA water quality criteria which are taken from the CTR. These requirements, as they are met, will protect and maintain existing beneficial uses of the receiving water. The attached Fact Sheet for this Order includes specific bases for the effluent limitations.
26. State and Federal anti-backsliding and anti-degradation policies require Regional Board actions to protect the water quality of a water body and to ensure that the water body will not be further degraded. The anti-backsliding provisions are specified in section 402(o) and 303(d)(4) of the Clean Water Act (CWA) and 40 CFR section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
27. Effluent limitations are established in accordance with Parts 301, 304, 306, and 307 of the CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Santa Clara River.

#### **Watershed Management Approach and Total Maximum Daily Loads (TMDLs)**

28. The Regional Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Board's many diverse programs, particularly Total Maximum Daily Loads (TMDLs), to better assess cumulative impacts of pollutants from

all point and non-point sources. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a water body to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs will establish waste load allocation (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the water body.

29. The existing permit prescribed effluent limitation of 175 mg/L for chloride. The current Basin Plan water quality objectives for chloride is 100 mg/L. This Order prescribed 100 mg/L and will stay in effect until the Chloride TMDL for the Santa Clara River, Resolution No. 04-004 (adopted on May 6, 2004, amending Resolution No. R03-008 adopted on July 10, 2003; amending Resolution No. 02-018 adopted on October 24, 2002), *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River (Chloride TMDL)*, is approved by U.S.EPA (i.e., the effective date of the TMDL). If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will remain in effect until revised by the Regional Board. (See item I.B.4.(c) for details).
30. The Discharger may not be able to immediately comply with the final effluent limit for chloride. However, because the limit is a non-CTR-based limit, and because the TMDL does not provide an interim limit or waste load allocation (WLA) for this Discharger, an interim limit must be included in a corresponding Time Schedule Order (TSO)
31. Six Flags discharges within Reach 8 of the Santa Clara River. The 2002 State Board's California 303(d) List classifies the Santa Clara River as impaired. The pollutants of concern, detected in the water column include: chloride, high coliform count and nitrate + nitrite.

#### **Data Availability and Reasonable Potential Analysis**

32. 40 CFR section 122.44(d)(1)(ii) requires that each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality objective. This is done by performing a reasonable potential analysis (RPA) for each pollutant.
33. Section 1.3 of the SIP requires that a limitation be imposed for a toxic pollutant if: (1) the maximum effluent concentration (MEC) is greater than the most stringent CTR criterion, or (2) the background concentration is greater than the CTR criterion, or (3) other information is available that indicates the need for a WQBEL. Sufficient effluent data are needed to conduct and complete the RPA.
34. Certain effluent limitations have been established based on the revised water quality criteria contained in the CTR and the requirements contained in Section 1.4 of the SIP. RPA was conducted using the data the monitoring data collected annually from 1999 through 2004 for Discharge Serial Nos. 001, 002, and 003. Based on the RPA, there is reasonable potential

to exceed water quality criteria for copper, lead, and mercury at Discharge Serial Nos. 001 and 003. For Discharge Serial No. 002, mercury demonstrates reasonable potential to exceed water quality criterion. Thus, effluent limitations have been established for these pollutants that showed reasonable potential to exceed state water quality standards. This Order also includes a comprehensive monitoring requirements to provide the data needed to complete an RPA for all of the priority pollutants.

35. Certain pollutants did not show reasonable potential based on effluent data. Therefore, effluent limitations for arsenic, cadmium, chromium, selenium, and silver, will not be established in this Order. The removal of these effluent limitations is not considered backsliding because the current effluent monitoring data serve as "new information" that was not available at the time of the issuance of the previous permit. The Regional Board determines that the anti-backsliding exception for new information applies where new monitoring data indicate that the discharge of a pollutant does not have reasonable potential to cause or contribute to a water quality standards violation. However, this Order requires the Discharger to continue to monitor for these pollutants, to provide data to evaluate reasonable potential in the future.
36. This Order requires the Discharger to conduct monitoring for receiving water for priority pollutants annually to provide data for conduction of RPA in the future.
37. The discharge from Discharge Serial Nos. 001, 002, and 003 are continuous. The previous permit prescribed acute toxicity limitations or monitoring requirements and no chronic limitations nor monitoring requirements. This Order includes effluent limitations and monitoring requirements for acute toxicity, and a trigger and monitoring requirements for chronic toxicity.

#### **Compliance Schedules and Interim Limitations**

38. Six Flags may not be able to achieve immediate compliance with the WQBELs for copper, lead, and mercury in Section I.B.4. of this Order. Data submitted in self-monitoring reports indicate that these constituents have been detected at concentrations greater than the new limit proposed in this Order. The specified effluent limitations were developed based on CTR criteria.
39. 40 CFR 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued. The provisions of the SIP allow inclusion of an interim limit with a specific compliance schedule included in a NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based. Interim limits have been included in this Order for the following pollutants: (a) copper, lead, and mercury for Outfall 001 and 003; and (b) mercury for Outfall 002. The interim limits are based on the Facility's current treatment performance.

During the compliance period, the Discharger shall comply with the interim effluent limits for the following pollutants: (a) copper, lead, and mercury for Outfall 001 and 003; and (b) mercury for Outfall 002. The interim limits are applicable from the date of adoption of the Order through June 2, 2010, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

40. This Order requires the Discharger to develop a pollutant minimization plan and/or source control measures, and participate in the activities necessary to achieve the final effluent limitations.
41. Monitoring data submitted for Discharge Serial Nos. 001, 002, and 003 during the period from third Quarter 2005 through third Quarter 2007 indicated fecal coliform values ranging from 8 MPN/100ml to  $\geq 11,200$  MPN/100ml. The fecal coliform limits are 200 MPN/100ml for geometric mean and 400MPN/100ml for single maximum. In addition, the result of the analysis of one sample collected for E. coli during second Quarter 2007 monitoring indicated 900 MPN/100ml which exceeded the E. coli limits (i.e., geometric mean = 126 MPN/100ml; single maximum = 235 MPN/100ml).

The Discharger has made efforts to identify the source of the bacteria and to take corrective action to comply with the bacteria effluent limitations. In October 2007, the Discharger implemented high-pressure cleaning and disinfection of on-site drains and has included these corrective actions into their regular maintenance program. The disinfection of the on-site drains will be conducted bi-monthly and the high-pressure cleaning will be conducted annually or bi-annually, as determined by the results of sampling. Since the October 2007 implementation of these corrective actions, and other related measures, the Discharger has been in compliance with bacteria limitations. The monitoring reports submitted indicated fecal coliform concentrations of non-detect (ND) for the fourth quarter 2007, 14 MPN/100 ml for the first quarter 2008, and ND for second quarter 2008. There was no data reported for E.coli during these monitoring periods.

The Discharger is also considering the following possible actions to improve the quality of the wastewater discharged from the Facility and insure compliance with the permit limits:

- a. Construction of an ultra violet (UV) treatment plant that would divert water from the western channel prior to the Outfall 003 sampling location to an equalization basin. The water would then flow through filters and receive treatment by UV before being dechlorinated and discharged back to the channel.

#### **CEQA and Notifications**

42. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge, and has provided them with an opportunity to submit their written views and recommendations.
43. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
44. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and is effective 30 days (July 5, 2005) from the date of its adoption, in accordance with federal law, provided the Regional Administrator, USEPA, has no objections.

45. Pursuant to California Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, Office of Chief Counsel, ATTN: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22nd Floor, Sacramento, California, 95814, within 30 days of adoption of this Order.
46. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, section 13389.

**IT IS HEREBY ORDERED** that Magic Mountain, LLC (Former Six Flags Theme Parks, Inc.), Six Flags Magic Mountain, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted there under, shall comply with the following:

**I. DISCHARGE REQUIREMENTS**

**A. Discharge Prohibitions**

1. Wastes discharged shall be limited to drainage/overflow from lakes and ponds, irrigation run-off, midway (walkway throughout the park) washdown, and storm water run-off through Discharge Serial No. 001, Discharge Serial No. 002, and Discharge Serial No. 003, as proposed (Finding No. 5). The discharge of wastes from accidental spills or other sources is prohibited.
2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, through Discharge Serial Nos. 001, 002 and 003 to the Santa Clara River, or waters of the State, are prohibited.

**B. Final Effluent Limitations**

The discharge of an effluent in excess of the following limitations is prohibited:

1. A pH value less than 6.5 or greater than 8.5.
2. A Temperature greater than 86 °F; and
3. Toxicity limitations:
  - a. Acute Toxicity Limitation and Requirements
    - i. The acute toxicity of the effluent shall be such that (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

- ii. If either of the above requirements [Section I.B.3.a.(i)] is not met, the Discharger shall conduct six additional tests over a 6-week period. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion of the test, and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the objective.
  - iii. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.
  - iv. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (*MRP*) No. 6045.
- b. Chronic Toxicity Limitation and Requirements
- i. This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0  $TU_c$  in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed, 1  $TU_c$  in a critical life stage test.)
  - ii. If the chronic toxicity of the effluent exceeds 1.0  $TU_c$ , the Discharger shall immediately implement accelerated chronic toxicity testing according to *MRP* No. 6045, Item IV.D.1. If the results of two of the six accelerated tests exceed 1.0  $TU_c$ , the Discharger shall initiate a TIE and implement the Initial investigation TRE Workplan.
  - iii. The Discharger shall conduct chronic toxicity monitoring as specified in *MRP* No. 6045.
  - iv. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

v. Preparation of an Initial Investigation TRE Work Plan

- 1) The Discharger shall submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) Work Plan (1-2 pages) to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. If the Regional Board Executive Officer does not disapprove the Work Plan within 60 days, the Work Plan shall become effective. The Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This Work Plan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum, the elements described in ii through iv below.
- 2) A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- 3) A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and
- 4) If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (Section IV.E.3. of MRP No. CI-6045 provides references for the guidance manuals that should be used for performing TIEs.)

**4. Final Effluent Limitations:**

- (a) **Discharge Serial Nos. 001 and 003.** In addition to the Requirements I.B.1 through I.B.3, the effluent limitations established in this Order are applicable to discharges during both dry and wet weather conditions through NPDES Discharge Serial Nos. 001 and Discharge Serial No. 003:

Constituents	Units	Discharge Limitations <sup>1/</sup>	
		Monthly Average	Daily Maximum
Total suspended solids	Mg/L	50	75
Turbidity	NTU	50	75
BOD <sub>5</sub> 20°C	Mg/L	20	30
Oil and Grease	Mg/L	10	15
Settleable solids	Ml/L	0.1	0.3
Residual chlorine	Mg/L	---	0.1
Phenols	Mg/L	---	1.0
Total dissolved solids	Mg/L	---	1000
Sulfate	Mg/L	---	400
Boron	Mg/L	---	1.5



Constituents	Units	Discharge Limitations <sup>1/</sup>	
		Monthly Average	Daily Maximum
Nitrate + Nitrite (as N)	Mg/L	---	5
Copper <sup>2/, 3/</sup>	µg/L	19.5	39.2
Lead <sup>2/, 3/</sup>	µg/L	10.5	21.2
Mercury <sup>2/, 3/</sup>	µg/L	0.051	0.102

<sup>1/</sup> The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken in that month, compliance shall be based on this sample result.

<sup>2/</sup> Discharge limitations for these metals are expressed as total recoverable.

<sup>3/</sup> The interim limit in Section I.B.5 below is applicable from the date of adoption of the Order through June 2, 2010.

(b) **Discharge Serial No 002.** In addition to the Requirements I.B.1 through I.B.3, the effluent limitations established in this Order are applicable to discharges during both dry and wet weather conditions through NPDES Discharge Serial No. 002:

Constituents	Units	Discharge Limitations <sup>1/</sup>	
		Monthly Average	Daily Maximum
Total suspended solids	Mg/L	50	75
Turbidity	NTU	50	75
BOD <sub>5</sub> 20°C	Mg/L	20	30
Oil and Grease	Mg/L	10	15
Settleable solids	MI/L	0.1	0.3
Residual chlorine	Mg/L	---	0.1
Phenols	Mg/L	---	1.0
Total dissolved solids	Mg/L	---	1000
Sulfate	Mg/L	---	400
Boron	Mg/L	---	1.5
Nitrate + Nitrite (as N)	Mg/L	---	5
Copper <sup>2/</sup>	µg/L	19.5	39.2
Mercury <sup>2/, 3/</sup>	µg/L	0.051	0.102

<sup>1/</sup> The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken in that month, compliance shall be based on this sample result.

<sup>2/</sup> Discharge limitations for these metals are expressed as total recoverable.

<sup>3/</sup> The interim limit in Section I.B.5 below is applicable from the date of adoption of the Order through June 2, 2010.

**(c) Chloride Limitations for Discharge Serial Nos. 001, 002, and 003:**

Constituent	Units	Discharge Limitations	
		Monthly Average <sup>1/</sup>	Daily Maximum
Chloride	mg/L	100 <sup>2/</sup>	--
	mg/L	--	100 <sup>3/</sup>

<sup>1/</sup> The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken in that month, compliance shall be based on this sample result.

<sup>2/</sup> This is the water quality objective for chloride in the current Basin Plan. This effluent limitation applies immediately and will stay in effect until the Chloride TMDL for the Santa Clara River, Resolution No. 04-004 (adopted on May 6, 2004, amending Resolution No. R03-008 adopted on July 10, 2003; amending Resolution No. 02-018 adopted on October 24, 2002), *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River (Chloride TMDL)*, is approved by USEPA (i.e., the effective date of the TMDL). At that time, the effluent limitation accompanying table footnote [3] will be effective. If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will remain in effect until revised by the Regional Board.

**(d) Bacterial Limitations for Discharge Serial Nos. 001, 002, and 003:**

1. Geometric Mean Limits:

- a. E. coli density shall not exceed 126/100 ml.
- b. Fecal coliform density shall not exceed 200/100 ml.

2. Single Sample Maximum Limits:

- a. E. coli density shall not exceed 235/100 ml.
- b. Fecal coliform density shall not exceed 400/100 ml.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

If any of the single sample limits are exceeded, the Regional Board requires repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

**5. Interim Effluent Limitations.**

From the effective date of this Order until June 2, 2010, the following interim effluent limitations are established for discharges through **Discharge Serial Nos. 001, 002, and 003**. Discharges in excess of the following interim effluent limitations are prohibited:

Pollutant (units)	Maximum Daily Effluent Limitations (MDELs)		
	Discharge Serial No. 001	Discharge Serial No. 002	Discharge Serial No. 003
Copper <sup>1</sup> (µg/L)	32	--	240
Lead <sup>1</sup> (µg/L)	85	--	78
Mercury (µg/L)	0.21	0.25	0.22

<sup>1</sup> Discharge limitations for these metals are expressed as total recoverable.

**C. Receiving Water Limitations**

1. The discharge shall not cause the following conditions to exist in the receiving waters:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - c. Visible, floating, suspended or deposited oil or other products of petroleum origin;
  - d. Bottom deposits or aquatic growths; or,
  - e. Toxic or other deleterious substances present in concentrations or quantities that cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge shall not cause nuisance or adversely affect beneficial uses of the receiving water.
3. No discharge shall cause a surface water temperature rise greater than 5°F above the natural temperature of the receiving waters at any time or place.

4. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within the waterbody of the receiving waters:
  - a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;
  - b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;
  - c. Dissolved sulfide shall not be greater than 0.1 mg/L;
  - d. The ammonia in the 1994 Basin Plan were revised by Regional Board Resolution No. 2002-011, adopted on April 28, 2002, to be consistent with the 1999 U.S. EPA update on ammonia criteria. Regional Board Resolution No. 2002-011 was approved by State Board, OAL and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect. Total ammonia (as N) shall not exceed concentrations specified in the Regional Board Resolution 2002-011.
5. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise or modify this Order in accordance with such standards.
6. The discharge shall not cause the following to be present in receiving waters:
  - a. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
  - b. Chemical substances in amounts that adversely affect any designated beneficial use;
  - c. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;
  - d. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
  - e. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;

- f. Substances that result in increases of BOD<sub>5</sub>20°C that adversely affect beneficial uses;
7. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
8. The discharge shall not degrade surface water communities and population including vertebrate, invertebrate, and plant species.
9. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
10. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

## II. REQUIREMENTS

### A. The Discharger shall submit within 90 days of the effective date of this Order:

1. A Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment A.
2. Best Management Practices (BMPs) that entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPs shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters. BMPs shall be included in the SWPPP.
3. The Plans shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points; describe the activities in each area and the potential for contamination of storm water runoff; and address the feasibility of containment and/or treatment of the storm water. The plans shall be reviewed annually by the Discharger. Updated information, if any, shall be submitted within 30 days of revision.

**B. Compliance Plan**

1. The Discharger shall develop and implement a compliance plan that will identify the measures that will be taken to reduce copper, lead, and mercury in the effluent, and to achieve compliance with the final limits in this Order by the deadline specified in provisions I.B.5.
  2. The Discharger shall submit annual progress reports to describe the progress of studies and or actions undertaken to reduce copper, lead, and mercury in the effluent, and to achieve compliance with the final limitations in this Order by the deadline specified in provision I.B.5. The Regional Board shall receive the first annual progress report at the same time the annual summary report is due, as required in section I.B of *MRP*.
  3. The interim limits stipulated in Section I.B.5. shall be in effect for a period not to extend beyond June 2, 2010. Thereafter, the Discharger shall comply with the limitations specified in Section I.B.4 (a) and I.B.4 (b) of this Order.
  4. The Discharger must notify the Regional Board's Executive Officer, in writing, no later than 14 days following each interim date, compliance implementation event, or quarterly report, of the Discharger's compliance or noncompliance with the interim requirements.
- C.** Pursuant to the requirements of 40 CFR section 122.42(a), the Discharger must notify the Board as soon as it knows, or has reason to believe (1) that it has begun or expected to begin, to use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has occurred, or will occur, in concentrations that exceed the specified limits in 40 CFR section 122.42(a).
- D.** The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
- E.** The Discharger shall comply with the waste load allocations that will be developed from the TMDL process for the 303(d)-listed pollutants.
- F.** The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- G.** The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

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

- a. Name and general composition of the chemical,
- b. Frequency of use,
- c. Quantities to be used,
- d. Proposed discharge concentrations, and
- e. U.S. EPA registration number, if applicable.

No discharge of such chemical shall be made prior to the Executive Officer's approval.

I. The Regional Board and U.S. EPA shall be notified immediately, by telephone, of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged; written confirmation shall follow as soon as possible but not later than five working days after occurrence.

### III. PROVISIONS

- A. This Order includes the attached Standard Provisions and General Monitoring and Reporting Requirements (Standard Provisions, Attachment N). If there is any conflict between provisions stated herein and the attached Standard Provisions, those provisions stated herein shall prevail.
- B. This Order includes the attached *MRP* No. CI-6045. If there is any conflict between provisions stated in the *MRP* and the Standard Provisions, those provisions stated in the former shall prevail.
- C. The Discharger shall comply with the applicable requirements of SWPPP updates associated with industrial activity (State Board Order No. 97-03-DWQ adopted on April 17, 1997) and SWPPP updates and monitoring and reporting requirements of State Board general permit for discharges of storm water and Construction Activity (State Board Order No. 99-08-DWQ adopted on August 19, 1999). This Order R4-2005-0036 shall take precedence where conflicts or differences arise between it and the aforementioned Orders. This Order includes the relevant requirements contained in the attached *Storm Water Pollution Prevention Plan Requirements* (Attachment A).
- D. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order

adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

- E. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Board to local agencies.
- F. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- G. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.

#### H. Compliance Determination

- 1. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement II.C of the *MRP* No. 6045), then the Discharger is out of compliance.
- 2. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
  - a. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, does not exceed the monthly average limitation for that constituent, the Discharger has demonstrated compliance with the monthly average limitation for that month.
  - b. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, exceeds the monthly average limitation for any constituent, the Discharger shall collect up to four additional samples at approximately equal intervals during the month. All analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II.C of *MRP* No. 6045), the numerical average of the analytical results of these samples will be used for compliance determination.

When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirement II.D of *MRP* No. 6045), the median value of these samples shall be used for compliance



determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
  - d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limitation.
3. Compliance with effluent limitations expressed as a sum of several constituents. If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

#### IV. REOPENERS

- A. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
- B. 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.
- C. 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 (MLs) for each pollutant.
- D. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Santa Clara River.
- E. 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.

Magic Mountain, LLC  
Six Flags Magic Mountain

CA0003352  
Order No. R4-2008-0209  
Amending Order No.R4-2005-0036

**V. EXPIRATION DATE**

This Order expires on May 10, 2010.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

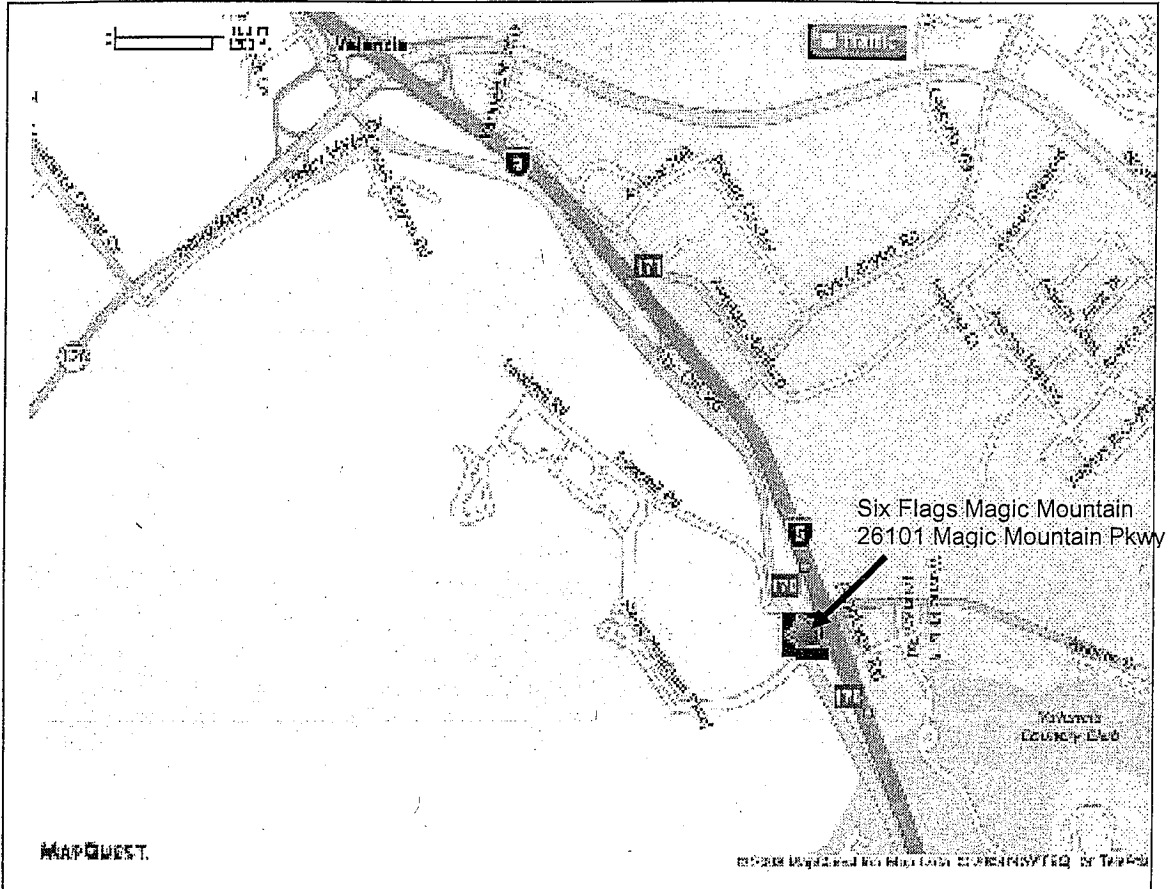
**VI. RESCISSION**

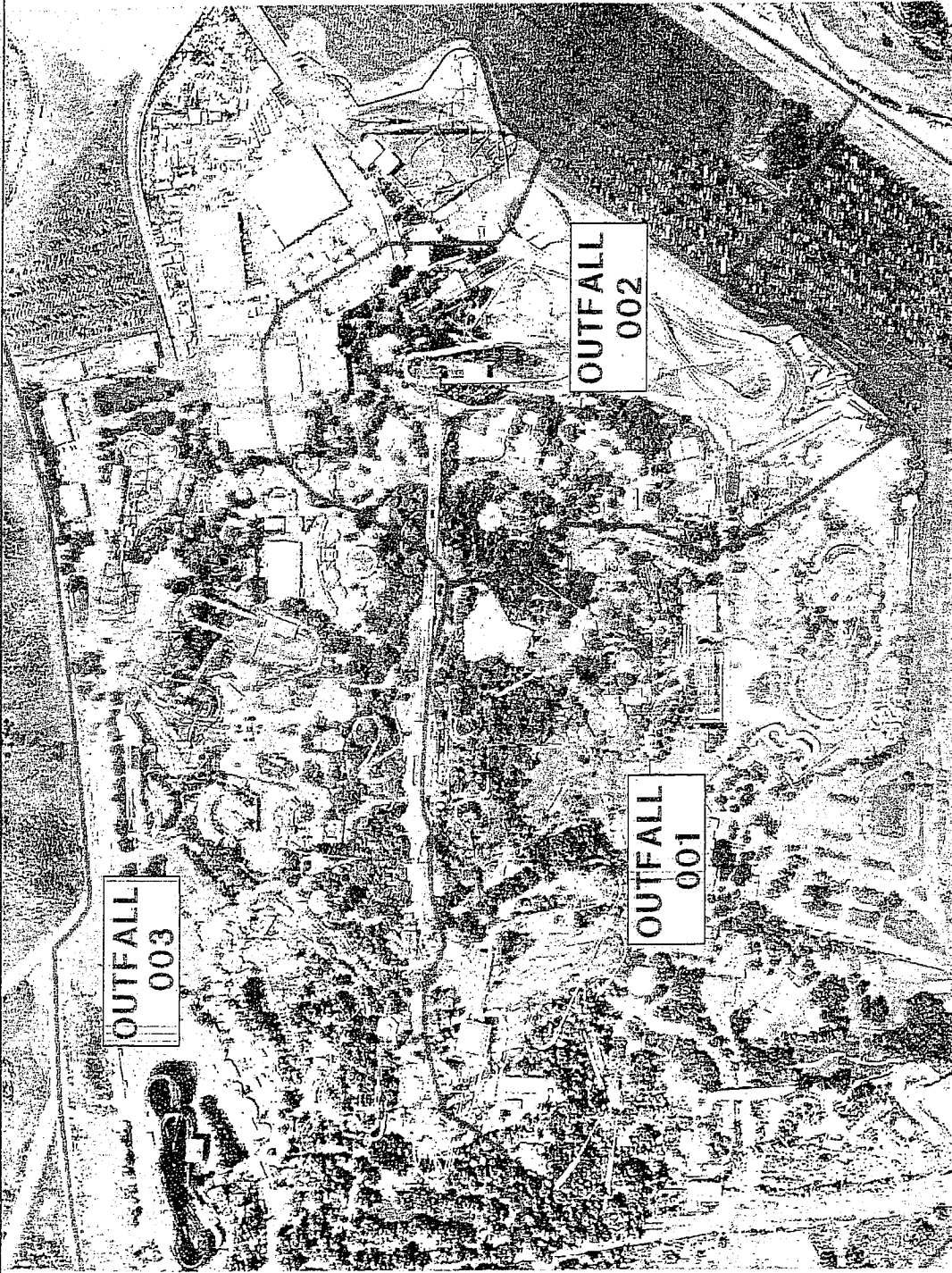
Order No. 98-005 adopted by this Regional Board on January 26, 1998, is hereby rescinded except for enforcement purposes.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 11, 2008.

  
\_\_\_\_\_  
Tracy J. Egoscue, Executive Officer

FIGURE 1 – LOCATION MAP





**Kennedy/Jenks Consultants**

Six Flags Magic Mountain  
Valencia, California

**Drainage Areas Map**

October 2007  
K/J 0583007

Figure 1



No Scale

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. IMPLEMENTATION SCHEDULE

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

- a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.
- b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

2. Objectives

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

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

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

3. Planning and Organization

a. Pollution Prevention Team

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

b. Review Other Requirements and Existing Facility Plans

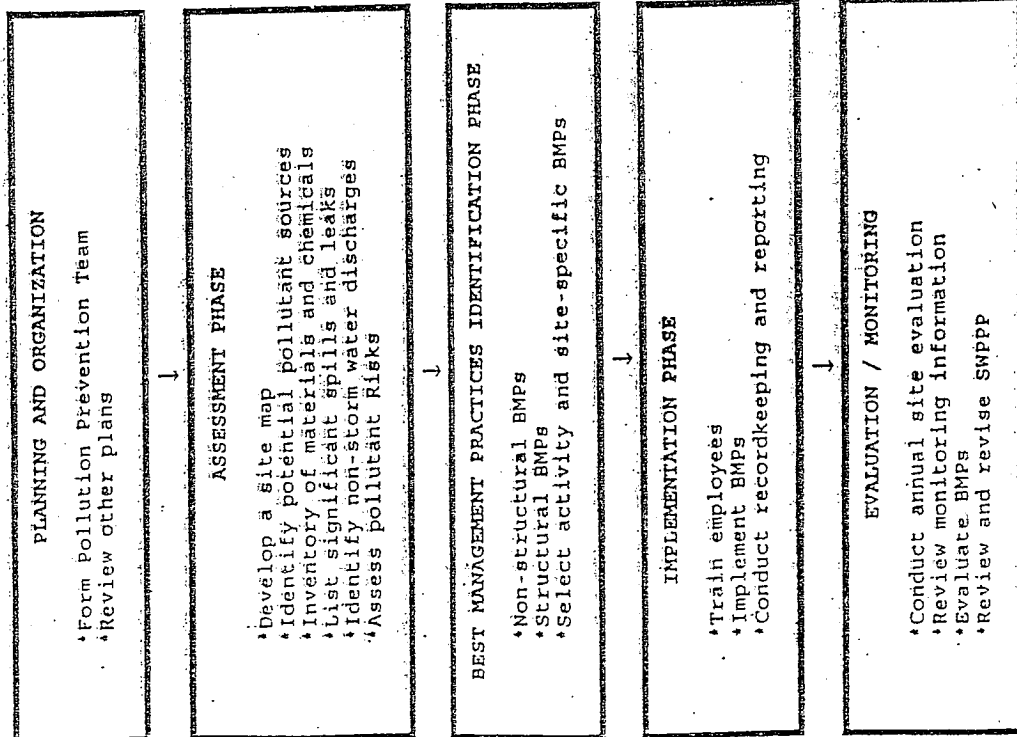
The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any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

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, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A.

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



PLANNING AND ORGANIZATION

- \*Form Pollution Prevention Team
- \*Review other plans

ASSESSMENT PHASE

- \*Develop a site map
- \*Identify potential pollutant sources
- \*Inventory of materials and chemicals
- \*List significant spills and leaks
- \*Identify non-storm water discharges
- \*Assess pollutant Risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

- \*Non-structural BMPs
- \*Structural BMPs
- \*Select activity and site-specific BMPs

IMPLEMENTATION PHASE

- \*Train employees
- \*Implement BMPs
- \*Conduct recordkeeping and reporting

EVALUATION / MONITORING

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

The following information shall be included on the site map:

- a. The facility boundaries, the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.
- e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

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 being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. Description of Potential Pollutant Sources

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

i. Industrial Processes

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

ii. Material Handling and Storage Areas

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

iii. Dust and Particulate Generating Activities

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

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302)

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

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

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

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

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.

b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and

potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

Assessment of Potential Pollutant Sources

- a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:
  - i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and
  - ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.
- b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.
 

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8 below.

Storm Water Best Management Practices

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

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

EXAMPLE  
TABLE B

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



The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

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

a. Non-Structural BMPs

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

i. Good Housekeeping

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

ii. Preventive Maintenance

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

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

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

vi. Waste Handling/Recycling

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

vii. Recordkeeping and Internal Reporting

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

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

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

x. Quality Assurance

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

Structural BMPs

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

- i. Overhead Coverage  
This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.
- ii. Retention Ponds  
This includes basins, ponds, surface impoundments, 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 generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

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

Annual Comprehensive Site Compliance Evaluation

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

- a. A review of all visual observation records, inspection records, and sampling and analysis results.
- b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.
- d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e. for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9. and 10. of Section C. of this General Permit.

10. SWPPP General Requirements

- a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

- c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.
- e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or Sections A.1, A.9, A.10.C, and A.10.D of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

STANDARD PROVISIONS, GENERAL MONITORING AND  
REPORTING REQUIREMENTS

"ATTACHMENT N"

A. General Requirements

1. Neither the disposal nor any handling of wastes shall cause pollution or nuisance.
2. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
3. This discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Clean Water Act, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
4. Wastes discharged shall not contain visible color, oil or grease, and shall not cause the appearance of color, grease, oil or oily slick, or persistent foam in the receiving waters or on channel banks, walls, inverts or other structures.
5. Wastes discharged shall not increase the natural turbidity of the receiving waters at the time of discharge.
6. Wastes discharged shall not cause the formation of sludge deposits.
7. Wastes discharged shall not damage flood control structures or facilities.
8. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any spill of such materials shall be contained and removed immediately.
9. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.
10. The temperature of wastes discharged shall not exceed 100° F.
11. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

NPDES  
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12. Effluent limitations, national standards of performance and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 318 and 405 of the Federal Clean Water Act and amendments thereto are applicable to the discharge.

B. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
3. The discharger must comply with all of the terms, requirements, and conditions of this order. Any violation of this order constitutes a violation of the Clean Water Act, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance; or a combination thereof.
4. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
5. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.
6. The Regional Board, EPA, and other authorized representatives shall be allowed:
  - a) Entry upon premises where a regulated facility is located or conducted, or where records are kept under conditions of this Order;
  - b) Access to copy any records that are kept under the conditions of this Order;
  - c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

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- (d) To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act and the California Water Code.
7. 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 Order.
  8. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. If a toxic effluent standard or prohibition is established for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
  9. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
    - (a) Violation of any term or condition contained in this Order;
    - (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
    - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
  10. In the event the discharger is unable to comply with any of the conditions of this Order due to:
    - (a) breakdown of waste treatment equipment;
    - (b) accidents caused by human error or negligence; or
    - (c) other causes such as acts of nature,

the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate

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- what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.
11. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
  12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
  13. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control including sludge use and disposal facilities (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar system that are installed by a discharger only when necessary to achieve compliance with the conditions of this Order.
  14. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
  15. This Order does not convey any property rights of any sort, or any exclusive privilege.
  16. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
  17. All applications, reports, or information submitted to the Regional Board shall be signed:
    - (a) In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
    - (b) In the case of a partnership, by a general partner;

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- (c) In the case of a sole proprietorship, by the proprietor;
  - (d) In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
18. The discharger shall notify the Board of:
- (a) new introduction into such works of pollutants from a source which could be a new source as defined in section 306 of the Federal Clean Water Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States,
  - (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Clean Water Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted.
- Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.
19. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.
20. The discharger shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the facility or of any planned changes in the facility or activity that may result in noncompliance with requirements.
21. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
22. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:



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- (a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels:"
    - (i) One hundred micrograms per liter (100 µg/l);
    - (ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
    - (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
    - (iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).
  - (b) that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:
- (a) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that 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.);
  - (b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
  - (c) The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

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The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable. The discharger shall submit notice of an unanticipated bypass as required in E-16.

24. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (a) an upset occurred and that the discharger can identify the cause(s) of the upset;
  - (b) the permitted facility was being properly operated by the time of the upset;
  - (c) the discharger submitted notice of the upset as required in E-16; and
  - (d) the discharger complied with any remedial measures required.

No determination made before an action for noncompliance, such as during administrative review of claims that non-compliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

25. This Order is not transferable to any person except after notice to the Regional Board. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the 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 Clean Water Act.

C. Enforcement

1. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or

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some combination thereof, depending on the violation, or upon the combination of violations.

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

2. The Federal Clean Water Act (CWA) provides that any person who violates a permit condition or any requirement imposed in a pretreatment program implementing sections 301, 302, 306, 307, 308, 318 or 405 of the CWA is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$5,000, or more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both.
3. 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.
4. The Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document submitted or required to be maintained under this Order, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

D. Monitoring Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The discharger shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five(5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.

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3. Records of monitoring information shall include:
  - (a) The date, exact place, and time of sampling or measurements;
  - (b) The individual(s) who performed the sampling or measurements;
  - (c) The date(s) analyses were performed;
  - (d) The individual(s) who performed the analyses;
  - (e) The analytical techniques or methods used; and
  - (f) The results of such analyses.
4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Order.
5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by an appropriate governmental regulatory agency.
6. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
7. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in E-8 shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

When requested by the Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study. The discharger must have a success rate equal to or greater than 80%.
8. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.
9. For parameters where both 30-day average and maximum limits are specified but

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where the monitoring frequency is less than four times a month, the following procedure shall apply:

- (a) Initially, not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once compliance has been demonstrated, sampling and analyses shall revert to the frequency specified.
- (b) If future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

E. Reporting Requirements

1. The discharger shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.
2. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernable. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.
3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
4. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.
5. The discharger shall file a technical report with this Board not later than 30 days after receipt of this Order, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall

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include as a minimum, the following:

- (a) The name and address of the person or company responsible for operation and maintenance of the facility.
- (b) Type of maintenance (preventive or corrective).
- (c) Frequency of maintenance, if preventive.

If an operation and maintenance report has been supplied to the Board previously and there have been no changes, a second report need not be provided.

6. Monitoring results shall be reported at the intervals specified in the monitoring and Reporting Program.
  - (a) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
  - (b) If the discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 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.
  - (c) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.
7. 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.
8. By March 1 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.
9. The discharger shall include in the annual report, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.
10. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or

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approved by the Executive Officer and in accordance with current EPA guideline procedures or as specified in this Monitoring Program".

11. Each report shall contain the following completed declaration:

"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 a fine and imprisonment for knowing violations.

Executed on the \_\_\_ day of \_\_\_\_\_, 19\_\_

at \_\_\_\_\_

\_\_\_\_\_(Signature)

\_\_\_\_\_(Title)"

12. If no flow occurred during the reporting period, the monitoring report shall so state.
13. For any analyses performed for which no procedure is specified in the EPA guidelines or in the monitoring and Reporting Program, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
14. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
- (a) Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
  - (b) Evaluate the effectiveness of present facilities and procedures and state when they become operational.

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- (c) Describe facilities and procedures needed for effective preventive and contingency plans.
- (d) Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events.

Such conditions may be incorporated as part of this Order, upon notice to the discharger.

15. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
- (a) Types of wastes and quantity of each type;
  - (b) Name and address for each hauler of wastes (or method of transport if other than by hauling); and
  - (c) Location of the final point(s) of disposal for each type of waste.

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

16. 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 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.
- The following shall be included as information that must be reported within 24 hours under this paragraph:
- (a) Any unanticipated bypass that exceeds any effluent limitation in the Order.
  - (b) Any upset that exceeds any effluent limitation in the Order.
  - (c) Violation of a maximum daily discharge limitation for any of the pollutants



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listed in this Order to be reported within 24 hours.

The Regional Board may waive the above-required written report on a case-by-case basis.

17. Should the discharger discover that it failed to submit any relevant facts or that it submitted incorrect information in a report, it shall promptly submit the missing or correct information.
18. The discharger shall report all instances of non-compliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain all information listed in E-16.
19. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
20. Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.
21. The discharger shall mail a copy of each monitoring report to:

INFORMATION TECHNOLOGY  
CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD - LOS ANGELES REGION  
320 W. 4<sup>TH</sup> STREET, SUITE 200  
LOS ANGELES, CA 90013

A copy of such monitoring report for those discharges designated as a major discharge shall also be mailed to:

REGIONAL ADMINISTRATOR  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 9  
75 Hawthorne Street  
San Francisco, CA 94105

F. Publicly Owned Wastewater Treatment Plant Requirements  
(Does not apply to any other type or class of discharger)

1. Publicly owned treatment works (POTWs) must provide adequate notice to the

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Regional Board of:

- (a) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants.
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the Order.

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

- 2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administration officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:
  - (a) Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.
  - (b) The discharger's best estimate of when the average daily dry weather flow rate will equal or exceed the design capacity of his facilities.
  - (c) The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.
- 3. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.
- 4. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Clean Water Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Clean Water Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.

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5. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal and in accordance with the provisions of Section 405(d) of the Federal Clean Water Act and Division 7 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a Regional Water Quality Control Board and which is in full compliance therewith.
6. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resources Control Board.

The annual report required by E-8 shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall include the date of each facility's Operation and Maintenance Manual, the date the manual was last reviewed, and whether the manual is complete and valid for the current facilities. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with this order and permit and provide a summary of performance.

G. Definitions

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this Order.
2. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- (a) A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling;

OR

- (b) A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

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The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

3. "Daily discharge" means:
- (a) For flow rate measurements, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
  - (b) For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

4. The "daily discharge rate" shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34 \sum (Q_i)(C_i)}{N}$$

in which N is the number of samples analyzed in any calendar day,  $Q_i$  and  $C_i$  are the rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken,  $C_i$  is the concentration measured in the composite sample and  $Q_i$  is the average flow rate occurring during the period over which samples are composited.

5. "Daily maximum" limit means the maximum acceptable "daily discharge" for pollutant measurements. Unless otherwise specified, the results to be compared to the "daily maximum" limit are based on composite samples."
6. "Duly authorized representative" is one whose:
- (a) Authorization is made in writing by a principal executive officer or ranking elected official;
  - (b) Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

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- (c) Written authorization is submitted to the Regional Board and EPA Region 9. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Regional Board and EPA Region 9 prior to or together with any reports, information, or applications to be signed by an authorized representative.
7. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits and the "instantaneous maximum" limits.
  8. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
  9. "Heavy metals" are for purposes of this Order, arsenic, cadmium, chromium, copper, lead, mercury, silver, nickel, and zinc.
  10. "Instantaneous maximum" concentration is defined as the maximum value measured from any single "grab sample."
  11. "Median" of an ordered set of values is the value which the values above and below is an equal number of values, or which is the arithmetic mean of the two middle values, if there is no one middle value.
  12. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.
  13. "6-month median" means 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 considered to equal zero for days on which no discharge occurred.
  14. "7-day" and "30-day average" shall be the arithmetic average of the values of daily discharge calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day periods, respectively.
  15. "Toxic pollutant" means any pollutant listed as toxic under section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D.

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16. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

AMENDING MONITORING AND REPORTING PROGRAM NO. CI 6045  
FOR  
MAGIC MOUNTAIN, LLC  
(FORMER SIX FLAGS THEME PARK, INCORPORATED)  
SIX FLAGS MAGIC MOUNTAIN

ORDER NO. R4-2008-0209  
(Amending Order No. R4-2005-0036)  
NPDES PERMIT NO. CA0003352

I. Reporting Requirements

- A. Magic Mountain, LLC (hereinafter Discharger) shall implement this monitoring program on the effective date of this Order. All monitoring reports shall be submitted quarterly and must be received by the Regional Board by the dates in the following schedule. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program is due by November 15, 2005.

Reporting Period	Report Due
January – March	May 15
April – June	August 15
July-September	November 15
October-December	February 15
Annual Summary Report	March 1

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

- B. The Discharger shall submit an annual report (for both dry and wet weather discharges from Discharge Serial Nos. 001, 002 and 003), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on a 3 ½ " computer diskette. Submitted data must be IBM compatible, preferably using EXCEL software. This annual report is to be received by the Regional Board by March 1 of each year following the calendar year of data collection.
- C. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste

discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

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

## **II. Effluent Monitoring Requirements**

- A. A sampling station shall be established for each point of discharge and shall be located where representative samples of the effluent can be obtained. The wastewater samples shall be collected prior to discharging to the Santa Clara River. This monitoring shall occur at the following locations:
- Discharge Serial No. 001: Samples shall be collected after the wastewater is discharged via a lined tributary to the Santa Clara River, but prior to discharging into the Santa Clara River.
  - Discharge Serial No. 002: Samples shall be collected after the wastewater is discharged via an unlined tributary to the Santa Clara River, but prior to discharging into the Santa Clara River.
  - Discharge Serial No. 003: Samples shall be collected after the wastewater is discharged via a lined tributary to the Santa Clara River, but prior to discharging into the Santa Clara River.
- B. This Regional Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- C. Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136.3, 136.4, and 136.5 (revised March 12, 2007); or, where no methods are specified for a given pollutant, by methods approved by this Regional Board or the State Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.



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

1. An actual numerical value for sample results greater than or equal to the ML; or,
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Current MLs (Attachment B) are those published by the State Water Resources Control Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, [adopted on March 2, 2000, and amended on February 24, 2005].

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

The Regional Board, in consultation with the State Board Quality Assurance Program, shall establish a ML that is not contained in Attachment B to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment B;
2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised March 12, 2007);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment B;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment B, and proposes an appropriate ML for their matrix; or,

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the U.S. EPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Board, and the State Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- E. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- F. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- G. Quarterly sampling shall be performed during the months of January, April, July, and October. Annual wet weather sampling from Discharge Serial No. 001, 002 and 003 shall be performed during the first rainfall event of the wet season (October 1 – May 31). Annual dry weather sampling for Discharge Serial No. 001, 002 and 003 shall be performed during the month of January. Results of annual analyses shall be reported in the appropriate quarterly monitoring report.
- H. For parameters that both monthly average and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply: If an analytical result is greater than the monthly average limit, the sampling frequency shall be increased (within 1 week of receiving the test results) to a minimum of once weekly, if possible, at equal intervals, until at least four consecutive weekly samples have been obtained, and compliance with the monthly average limit has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the monthly average limit.

### **III. Effluent Monitoring Program**

- A. The following shall constitute the monitoring program for discharges of wastewater through Discharge Serial No. 001 (Latitude 34° 25' 41" North and Longitude 118° 35' 27" West) Discharge Serial No. 002 (Latitude 34° 30' 47" North and Longitude 118° 35' 38"

West) and Discharge Serial No. 003 (Latitude 34° 25' 58" North and Longitude 118° 35' 52" West):

Pollutant	Units	Type of Sample	Minimum Frequency
Total Waste Flow	Gallons per day	Estimate	Monthly
Rainfall	Inches/day	Continuous	Monthly
Temperature	°F	Grab	Monthly
PH	s.u.	Grab	Monthly
Residual Chlorine	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Copper <sup>1</sup>	µg/L	Grab	Monthly
Lead <sup>1</sup>	µg/L	Grab	Monthly
Mercury <sup>1</sup>	µg/L	Grab	Monthly
Oil and Grease	mg/L	Grab	Quarterly
Fecal coliform	MPN/100 ml	Grab	Weekly
E. coli	MPN/100 ml	Grab	Weekly
Settleable Solids	ml/L	Grab	Quarterly
Total Suspended Solids	Mg/L	Grab	Quarterly
Biochemical Oxygen Demand	Mg/L	Grab	Quarterly
Sulfide	Mg/L	Grab	Quarterly
Phenols	Mg/L	Grab	Quarterly
Total Dissolved Solids	Mg/L	Grab	Quarterly
Sulfate	Mg/L	Grab	Quarterly
Nitrate + Nitrite (as N)	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Ammonia (as N)	mg/L	Grab	Quarterly
Dissolved oxygen	mg/L	Grab	Semiannually
Arsenic <sup>1</sup>	µg/L	Grab	Semiannually
Cadmium <sup>1</sup>	µg/L	Grab	Semiannually
Chromium (III) <sup>1</sup>	µg/L	Grab	Semiannually
Chromium VI <sup>1</sup>	µg/L	Grab	Semiannually
Selenium <sup>1</sup>	µg/L	Grab	Semiannually
Silver <sup>1</sup>	µg/L	Grab	Semiannually
Zinc <sup>1</sup>	µg/L	Grab	Semiannually
Remaining priority pollutants (see pages T-13)	µg/L	Grab	Annually
Acute Toxicity <sup>2</sup>	% survival	Grab	Annually
Chronic Toxicity <sup>2</sup>	TUc	Grab	Annually

<sup>1</sup> Shall be measured as total recoverable.

<sup>2</sup> See item IV.

#### IV. Toxicity Monitoring Requirements

##### A. Acute Toxicity Effluent Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites U.S. Environmental Protection Agency's (U.S. EPA) *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.
2. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in U.S. EPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, Third Edition, October 2002 (EPA/821R-02-014).
3. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.
4. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

##### B. Chronic Toxicity Effluent Monitoring Program

1. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 percent effluent samples in accordance with EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002, Office of Water, Washington D.C. (EPA/821-R-02-013) or EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition. USEPA, Office of Water, Washington, D.C. October 2002, (EPA/821-R-02-014).

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

Test Species and Methods:

- a. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
- b. Re-screening is required every 15 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive than re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.
- c. The presence of chronic toxicity shall be estimated as specified in EPA's *Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters Freshwater Organisms, Fourth Edition, October 2002* (EPA/821-R-02-013).

C. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

D. Accelerated Monitoring

1. If toxicity exceeds the limitations (as defined in Order No. R4-2005-0036, Sections I.B.3.a.i. and I.B.3.b.i), then the Discharger shall immediately implement accelerated testing as specified in Sections I.B.3.a.ii. and I.B.3.b.ii.

The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the accelerated testing shows consistent toxicity, the Discharger shall immediately implement the Initial Investigation of the Toxicity Reduction Evaluation (TRE) Work Plan.

2. If implementation of the initial investigation TRE Work Plan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the Toxicity Identification Evaluation (TIE).
3. The first step in the initial Investigation TRE Work Plan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent from Discharge Serial Nos. 001, 002, and 003 causes or contributes to the measured downstream acute toxicity. If this first step TRE testing shows that the Discharge Serial Nos. 001, 002, and 003 effluent does not cause or contribute to downstream acute toxicity, using U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA, Office of Water, Washington D.C. (EPA/821-R-02-012), then a report on this testing shall be submitted to the Board and the TRE will be considered to be completed. Routine testing in accordance with M&RP No. 6045 shall be continued thereafter.

E. Steps in TRE and TIE procedures:

1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's initial investigation TRE Work Plan. At a minimum, the Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. At a minimum, the TRE workplan must contain the provisions in Attachment C. The Discharger shall expeditiously develop a more detailed TRE Work Plan for submittal to the Executive Officer within 30 days of the trigger, which will include, but not be limited to:
  - a. Further actions to investigate and identify the cause of toxicity;
  - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
  - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,
  - d. A schedule for these actions.

2. The following steps are taken to conduct the TRE:
  - a. Step 1 - Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE:
  - b. Step 2 - Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
  - c. If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE and employment of all reasonable efforts and using currently available TIE methodologies. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
  - d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
  - d. Step 5 evaluates in-plant treatment options; and,
  - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE Work Plan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer toxicity (or six consecutive chronic toxicity results are less than or equal to 1.0 TU<sub>c</sub>).

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the EPA acute and chronic manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.
4. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Part I.B.3.a.ii of this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.
6. The Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

F. Reporting

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival with the discharge monitoring reports (DMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the DMR for the period in which the investigation occurred.
  - a. The full report shall be submitted on or before the end of the month in which the DMR is submitted.
  - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger; and (4) printout of the ToxCalc or CETIS (Comprehensive Environmental Toxicity Information System) program results.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the DMR. Routine reporting shall include, at a minimum, as applicable, for each test:
  - a. Sample date(s);
  - b. Test initiation date;
  - c. Test species;
  - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
  - e. NOEC value(s) in percent effluent;
  - f. IC<sub>15</sub>, IC<sub>25</sub>, IC<sub>40</sub> and IC<sub>50</sub> values in percent effluent;



- g.  $TU_c$  values  $\left( TU_c = \frac{100}{NOEC} \right)$ ;
- h. Mean percent mortality ( $\pm$ standard deviation) after 96 hours in 100% effluent (if applicable);
- i. NOEC and LOEC values for reference toxicant test(s);
- j.  $C_{25}$  value for reference toxicant test(s);
- k. Any applicable charts; and
- l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

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

## V. Receiving Water Monitoring

The Discharger is required to perform general observations of the receiving water when discharges occur and report the observations in the quarterly monitoring report. The Regional Board in assessing potential impacts of future discharges, will use data from these observations. If no discharge occurred during the observation period, the report shall so state. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations are required:

- Tidal stage, time, and date of monitoring;
- Weather conditions;
- Color of water;
- Appearance of oil films or grease, or floatable materials;
- Extent of visible turbidity or color patches;
- Direction of tidal flow;
- Description of odor, if any, of the receiving water; and
- Presence and activity of California Least Tern and California Brown Pelican.

In addition to general observations listed above, the Discharger is required to monitor the receiving water located at the sampling stations listed below:

- R-1 - Santa Clara River - located 300 feet upstream of the Discharge Serial No. 001
- R-2 - Santa Clara River - located downstream of Discharge Serial No. 003 where representative samples can be obtained.

The required monitoring frequency and type of sample of the receiving water for R-1 and R-2 are listed below:

Pollutant	Units	Type of Sample	Monitoring Frequency
PH	standard units	Grab	Quarterly
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab	Quarterly
Salinity	g/L	Grab	Quarterly
Temperature	°F	Grab	Quarterly
Dissolved Oxygen	mg/L	Grab	Quarterly
Residual Chlorine	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Fecal coliform	MPN/100ml	Grab	Quarterly
E. coli	MPN/100ml	Grab	Quarterly
Priority Pollutants (see pages T-13)	µg/L	Grab	Annually

The Discharger may elect to enter into a collaborative receiving water sampling program with other Dischargers if the point of discharge into the receiving water is shared by the Dischargers. By entering into a collaborative sampling program, the Discharger is still required to submit receiving water data for pH, hardness, salinity, temperature, dissolved oxygen, residual chlorine, chloride, total dissolved solids, turbidity, fecal coliform, E.coli, and all CTR priority pollutants to the Regional Board.

**VI. Effluent and Receiving Monitoring for TCDD**

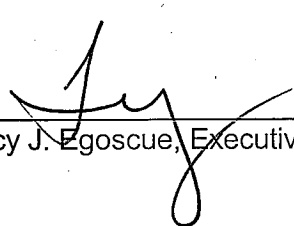
The Discharger must monitor the effluent at the Outfalls (Discharge Serial Nos. 001, 002, and 003) for the presence of the 16 congeners of 2,3,7,8-TCDD listed below, semi-annually during the first year only. If there is no discharge in a semi-annual period, then it should be made-up by sampling in the following semi-annual period. Discharger must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated

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Reporting Program No. CI-6045

CA0003352  
Order No. R4-2008-0209

concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.

<u>A. Congeners</u>	<u>B. TEF</u>
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
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

Ordered by:   
Tracy J. Egoscue, Executive Officer

Date: December 11, 2008

## PRIORITY POLLUTANTS

### Metals

Antimony  
Arsenic  
Beryllium  
Cadmium  
Chromium  
Copper  
Lead  
Mercury  
Nickel  
Selenium  
Silver  
Thallium  
Zinc

### Miscellaneous

Cyanide  
Asbestos (only if  
specifically  
required)

### Pesticides & PCBs

Aldrin  
Chlordane  
Dieldrin  
4,4'-DDT  
4,4'-DDE  
4,4'-DDD  
Alpha-endosulfan  
Beta-endosulfan  
Endosulfan sulfate  
Endrin  
Endrin aldehyde  
Heptachlor  
Heptachlor epoxide  
Alpha-BHC  
Beta-BHC  
Gamma-BHC  
Delta-BHC  
Toxaphene  
PCB 1016  
PCB 1221  
PCB 1232  
PCB 1242  
PCB 1248  
PCB 1254  
PCB 1260

### Base/Neutral Extractibles

Acenaphthene  
Benzidine  
1,2,4-trichlorobenzene  
Hexachlorobenzene  
Hexachloroethane  
Bis(2-chloroethyl) ether  
2-chloronaphthalene  
1,2-dichlorobenzene  
1,3-dichlorobenzene  
1,4-dichlorobenzene  
3,3'-dichlorobenzidine  
2,4-dinitrotoluene  
2,6-dinitrotoluene  
1,2-diphenylhydrazine  
Fluoranthene  
4-chlorophenyl phenyl ether  
4-bromophenyl phenyl ether  
Bis(2-chloroisopropyl) ether  
Bis(2-chloroethoxy) methane  
Hexachlorobutadiene  
Hexachlorocyclopentadiene  
Isophorone  
Naphthalene  
Nitrobenzene  
N-nitrosodimethylamine  
N-nitrosodi-n-propylamine  
N-nitrosodiphenylamine  
Bis (2-ethylhexyl) phthalate  
Butyl benzyl phthalate  
Di-n-butyl phthalate  
Di-n-octyl phthalate  
Diethyl phthalate  
Dimethyl phthalate  
Benzo(a) anthracene  
Benzo(a) pyrene  
Benzo(b) fluoranthene  
Benzo(k) fluoranthene  
Chrysene  
Acenaphthylene  
Anthracene  
1,12-benzoperylene  
Fluorene  
Phenanthrene  
1,2,5,6-dibenzanthracene  
Indeno (1,2,3-cd) pyrene  
Pyrene  
TCDD

### Acid Extractibles

2,4,6-trichlorophenol  
P-chloro-m-cresol  
2-chlorophenol  
2,4-dichlorophenol  
2,4-dimethylphenol  
2-nitrophenol  
4-nitrophenol  
2,4-dinitrophenol  
4,6-dinitro-o-cresol  
Pentachlorophenol  
Phenol

### Volatile Organics

Acrolein  
Acrylonitrile  
Benzene  
Carbon tetrachloride  
Chlorobenzene  
1,2-dichloroethane  
1,1,1-trichloroethane  
1,1-dichloroethane  
1,1,2-trichloroethane  
1,1,2,2-tetrachloroethane  
Chloroethane  
Chloroform  
1,1-dichloroethylene  
1,2-trans-dichloroethylene  
1,2-dichloropropane  
1,3-dichloropropylene  
Ethylbenzene  
Methylene chloride  
Methyl chloride  
Methyl bromide  
Bromoform  
Dichlorobromomethane  
Chlorodibromomethane  
Tetrachloroethylene  
Toluene  
Trichloroethylene  
Vinyl chloride  
2-chloroethyl vinyl ether  
Xylene

SWRCB Minimum Levels in ppb ( $\mu\text{g/L}$ )

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

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

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

## Attachment B - continued

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

Attachment B - continued

Table 2b - SEMI-VOLATILE SUBSTANCES	GC	GCMS	LC	COLOR
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

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

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

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

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

Attachment B - continued

Table 2d - PESTICIDES - PCBs	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

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

**Techniques:**

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

COLOR - Colorimetric



## Attachment C

### GENERIC TOXICITY REDUCTION EVALUATION WORKPLAN (TRE) INDUSTRIAL

1. Information and Data Acquisition
  - a. Regulatory information
    - i. NPDES permit limits
    - ii. Trigger
  - b. Facility monitoring data
    - i. NPDES monitoring data
    - ii. In-house monitoring data
    - iii. State agency monitoring data
  - c. Plant and Process Description
    - i. Process and treatment plant description
      - (1) numbers and types of streams
      - (2) their size
      - (3) scheduled changes or events in process stream operation
      - (4) types and configurations of equipment
      - (5) flow equalization facilities
      - (6) records of treatment plant upsets
    - ii. Physical/chemical monitoring data
      - (1) chemical analyses of process streams
      - (2) physical/chemical analyses of treatment streams
2. Housekeeping
  - a. Initiation of housekeeping study
    - i. Identify areas which may contribute to toxicity
    - ii. Reduce these contributions through best management practices (BMPs), administrative, and procedural controls
  - b. Evaluation of housekeeping practices
    - i. Review of plant policies
    - ii. "Walk-through" inspection
  - c. Identification of potential problem areas
    - i. Probability of release of toxic material
    - ii. Type and frequency of release which may occur
    - iii. Quantity of toxic substances involved
    - iv. Toxicity of substances released
    - v. Potential downstream impact of the substances released
    - vi. Effect of release on final effluent
  - d. Identification of corrective measures
    - i. Area cleanup
    - ii. Process or operational changes
    - iii. Material loss collection and recovery
    - iv. Chemical and biological testing of contained waters prior to release from diked storage areas
    - v. Increased storage capacity for contained waters
    - vi. Equipment modifications or changes
  - e. Selection of corrective measures
  - f. Implementation of corrective measures
3. Treatment Plant Optimization
  - a. Evaluation of influent wastestreams
    - i. Raw chemicals or materials used in the process
    - ii. Byproducts or reaction products produced during the process
    - iii. Reaction vessels, valves, piping systems, overflow points, and other mechanical aspects of the system
    - iv. Wastestreams produced, volumes, and routing paths

- v. Non-point sources
  - b. Description and evaluation of the treatment system
    - i. Design basis for each constituent, including variability in flow conditions and concentrations
    - ii. Treatment sequence
    - iii. Performance projections by constituents
    - iv. Operational flexibility of each process
    - v. Treatment objectives and projected effluent standards
  - c. Analysis of treatment system operation
    - i. Flow loading
    - ii. Mass loading
    - iii. Frequency and impact of shock loadings
      - (1) normal cleaning and maintenance
      - (2) spills and upsets
    - iv. Changes in operating procedures
4. Chemical optimization
- a. Information gathering
    - i. Examination of wastestreams produced by specific production processes
    - ii. Chemicals and raw materials and their contaminants and by-products used in the process
    - iii. Chemicals used in treatment
    - iv. Chemicals and material use rates
    - v. Percentage of chemical in final product
    - vi. Chemical reuse and waste recycling activities
  - b. Process chemical review
    - i. List all chemicals used
    - ii. List all quantities
    - iii. Determine pounds per product
    - iv. Determine pounds per gallon of wastewater discharged
  - c. MSDS information review
    - i. Obtain MSDS for all process chemicals discharged
    - ii. Highlight MSDS sections on aquatic toxicity
    - iii. Examine Hazardous Ingredient section and note "hazardous substances" listed
    - iv. Categorize all chemicals by hazard and irritation potential and use standard references to obtain aquatic toxicity information, if possible
  - d. Chemical composition screen of incoming raw materials
  - e. Outcome of chemical optimization phase
    - i. List of all chemicals used in processing and manufacturing the product
    - ii. MSDS and literature reviews will be on file when needed
    - iii. List of all chemicals and raw material purchased on a monthly basis and a record of production volumes during the same time period

STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION  
320 W 4<sup>th</sup> Street, Suite 200, Los Angeles

**FACT SHEET**  
**AMENDING WASTE DISCHARGE REQUIREMENTS AND NPDES PERMIT**  
**(Amending Order No. R4-2005-0036)**  
**FOR**  
**MAGIC MOUNTAIN, LLC**  
**(FORMER SIX FLAGS THEME PARK, INCORPORATED)**  
**SIX FLAGS MAGIC MOUNTAIN**  
**(Valencia Amusement Park)**  
**NPDES Permit No.: CA0003352**

**Public Notice No.: 08-041**

FACILITY ADDRESS

Six Flags Magic Mountain  
26101 West Magic Mountain Parkway  
Valencia, CA. 91355

FACILITY MAILING ADDRESS

Six Flags Magic Mountain  
26101 West Magic Mountain Parkway  
Valencia, CA 91385  
Contact: Thomas Edgar  
Telephone: (661) 255-4850

**I. Public Participation**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of an amendment to the waste discharge requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit for Magic Mountain, LLC (Former Six Flags Theme Park Incorporated), Six Flags Magic Mountain facility. The Regional Board staff has developed the proposed amendments to the WDRs. The Regional Board encourages public participation in the adoption process.

**A. Notification of Interested Parties**

The Regional Board has notified the Discharger and interested agencies and persons of its intent to amend the prescribed waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

## **B. Written Comments**

The staff determinations are tentative. Interested persons are invited to submit written comments concerning the tentative amendments to the WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Board at:

Executive Officer  
California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments must be received at the Regional Board offices by 5:00 p.m. on November 24, 2008.

## **C. Public Hearing**

The Regional Board will hold a public hearing on the amendment to the WDRs during its regular Board meeting on the following date and time and at the following location:

Date: December 11, 2008  
Time: 9:00 A.M.  
Location: County Government Center Hall of Administration  
Board of Supervisors Hearing Room  
800 South Victoria Avenue  
Ventura, California.

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, amendment to the WDRs. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is <http://www.waterboards.ca.gov/losangeles> where you can access the current agenda for changes in dates and locations.

## **D. Nature of Hearing**

This will be a formal adjudicative hearing pursuant to section 648 et seq. of title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) will not apply to this proceeding.

*Ex Parte Communications Prohibited:* As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Board must be directed to staff.

#### **E. Parties to the Hearing**

The following are the parties to this proceeding:

##### **1. The applicant/permittee**

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

#### **F. Public Comments and Submittal of Evidence**

Persons wishing to comment upon or object to the tentative amendment to the waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Board's agenda folder, and fully considered by the Board, written comments must be received no later than close of business November 24, 2008. Comments or evidence received after that date will only be included in administrative record with express approval of the Chair during the hearing, only upon a showing of good cause, and only if it will not prejudice any other party or regional board staff. Additionally, if the Board receives only supportive comments, the permit may be placed on the Board's consent calendar, and approved without an oral testimony.

#### **G. Hearing Procedure**

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 3 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to speak. At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of

the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of business 15 days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

If there should not be a quorum on the scheduled date of this meeting, all cases will be automatically continued to the next scheduled meeting on February 5, 2009. A continuance will not extend any time set forth herein.

#### **H. Waste Discharge Requirements Petitions**

Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

The mailing address of the State Water Board is the following:

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

#### **I. Information and Copying**

The Report of Waste Discharge (ROWD), related documents, tentative amendment to the waste discharge requirements, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576 – 6600.

#### **J. Register of Interested Persons**

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

### **K. Additional Information**

Requests for additional information or questions regarding this order should be directed to Rosario Aston at (213) 576-6653.

## **II. Introduction**

Magic Mountain, LLC, (Former Six Flags Theme Parks, Inc., Six Flags Magic Mountain) (hereinafter Discharger), discharges wastewater [i.e., pond drainage and overflow from the water attractions as well as lakes and ponds, midway (walkway throughout the park) wash-down operations, irrigation runoff, and storm water runoff] from the Six Flags Magic Mountain (Facility) to the Santa Clara River, a water of the United States, above the Estuary. Wastes discharged from the Facility are regulated by WDRs and an NPDES permit contained in Board Order No. 98-005 (NPDES Permit No. CA0003352). Order No. 98-005 expired on January 10, 2003.

The Discharger filed a Report of Waste Discharge (ROWD) and applied for renewal of its WDRs and a NPDES permit on November 15, 2002.

The Regional Board adopted Order No. R4-2005-0036 on June 2, 2005, for Six Flags Theme Park, Inc., dba Six Flags Magic Mountain for discharges of wastewater from the Six Flags Magic Mountain to Santa Clara River. This Order also serves as a permit under the National Pollutant Discharge Elimination System program.

On October 19, 2007, the Discharger submitted an updated ROWD to the Regional Board. The ROWD contained the name of the new owner/operator, an updated description of the Facility including the construction of a non-stormwater interceptor, and new Outfall locations/descriptions. The Outfall locations were changed because of safety concerns and access problems during sampling events. The ROWD also included the descriptions of the types of wastes discharged.

This Order is the amendment to the WDRs for the Six Flags Facility to reflect the information contained in the updated ROWD.

A NPDES permit compliance evaluation inspection (CEI) was conducted on March 25, 2004. The CEI also served as a site visit to observe operations, verify conditions, and collect additional data to develop permit limitations and conditions.

### **Description of Facility and Wastes Discharged**

The Discharger owns and operates the Six Flags Facility, an amusement park located at 26101 West Magic Mountain Parkway, Valencia, California. The amusement park consists of various rides, shows, landscaping, and water attractions, and occupies approximately 260 acres. The water attractions include various water fountains, features, rides, slides, and public swimming

facilities. The water in these attractions is either chlorinated or filtered through sand filters to protect public health. The filter backwash water is plumbed to the sanitary sewer.

To maintain the fresh water appearance of the water attractions, some of the water from each attraction is allowed to overflow and it is drained and subsequently replaced with drinking water supplied by the Valencia Water Company. The drainage/overflow, along with washdown water, some irrigation runoff and storm water runoff flow into the drain lines and to the Outfalls.

#### Non-stormwater Drain Interceptor

On March 12, 2007, the construction of a 24-inch drain bypass was completed. The drain bypass connects the flows from the two existing backbone drain lines (a 48-inch line along the east side of the park which currently discharges to Outfall 001, and a 24-inch line along the west side of the park which currently discharges to Outfall 002) to an existing open trapezoidal channel which runs along the westerly edge of the park to Outfall 003. The channel that discharges to Outfall 001 collects offsite storm water runoff from south of the park, and some minor drainage within the park.

The non-stormwater interceptor runs westerly through the existing parking lot. In addition to non-stormwater discharge, the 24-inch bypass pipe can also handle 10 percent of the 50-year storm event. Should a storm event exceed the design flows, or should there be any blockage in the interceptor, the non-stormwater and storm water runoff will continue to flow through Outfalls 001 and 002.

Magic Mountain, LLC discharges up to 1.52 million gallons per day (mgd) of wastewater, and up to 2.5 million gallons of storm water during storm events when the rainfall exceeds one inch, through Discharge Serial Nos. 001, 002, and 003 into a storm drain thence to the Santa Clara River, a water of the United States. The description wastewater discharged, and the Outfalls are the following:

1. Discharge Serial No. 001 – (Latitude 34° 25' 38.22" North, Longitude 118° 35' 31.74" West) (East Side Lakes and Ponds) discharges via a lined tributary to the Santa Clara River at a point located 2,300 feet downstream from the Golden State Freeway

Outfall 001 is an open channel which runs along the eastern side of the Facility. The discharge which consists of drainage and overflow from the water attractions in Hurricane Harbor as well as from lakes and ponds, surface water runoff from irrigation and midway (walkway throughout the park) washdown water, from the east side of the Facility, surface water from the main gate driveway, recreational vehicle (RV) parking, and east side general parking, and storm water runoff that flows through an underground pipe system beneath the Facility, then to Outfall 001. The discharge flows through a covered channel under the Facility access road and into an earthen ditch, a tributary to the Santa Clara River. The open channel also collects offsite storm water runoff.



Non-stormwater discharges are intercepted by the storm drain bypass system and diverted to Outfall 003. Therefore, during typical daily operations, only a negligible quantity of irrigation runoff downstream of the interceptor is discharged through Outfall 001.

The water attractions, lakes, and ponds located in the Outfall 001 tributary area, with water capacities of up to 1.4 million gallons, may be drained for cleaning or maintenance on an annual basis. These water attractions are not drained concurrently. The water that is drained from these water attractions during cleaning or maintenance is diverted to the storm drain bypass system and discharged to Outfall 003. During rain events when rainfall exceeds one inch, up to 1.0 mgd of storm water runoff is discharged through Outfall 001.

**2. Discharge Serial No. 002 - (Latitude 34° 25' 52.68" North, Longitude 118° 35' 46.38" West)**

Outfall 002 is a piped storm drain system that collects wastewater from the central and northern portion of the Facility and then discharges offsite between Outfalls 001 and 003 into an earthen ditch that drains toward the Santa Clara River. The wastewater consists of drainage and overflow from lakes, and ponds, surface water runoff from irrigation and midway washdown water, including portions of the backstage and parking lot, and storm water runoff from the northern area of the Facility.

Non-stormwater discharges are intercepted by the storm drain bypass system and diverted to Outfall 003. Therefore, during typical daily operations, there is no discharge from Outfall 002.

During rain events when rainfall exceeds one inch, up to 0.050 mgd of storm water runoff is discharged through Outfall 002.

**3. Discharge Serial No. 003 - (Latitude 34° 25' 51" North, Longitude 118° 35' 57.24" West)**

Outfall 003 is an open channel which runs along the western side of the Facility. The discharge through Outfall 003 is up to 1.3 mgd of non-stormwater, and up to 1.0 mgd of storm water runoff when rainfall exceeds one inch. The non-stormwater discharge consists of drainage and overflow from the water attractions, lakes and ponds, surface water runoff from irrigation and midway washdown water, including the overflow from backstage and employee parking lots, from the western area of the Facility. The open channel also collects offsite storm water runoff from the open space canyon areas to the south of the Facility, as well as non-stormwater discharge from Outfalls 001 and 002.

The total capacity of water attractions, including lakes and ponds, in the park including contributions from Outfall 001 and Outfall 002 tributary areas is 3.7 million gallons; individual water attractions may be periodically drained for cleaning or maintenance, typically once a year, and discharged to Outfall 003. Water attractions are not drained concurrently.

The discharge of lakes and ponds drainage from Discharge Serial Nos. 001 and 003 does not occur on the same day. The lakes and ponds may be drained for cleaning and repair during the months of January, May, and October, but not concurrently. Sediments and sludge resulting from lake and pond cleaning are hauled to a legal land disposal site.

The Facility disinfects the water used at the park with sodium hypochlorite solution. Muriatic acid (hydrochloric acid) is used to reduce the pH which increases the effectiveness of the sodium hypochlorite. The water in the swimming facilities is filtered and chlorinated to protect public health (Title 22 and Title 24 of California Department of Public Health). Detectable levels of residual chlorine are maintained in the water for incidental contact water attractions, lakes, and ponds.

Order No. R4-2005-0036 requires Magic Mountain, LLC to submit a report on various options for reuse of wastewater. The Discharger submitted a preliminary report dated December 5, 2005, that outlined the areas for potential reuse at the Facility.

Sanitary wastes are discharged to the municipal sanitary sewer system of the Los Angeles County Sanitation District.

The water supplied for use in the lakes, midway wash-down and irrigation purposes, is purchased from and treated by the Valencia Water Company with approximately eighty to ninety mg/L of chloride.<sup>1</sup>

Employee and guest parking areas, which encompass 84 acres, may contain oil and grease and may contaminate storm water runoff. Standard Operating Procedures (SOPs) are in place at Six Flags to prevent oil and grease from contaminating storm water runoff; all litter and spills in the guest areas, and employee and guest parking lots, are continuously removed and cleaned. Generally, the Discharger's personnel handpick and remove debris, and at the end of each business day, street sweepers clean the debris from the parking lots. The Discharger does not wash-down any of the parking lots.

As a regular course of operation, all litter and food/beverage related spills in the guest areas are continuously removed/cleaned before the wash-down within the park area occurs. The existing permit states that the quality of the midway wash-down is similar to that of the irrigation runoff.

In maintenance areas, another SOP and the Hazard Communication Plan provide protocols on managing all hazardous and/or non-hazardous material spills. According to these documents, all spills are addressed and resolved immediately to avoid trip and fall hazards.

The flow in the upper Santa Clara River is primarily comprised of discharges from the County Sanitation Districts of Los Angeles County's Saugus and Valencia Water Reclamation Plants

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<sup>1</sup> Provided by Perez Environmental, via e-mail, on June 8, 2004, on behalf of the Discharger.

(WRPs). The Valencia WRP's discharge enters between the Six Flags' outfalls and dominates the flow of the receiving water in the vicinity of the discharge from Six Flags.

Order No. 98-005 indicates that the Discharger agreed to investigate alternatives to using chlorine for water treatment because chlorine and its reaction products (including chloride) are toxic to aquatic life. As stated previously, the existing Order stated that chloride effluent limitation exceedances were a result of evaporation of the water in the lakes and ponds. In addition, high concentrations of chlorides as a result of drought in the Santa Clara River were raised as a concern in Resolution 97-02, *Amendment to the Water Quality Control Plan to Incorporate a Policy for Addressing Levels of Chloride in Discharges of Wastewaters*. According to the CEI that was conducted on March 25, 2004, the Discharger investigated other methods for disinfection and determined that using chlorine was the most cost effective treatment option. However, other options are being investigated which include drilling a new water supply well which would provide Six Flags with untreated water. Currently, water with a high chloride content is purchased from the Valencia Water Company and used throughout the facility. This may be the partial cause of elevated levels of chloride observed in the discharge.

Recently, Regional Board staff discovered an error in Order No. R4-2005-0036. Order No. R4-2005-0036 included effluent limits for total coliform and enterococcus, which were inadvertently based on the water quality objectives for Marine Waters Designated for Water Contact Recreation (REC-1) in the Water Quality Control Plan for the Los Angeles Region – June 13, 1994 (Basin Plan). The Facility discharges into the Santa Clara River, a freshwater body. Therefore, marine water quality objectives should not have been applied to the Facility's discharge. The bacterial limitations that are applicable to the Facility's discharges are based on the Fresh Water Designated for REC-1 in the Basin Plan for *E. coli* and fecal coliform. The fresh water quality objectives are the same as the marine waters objectives for fecal coliform. This Order implements the appropriate bacterial (i.e., fecal coliform and *E. coli*) limitations based on the fresh water bacteria objectives included in the Basin Plan.

The Monitoring and Reporting Program (Attachment T) of Order No. R4-2005-0036 has been revised to change the monitoring frequency of fecal coliform from quarterly to weekly, add weekly monitoring for the added *E. coli*, and delete the monitoring requirements for total coliform and enterococcus. The Basin Plan specified *Geometric Mean Limits* and the Implementation Provisions for REC-1 Bacteria Objectives which states that "The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period)". These revisions reflect the conditions specified in the Basin Plan. Since total coliform and enterococcus are not included in the Basin Plan's Fresh Water bacteria objectives, the effluent and receiving water monitoring requirements for these constituents have been deleted.

The Regional Board and the United States Environmental Protection Agency (U.S. EPA) have classified the Six Flags Facility as a major discharge.

The Discharger characterized the wastewater from NPDES Discharge Serial Nos. 001, 002, and 003 in the permit renewal application as follows:

Pollutant (units)	001		002		003	
	Reported Maximum Daily Value	Reported Average Value	Reported Maximum Daily Value	Reported Average Value	Reported Maximum Daily Value	Reported Average Value
Biochemical Oxygen Demand (BOD) <sup>1</sup> (mg/L)	<7	NR	<7	NR	<7	NR
BOD (lb/d)	NR	NR	NR	NR	NR	NR
Chemical Oxygen Demand (COD) (mg/L)	32	NR	32	NR	13	NR
COD (lb/d)	NR	NR	NR	NR	NR	NR
Total Organic Carbon (TOC) (mg/L)	4.6	NR	8.4	NR	4.9	NR
TOC (lb/d)	NR	NR	NR	NR	NR	NR
Total Suspended Solids (TSS) (mg/L)	34	14	94	39	56	19
TSS (lb/d)	NR	NR	NR	NR	NR	NR
Ammonia (as N) (mg/L)	0.32	NR	0.93	NR	0.26	NR
Ammonia (as N) (lb/d)	NR	NR	NR	NR	NR	NR
Flow (gpd)	500,000	173,000	15,000	4,000	600,000	243,000
Temperature (winter/summer) (°C)	21°/51°	35°/35°	21°/54°	35°/35°	11°/48°	30°/30°
pH (min./max.) (s.u.)	7.8 – 8.1	8.0 <sup>1</sup>	7.8 – 10.0	8.3 <sup>1</sup>	8.1 – 9.5	8.8 <sup>2</sup>
Total Residual Chlorine (mg/L)	0.1	<0.1	0.1	<0.1	0.1	<0.1
Oil and Grease (mg/L)	<5	<5	<5	<5	<5	<5
Sulfate (mg/L)	170	138	140	130	200	111

NR = Not Reported

<sup>1</sup> 5-day biochemical oxygen demand at 20°C

<sup>2</sup> Represents reported maximum 30-day values for pH.

In addition, the following data were provided in the permit renewal application:

Pollutant (units)	Reported Maximum Daily Value: 001	Reported Maximum Daily Value: 002	Reported Maximum Daily Value: 003
Boron (mg/L)	0.47	0.48	0.42
Chloride (mg/L)	94	78	110
Nitrate (mg/L)	3.3	3.2	2.0
Total Dissolved Solids (TDS) (mg/L)	730	710	850

All other pollutants listed in Section V, Part B of EPA Form 2C for Discharge Serial Nos. 001, 002 and 003 are marked "believed absent."

Effluent monitoring data from Discharge Serial Nos. 001, 002 and 003 were submitted with quarterly monitoring and annual reports for the period from January 1999 through June 2003. These data and existing effluent limitations are summarized below for each point of discharge:

Pollutant (units)	30-Day Average	Existing Maximum Daily Effluent Limitation (MDEL)	Reported Concentrations 001	Reported Concentrations 002	Reported Concentrations 003
pH (s.u.)	--	--	7.6 – 8.5	7.6 – 8.5	7.3 – 8.7
Temperature (°F)	--	--	47 – 77	44 – 73	37 – 80
Oil and Grease (mg/L)	10	15	<1 – 16	<1 – 1.8	<1 – 6.7
TSS (mg/L)	50	150	<10 – 91	<10 – 84	>10 – 300
TDS (mg/L)	--	1,000 <sup>1</sup>	500 – 790	360 – 1,000	590 – 1,100
Settleable Solids (ml/l)	0.1	0.3	<0.1 – 0.5	<0.1 – 0.2	<0.1 – 1.5
Sulfate (mg/L)	--	400 <sup>1</sup>	65 – 280	85 – 230	110 – 260
Chloride (mg/L)	--	175 <sup>1</sup>	62 – 170	49 – 360	110 – 390
Boron (mg/L)	--	1.5 <sup>1</sup>	0.23 – 4.3	0.26 – 0.74	0.3 – 0.6
Nitrate <sup>2</sup> (as N) (mg/L)	--	5 <sup>1</sup>	<0.11 – 3.9	0.46 – 4.4	0.42 – 5.2
Nitrite <sup>2</sup> (as N) (mg/L)	--	5 <sup>1</sup>	<0.15 – 3.1	<0.15 – <0.3	<0.15 – <1.5
Residual Chlorine (mg/L)	--	0.1	<0.1 – 4	<0.1 – 0.3	<0.1 – 0.2
Arsenic (µg/L)	--	50	<5 – 6.9	<5 – 6.6	<5 – 6.9
Cadmium (µg/L) <sup>3</sup>	--	5	<5	<5	<5
Chromium III (µg/L) <sup>3</sup>	--	50	<5	<5	<5
Copper (µg/L)	--	1,000	19 – 32	<10 – 18	42 – 240
Lead (µg/L) <sup>3</sup>	--	50	<5 – 85	<5	<5 – 78
Mercury (µg/L)	--	2	<0.2 – 0.2	<0.2 – 0.2	<0.2 – 0.22
Selenium (µg/L) <sup>3</sup>	--	10	<5	<5	<5
Silver (µg/L) <sup>3</sup>	--	50	<10	<10	<10
Acute Toxicity (% Survival)	--	4	0% – 100% <sup>5</sup>	100%	100%

"--" Indicates there are no average monthly effluent limitations contained in Order No. 98-005.

<sup>1</sup> These effluent limitations were based on the water quality objectives listed in the Basin Plan, page 3-12, between West Pier Highway 99 and Blue Cut Gaging Station. The Basin Plan objective for chloride is 100 mg/L but the effluent limitation was revised in the existing Order to 175 mg/L based on site conditions.

<sup>2</sup> Permitted limitations are for Nitrate + Nitrite (as N). The Discharger reported values for each pollutant separately.

<sup>3</sup> A range of values do not exist at each point of discharge for cadmium, chromium, lead, selenium and silver; all results were non-detect and therefore, the method detection limit (MDL) was selected and is denoted by "<." For all other CTR metals, a range of values were provided.

<sup>4</sup> Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.

<sup>5</sup> 0% survival was reported but it is believed that this was a typographical error.

**Compliance History**

A review of the effluent monitoring data for the period between the first Quarter 1999 through fourth Quarter 2004, indicated that the Discharger has had multiple exceedances of the existing effluent limitations for chloride, residual chlorine, lead, total dissolved solids, total suspended solids, and settleable solids. Further, the Discharger also has exceeded the effluent limitations once for oil and grease, boron, nitrogen (Nitrate + Nitrite), and during this monitoring period. The Table below shows exceedances of the effluent limitations:

Date	Monitoring Period	Violation Type	Pollutants	Reported Value	Permit Limitations	Units	Discharge Serial No.
3/1/2001	1 <sup>st</sup> Quarter, 2001	Daily Maximum	Oil and Grease	16	15	mg/L	001
2/28/2003	1 <sup>st</sup> Quarter, 2003	Daily Maximum	Chloride	180	175	mg/L	002
6/26/2003	2 <sup>nd</sup> Quarter, 2003	Daily Maximum	Chloride	360	175	mg/L	002
--	1 <sup>st</sup> Quarter, 1999	Daily Maximum	Chloride	200	175	mg/L	003
--	2 <sup>nd</sup> Quarter, 1999	Daily Maximum	Chloride	210	175	mg/L	003
--	2 <sup>nd</sup> Quarter, 2000	Daily Maximum	Chloride	250	175	mg/L	003
8/30/2000	3 <sup>rd</sup> Quarter, 2000	Daily Maximum	Chloride	290	175	mg/L	003
--	4 <sup>th</sup> Quarter, 2000	Daily Maximum	Chloride	300	175	Mg/L	003
5/31/2001	2 <sup>nd</sup> Quarter, 2001	Daily Maximum	Chloride	200	175	Mg/L	003
--	3 <sup>rd</sup> Quarter, 2001	Daily Maximum	Chloride	390	175	Mg/L	003
--	2 <sup>nd</sup> Quarter, 2002	Daily Maximum	Chloride	330	175	Mg/L	003
8/27/2002	3 <sup>rd</sup> Quarter, 2002	Daily Maximum	Chloride	210	175	Mg/L	003
9/18/2002	3 <sup>rd</sup> Quarter, 2002	Daily Maximum	Chloride	200	175	Mg/L	003
12/11/2002	4 <sup>th</sup> Quarter, 2002	Daily Maximum	Chloride	190	175	Mg/L	003
2/28/2003	1 <sup>st</sup> Quarter, 2003	Daily Maximum	Chloride	190	175	Mg/L	003
5/29/2004	2 <sup>nd</sup> Quarter 2004	Daily Maximum	Chloride	250	175	Mg/L	003
8/26/2004	3 <sup>rd</sup> Quarter 2004	Daily Maximum	Chloride	200	175	Mg/L	002
6/26/2003	2 <sup>nd</sup> Quarter 2003	Daily Maximum	Boron	4.3	1.5	Mg/L	001
--	4 <sup>th</sup> Quarter 2000	Daily Maximum	Nitrate + Nitrite	5.2	5	Mg/L	003
--	4 <sup>th</sup> Quarter 2000	Daily Maximum	Residual Chlorine	0.3	0.1	Mg/L	001
3/22/2002	1 <sup>st</sup> Quarter 2002	Daily Maximum	Residual Chlorine	4	0.1	Mg/L	001
3/22/2002	1 <sup>st</sup> Quarter 2002	Daily Maximum	Residual Chlorine	0.2	0.1	Mg/L	003
6/26/2003	2 <sup>nd</sup> Quarter 2003	Daily Maximum	Residual Chlorine	0.2	0.1	Mg/L	002
6/26/2003	2 <sup>nd</sup> Quarter 2003	Daily Maximum	Residual Chlorine	0.2	0.1	Mg/L	003
7/2003	3 <sup>rd</sup> Quarter 2003	Daily maximum	Residual Chlorine	0.27	0.1	Mg/L	001
7/2003	3 <sup>rd</sup> Quarter 2003	Daily maximum	Residual Chlorine	0.3	0.1	Mg/L	002
9/2/2003	3 <sup>rd</sup> Quarter 2003	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	003
5/29/2004	2 <sup>nd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	001
5/29/2004	2 <sup>nd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.4	0.1	Mg/L	002
6/2004	2 <sup>nd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	001
6/2004	2 <sup>nd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	002
6/2004	2 <sup>nd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	003
7/2004	3 <sup>rd</sup> Quarter 2004	Daily maximum	Residual Chlorine	1.2	0.1	Mg/L	001
7/2004	3 <sup>rd</sup> Quarter 2004	Daily maximum	Residual Chlorine	>5.5	0.1	Mg/L	002
7/2004	3 <sup>rd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.4	0.1	Mg/L	003
8/26/2004	3 <sup>rd</sup> Quarter 2004	Daily maximum	Residual Chlorine	>6	0.1	Mg/L	002
9/2004	3 <sup>rd</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.5	0.1	Mg/L	001

Date	Monitoring Period	Violation Type	Pollutants	Reported Value	Permit Limitations	Units	Discharge Serial No.
10/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	1.3	0.1	Mg/L	001
11/23/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.3	0.1	Mg/L	001
12/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	001
10/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	002
11/23/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	002
12/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.2	0.1	Mg/L	002
10/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	5.5	0.1	Mg/L	003
11/23/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.3	0.1	Mg/L	003
12/2004	4 <sup>th</sup> Quarter 2004	Daily maximum	Residual Chlorine	0.4	0.1	Mg/L	003
--	1 <sup>st</sup> Quarter, 1999	Daily Maximum	Lead	85	50	µg/L	001
--	1 <sup>st</sup> Quarter, 1999	Daily Maximum	Lead	78	50	µg/L	003
8/15/2001	3 <sup>rd</sup> Quarter 2001	Daily Maximum	Total Dissolved Solids	1,100	1,000	Mg/L	003
6/12/2002	2 <sup>nd</sup> Quarter 2002	Daily Maximum	Total Dissolved Solids	1,100	1,000	Mg/L	003
6/12/2002	2 <sup>nd</sup> Quarter 2002	Daily Maximum	Total Suspended Solids	300	150	Mg/L	003
8/26/2003	3 <sup>rd</sup> Quarter 2004	Daily maximum	Total Suspended solids	260	150	Mg/L	001
--	3 <sup>rd</sup> Quarter 1999	Daily Maximum	Settleable Solids	0.4	0.3	ml/L	001
8/15/2001	3 <sup>rd</sup> Quarter 2001	Daily Maximum	Settleable Solids	0.5	0.3	ml/L	001
6/12/2002	2 <sup>nd</sup> Quarter 2002	Daily Maximum	Settleable Solids	1.5	0.3	ml/L	003
9/2/2003	3 <sup>rd</sup> Quarter 2003	Daily Maximum	Settleable Solids	0.5	0.3	ml/L	001
8/26/2004	3 <sup>rd</sup> Quarter 2004	Daily Maximum	Settleable Solids	1.2	0.3	ml/L	001

On November 25, 2002, the Regional Board issued a Mandatory Administrative Civil Liability (ACL) in the amount of \$33,000 against the Discharger for exceedance of the effluent limitations for total dissolved solids (total dissolved solids), settleable solids, chloride, nitrate + nitrite, residual chlorine, and oil and grease during the monitoring period of second Quarter 2000 through third Quarter 2001. The Discharger waived its right to a hearing and paid the Regional Board \$33,000 on December 6, 2002, for all identified violations.

Three-hundred and eighteen (318) violations of Order Nos. 98-005, R4-2005-0036 and R4-2005-0043 were noted in the Discharger's self-monitoring reports during the periods June 2002 through November 2002, February 2003 through September 2003, May 2004 through June 2005, and July 2005 through August 2007. These violations include effluent limit exceedances for chloride, TDS, settleable solids, TSS, O&G, turbidity, BOD<sub>5</sub>, residual chlorine, copper, sulfate, and fecal coliform.

On May 15, 2008, the Chief Deputy Executive Officer issued a Notice of Violation to Magic Mountain, LLC (former Six Flags Theme Park Inc.) for violations of the waste discharge requirements contained in Order Nos. 98-005, R4-2005-0036, and R4-2005-0043 during the periods from second Quarter 2002 through fourth Quarter 2007. These violations include effluent limit exceedances for fecal coliform and other pollutants (i.e., chloride, total dissolved solids (TDS), settleable solids, total suspended solids (TSS), oil and grease, turbidity, biochemical oxygen demand (BOD), residual chlorine, copper, and sulfate), as well as reporting violations.

On September 5, 2008, the Chief Deputy Executive Officer issued Complaint No. R4-2008-0036 for Mandatory Minimum Penalties (MMPs) in the amount of \$945,000 for violations of the NPDES permit requirements. On October 6, 2008, the Discharger waived its right to a hearing and paid the recommended penalty for all identified violations.

Monitoring data submitted for Discharge Serial Nos. 001, 002, and 003 during the period from third Quarter 2005 through third Quarter 2007 indicated fecal coliform values ranging from 8 MPN/100ml to  $\geq 11,200$  MPN/100ml. The fecal coliform limits are 200 MPN/100ml for geometric mean and 400MPN/100ml for single maximum. In addition, the result of the analysis of one sample collected for E.coli during second Quarter 2007 monitoring indicated 900 MPN/100ml which exceeded the E. coli limits (i.e., geometric mean = 126 MPN/100ml; single maximum = 235 MPN/100ml).

The Discharger has made efforts to identify the source of the bacteria and to take corrective action to comply with the bacteria effluent limitations. In October 2007, the Discharger implemented high-pressure cleaning and disinfection of on-site drains and has included these corrective actions into their regular maintenance program. The disinfection of the on-site drains will be conducted bi-monthly and the high-pressure cleaning will be conducted annually or bi-annually, as determined by the results of sampling. Since the October 2007 implementation of these corrective actions, and other related measures, the Discharger has been in compliance with bacteria limitations. The monitoring reports submitted indicated fecal coliform concentrations of non-detect (ND) for the fourth quarter 2007, 14 MPN/100 ml for the first quarter 2008, and ND for second quarter 2008. There was no data reported for E.coli during these monitoring periods.

The Discharger is also considering the following possible actions to improve the quality of the wastewater discharged from the Facility and insure compliance with the permit limits:

- a. Construction of an ultra violet (UV) treatment plant that would divert water from the western channel prior to the Outfall 003 sampling location to an equalization basin. The water would then flow through filters and receive treatment by UV before being dechlorinated and discharged back to the channel.

### **Receiving Water Monitoring**

Order No. R4-2005-0036 requires the Discharger to submit receiving water data for two locations; R-1 and R-2. Station R-1 refers to a sample location on the Santa Clara River, located 300 feet upstream of Discharge Serial No. 001. Station R-2 refers to a sample location on the Santa Clara River, located downstream of Discharge Serial No. 003 where representative samples can be obtained. The existing Order states that the flow in the Upper Santa Clara River is primarily discharges from the County Sanitation Districts of Los Angeles County's Saugus and Valencia Water Reclamation Plants (WRPs). The Valencia WRP's discharges enter between the Six Flags' outfalls and dominates the discharges from Six Flags. Therefore, the Regional Board determined that sampling at the two locations, R-1 and R-2, was necessary. In response, the



Discharger provided quarterly Discharge Monitoring Reports (DMR) for the receiving water from January 1999 through June 2003 for both sampling stations.

### III. Applicable Plans, Policies, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

1. The Federal Clean Water Act (CWA). The Federal Clean Water Act requires that any point source discharges of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.
2. Code of Regulations, Title 40 (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations for certain pollutants discharged by the Discharger.
3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The beneficial uses listed in the Basin Plan for the Santa Clara River, above the Estuary (H.U. 403.51) are:

Existing Uses: Industrial service and process supplies, agricultural supply, groundwater recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, wildlife habitat, preservation of rare and endangered species, and wetland habitat.

Potential Uses: Municipal and domestic water supply.

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

5. The State Water Resources Control Board (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.
6. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR section 131.38]. In the CTR, the U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million ( $10^{-6}$ ) for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed five years from the date of permit renewal for an existing discharger, if the discharger demonstrates that it is infeasible to promptly comply with effluent limitations derived from the CTR criteria. CTR's Compliance Schedule provisions sunset on May 18, 2005. After this date, the provisions of the SIP allow for Compliance Schedules not to exceed five years from issuance or past May 1, 2011, whichever is sooner.
7. On March 2, 2000, 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). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and to the 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. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for fresh water or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of the Santa Clara River.
8. 40 CFR section 122.44(d)(1)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on U.S. EPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
9. State and Federal anti-backsliding and anti-degradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the water body will not be further degraded. The anti-backsliding provisions are specified in section 402(o) and 303(d)(4) of the CWA and in 40 CFR section 122.44(l). Those provisions require a reissued

permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

10. Effluent limitations are established in accordance with Parts 301, 304, 306, and 307 of the Federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Santa Clara River.
11. Existing waste discharge requirements are contained in Order No. 98-005, adopted by the Regional Board on January 26, 1998. Some of the permit conditions (e.g., effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over to the proposed Order.

#### **IV. Regulatory Basis for Effluent Limitations**

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

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

- 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 non-conventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, total suspended solids, total coliform, fecal coliform, enterococcus, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

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

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 of the NPDES regulations authorize the use of Best Professional Judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR section 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state's anti-degradation policy. For discharges from this facility to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by U.S. EPA through the CTR and NTR, as well as the Basin Plan.

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

#### 1. **Pollutants of Concern**

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective.

The existing Order (No. 98-005) authorizes discharges from drainage and overflow from the East and West Side Lakes and Ponds, midway wash-down, irrigation and storm water runoff. Effluent limitations apply to the three discharge locations Discharge Serial Nos. 001, 002, and 003. Order No. 98-005 established effluent limitations for oil and grease, total suspended solids, settleable solids, total dissolved solids, sulfate, chloride, boron, nitrate + nitrite (as N), residual chlorine, arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, and acute toxicity.

The Order establishes effluent limitations for discharges through Discharge Serial Nos. 001, 002, and 003 for oil and grease, total suspended solids, settleable solids, phenols, and turbidity because these pollutants have the potential to be present in storm water runoff in general, and from the midway wash-down water related to the rides, and the employee and guest parking areas. In addition, maintenance areas where heavy equipment is stored, such as bucket

loaders and backhoes, are also a potential source of contamination. Contaminants may be present in the discharge of storm water because storm water contacts the paved surface surrounding the facility, picking up solids and oil and grease. Drainage/overflow from the water attractions as well as lakes and ponds, irrigation run-off, midway (walkway throughout the park) washdown, and storm water run-off could also potentially contribute oil and grease, BOD, fecal coliform, and E.coli to the discharges. Monitoring data submitted for Discharge Serial Nos. 001, 002, and 003 during the period from third Quarter 2005 through third Quarter 2007 indicated fecal coliform values ranging from 8 MPN/100ml to  $\geq 11,200$  MPN/100ml. In addition, the result of the analysis of one sample collected for the recently added E. coli during second Quarter 2007 monitoring indicated 900 MPN/100ml. Therefore, these constituents are pollutants of concern.

Irrigation runoff may add solid materials, comprised of settleable solids, total suspended solids, and total dissolved solids which may include chloride, nitrate, and nitrite and other ions, to the discharge. In addition, chlorine is used as a disinfectant in the wash-down areas. Therefore, these constituents are considered pollutants of concern. Trace metals, such as arsenic, cadmium, chromium, copper, lead, mercury, selenium, and silver may also be present in the discharge because these pollutants have the potential to be present in the runoff from the midway wash-down water from rain water coming into contact with the midway rides. Therefore, metals are considered pollutants of concern.

As stated in the permit renewal application, EPA Form 2C, residual chlorine is added as a disinfectant to Discharge Serial Nos. 001 and 003. Further, the existing permit states that chlorine, muriatic acid, and soda ash are also used as disinfectants for Serial Discharge Nos. 001 and 003. As a result, these constituents may be present in discharge and are pollutants of concern. Treatment is not employed at Discharge Serial No. 002.

Storm water runoff from the facility may affect the pH and temperature of the discharge. Therefore, these parameters are considered pollutants of concern at the theme park.

Intermittent and continuous discharges may also carry pollutants that may contribute to acute and chronic toxicity. Therefore, toxicity is an indicator of pollutants of concern.

## 2. Technology-Based Effluent Limitations

The Order requires the Discharger to develop and implement a *Storm Water Pollution Prevention Plan* (SWPPP). A SWPPP outlines site-specific management processes for minimizing contamination from storm water runoff and for preventing contaminated storm water runoff from being discharged into surface waters. Discharges comprised of drainage and overflow from ponds and lakes, midway wash-down water, irrigation runoff, and storm water occur at the Magic Mountain theme park. As a result, the Order requires the Discharger to develop and implement a SWPPP and address storm water runoff and minimize pollutants from entering the Santa Clara River. The SWPPP should address specific areas of concern to

include, but not limited to, lakes, midways, and irrigated areas, to determine if additional controls are required to meet effluent limitations. In addition, the SWPPP must identify measures that can be implemented at each area of the theme park (e.g., East and West Side Lakes and Ponds) to prevent contaminated storm water from being discharged into the Santa Clara River.

National ELGs have not been developed for discharges from theme parks. Therefore, pursuant to 40 CFR Section 122.44(k), the Regional Board will require the Discharger to develop and implement *Best Management Practices* (BMPs) to be included in the SWPPP. The purpose of the BMPs is to establish site-specific procedures that ensure proper operation of the facility and maintenance of equipment. For instance, proper operation and maintenance procedures may address alternative methods for reducing chloride and residual chlorine levels, including other pollutants of concern in the wastewater, which will assist the facility in complying with effluent limitations for these pollutants. In the absence of established ELGs, the combination of the SWPPP and BMPs will serve as the equivalent of technology-based effluent limitations to carry out the purposes and intent of the CWA.

### 3. Water Quality-Based Effluent Limitations

As specified in 40 CFR section 122.44(d)(1)(i), Orders must include WQBELs for toxic 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 WQBELs 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 the U.S. EPA water quality criteria contained in the CTR and NTR. The procedures for determining reasonable potential for discharges from the Discharger, and if necessary for calculating WQBELs, are contained in the SIP.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95% or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95% or more of the time; and at salinities between 1 and 10 ppt, the more stringent of the two apply. The CTR criteria for fresh water or human health for consumption of organisms, whichever are more stringent, are used to prescribe the effluent limitations in the proposed Order to protect the beneficial uses of the Santa Clara River, in the vicinity of the discharges.

Certain CTR water quality criteria for metals are hardness dependent. However, there is insufficient data on CTR priority pollutants for the effluent and the receiving water. As a result, receiving water data from HR Textron, Inc. was used to conduct the RPA. HR Textron, Inc. is located in Santa Clarita, California, and also discharges effluent into the Santa Clara River near Six Flags. HR Textron's receiving water data from

November 28, 2001 and May 8, 2002, were used to conduct the RPA. A pH value of 7.21 s.u. and a hardness value of 300 mg/L CaCO<sub>3</sub> were used to determine certain fresh water criteria and to calculate WQBELs for certain metals. The lowest pH and hardness values represent the most conservative approach for establishing criteria and thus, were used in evaluating reasonable potential.

**(a) Reasonable Potential Analysis (RPA)**

In accordance with Section 1.3 of the SIP, the Regional Board conducts a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board analyzes effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have a reasonable potential, numeric WQBELs are required. The RPA considers water quality objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board must identify the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

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

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

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

RPA was performed for the priority pollutants for which effluent data were available. RPA was conducted using the data the monitoring data collected annually from 1999 through 2004 for Discharge Serial Nos. 001, 002, and 003. Based on the RPA, there is reasonable potential to exceed water quality criteria for copper, lead, and mercury at Discharge Serial Nos. 001 and 003. For Discharge Serial No. 002, mercury demonstrates reasonable potential to exceed water quality criterion. Thus, effluent limitations have been established for these pollutants that showed reasonable potential to

exceed state water quality standards. The RPA for Discharge Serial Nos. 001, 002, and 003 are provided as Attachments B, C and D, respectively. The proposed Order also includes comprehensive monitoring requirements to provide the data needed to complete an RPA for all of the priority pollutants.

Certain priority pollutants did not show reasonable potential based on available effluent data, therefore, effluent limitations for arsenic, cadmium, chromium, selenium, and silver, will not be established in the proposed Order. The removal of these effluent limitations is not considered backsliding because the current effluent monitoring data serve as "new information" that was not available at the time of the issuance of the previous permit. The Regional Board determines that the anti-backsliding exception for new information applies where new monitoring data indicate that the discharge of a pollutant does not have reasonable potential to cause or contribute to a water quality standards violation. However, this Order requires the Discharger to continue to monitor for these pollutants, to provide data to evaluate reasonable potential in the future.

This Order requires the Discharger to conduct monitoring for receiving water for priority pollutants annually to provide data for conduction of RPA in the future.

**(b) Calculating WQBELs**

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

- 1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
- 2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
- 3) Where sufficient effluent and receiving water data exist, use of a dynamic model which has been approved by the Regional Board.

**(c) Impaired Water Bodies on the 303 (d) List**

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.



The U.S. EPA has approved the State's 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in Los Angeles 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 303(d) list classifies the Santa Clara River as impaired. The Facility discharges within Reach 8 of the Santa Clara River. The pollutants of concern, detected in the water column include: chloride, high coliform count and nitrate + nitrite.

**(d) Whole Effluent Toxicity**

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 the short term and measures mortality. A chronic toxicity test is conducted over the long term and measures mortality, reproduction, and growth.

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

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements and the existing Order, the proposed Order will establish acute toxicity limitations and monitoring requirements.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the mean time, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the

Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar chronic toxicity effluent limitation. This Order also contains a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation.

Discharges from the Six Flags may contribute to long term toxic effects. However, no chronic toxicity data are available for the discharges. Therefore, in accordance with Section 4 of the SIP, the Discharger will be required to conduct chronic toxicity testing at Discharge Serial Nos. 001, 002, and 003. In addition, the Order includes a chronic testing trigger hereby defined as an exceedance of 1.0 toxic units chronic (TU<sub>c</sub>) in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU<sub>c</sub> in a critical life stage test.) If the chronic toxicity of the effluent exceeds 1.0 TU<sub>c</sub>, the Discharger will be required to immediately implement accelerated chronic toxicity testing according to *MRP*, Section IV.D.1. If the results of two of the six accelerated tests exceed 1.0 TU<sub>c</sub>, the Discharger shall initiate a toxicity identification evaluation (TIE).

#### 4. Specific Rationale for Each Numerical Effluent Limitation

Section 402(o) of the Clean Water Act and 40 section CFR 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. The Regional Board determined that, based on the RPA, reasonable potential exists for certain CTR metals. Therefore, the proposed Order establishes WQBEL-based limitations for certain CTR metals (e.g., copper, lead and mercury).

The requirements in the proposed Order for oil and grease, total suspended solids, settleable solids, total dissolved solids, sulfate, boron, nitrate + nitrite, residual chlorine, and acute toxicity for discharges (shown in the Table below) are primarily based on limitations specified in the Discharger's existing Order (No. 98-005). The effluent limitation for total suspended solids has been revised based on similar Orders for storm water and pond overflow discharges that have been recently adopted by the Regional Board. The effluent limitations for pH and temperature are based on the Basin Plan and Thermal Plan, respectively, and have been added to the proposed Order. The effluent limitations for fecal coliform and the recently added E.coli are based on the Fresh Water Designated for Water Contact Recreation (REC-1) in the Basin Plan. In addition, BOD, phenols, and turbidity have been added to the proposed Order based on BPJ and recently approved Orders for similar facilities. Because the conventional pollutant BOD is an indicator of the potential for a receiving water body to become depleted in oxygen, limits are included in NPDES permits. Water with high BOD and no means for rapidly replenishing the oxygen becomes depleted in oxygen and may become anaerobic and will not support aquatic life. Generally, a BOD of 5 mg/L in a slow-moving stream may be enough to produce anaerobic conditions, while a rapid mountain stream might be able to assimilate a BOD of 50 mg/L without appreciable oxygen

depletion. Therefore, a middle range of 20 mg/L as a monthly average limit, and 30 as a daily maximum limit, are considered to be protective of receiving waters based upon BPJ. BPJ is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limits are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for BPJ limits is found under section 401(a)(1) of the Clean Water Act and under 40 CFR 125.3.

The existing effluent limitation for chloride is set at 175 mg/L. The current Basin Plan water quality objective for chloride is 100 mg/L. This Order prescribed 100 mg/L and will stay in effect until the Chloride TMDL for the Santa Clara River, Resolution No. 04-004 (adopted on May 6, 2004, amending Resolution No. R03-008 adopted on July 10, 2003; amending Resolution No. 02-018 adopted on October 24, 2002), *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River (Chloride TMDL)*, is approved by U.S.EPA (i.e., the effective date of the TMDL). If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will remain in effect until revised by the Regional Board. (See Table below for details).

**Chloride Limitations for Discharge Serial Nos. 001, 002, and 003:**

Constituent	Units	Discharge Limitations	
		Monthly Average <sup>1/</sup>	Daily Maximum
Chloride	mg/L	100 <sup>2/</sup>	--
	mg/L	--	100 <sup>3/</sup>

<sup>1/</sup> The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken in that month, compliance shall be based on this sample result.

<sup>2/</sup> This is the water quality objective for chloride in the current Basin Plan. This effluent limitation applies immediately and will stay in effect until the Chloride TMDL for the Santa Clara River, Resolution No. 04-004 (adopted on May 6, 2004, amending Resolution No. R03-008 adopted on July 10, 2003; amending Resolution No. 02-018 adopted on October 24, 2002), *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River (Chloride TMDL)*, is approved by USEPA (i.e., the effective date of the TMDL). At that time, the effluent limitation accompanying table footnote [3] will be effective. If U.S. EPA does not approve the *Chloride TMDL*, this effluent limitation will remain in effect until revised by the Regional Board.

The following Table presents the effluent limitations and the specific rationales for pollutants that are expected to be present in the discharge.

(a) Effluent limitations established in the proposed Order are applicable for discharges from NPDES Discharge Serial No. 001 (Latitude 34° 25' 41" North; Longitude 118° 35' 27" West) and Discharge Serial No. 003 (Latitude 34° 25' 58" North; Longitude 118° 35' 52" West).

Pollutant (units)	Average Monthly Effluent Limitations <sup>1</sup>	Maximum Daily Effluent Limitations	Rationale <sup>2</sup>
PH (s.u.)	Between 6.5 – 8.5 <sup>3</sup>		BP
Temperature (°F)	86 <sup>3</sup>		TP
Biochemical Oxygen Demand (BOD) (mg/L)	20	30	BPJ
Total Suspended Solids (mg/L)	50	75	E, BPJ
Settleable Solids (ml/L)	0.1	0.3	E
Turbidity (NTU)	50	75	BPJ
Oil and Grease (mg/L)	10	15	E
Fecal Coliform (MPN/100ml)	4	4	BP
E. coli (MPN/100ml)	4	4	BP
Phenols (mg/L)	---	1.0	BPJ
Sulfate (mg/L)	--	400	BP, E
Total Dissolved Solids (mg/L)	--	1,000	BP, E
Boron (mg/L)	--	1.5	BP, E
Nitrate + Nitrite (as N) (mg/L)	--	5.0	BP, E
Residual Chlorine (mg/L)	--	0.1	E
Copper (µg/L) <sup>5</sup>	19.5	39.2	CTR, SIP
Lead (µg/L) <sup>5</sup>	10.5	21.2	CTR, SIP
Mercury (µg/L)	0.051	0.102	CTR, SIP
Acute Toxicity (% Survival)	<sup>6</sup>		BP
Chronic Toxicity (TU <sub>c</sub> )	<sup>7</sup>		BP, SIP

<sup>1</sup> The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken within that month, compliance shall be based on this sample result.

<sup>2</sup> BP = Basin Plan; E = Existing Permit (Order No. 98-005); BPJ = Best Professional Judgment is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limitations are established in cases in which effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for using BPJ limitations is found under section 401(a)(1) of the Clean Water Act and under 40 CFR section 125.3; CTR = California Toxic Rule; SIP = State Implementation Policy; TMDL = Total Maximum Daily Load; and TP = Thermal Plan.

- <sup>3</sup> The pH shall remain in this range at all times.  
For Temperature:

TP = Thermal Plan

The new temperature effluent limit is reflective of new information available which indicates that the 100°F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. The Basin Plan lists temperature requirements for the receiving waters. Temperature: This value represents an instantaneous maximum value, not to be exceeded at any time.

<sup>4</sup> **Bacterial Limitations:**

1. Geometric Mean Limits:

- a. E. coli density shall not exceed 126/100 ml.
- b. Fecal coliform density shall not exceed 200/100 ml.

2. Single Sample Maximum Limits:

- a. E. coli density shall not exceed 235/100 ml.
- b. Fecal coliform density shall not exceed 400/100 ml.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

If any of the single sample limits are exceeded, the Regional Board requires repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

- <sup>5</sup> Discharge for these metals are expressed as total recoverable.
- <sup>6</sup> Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.
- <sup>7</sup> This Order includes a chronic testing trigger defined as the monthly median for chronic toxicity of 100% effluent shall not exceed 1 TUc in a critical life stage test (more information can be found in Section I.B.3.b. of the proposed Order).

**(b) Effluent limitations established in the proposed Order are applicable for discharges from NPDES Discharge Serial No. 002 (Latitude 34° 30' 47" West; Longitude 118° 35' 38" North):**

Pollutant (units)	Average Monthly Effluent Limitations <sup>1</sup>	Maximum Daily Effluent Limitations	Rationale <sup>2</sup>
PH (s.u.)	Between 6.5 – 8.5 <sup>3</sup>		BP
Temperature (°F)	86 <sup>3</sup>		TP
Biochemical Oxygen Demand (BOD) (mg/L)	20	30	BPJ
Total Suspended Solids (mg/L)	50	75	E, BPJ
Settleable Solids (ml/L)	0.1	0.3	E
Turbidity (NTU)	50	75	BPJ
Oil and Grease (mg/L)	10	15	E
Fecal Coliform (MPN/100ml)	<sup>4</sup>	<sup>4</sup>	BP
E. coli (MPN/100ml)	<sup>4</sup>	<sup>4</sup>	BP
Phenols (mg/L)	--	1.0	BPJ
Sulfate (mg/L)	--	400	BP, E
Total Dissolved Solids (mg/L)	--	1,000	BP, E
Boron (mg/L)	--	1.5	BP, E
Nitrate + Nitrite (as N) (mg/L)	--	5.0	BP, E
Residual Chlorine (mg/L)	--	0.1	E
Copper (µg/L) <sup>5</sup>	19.5	39.2	CTR, SIP
Mercury (µg/L)	0.051	0.102	CTR, SIP
Acute Toxicity (% Survival)	<sup>6</sup>		BP
Chronic Toxicity (TU <sub>c</sub> )	<sup>7</sup>		BP, SIP

For footnotes, see above footnotes.

**(c) Interim Effluent Limitations and Compliance Schedule for Discharge Serial Nos. 001, 002, and 003**

Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated WQBELs indicates that the Discharger will not be able to achieve immediate compliance with the final effluent limitations established in the proposed Order for copper, lead, and mercury at Discharge Serial Nos. 001 and 003, and for mercury at Discharge Serial No. 002.

40 CFR section 131.38(e) provides conditions under which interim effluent limitations and compliance schedules may be issued. The CTR allows for a schedule of compliance not to exceed five years from the date of permit issuance for a point source discharge if the Discharger demonstrates that it is infeasible to promptly comply with effluent limitations derived from the CTR criteria. However, CTR's Compliance Schedule provisions sunset on May 18, 2005. After this date, the provisions of the SIP allow for Compliance Schedules not to exceed five years from issuance or past May 1, 2011, which ever is

sooner. Interim effluent limitations have been included in the Order for the following pollutants: (a) copper, lead, and mercury at Discharge Serial Nos. 001 and 003, and (b) mercury at Discharge Serial No. 002. The interim limits are based on the Facility's current treatment performance. During the compliance period, the Discharger shall comply with the interim effluent limits for the following pollutants: (a) copper, lead and mercury for Outfall 001 and 003; and (b) mercury for Outfall 002. The interim limits are applicable from the date of adoption of the Order through June 2, 2010, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

The Discharger may not be able to immediately comply with the final effluent limit for chloride. However, because the limit is a non-CTR-based limit, and because the TMDL does not provide an interim limit or waste load allocation (WLA) for this discharger, an interim limit must be included in a corresponding Time Schedule Order (TSO).

The Order requires the Discharger to develop a pollutant minimization plan and/or source control measures, and participate in the activities necessary to achieve the final effluent limitations.

The Discharger is required to submit annual progress reports to describe the progress of studies and or actions undertaken to reduce copper, lead, and mercury in the effluent, and to achieve compliance with the limitations in this Order by the deadline specified in provision I.B.5. The first annual progress report shall be received by the Regional Board at the same time the annual summary report is due, as required in section I.B of *MRP*.

From the effective date of this Order until June 2, 2010, the discharge from Discharge Serial Nos. 001, 002, and 003 in excess of the following interim effluent limitations is prohibited:

Pollutant (units)	Interim Maximum Daily Effluent Limitations (MDELS)			Rationale <sup>1</sup>
	Discharge Serial No. 001	Discharge Serial No. 002	Discharge Serial No. 003	
Copper <sup>2</sup> (µg/L)	32	--	240	MEC
Lead <sup>2</sup> (µg/L)	85	--	78	MEC
Mercury (µg/L)	0.21	0.25	0.22	MEC

<sup>1</sup> MEC = Maximum Effluent Concentration

<sup>2</sup> Discharge limitations for these metals are expressed as total recoverable.

## 5. Monitoring Requirements

The existing *MRP* requires monthly monitoring for total waste flow, temperature, pH, and residual chlorine. The *MRP* requires quarterly monitoring for oil and grease, settleable solids, total suspended solids, BOD, total dissolved solids, chloride, sulfate, nitrate + nitrite, and boron. In addition, the *MRP* requires annual monitoring for arsenic, cadmium, chromium, copper, lead, mercury, selenium, silver, and acute toxicity. The existing *MRP* also requires the Discharger to monitor receiving water for certain conventional and non-conventional pollutants at Station No. R-1, located 300 feet upstream of the Discharge Serial No. 001 and at Station R-2, located downstream of the Discharge Serial No. 003 where representative samples can be obtained. The two sampling stations were established because the Valencia WRP's discharges enter between the Six Flags' outfalls and dominate the discharges from Six Flags. Therefore, the Regional Board determined that sampling at the two locations, R-1 and R-2, was necessary to more accurately characterize the impact on receiving waters from Six Flags.

### (a) *Effluent Monitoring*

To demonstrate compliance with effluent limitations established in the permit for discharges through Discharge Serial Nos. 001, 002, and 003, the proposed Order carries over the requirement for monthly monitoring for total waste flow, temperature, and pH. Rainfall must also be monitored monthly. Quarterly monitoring requirements are carried over to the proposed Order for oil and grease, settleable solids, total suspended solids, BOD, total dissolved solids, sulfate, nitrate + nitrite, and boron. In addition, quarterly monitoring requirements are added to the proposed Order for turbidity and phenols.

As mentioned in the Findings, the monitoring frequency of fecal coliform has been changed from quarterly to weekly. Weekly monitoring for the recently added *E.coli* was also added in the monitoring requirements. The Basin Plan specified *Geometric Mean Limits* and the Implementation Provisions for REC-1 Bacteria Objectives which states that "The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period)". These revisions reflect the conditions specified in the Basin Plan. Since total coliform and enterococcus are not included in the Basin Plan's Fresh Water bacteria objectives, the effluent and receiving water monitoring requirements for these constituents are deleted in this amendment.

Monthly monitoring is established for chloride and residual chlorine in the proposed Order as a result of multiple non-compliance with effluent limitations (e.g., chloride = 16 exceedances and residual chlorine = 27 exceedances). Further, monthly monitoring is also required for lead, copper, and mercury because these pollutants showed reasonable potential to exceed water quality criterion based on the RPA.



Semiannual monitoring requirements are established in this Order for dissolved oxygen, arsenic, cadmium, chromium III, chromium VI, selenium, silver, and zinc to determine their presence in the effluent and to collect information to conduct the RPA in the future.

The proposed Order requires annual monitoring for acute and chronic toxicity to determine compliance with the acute toxicity effluent limitations and the chronic toxicity trigger.

The Discharger is required to collect samples for the remaining priority pollutants annually to determine the presence of these pollutants in the discharges and in the receiving water.

Monitoring for 2,3,7,8 – TCDD and 16 congeners is required and is described in more detail in Section V (d).

Effluent monitoring shall be conducted at the three effluent discharge points, Discharge Serial Nos. 001, 002, and 003.

**(b) Receiving Water Monitoring**

The existing MRP No. 6045, establishes receiving water sampling stations. These sampling locations will be carried over to the proposed Order. In addition, analyses are required via grab samples for pH, temperature, dissolved oxygen, residual chlorine, chloride, total dissolved solids, turbidity, and fecal coliform. E.coli has been added in the monitoring requirements. These monitoring requirements for R-1 and R-2 will also be carried over to the proposed Order and are as follows:

Pollutant	Units	Type of Sample	Minimum Frequency
PH	s.u.	Grab	Quarterly
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab	Quarterly
Salinity	g/L	Grab	Quarterly
Temperature	°F	Grab	Quarterly
Dissolved Oxygen	mg/L	Grab	Quarterly
Residual Chlorine	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Fecal Coliform	MPN/100ml	Grab	Quarterly
E. coli	MPN/100ml	Grab	Quarterly
Priority Pollutants	µg/L	Grab	Annually

For the receiving water monitoring for the priority pollutant, the Discharger may elect to enter into a collaborative receiving water sampling program with other dischargers if the point of discharge into the receiving water is shared by dischargers. By entering into a

collaborative sampling program, the Discharger is still required to submit receiving water data for pH, hardness, salinity, and all CTR priority pollutants to the Regional Board.

#### Receiving Water Observations

The receiving water monitoring program shall consist of periodic surveys of receiving water and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharge. General observations of the receiving water shall be made at each discharge point on a monthly basis and shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

1. Tidal stage, time, and date of monitoring
2. Weather conditions
3. Color of water
4. Appearance of oil films or grease, or floatable materials
5. Extent of visible turbidity or color patches
6. Direction of tidal flow
7. Description of odor, if any, of the receiving water
8. Presence and activity of California Least Tern and California Brown Pelican.

#### **(c) Effluent and Receiving Water Monitoring for TCDD Equivalents**

the Discharger is also required to conduct effluent and receiving water monitoring for the presence of the 2,3,7,8-TCDD (or Dioxin) and the 16 congeners. The monitoring shall be grab samples from Discharge Serial Nos. 001, 002, and 003 and from the receiving water locations, as described in Section VI of the *MRP*, conducted semiannually during the first year of the permit.





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CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS				AQUATIC LIFE CALCULATIONS							LIMITS		Recommendation	Comment
			Organisms only				Saltwater / Freshwater / Basin Plan							Lowest AMEL	Lowest MDEL		
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99	MDEL aq life				
1	Antimony	Ud, no effluent data & B is ND														No Limit	
2	Arsenic	Ud,MEC-C & B is ND														No Limit	
3	Beryllium	No Criteria														No Limit	
4	Cadmium	Ud,MEC-C & B is ND														No Limit	
5a	Chromium (III)	MEC-C & B-C														No Limit	
5b	Chromium (VI)	Ud, no effluent data & B is ND														No Limit	
6	Copper	MEC-C	2.01	2.01		0.32	12.65	0.53	12.58	6.79	1.55	19.53	3.11	39.17766	39.18	No Limit	
7	Lead	MEC-C	2.01	2.01		0.32	106.01	0.53	6.79	6.79	1.55	10.55	3.11	21.15758	21.16	No Limit	
8	Nickel	MEC-C	0.051	2.01	0.10232						1.55		3.11	0.031	0.102	No Limit	
9	Selenium	Ud, effluent data and B are N														No Limit	
10	Silver	Ud,MEC-C & B is ND														No Limit	
12	Tellurium	Ud, no effluent data & B is ND														No Limit	
13	Zinc	no effluent data & B-C														No Limit	
14	Cyanide	Ud, no effluent data & B is ND														No Limit	
15	Asbestos	No Criteria														No Limit	
16	2,3,7,8 TCDD	no effluent data & no B														No Limit	
17	Aroclor	Ud, no effluent data & B is ND														No Limit	
18	Aroclor 1248	Ud, no effluent data & B is ND														No Limit	
19	Benzo(a)anthracene	Ud, no effluent data & B is ND														No Limit	
20	Bromoforn	Ud, no effluent data & B is ND														No Limit	
21	Carbon Tetrachloride	Ud, no effluent data & B is ND														No Limit	
22	Chlorobenzene	Ud, no effluent data & B is ND														No Limit	
23	Chlorodibromomethane	Ud, no effluent data & B is ND														No Limit	
24	Chloroethane	Ud, no effluent data & B is ND														No Limit	
25	2-Chloroethylvinyl ether	No Criteria														No Limit	
26	Chloroform	No Criteria														No Limit	
27	Dichlorobromomethane	Ud, no effluent data & B is ND														No Limit	
28	1,1-Dichloroethane	No Criteria														No Limit	
29	1,2-Dichloroethane	Ud, no effluent data & B is ND														No Limit	
30	1,1-Dichloroethylene	Ud, no effluent data & B is ND														No Limit	
31	1,2-Dichloropropane	Ud, no effluent data & B is ND														No Limit	
32	1,3-Dichloropropene	Ud, no effluent data & B is ND														No Limit	
33	Ethylbenzene	Ud, no effluent data & B is ND														No Limit	
34	Methyl Bromide	Ud, no effluent data & B is ND														No Limit	
35	Methyl Chloride	No Criteria														No Limit	
36	Methylene Chloride	Ud, no effluent data & B is ND														No Limit	
37	1,1,2,2-Tetrachloroethane	Ud, no effluent data & B is ND														No Limit	
38	Telachloroethylene	Ud, no effluent data & B is ND														No Limit	
39	Toluene	Ud, no effluent data & B is ND														No Limit	
40	1,2-Trans-Dichloroethylene	Ud, no effluent data & B is ND														No Limit	
41	1,1,1-Trichloroethane	No Criteria														No Limit	
42	1,1,1-Trichloroethylene	Ud, no effluent data & B is ND														No Limit	
43	Trichloroethylene	Ud, no effluent data & B is ND														No Limit	
44	Vinyl Chloride	Ud, no effluent data & B is ND														No Limit	
45	2-Chlorophenol	Ud, no effluent data & B is ND														No Limit	
46	2,4-Dichlorophenol	Ud, no effluent data & B is ND														No Limit	
47	2,4-Dimethylphenol	Ud, no effluent data & B is ND														No Limit	
48	4-β-amino-o-resol (aka2-methyl-4-β-Dinitrophenol)	Ud, no effluent data & B is ND														No Limit	
49	2,4-Dinitrophenol	Ud, no effluent data & B is ND														No Limit	
50	4-Nitrophenol	No Criteria														No Limit	
51	3-Methyl-4-Chlorophenol (aka p-chloro-m-tesol)	No Criteria														No Limit	
52	Pentachlorophenol	Ud, no effluent data & B is ND														No Limit	
53	Phenol	Ud, no effluent data & B is ND														No Limit	
54	2,4,6-Trichlorophenol	Ud, no effluent data & B is ND														No Limit	
55	Acenaphthylene	Ud, no effluent data & B is ND														No Limit	
56	Acenaphthylene	No Criteria														No Limit	
57	Anthracene	Ud, no effluent data & B is ND														No Limit	
58	Benzidine	Ud, no effluent data & B is ND														No Limit	
59	Benz(a)Anthracene	Ud, no effluent data & B is ND														No Limit	
60	Benz(a)Pyrene	Ud, no effluent data & B is ND														No Limit	
61	Benz(b)Fluoranthene	Ud, no effluent data & B is ND														No Limit	
62	Benzofluoranthene	Ud, no effluent data & B is ND														No Limit	

CTR#	HUMAN HEALTH CALCULATIONS				AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment		
	Parameters	Reason	Organisms only		ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99	MDEL aq life			Lowest AMEL	MDEL
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier												
63	Benzofluorone	No Criteria													No Limit	
64	Benzofluorone	Ud, no effluent data & B is NI													No Limit	
65	Bis(2-Chloroethoxy)Methane	No Criteria													No Limit	
66	Bis(2-Chloroethyl)Ether	Ud, no effluent data & B is NI													No Limit	
67	Bis(2-Chloroisopropyl)Ether	Ud, no effluent data & B is NI													No Limit	
68	Bis(2-Ethylhexyl)Phthalate	Ud, no effluent data & B is NI													No Limit	
69	4-Bromophenyl Phenyl Ether	No Criteria													No Limit	
70	Bis(2-Ethylhexyl)Phthalate	Ud, no effluent data & B is NI													No Limit	
71	2-Chlorophenyl Phthalate	Ud, no effluent data & B is NI													No Limit	
72	4-Chlorophenyl Phthalate	No Criteria													No Limit	
73	Chrysene	Ud, no effluent data & B is NI													No Limit	
74	Dibenz(a,h)Anthracene	Ud, no effluent data & B is NI													No Limit	
75	1,2-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
76	1,3-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
77	1,4-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
78	3,3-Dichlorobenzidine	Ud, no effluent data & B is NI													No Limit	
79	Diallyl Phthalate	Ud, no effluent data & B is NI													No Limit	
80	Dimethyl Phthalate	Ud, no effluent data & B is NI													No Limit	
81	Di-n-Butyl Phthalate	Ud, no effluent data & B is NI													No Limit	
82	2,4-Dinitrotoluene	No Criteria													No Limit	
83	2,6-Dinitrotoluene	No Criteria													No Limit	
84	Di-n-Octyl Phthalate	No Criteria													No Limit	
85	1,2-Diphenylhydrazine	Ud, no effluent data & B is NI													No Limit	
86	Fluorene	Ud, no effluent data & B is NI													No Limit	
87	Fluoranthene	Ud, no effluent data & B is NI													No Limit	
88	Hexachlorobenzene	Ud, no effluent data & B is NI													No Limit	
89	Hexachlorobutadiene	Ud, no effluent data & B is NI													No Limit	
90	Hexachlorocyclopentadiene	Ud, no effluent data & B is NI													No Limit	
91	Hexachloroethane	Ud, no effluent data & B is NI													No Limit	
92	Indeno(1,2,3-cd)Pyrene	Ud, no effluent data & B is NI													No Limit	
93	Isophorene	Ud, no effluent data & B is NI													No Limit	
94	Naphthalene	No Criteria													No Limit	
95	Nitrobenzene	Ud, no effluent data & B is NI													No Limit	
96	N-Nitrosodimethylamine	Ud, no effluent data & B is NI													No Limit	
97	N-Nitrosodipropylamine	Ud, no effluent data & B is NI													No Limit	
98	N-Nitrosodiphenylamine	Ud, no effluent data & B is NI													No Limit	
99	Phenanthrene	No Criteria													No Limit	
100	Pyrene	Ud, no effluent data & B is NI													No Limit	
101	1,2,4-Trichlorobenzene	No Criteria													No Limit	
102	Aldrin	Ud, no effluent data & B is NI													No Limit	
103	alpha-BHC	Ud, no effluent data & B is NI													No Limit	
104	beta-BHC	Ud, no effluent data & B is NI													No Limit	
105	gamma-BHC	Ud, no effluent data & B is NI													No Limit	
106	delta-BHC	No Criteria													No Limit	
107	Chlordane	Ud, no effluent data & B is NI													No Limit	
108	4,4'-DDE	Ud, no effluent data & B is NI													No Limit	
109	4,4'-DDD	Ud, no effluent data & B is NI													No Limit	
110	4,4'-DDE	Ud, no effluent data & B is NI													No Limit	
111	Chlordin	Ud, no effluent data & B is NI													No Limit	
112	alpha-Endosulfan	Ud, no effluent data & B is NI													No Limit	
113	beta-Endosulfan	Ud, no effluent data & B is NI													No Limit	
114	Endosulfan Sulfate	Ud, no effluent data & B is NI													No Limit	
115	Endrin	Ud, no effluent data & B is NI													No Limit	
116	Endrin Aldehyde	Ud, no effluent data & B is NI													No Limit	
117	Heptachlor	Ud, no effluent data & B is NI													No Limit	
118	Heptachlor Epoxide	Ud, no effluent data & B is NI													No Limit	
119-129	PCBs xxiii	Ud, no effluent data & B is NI													No Limit	
126	Toxaphene	Ud, no effluent data & B is NI													No Limit	

THIS IS AN OUTPUT PAGE. NO INPUT NECESSARY.

CTR#	Parameters	Units	CV	MEC	Municipal Only	Freshwater		Saltwater		Human Health for consumption of: 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)?	Enter the pollutant B max conc (ug/L)	If all B is MDL > C?	If B < C, effluent limit required	Tier 3 - other Info. ?	RPA Result - Need Limit?
						C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot												
1	Arsimony	ug/L	0.6	6.6	0.00	0.00	0.00	0.00	4300.00	4300.00	4300.00	No	No	Y	Y	2.09	No	No	No	No	
2	Arsenic	ug/L	0.6	6.6	0.00	0.00	340.00	150.00	No Criteria	Narrative	No Criteria	No	No	No	Y	3.08	No	No	No	No	
3	Beryllium	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No	No	Y	Y	0.18	No	No	No	No	
4	Cadmium	ug/L	0.6	5	0.00	0.00	15.60	5.83	508.97	508.97	508.97	No	No	Y	Y	0.35	No	No	No	No	
5a	Chromium (III)	ug/L	0.6	5	0.00	0.00	4270.12	508.97	Narrative	Narrative	Narrative	No	No	Y	Y	10	No	B < C, Step 7	No	No	
5b	Chromium (VI)	ug/L	0.6	5	0.00	0.00	16.29	11.43	23.85	23.85	23.85	No	No	Y	Y	0.11	No	B < C, Step 7	No	No	
6	Copper	ug/L	0.6	18	0.00	0.00	39.41	23.85	23.85	23.85	23.85	No	No	Y	Y	12.8	No	B < C, Step 7	No	No	
7	Lead	ug/L	0.6	5	0.00	0.00	330.60	12.88	12.88	12.88	12.88	No	No	Y	Y	2.36	No	No	No	No	
8	Mercury	ug/L	0.6	0.25	0.00	0.00	Reserved	Reserved	0.05	0.05	0.05	No	No	Y	Y	0.01	No	No	No	No	
9	Nickel	ug/L	0.6	10	0.00	0.00	1188.44	132.13	132.13	132.13	132.13	No	No	Y	Y	15.6	No	B < C, Step 7	Yes	Yes	
10	Selenium	ug/L	0.6	10	0.00	0.00	20.00	5.00	5.00	5.00	5.00	No	No	Y	Y	2.95	No	No	No	No	
11	Silver	ug/L	0.6	10	0.00	0.00	26.86	6.30	6.30	6.30	6.30	No	No	Y	Y	2.33	No	No	No	No	
12	Thallium	ug/L	0.6	10	0.00	0.00	303.94	303.94	303.94	303.94	303.94	No	No	Y	Y	47.7	No	B < C, Step 7	No	No	
13	Zinc	ug/L	0.6	10	0.00	0.00	22.00	5.20	5.20	5.20	5.20	No	No	Y	Y	23.5	No	No	No	No	
14	Cyanide	ug/L	0.6	10	0.00	0.00	22.00	5.20	5.20	5.20	5.20	No	No	Y	Y	23.5	No	No	No	No	
15	Asbestos	Fibers/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No	No	Y	Y	23.5	No	No	No	No	
16	2,3,7,8 TCDD	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No	No	Y	Y	23.5	No	No	No	No	
17	Acrolein	ug/L	0.6	10	0.00	0.00	780.00	780.00	780.00	780.00	780.00	No	No	Y	Y	8.7	No	No	No	No	
18	Acrylonitrile	ug/L	0.6	10	0.00	0.00	0.68	0.68	0.68	0.68	0.68	No	No	Y	Y	2.1	No	No	No	No	
19	Benzene	ug/L	0.6	10	0.00	0.00	71.00	71.00	71.00	71.00	71.00	No	No	Y	Y	0.3	No	No	No	No	
20	Biomolam	ug/L	0.6	10	0.00	0.00	360.00	360.00	360.00	360.00	360.00	No	No	Y	Y	0.9	No	No	No	No	
21	Carbon Tetrachloride	ug/L	0.6	10	0.00	0.00	4.40	4.40	4.40	4.40	4.40	No	No	Y	Y	0.4	No	No	No	No	
22	Chlorobenzene	ug/L	0.6	10	0.00	0.00	21000.00	21000.00	21000.00	21000.00	21000.00	No	No	Y	Y	0.2	No	No	No	No	
23	Chloroethene	ug/L	0.6	10	0.00	0.00	34.00	34.00	34.00	34.00	34.00	No	No	Y	Y	0.3	No	No	No	No	
24	Chloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
25	2-Chloroethyl vinyl ether	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
26	Chloroform	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
27	Dichlorodimethyl ether	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
28	1,1-Dichloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
29	1,2-Dichloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
30	1,1-Dichloroethylene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
31	1,2-Dichloroethylene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.3	No	No	No	No	
32	1,3-Dichloropropane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.4	No	No	No	No	
33	1,1-Dichloroethene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.44	No	No	No	No	
34	1,1,1-Trichloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.2	No	No	No	No	
35	1,1,2-Trichloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.8	No	No	No	No	
36	Methyl Chloride	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.9	No	No	No	No	
37	Methylene Chloride	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.7	No	No	No	No	
38	1,1,2,2-Tetrachloroethane	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.7	No	No	No	No	
39	Tetrahydrofuran	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.2	No	No	No	No	
40	1,2-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.2	No	No	No	No	
41	1,1,1-Trichloroethene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.6	No	No	No	No	
42	1,1,2-Trichloroethene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.6	No	No	No	No	
43	Trichloroethylene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.5	No	No	No	No	
44	Vinyl Chloride	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.4	No	No	No	No	
45	2-Chlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.1	No	No	No	No	
46	2,4-Dichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.5	No	No	No	No	
47	2,4-Dimethylphenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.6	No	No	No	No	
48	4,6-dimethyl-o-resol (pka2)	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	9.6	No	No	No	No	
49	methyl-1,6-Dinitrophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	9.6	No	No	No	No	
50	2-Nitrophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.3	No	No	No	No	
51	4-Nitrophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.7	No	No	No	No	
52	3-Methyl-4-Chlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	2.5	No	No	No	No	
53	(aka p-chloro-m-resol)	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.7	No	No	No	No	
54	Penta-chlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	2.3	No	No	No	No	
55	2,4,6-Trichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.9	No	No	No	No	
56	2,4,6-Trichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	2	No	No	No	No	
57	Acenaphthene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.9	No	No	No	No	
58	Acenaphthylene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.9	No	No	No	No	
59	Anthracene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	1.2	No	No	No	No	
60	Benz(a)Anthracene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	24.5	No	No	No	No	
61	Benz(b)Fluoranthene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.9	No	No	No	No	
62	Benz(g)Fluoranthene	ug/L	0.6	No Criteria	0.00	0.00	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No	No	Y	Y	0.7	No	No	No	No	

CTR#	Parameters	Units	CV	MEC	Beta Plan Municipal Only		CTR Water Quality Criteria (ug/L)		Human Health for consumption of:		REASONABLE POTENTIAL ANALYSIS (RPA)								
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-defects (Y/N)?	If all B data points ND Enter the detection limit (MDL)	Enter the pollutant B max conc (ug/L)	If B is ND, is MDL > C7	If B>C, effluent limit required	Tier 3 - other info.?
63	Benzofluoranthene	ug/L	0.6	No Criteria	0.00	MCI	0.00	0.00	0.0498	0.0498	Y	Y	0.9	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
64	Benzofluoranthene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0498	0.0498	0.0498	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria	0.00	0.00	0.00	1.40	1.40	1.40	Y	Y	6.9	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	No Criteria	0.00	0.00	0.00	170000.00	170000.00	170000.00	Y	Y	1.3	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
67	Bis(2-Chloroisopropyl)Ethel	ug/L	0.6	No Criteria	0.00	0.00	0.00	5.90	5.90	5.90	Y	Y	0.9	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
68	Bis(2-Ethylhexoxy)Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	5200.00	5200.00	5200.00	Y	Y	1.4	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
69	4-Bromophenyl Phenyl Ethyl Ether	ug/L	0.6	No Criteria	0.00	0.00	0.00	4300.00	4300.00	4300.00	Y	Y	0.8	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
70	Butylbenzyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0498	0.0498	0.0498	Y	Y	1.8	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
71	2-Chloronaphthalene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0498	0.0498	0.0498	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
72	4-Chlorophenyl Phenyl Ethyl Ether	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0498	0.0498	0.0498	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
73	Chrysene	ug/L	0.6	No Criteria	0.00	0.00	0.00	17000.00	17000.00	17000.00	Y	Y	1.79	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
74	Dibenzofluoranthene	ug/L	0.6	No Criteria	0.00	0.00	0.00	2600.00	2600.00	2600.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
75	1,2-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	2600.00	2600.00	2600.00	Y	Y	1.9	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
76	1,3-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0770	0.0770	0.0770	Y	Y	4.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
77	1,4-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	2900000.00	2900000.00	2900000.00	Y	Y	0.9	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
78	3,3-Dichlorobenzidine	ug/L	0.6	No Criteria	0.00	0.00	0.00	12000.00	12000.00	12000.00	Y	Y	1.2	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
79	Diethyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	2900000.00	2900000.00	2900000.00	Y	Y	1.4	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
80	Dimethyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	9.10	9.10	9.10	Y	Y	1.2	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
81	D-n-Butyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.540	0.540	0.540	Y	Y	0.7	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
82	2,4-Dinitrotoluene	ug/L	0.6	No Criteria	0.00	0.00	0.00	370.00	370.00	370.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria	0.00	0.00	0.00	14000.00	14000.00	14000.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
84	D-n-Octyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00077	0.00077	0.00077	Y	Y	1.6	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
85	1,2-Diphenylhydrazine	ug/L	0.6	No Criteria	0.00	0.00	0.00	50.00	50.00	50.00	Y	Y	5.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
86	Fluoranthene	ug/L	0.6	No Criteria	0.00	0.00	0.00	17000.00	17000.00	17000.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
87	Hochlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	8.90	8.90	8.90	Y	Y	0.8	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
88	Hochlorobutadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0498	0.0498	0.0498	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
89	Hochchlorocyclopentadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	600.00	600.00	600.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
90	Hochchlorocyclopentadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	1900.00	1900.00	1900.00	Y	Y	7.8	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
91	Hexachlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	8.10	8.10	8.10	Y	Y	3.4	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
92	Hexachlorocyclopentadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	1.40	1.40	1.40	Y	Y	1.6	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
93	Indene (1,2,3-cd)Pyrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	16.00	16.00	16.00	Y	Y	1.3	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
94	Isophorone	ug/L	0.6	No Criteria	0.00	0.00	0.00	11000.00	11000.00	11000.00	Y	Y	1.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
95	Naphthalene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0014	0.0014	0.0014	Y	Y	1.8	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
96	N-Nitrosodimethylamine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.01300	0.01300	0.01300	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
97	N-Nitrosodipropylamine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.046	0.046	0.046	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
98	N-Nitrosodipropylamine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.053	0.053	0.053	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
99	Phenanthrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00059	0.00059	0.00059	Y	Y	0.17	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
100	Pyrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00059	0.00059	0.00059	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	3.00	3.00	3.00	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
102	Alkyl BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.95	0.95	0.95	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
103	alpha-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
104	beta-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
105	gamma-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
106	delta-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.03	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
107	Chlordane	ug/L	0.6	No Criteria	0.00	0.00	0.00	2.40	2.40	2.40	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
108	4,4'-DDT	ug/L	0.6	No Criteria	0.00	0.00	0.00	1.10	1.10	1.10	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
109	4,4'-DDE	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
110	4,4'-DDD	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00	0.00	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
111	Dieldrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.24	0.24	0.24	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
112	alpha-Endosulfan	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.22	0.22	0.22	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
113	beta-Endosulfan	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.22	0.22	0.22	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
114	Endosulfan Sulfate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.09	0.09	0.09	Y	Y	0.02	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
115	Endrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.81	0.81	0.81	Y	Y	0.01	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
116	Endrin Aldehyde	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0021	0.0021	0.0021	Y	Y	0.01	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
117	Heptachlor	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0011	0.0011	0.0011	Y	Y	0.01	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
118	Heptachlor Epoxide	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.0017	0.0017	0.0017	Y	Y	0.1	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
119	1,2,3,4-TCDF	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00075	0.00075	0.00075	Y	Y	0.01	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo
120	Toxaphene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00075	0.00075	0.00075	Y	Y	0.01	N	No Criteria	No Criteria	No Criteria	No Criteria	Uo



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CTR#	Parameters	Roscon Ud, no effluent data & B is NI Ud,MEC-C & B is ND No Criteria Ud,MEC-C & B is ND MEC-C & B-C Ud, no effluent data & B is NI MEC-C & B-C Ud,MEC-C & B is ND MEC-C	HUMAN HEALTH CALCULATIONS Organisms only				AQUATIC LIFE CALCULATIONS Saltwater / Freshwater / Basin Plan				LIMITS		Recommendation	Comment	
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99			MDEL aq lflc
1	Antimony	Ud, no effluent data & B is NI												No Limit	
2	Arsenic	Ud,MEC-C & B is ND												No Limit	
3	Beryllium	No Criteria												No Limit	
4	Cadmium	Ud,MEC-C & B is ND												No Limit	
5a	Chromium (III)	MEC-C & B-C												No Limit	
5b	Chromium (VI)	Ud, no effluent data & B is NI												No Limit	
6	Copper	MEC-C & B-C												No Limit	
7	Lead	Ud,MEC-C & B is ND												No Limit	
8	Mercury	MEC-C							1.55					No Limit	
9	Nickel	no effluent data & B-C	0.051	2.01	0.10232									No Limit	
10	Selenium	Ud, effluent data and B are N												No Limit	
11	Silver	Ud,MEC-C & B is ND												No Limit	
12	Tellurium	Ud, no effluent data & B is NI												No Limit	
13	Zinc	no effluent data & B-C												No Limit	
14	Cyanide	Ud, no effluent data & B is NI												No Limit	
15	Asbestos	No Criteria												No Limit	
16	2,3,7,8 TCDD	no effluent data & no B												No Limit	
17	Acrolein	Ud, no effluent data & B is NI												No Limit	
18	Acrylonitrile	Ud, no effluent data & B is NI												No Limit	
19	Benzene	Ud, no effluent data & B is NI												No Limit	
20	Bromoform	Ud, no effluent data & B is NI												No Limit	
21	Carbonyl Sulfide	Ud, no effluent data & B is NI												No Limit	
22	Chlorobenzene	Ud, no effluent data & B is NI												No Limit	
23	Chloroethene	Ud, no effluent data & B is NI												No Limit	
24	Chloroethane	No Criteria												No Limit	
25	2-Chloroethylvinyl ether	No Criteria												No Limit	
26	Chloroform	No Criteria												No Limit	
27	Dichlorobromomethane	Ud, no effluent data & B is NI												No Limit	
28	1,1-Dichloroethane	No Criteria												No Limit	
29	1,2-Dichloroethane	Ud, no effluent data & B is NI												No Limit	
30	1,1-Dichloroethylene	Ud, no effluent data & B is NI												No Limit	
31	1,2-Dichloropropane	Ud, no effluent data & B is NI												No Limit	
32	1,3-Dichloropropane	Ud, no effluent data & B is NI												No Limit	
33	Ethylbenzene	Ud, no effluent data & B is NI												No Limit	
34	Methyl Bromide	Ud, no effluent data & B is NI												No Limit	
35	Methyl Chloride	No Criteria												No Limit	
36	Methylene Chloride	Ud, no effluent data & B is NI												No Limit	
37	1,1,2,2-Tetrachloroethane	Ud, no effluent data & B is NI												No Limit	
38	Tetrachloroethylene	Ud, no effluent data & B is NI												No Limit	
39	Toluene	Ud, no effluent data & B is NI												No Limit	
40	1,2-Trans-Dichloroethylene	Ud, no effluent data & B is NI												No Limit	
41	1,1,1-Trichloroethane	No Criteria												No Limit	
42	1,1,2-Trichloroethane	Ud, no effluent data & B is NI												No Limit	
43	Trichloroethylene	Ud, no effluent data & B is NI												No Limit	
44	Vinyl Chloride	Ud, no effluent data & B is NI												No Limit	
45	2-Chlorophenol	Ud, no effluent data & B is NI												No Limit	
46	2,4-Dichlorophenol	Ud, no effluent data & B is NI												No Limit	
47	4,6-dinitro-o-resor (aka2)	Ud, no effluent data & B is NI												No Limit	
48	methyl-4,6-Dinitrophenol	Ud, no effluent data & B is NI												No Limit	
49	2,4-Dinitrophenol	Ud, no effluent data & B is NI												No Limit	
50	4-Nitrophenol	No Criteria												No Limit	
51	3-Methyl-4-Chlorophenol	No Criteria												No Limit	
52	(aka p-chloro-m-resor)	No Criteria												No Limit	
53	Para-chlorophenol	Ud, no effluent data & B is NI												No Limit	
54	Phenol	Ud, no effluent data & B is NI												No Limit	
55	2,4,6-Trichlorophenol	Ud, no effluent data & B is NI												No Limit	
56	Arsenophenanthrene	Ud, no effluent data & B is NI												No Limit	
57	Acenaphthylene	No Criteria												No Limit	
58	Anthracene	Ud, no effluent data & B is NI												No Limit	
59	Benzidine	Ud, no effluent data & B is NI												No Limit	
60	Benzofuran	Ud, no effluent data & B is NI												No Limit	
61	Benzofuran	Ud, no effluent data & B is NI												No Limit	
62	Benzofuran	Ud, no effluent data & B is NI												No Limit	

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS					AQUATIC LIFE CALCULATIONS					LIMITS		Recommendation	Comment
			Organisms only					Saltwater / Freshwater / Basin Plan					Lowest AMEL	Lowest MDEL		
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99				
63	Benzobicyclopropane	No Criteria													No Limit	
64	Benzofluoranthene	Ud, no effluent data & B is NI													No Limit	
65	Bis(2-ChlorodihydroxyMethane)	No Criteria													No Limit	
66	Bis(2-Chloroethyl)Ether	Ud, no effluent data & B is NI													No Limit	
67	Bis(2-Chloroisopropyl)Ether	Ud, no effluent data & B is NI													No Limit	
68	Bis(2-Ethylhexyl)Phthalate	Ud, no effluent data & B is NI													No Limit	
69	4-Bromophenyl Phenyl Ether	No Criteria													No Limit	
70	Butylbenzyl Phthalate	Ud, no effluent data & B is NI													No Limit	
71	4-Chlorophenyl Phenoxy Ether	No Criteria													No Limit	
72	4-Chlorophenyl Phenoxy Ether	No Criteria													No Limit	
73	Chrysene	Ud, no effluent data & B is NI													No Limit	
74	Dibenz(a,h)Anthracene	Ud, no effluent data & B is NI													No Limit	
75	1,2-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
76	1,3-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
77	1,4-Dichlorobenzene	Ud, no effluent data & B is NI													No Limit	
78	3,3-Dichlorobenzidine	Ud, no effluent data & B is NI													No Limit	
79	Diethyl Phthalate	Ud, no effluent data & B is NI													No Limit	
80	Dimethyl Phthalate	Ud, no effluent data & B is NI													No Limit	
81	Dip-n-Butyl Phthalate	Ud, no effluent data & B is NI													No Limit	
82	2,4-Dinitrotoluene	Ud, no effluent data & B is NI													No Limit	
83	2,6-Dinitrotoluene	No Criteria													No Limit	
84	Dip-n-Octyl Phthalate	No Criteria													No Limit	
85	1,2-Diphenylhydrazine	Ud, no effluent data & B is NI													No Limit	
86	Fluoranthene	Ud, no effluent data & B is NI													No Limit	
87	Fluorene	Ud, no effluent data & B is NI													No Limit	
88	Hexachlorobenzene	Ud, no effluent data & B is NI													No Limit	
89	Hexachlorobutadiene	Ud, no effluent data & B is NI													No Limit	
90	Hexachlorocyclopentadiene	Ud, no effluent data & B is NI													No Limit	
91	Hexachloroethane	Ud, no effluent data & B is NI													No Limit	
92	Indene(1,2,3-cd)Pyrene	Ud, no effluent data & B is NI													No Limit	
93	Isophorone	Ud, no effluent data & B is NI													No Limit	
94	Naphthalene	Ud, no effluent data & B is NI													No Limit	
95	Nitrobenzene	Ud, no effluent data & B is NI													No Limit	
96	N-Nitrosodimethylamine	Ud, no effluent data & B is NI													No Limit	
97	N-Nitrosodi-n-Propylamine	Ud, no effluent data & B is NI													No Limit	
98	N-Nitrosodiphenylamine	Ud, no effluent data & B is NI													No Limit	
99	Phenanthrene	No Criteria													No Limit	
100	Pyrene	Ud, no effluent data & B is NI													No Limit	
101	1,2,4-Trichlorobenzene	No Criteria													No Limit	
102	Aldrin	Ud, no effluent data & B is NI													No Limit	
103	alpha-BHC	Ud, no effluent data & B is NI													No Limit	
104	beta-BHC	Ud, no effluent data & B is NI													No Limit	
105	gamma-BHC	Ud, no effluent data & B is NI													No Limit	
106	delta-BHC	No Criteria													No Limit	
107	Chlorzoxazone	Ud, no effluent data & B is NI													No Limit	
108	1,4-DDT	Ud, no effluent data & B is NI													No Limit	
109	1,4-DDDE	Ud, no effluent data & B is NI													No Limit	
110	1,4-DDDD	Ud, no effluent data & B is NI													No Limit	
111	Dieldrin	Ud, no effluent data & B is NI													No Limit	
112	alpha-Endosulfan	Ud, no effluent data & B is NI													No Limit	
113	beta-Endosulfan	Ud, no effluent data & B is NI													No Limit	
114	Endosulfan Sulfate	Ud, no effluent data & B is NI													No Limit	
115	Endrin	Ud, no effluent data & B is NI													No Limit	
116	Endrin Aldehyde	Ud, no effluent data & B is NI													No Limit	
117	Heptachlor	Ud, no effluent data & B is NI													No Limit	
118	Heptachlor Epoxide	Ud, no effluent data & B is NI													No Limit	
119-125	PCBs sum	Ud, no effluent data & B is NI													No Limit	
126	Toxaphene	Ud, no effluent data & B is NI													No Limit	

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CTR#	Parameters	Units	CV	MEC	Municipal Only	Freshwater		Saltwater		Human Health for consumption of:		REASONABLE POTENTIAL ANALYSIS (RPA)						
						C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Wear & 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, is MDL > C7	Enter the pollutant B max conc (ug/L)
1	Antimony	ug/L	0.6		0.00	0.00	340.00	150.00			4300.00	4300.00	Y	Y	Y	2.09	No detected value of B, Step 7	No
2	Arsenic	ug/L	0.6	6.9	0.00	0.00	340.00	150.00			4300.00	4300.00	Y	Y	Y	3.08	No detected value of B, Step 7	No
3	Beryllium	ug/L	0.6	No Criteria	0.00	0.00	340.00	150.00			4300.00	4300.00	Y	Y	Y	2.09	No detected value of B, Step 7	No
4	Cadmium	ug/L	0.6	5	0.00	0.00	15.60	5.83			4300.00	4300.00	Y	Y	Y	0.18	No detected value of B, Step 7	No
5a	Chromium (III)	ug/L	0.6	5	0.00	0.00	4270.12	508.97			4300.00	4300.00	Y	Y	Y	0.35	No detected value of B, Step 7	No
5b	Chromium (VI)	ug/L	0.6	240	0.00	0.00	16.29	11.43			4300.00	4300.00	Y	Y	Y	10	B < C, Step 7	No
6	Copper	ug/L	0.6	78	0.00	0.00	39.41	23.85			4300.00	4300.00	Y	Y	Y	0.11	No detected value of B, Step 7	No
7	Lead	ug/L	0.6	0.22	0.00	0.00	330.60	12.88			4300.00	4300.00	Y	Y	Y	12.8	B < C, Step 7	No
8	Mercury	ug/L	0.6	0.22	0.00	0.00	Reserved	Reserved			4300.00	4300.00	Y	Y	Y	2.36	No detected value of B, Step 7	Yes
9	Nickel	ug/L	0.6	10	0.00	0.00	1188.44	132.13			4300.00	4300.00	Y	Y	Y	0.01	No detected value of B, Step 7	Yes
10	Selenium	ug/L	0.6		0.00	0.00	20.00	5.00			4300.00	4300.00	Y	Y	Y	15.6	B < C, Step 7	Ud
11	Silver	ug/L	0.6		0.00	0.00	26.88	5.00			4300.00	4300.00	Y	Y	Y	2.95	No detected value of B, Step 7	No
12	Titanium	ug/L	0.6		0.00	0.00	26.88	5.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
13	Zinc	ug/L	0.6		0.00	0.00	303.94	303.94			4300.00	4300.00	Y	Y	Y	2.33	No detected value of B, Step 7	No
14	Cyanide	ug/L	0.6		0.00	0.00	22.00	5.20			4300.00	4300.00	Y	Y	Y	47.7	B < C, Step 7	Ud
15	Asbestos	Fibers/L	0.6	No Criteria	0.00	0.00	22.00	5.20			4300.00	4300.00	Y	Y	Y	23.5	No detected value of B, Step 7	No
16	2,3,7,8 TCDD	ug/L	0.6		0.00	0.00	0.00	0.00			4300.00	4300.00	Y	Y	Y	0.000000014	No detected value of B, Step 7	No
17	Acrolin	ug/L	0.6		0.00	0.00	780.00	0.66			4300.00	4300.00	Y	Y	Y	8.7	No detected value of B, Step 7	Ud
18	Acrylonitrile	ug/L	0.6		0.00	0.00	71.00	0.66			4300.00	4300.00	Y	Y	Y	2.1	No detected value of B, Step 7	No
19	Benzene	ug/L	0.6		0.00	0.00	71.00	0.66			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
20	Bromoforn	ug/L	0.6		0.00	0.00	360.00	71.00			4300.00	4300.00	Y	Y	Y	0.3	No detected value of B, Step 7	No
21	Carbon Tetrachloride	ug/L	0.6		0.00	0.00	4.40	4.40			4300.00	4300.00	Y	Y	Y	0.2	No detected value of B, Step 7	No
22	Chlorobenzene	ug/L	0.6		0.00	0.00	21000.00	4.40			4300.00	4300.00	Y	Y	Y	0.2	No detected value of B, Step 7	No
23	Chloroethene	ug/L	0.6		0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.3	No detected value of B, Step 7	No
24	Chloroethane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.3	No detected value of B, Step 7	No
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.5	No detected value of B, Step 7	No
26	Chloroform	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.45	No detected value of B, Step 7	No
27	1,1-Dichloroethane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.33	No detected value of B, Step 7	No
28	Dichlorobromomethane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
29	1,2-Dichloroethane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
30	1,1,1-Trichloroethane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
31	1,2-Dichloropropane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.3	No detected value of B, Step 7	No
32	1,3-Dichloropropane	ug/L	0.6	No Criteria	0.00	0.00	34.00	34.00			4300.00	4300.00	Y	Y	Y	0.44	No detected value of B, Step 7	No
33	Ethylbenzene	ug/L	0.6	No Criteria	0.00	0.00	29000.00	1700.00			4300.00	4300.00	Y	Y	Y	0.44	No detected value of B, Step 7	No
34	Methyl Bromide	ug/L	0.6	No Criteria	0.00	0.00	4000.00	4000.00			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
35	Methyl Chloride	ug/L	0.6	No Criteria	0.00	0.00	4000.00	4000.00			4300.00	4300.00	Y	Y	Y	0.2	No detected value of B, Step 7	No
36	Methyl Iodoacetate	ug/L	0.6	No Criteria	0.00	0.00	4000.00	4000.00			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	No Criteria	0.00	0.00	1600.00	1600.00			4300.00	4300.00	Y	Y	Y	1.7	No detected value of B, Step 7	No
38	Tetrachloroethylene	ug/L	0.6	No Criteria	0.00	0.00	11.00	11.00			4300.00	4300.00	Y	Y	Y	0.2	No detected value of B, Step 7	No
39	Toluene	ug/L	0.6	No Criteria	0.00	0.00	8.85	8.85			4300.00	4300.00	Y	Y	Y	0.2	No detected value of B, Step 7	No
40	1,2-T-Dioxane	ug/L	0.6	No Criteria	0.00	0.00	20000.00	20000.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria	0.00	0.00	14000.00	14000.00			4300.00	4300.00	Y	Y	Y	0.6	No detected value of B, Step 7	No
42	1,1,2-Trichloroethane	ug/L	0.6	No Criteria	0.00	0.00	42.00	42.00			4300.00	4300.00	Y	Y	Y	0.5	No detected value of B, Step 7	No
43	Trichloroethylene	ug/L	0.6	No Criteria	0.00	0.00	81.00	81.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
44	Vinyl Chloride	ug/L	0.6	No Criteria	0.00	0.00	525.00	525.00			4300.00	4300.00	Y	Y	Y	0.4	No detected value of B, Step 7	No
45	2-Chlorophenol	ug/L	0.6	No Criteria	0.00	0.00	400.00	400.00			4300.00	4300.00	Y	Y	Y	1.1	No detected value of B, Step 7	No
46	2,4-Dichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	790.00	790.00			4300.00	4300.00	Y	Y	Y	1.5	No detected value of B, Step 7	No
47	2,4-Dimethylphenol	ug/L	0.6	No Criteria	0.00	0.00	2300.00	2300.00			4300.00	4300.00	Y	Y	Y	1.6	No detected value of B, Step 7	No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L	0.6	No Criteria	0.00	0.00	765.00	765.00			4300.00	4300.00	Y	Y	Y	9.8	No detected value of B, Step 7	No
49	2,4-Dinitrophenol	ug/L	0.6	No Criteria	0.00	0.00	14000.00	14000.00			4300.00	4300.00	Y	Y	Y	13	No detected value of B, Step 7	No
50	2-Nitrophenol	ug/L	0.6	No Criteria	0.00	0.00	14000.00	14000.00			4300.00	4300.00	Y	Y	Y	1.7	No detected value of B, Step 7	No
51	4-Nitrophenol	ug/L	0.6	No Criteria	0.00	0.00	14000.00	14000.00			4300.00	4300.00	Y	Y	Y	2.5	No detected value of B, Step 7	No
52	3-Methyl-4-Chlorophenol (aka P- chloro-m-resol)	ug/L	0.6	No Criteria	0.00	0.00	8.20	8.20			4300.00	4300.00	Y	Y	Y	1.7	No detected value of B, Step 7	No
53	2,4-Dichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	8.20	8.20			4300.00	4300.00	Y	Y	Y	2.3	No detected value of B, Step 7	No
54	Phenol	ug/L	0.6	No Criteria	0.00	0.00	460000.00	460000.00			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
55	2,4,6-Trichlorophenol	ug/L	0.6	No Criteria	0.00	0.00	6.50	6.50			4300.00	4300.00	Y	Y	Y	2	No detected value of B, Step 7	No
56	Acenaphthylene	ug/L	0.6	No Criteria	0.00	0.00	2700.00	2700.00			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
57	Acenaphthylene	ug/L	0.6	No Criteria	0.00	0.00	2700.00	2700.00			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
58	Anthracene	ug/L	0.6	No Criteria	0.00	0.00	11000.00	11000.00			4300.00	4300.00	Y	Y	Y	1.2	No detected value of B, Step 7	No
59	Benzofuran	ug/L	0.6	No Criteria	0.00	0.00	0.00654	0.00654			4300.00	4300.00	Y	Y	Y	24.5	No detected value of B, Step 7	No
60	Benzothiazole	ug/L	0.6	No Criteria	0.00	0.00	0.04900	0.04900			4300.00	4300.00	Y	Y	Y	0.9	No detected value of B, Step 7	No
61	Benzothiazole	ug/L	0.6	No Criteria	0.00	0.00	0.04900	0.04900			4300.00	4300.00	Y	Y	Y	0.7	No detected value of B, Step 7	No
62	Benzothiazole	ug/L	0.6	No Criteria	0.00	0.00	0.04900	0.04900			4300.00	4300.00	Y	Y	Y	0.8	No detected value of B, Step 7	No

CTR#	Parameters	Units	CV	MEC	Municipal Only	CTR Water Quality Criteria (ug/L)			Human Health for consumption of:		REASONABLE POTENTIAL ANALYSIS (RPA)															
						Freshwater	C acute = CMC tot	C chronic = CCC tot	Saltwater	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)?	Enter the detection limit (MDL)	Enter the pollutant B max conc (ug/L)	If all B is ND, is MDL > C7	If B-C, effluent limit required	Tier 3 - other info, ?	RPA Result - Need Limit?		
																									MCI	MCI
63	Benzothiazylpyrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.049	No Criteria	No Criteria	Y	Y	0.9	1.1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
64	Benzothiazylfluorene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	1.40	No Criteria	No Criteria	Y	Y	8.9	2.2	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
65	Bis(2-Chloroethoxy)Methane	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	17000.00	No Criteria	No Criteria	Y	Y	1.3	1.3	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
66	Bis(2-Chloroethyl)Ether	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	5.90	No Criteria	No Criteria	Y	Y	1.4	0.9	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
67	Bis(2-Chloroisopropyl)Ether	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	5200.00	No Criteria	No Criteria	Y	Y	3	3	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
68	Bis(2-Ethoxyethyl)Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	4300.00	No Criteria	No Criteria	Y	Y	1.6	1.6	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
69	4-Bromophenyl Phenyl Ethyl	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.049	No Criteria	No Criteria	Y	Y	1	1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
70	Butylbenzyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	17000.00	No Criteria	No Criteria	Y	Y	1.79	1.79	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
71	2-Chloronaphthalene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	2600.00	No Criteria	No Criteria	Y	Y	1	1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
72	4-Chlorophenyl Phenyl Ethyl	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	2600.00	No Criteria	No Criteria	Y	Y	1.9	1.9	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
73	Chrysene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	2600.00	No Criteria	No Criteria	Y	Y	4.1	4.1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
74	Dibenz(a,h)Anthracene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.077	No Criteria	No Criteria	Y	Y	1.2	1.2	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
75	1,2-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	120000.00	No Criteria	No Criteria	Y	Y	0.9	0.9	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
76	1,3-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	2900000.00	No Criteria	No Criteria	Y	Y	1.4	1.4	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
77	1,4-Dichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	9.10	No Criteria	No Criteria	Y	Y	1	1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
78	3,3-Dichlorobenzidine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.540	No Criteria	No Criteria	Y	Y	0.7	0.7	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
79	Diallyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	370.00	No Criteria	No Criteria	Y	Y	1.1	1.1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
80	Dimethyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	14000.00	No Criteria	No Criteria	Y	Y	1.6	1.6	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
81	D-n-Butyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.0077	No Criteria	No Criteria	Y	Y	5.1	5.1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
82	2,4-Dinitrotoluene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	17000.00	No Criteria	No Criteria	Y	Y	0.8	0.8	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
83	2,6-Dinitrotoluene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	600.00	No Criteria	No Criteria	Y	Y	1.1	1.1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
84	D-n-Octyl Phthalate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	1800.00	No Criteria	No Criteria	Y	Y	7.8	7.8	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
85	1,2-Diphomylhydrazine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	8.10	No Criteria	No Criteria	Y	Y	3.4	3.4	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
86	Fluorene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	1.40	No Criteria	No Criteria	Y	Y	1.6	1.6	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
87	Fluorene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	16.00	No Criteria	No Criteria	Y	Y	1	1	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
88	Hexachlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	11000.00	No Criteria	No Criteria	Y	Y	1.8	1.8	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
89	Hexachlorobutadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00014	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
90	Hexachlorocyclopentadiene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.01300	No Criteria	No Criteria	Y	Y	0.03	0.03	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
91	Hexachloroethane	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.063	No Criteria	No Criteria	Y	Y	0.03	0.03	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
92	Indene(1,2,3-cd)Pyrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00059	No Criteria	No Criteria	Y	Y	0.17	0.17	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
93	Isonitrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00059	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
94	Naphthalene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00084	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
95	Nitrobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00014	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
96	N,N-Dimethylformamide	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	240.00	No Criteria	No Criteria	Y	Y	0.06	0.06	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
97	N,N-Dimethyl-2-propanamine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	240.00	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
98	N,N-Dimethylpropanamine	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	240.00	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
99	Phenanthrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.81	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
100	Pyrene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00021	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
101	1,2,4-Trichlorobenzene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00011	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
102	Aldrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00017	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
103	alpha-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00075	No Criteria	No Criteria	Y	Y	0.03	0.03	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
104	beta-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00014	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
105	gamma-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.06	No Criteria	No Criteria	Y	Y	0.06	0.06	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
106	delta-BHC	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.02	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
107	Chlordane	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	240.00	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
108	4,4'-DDE	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.04	No Criteria	No Criteria	Y	Y	0.04	0.04	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
109	4,4'-DDD	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.81	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
110	4,4'-DDD	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00021	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
111	Dieldrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00021	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
112	alpha-Endosulfan	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.06	No Criteria	No Criteria	Y	Y	0.06	0.06	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
113	beta-Endosulfan	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.02	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
114	Endosulfan Sulfate	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	240.00	No Criteria	No Criteria	Y	Y	0.02	0.02	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
115	Endrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.01	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
116	Endrin Aldehyde	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.81	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
117	Heptachlor	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00021	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
118	Heptachlor Epoxide	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00011	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
119	Endrin	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00017	No Criteria	No Criteria	Y	Y	0.01	0.01	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No
120	Toxaphene	ug/L	0.6	No Criteria	0.00	0.00	0.00	0.00	0.00075	No Criteria	No Criteria	Y	Y	0.03	0.03	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No Criteria	No

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CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS					AQUATIC LIFE CALCULATIONS							LIMITS	Recommendation	Comment
			Organisms only					Saltwater / Freshwater / Basin Plan									
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99	MDEL aq lifo	Lowest AMEL			
1	Antimony	Ud, no effluent data & B is NI													No Limit		
2	Arsenic	Uf,MEC-C & B is ND													No Limit		
3	Beryllium	No Criteria													No Limit		
4	Barium	Uf,MEC-C & B is ND													No Limit		
5a	Cadmium (II)	MEC-C & B is ND													No Limit		
5b	Chromium (III)	MEC-C & B-C													No Limit		
6	Chromium (VI)	Ud, no effluent data & B is NI													No Limit		
7	Copper	MEC-C	0.32	12.85	0.53	12.59	12.59	12.59	1.55	19.53	19.53	19.53	39.18		No Limit		
8	Lead	MEC-C	0.32	106.01	0.53	6.79	6.79	6.79	1.55	10.55	10.55	10.55	21.16		No Limit		
9	Mercury	MEC-C													No Limit		
10	Nickel	no effluent data & B < C													No Limit		
11	Selenium	Uf, effluent data and B are N													No Limit		
12	Silver	Uf,MEC-C & B is ND													No Limit		
13	Thallium	Ud, no effluent data & B is NI													No Limit		
14	Zinc	no effluent data & B < C													No Limit		
15	Cyanide	Ud, no effluent data & B is NI													No Limit		
16	Asbestos	No Criteria													No Limit		
17	2,3,7,8 TCDD	no effluent data & no B													No Limit		
18	Acrolein	Ud, no effluent data & B is NI													No Limit		
19	Acrylonitrile	Ud, no effluent data & B is NI													No Limit		
20	Benzene	Ud, no effluent data & B is NI													No Limit		
21	Bromoform	Ud, no effluent data & B is NI													No Limit		
22	Carbonyl Tetrachloride	Ud, no effluent data & B is NI													No Limit		
23	Chlorobenzene	Ud, no effluent data & B is NI													No Limit		
24	Chlorodibromomethane	Ud, no effluent data & B is NI													No Limit		
25	Chloroethane	No Criteria													No Limit		
26	Chloroform	No Criteria													No Limit		
27	Dichlorobromomethane	Ud, no effluent data & B is NI													No Limit		
28	1,1-Dichloroethane	No Criteria													No Limit		
29	1,2-Dichloroethane	Ud, no effluent data & B is NI													No Limit		
30	1,1-Dichloroethylene	Ud, no effluent data & B is NI													No Limit		
31	1,2-Dichloropropane	Ud, no effluent data & B is NI													No Limit		
32	1,3-Dichloropropylene	Ud, no effluent data & B is NI													No Limit		
33	Ethylbenzene	Ud, no effluent data & B is NI													No Limit		
34	Methyl Bromide	Ud, no effluent data & B is NI													No Limit		
35	Methyl Chloride	No Criteria													No Limit		
36	Methylene Chloride	Ud, no effluent data & B is NI													No Limit		
37	1,1,2,2-Tetrachloroethane	Ud, no effluent data & B is NI													No Limit		
38	Tetrachloroethylene	Ud, no effluent data & B is NI													No Limit		
39	Toluene	Ud, no effluent data & B is NI													No Limit		
40	1,2-Trans-Dichloroethylene	Ud, no effluent data & B is NI													No Limit		
41	1,1,1-Trichloroethane	No Criteria													No Limit		
42	1,1,2-Trichloroethane	Ud, no effluent data & B is NI													No Limit		
43	Trichloroethylene	Ud, no effluent data & B is NI													No Limit		
44	Vinyl Chloride	Ud, no effluent data & B is NI													No Limit		
45	2-Chlorophenol	Ud, no effluent data & B is NI													No Limit		
46	2,4-Dichlorophenol	Ud, no effluent data & B is NI													No Limit		
47	2,4-Dimethylphenol	Ud, no effluent data & B is NI													No Limit		
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	Ud, no effluent data & B is NI													No Limit		
49	2,4-Dinitrophenol	Ud, no effluent data & B is NI													No Limit		
50	2-Nitrophenol	No Criteria													No Limit		
51	4-Nitrophenol	No Criteria													No Limit		
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria													No Limit		
53	Pentachlorophenol	Ud, no effluent data & B is NI													No Limit		
54	Phenol	Ud, no effluent data & B is NI													No Limit		
55	2,4,6-Trichlorophenol	Ud, no effluent data & B is NI													No Limit		
56	Acenaphthene	Ud, no effluent data & B is NI													No Limit		
57	Acenaphthylene	No Criteria													No Limit		
58	Anthracene	Ud, no effluent data & B is NI													No Limit		
59	Benzene	Ud, no effluent data & B is NI													No Limit		
60	Benzofuran	Ud, no effluent data & B is NI													No Limit		
61	Benzofuran	Ud, no effluent data & B is NI													No Limit		
62	Benzofuran	Ud, no effluent data & B is NI													No Limit		

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS				AQUATIC LIFE CALCULATIONS						LIMITS		Recommendation	Comment			
			AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq multiplier 99	MDEL MDEL aq lifa	Lowest AMEL			Lowest MDEL		
			Organisms only													Saltwater / Freshwater / Basin Plan			
63	Benz(a)anthracene	No Criteria	Ud, no effluent data & B is NI															No Limit	
64	Benzofluoranthene	No Criteria	Ud, no effluent data & B is NI															No Limit	
65	Bis(2-Chloroethoxy)Methane	No Criteria	Ud, no effluent data & B is NI															No Limit	
66	Bis(2-Chloroethyl)Ether	No Criteria	Ud, no effluent data & B is NI															No Limit	
67	Bis(2-Chloroisopropyl)Ether	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
68	Bis(2-Ethylhexyl)Phthalate	No Criteria	Ud, no effluent data & B is NI															No Limit	
69	4-Bromophenyl Phenyl Ether	No Criteria	Ud, no effluent data & B is NI															No Limit	
70	Butylbenzyl Phthalate	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
71	2-Chloronaphthalene	No Criteria	Ud, no effluent data & B is NI															No Limit	
72	4-Chlorophenyl Phenyl Ether	No Criteria	Ud, no effluent data & B is NI															No Limit	
73	Chrysene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
74	Dibenz(a,h)Anthracene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
75	1,2-Dichlorobenzene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
76	1,3-Dichlorobenzene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
77	1,4-Dichlorobenzene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
78	3,3-Dichlorobenzidine	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
79	Diallyl Phthalate	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
80	Diethyl Phthalate	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
81	D-n-Butyl Phthalate	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
82	2,4-Dinitrochloroene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
83	2,6-Dinitrochloroene	No Criteria	Ud, no effluent data & B is NI															No Limit	
84	D-n-Octyl Phthalate	No Criteria	Ud, no effluent data & B is NI															No Limit	
85	1,2-Diphenylhydrazine	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
86	Fluoranthene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
87	Fluorene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
88	Hexachlorobenzene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
89	Hexachlorobutadiene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
90	Hexachlorocyclopentadiene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
91	Hexachloroethane	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
92	Indane (1,2,3-cd)Pyrene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
93	Isophorone	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
94	Naphthalene	No Criteria	Ud, no effluent data & B is NI															No Limit	
95	Nitrobenzene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
96	N-Nitrosodimethylamine	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
97	N-Nitrosodi-n-Propylamine	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
98	N-Nitrosodiphenylamine	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
99	Phenanthrene	No Criteria	Ud, no effluent data & B is NI															No Limit	
100	Pyrene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
101	1,2,4-Trichlorobenzene	No Criteria	Ud, no effluent data & B is NI															No Limit	
102	Aldrin	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
103	alpha-BHC	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
104	beta-BHC	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
105	delta-BHC	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
106	alpha-BHC	No Criteria	Ud, no effluent data & B is NI															No Limit	
107	Chlordane	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
108	4,4'-DDD	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
109	4,4'-DDE	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
110	4,4'-DDD	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
111	Dieldrin	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
112	alpha-Endosulfan	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
113	beta-Endosulfan	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
114	Endosulfan Sulfate	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
115	Endrin	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
116	Endrin Aldehyde	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
117	Heptachlor	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
118	Heptachlor Epoxide	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
119-125	PCAS sum	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	
126	Toxaphene	Ud, no effluent data & B is NI	Ud, no effluent data & B is NI															No Limit	