CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2005-0047
NPDES PERMIT NO. CA0038440

EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1
WET WEATHER FACILITIES
ALAMEDA and CONTRA COSTA COUNTIES

Adoption Date: September 21, 2005
Effective Date: October 1, 2005

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
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ORDER NO. R2-2005-0047
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REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1
WET WEATHER FACILITIES (WWFs)
ALAMEDA AND CONTRA COSTA COUNTIES

FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. *Discharger and Permit Application.* East Bay Municipal Utility District, Special District No. 1 (hereafter the Discharger) has applied to the Board for reissuance of waste discharge requirements and a permit to discharge treated wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).

Purpose of Order

2. This NPDES permit regulates the intermittent discharge of treated effluents from the Point Isabel, San Antonio Creek and Oakport WWFs. The effluent from the Point Isabel wet-weather treatment facility discharges to Richmond Inner Harbor, part of central San Francisco Bay at latitude 37°53'43"N and longitude 122°19'24"W (outfall E-001 for the purposes of this order). The effluent from the San Antonio Creek wet-weather treatment facility discharges to Oakland Inner Harbor, part of lower San Francisco Bay, at latitude 37°47'30"N and longitude 122°15'44"W (outfall E-002 for the purposes of this order). The effluent from the Oakport wet-weather treatment facility discharges to East Creek Slough at latitude 37°45'39"N and longitude 122°12'52"W about 700 feet upstream of lower San Francisco Bay (outfall E-003 for the purposes of this order) (See attached Figure 1 for wet-weather facility and outfall locations). The Waste Discharge Requirements in Order No. 98-005, adopted by the Board on January 21, 1998, previously governed this discharge. This Order rescinds the requirements of Order No. 98-005.

3. The U.S. EPA and the Board have classified discharges from these facilities as minor discharges.

Facility Description

4. *General.* The Discharger serves nine (9) cities and communities in the East Bay area with a population of approximately 650,000. The nine (9) cities and communities (East Bay Communities) include the Cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont and Stege Sanitary District (El Cerrito, Kensington and part of Richmond). Each of the cities and Stege Sanitary District owns and operates its own wastewater collection system, which delivers wastewater to the Discharger's interceptor. The interceptor transports wastewater to the Discharger's year round main wastewater treatment plant (main treatment plant). The main treatment plant provides secondary

treatment. The treated wastewater is discharged through a mile long outfall to the San Francisco Bay near the San Francisco-Oakland Bay Bridge (Bay Bridge). The year-round discharge from the main treatment plant is regulated under a separate permit (NPDES Permit No. CA0037702).

5. *Main wastewater treatment plant.* The main treatment plant has an average dry weather flow design capacity of 120 million gallons per day (mgd). During wet weather conditions, the main treatment plant can provide partial secondary treatment up to 325 mgd; of which, approximately 157 mgd of wastewater receive primary treatment and up to 168 mgd receive secondary treatment. Additionally, the main treatment plant has one 11-million-gallon wet weather storage basin. The main treatment plant presently discharges an annual average daily flow of 79.6 mgd.

6. *Interceptor system (see attached Figure 1).* The Discharger owns and operates its interceptor system, which includes a 29-mile long North and South interceptor, Adeline Interceptor, South Foothill Interceptor, and Alameda Interceptor. The interceptor has a hydraulic capacity of 760 mgd. The interceptor system also includes 15 pump stations, five (5) overflow structures, three (3) WWFs and a million-gallon wet weather storage basin along the Alameda Interceptor.

7. *Wet weather overflow structures.* The Discharger's interceptor system includes 5 wet weather overflow structures. Historically, there were 7 overflow structures, two of which have been removed and replaced by three WWFs during the implementation of the Discharger's Wet Weather Program. Discharges of untreated sewage from the remaining 5 overflow structures may occur as a result of inflow and infiltration (I/I) during winter storm events that are greater than a 5-year storm event (as defined in finding 12 below, with a 13-year return rate). Locations of the remaining 5 overflow structures are: Oakland Inner Harbor at Alice Street, Oakland Inner Harbor at Webster Street, Elmhurst Creek, San Leandro Creek and Temescal Creek. During the past 10 years, there was only one overflow from one of these structures, during the 1998 El Nino conditions.

8. *WWFs.* Items a, b and c below provide descriptions of each of the three WWFs. These WWFs were designed and constructed based on Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable ("BCT/BAT") available in 1980s. According to the studies and analysis conducted by the Discharger in 1980s, the BCT/BAT is to provide primary treatment.

   a. Point Isabel WWF. The Point Isabel WWF is located at 2755 Point Isabel Street, Richmond. It was constructed in 1993 and has a design capacity of 100 million gallons per day (mgd). The Point Isabel WWF provides treatment to wastewaters diverted from the North Interceptor during peak wet weather flow conditions. The technology consists of coarse screens, bar screens, grit chambers, and sedimentation/disinfection basins. Screenings are disposed to landfill; grit and sludge are returned to the interceptor. The effluent is discharged through a submerged diffuser about 300 feet offshore at depth of 8 feet below mean low tide line to Richmond Inner Harbor, part of central San Francisco Bay.

   b. San Antonio Creek WWF. The San Antonio Creek WWF is located at 225 5th Avenue, Oakland. It was constructed in 1996 and has a design capacity of 51 mgd. The San Antonio Creek WWF provides treatment to wastewaters diverted from the middle portion of the South Interceptor during peak wet weather flow conditions. The technology consists of grit removal, fine screening, and disinfection. Both screenings and grit are returned to the interceptor. The effluent is discharged to Oakland Inner Harbor, part of lower San Francisco Bay.

c. Oakport WWF. The Oakport WWF is located at 5597 Oakport Street, Oakland. It was constructed in 1990 and has a design capacity of 158 mgd. The Oakport WWF provides to wastewaters diverted from the south portion of the South Interceptor. The technology consists of course screens and sedimentation/disinfection basins. Both screenings and sludge are returned to the interceptor. The effluent is discharged to East Creek Slough, which flows to Oakland Inner Harbor, part of lower San Francisco Bay.

History and Background

9. *East Bay Inflow and Infiltration Correction Program (I/ICP).* Because the East Bay Communities' sewers are connected to the Discharger's interceptors, excessive I/I from the East Bay Communities' collection systems can force the Discharger's interceptors to overflow untreated wastewater through the seven (7) designed overflow structures in the interceptor system. The East Bay Communities and the Discharger initiated a 6-year East Bay I/I Study in 1980. The I/I Study outlined recommendations for a sewer improvement program called the East Bay I/ICP. Schedules to complete the I/ICP were developed for each member of the East Bay Communities. The East Bay Communities and the Discharger started implementing the East Bay I/ICP in 1987. Since then, the East Bay Communities have eliminated all known cross connections between sewer and storm drain systems, and 113 out of 115 sewer overflow points identified in the I/I Study as high threats to public health.

10. *Cost analysis of sewer rehabilitation program.* In the 1980s, the East Bay Communities performed a cost analysis during the I/I Study to determine the cost-effective level of I/I elimination and system rehabilitation. The cost-effective level of rehabilitation involves balancing the cost of rehabilitation of the East Bay Communities' sewer systems and the cost for increasing the capacity of the Discharger's interceptor system and wastewater treatment facilities. In the early 1980s, the Discharger also performed a sensitivity analysis to study cost effects of various levels of rehabilitation on treatment alternatives for wet weather flow. Cost-Effective Ratios (C-E-Ratio) for various drainage basins were calculated. A C-E Ratio greater than one (1) indicates that I/I rehabilitation is cost effective. The analysis was performed by using a computer program supported by the Corps of Engineers Hydrologic Engineering Center, called STORM. This analysis derived a regional least-cost solution, which included both East Bay Communities' sewer rehabilitation cost and transportation/treatment cost by the Discharger. The study results were described in the Wet Weather Facilities Update, dated May 29, 1985. The Study concluded that the most cost effective solution was to rehabilitate those cost effective elements of the communities' collection systems, provide relief sewers in the communities' systems, increase interceptor hydraulic capacity, and construct storage basins to handle wet weather flows up to a 5-year storm event.

11. *Design goal of East Bay I/ICP.* The design goal of East Bay I/ICP is to eliminate overflows from the East Bay Communities' collection systems and the Discharger's interceptor unless the rainfall exceeds a 5-year design storm event. Overflows may continue to occur for events less than the 5-year design storm until the East Bay Communities complete the I/ICP. However, the occurrence of overflows are expected to decrease as more of the East Bay I/ICP projects are completed.

12. *5-year Design Storm Event Definition.* The 5-year design storm event is a storm event that meets the following criteria: a 6-hour duration, and a maximum 1-hour rainfall intensity of a storm with return period of five (5) years. The storm is assumed to occur during saturated soil conditions, and to coincide with the peak 3-hour ultimate Base Wastewater Flow (BWF) condition. BWF consists of domestic wastewater flow from residential, commercial, and institutional sources plus industrial wastewater. BWF specifically excludes infiltration and inflow (I/I) from groundwater or storm water. Due to these conservative assumptions, the Wet Weather Facilities Pre-design Report concluded that the estimated peak flow produced by this event has a return period of approximately

13 years. The peak I/I flow from a 5-year storm was selected as the basis of design for the treatment level intended to protect beneficial uses as defined by the San Francisco Bay Basin Plan (Basin Plan), Maintenance Level C. Maintenance Level C requires secondary treatment to the half-year recurrence interval, primary treatment to the 5-year recurrence interval, and above the 5-year interval, overflows are allowed.

13. *EBMUD Wet Weather Program.* In conjunction with the I/I Study, the Discharger conducted its own wet weather program planning from 1975 to 1987, and developed a comprehensive East Bay Wet Weather Program. This East Bay Wet Weather Program combined the results of the I/I Studies and the EBMUD facility planning and developed a cohesive approach to reducing sanitary sewer overflows in the East Bay. The Discharger started implementing its component of the East Bay Wet Weather Program in 1987. Since then, the Discharger has spent about $310 million in capital on the East Bay Wet Weather Program and annual operating costs of approximately $3 million. The Discharger has constructed three WWFs and two wet weather interceptors; made improvements at its Main Treatment Plant, system storage areas and pumping facilities; and has eliminated two of the seven designed wet weather overflow structures.

14. *WWFs Permitting Background*:

    a. Pre-1986 permitting background. The Board first issued an NPDES permit to the Discharger in 1976 for the wet weather discharges from overflow structures along the interceptor. The 1976 permit required the Discharger to eliminate untreated overflows from its interceptors, identify various zones along shoreline of San Francisco Bay based on beneficial uses, and establish level of treatment for wet weather overflows. The 1976 permit was reissued in 1984. In addition to the requirement of elimination of wet weather overflows, the 1984 permit prescribed secondary limits for conventional pollutants and toxic limits for over 22 priority pollutants for overflows from all seven (7) overflow structures.

    b. U.S. EPA 1986 letter. By letter dated June 3, 1986, Board staff asked U.S. EPA whether overflows of sanitary wastes from collection systems are subject to secondary treatment requirements. U.S.EPA Region IX determined in its June 18, 1986, letter that the Discharger's wet weather overflow structures are not Publicly Owned Treatment Works (POTWs), and are therefore not subject to secondary treatment requirements pursuant to 40 CFR 122.2.

    Based on this determination, when the 1984 permit was reissued in 1987 (Order No. 87-18), the secondary treatment limits from the 1984 permit were replaced with technology-based limits using Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable ("BCT/BAT")

    c. Post-1986 construction and permitting.

        (1) *Construction of three WWFs.* In reliance on U.S. EPA's June 18, 1986 letter and the 1987 permit, the Discharger – with the participation and approval of U.S. EPA and the Board – spent $310 million constructing three (3) WWFs discussed below. The construction of WWFs was completed in 1998. These WWFs have significantly reduced the frequency and impact of wet weather overflows.

        (2) *Subsequent permits.* The 1987 permit was reissued in 1992 and 1998 with no significant change to the requirements and effluent limits.

(3) *2005 permit.* As noted above, the June 18, 1986 letter concludes that "EBMUD's wet weather overflow structures are not POTW's" and, therefore, not subject to secondary treatment limitations. During this permit's reissuance, however, U.S. EPA revisited its 1986 conclusion. In its letter of September 7, 2004, U.S. EPA states that its "...conclusions made in the 1986 letter no longer reflect EPA's position, and any releases from the collection system and discharges from the wastewater treatment plant must meet secondary treatment requirements." U.S. EPA further notes in this letter that "EPA supports the implementation of the investigations, studies, and activities contained in the [Regional Water Board's] tentative time schedule order ..., [and] are hopeful that these studies and activities will provide ways for the Discharger to significantly reduce the discharge of pollutants to the Bay." In fact, such investigations, studies and activities are exactly the same requirements that would be imposed on the Discharger in order for it to be able to meet secondary treatment standards. Accordingly, whether secondary treatment standards apply to the WWFs is an issue without a practical difference in terms of requirements for this permit term and need not be resolved at this point. Given the foregoing and recognizing the hundreds of millions of dollars already spent by the Discharger in reliance of U.S. EPA's 1986 letter, this permit, along with the associated Time Schedule Order, continues to impose BAT/BCT requirements and contains requirements to enable the Discharger to reduce pollutant loads and ensure long-term compliance with all applicable standards.

Discharge Description

15. *Discharge flow and frequency.* Tables 1 through 3 summarize discharge frequency and discharge volume from the three WWFs. The Point Isabel WWF has the highest discharge, followed by Oakport and San Antonio Creek WWFs. The Oakport WWF has the highest discharge volume, followed by Point Isabel and San Antonio WWFs. The long-term design goal for these three WWFs is to achieve no more than ten (10) discharges per year per discharge location for a total of no more than 100 million gallons per year. As shown in Table 2 below, the annual discharge volumes exceed the long-term design goal of 100 million gallons per year. This is due to high I/I from the East Bay Communities' sewer systems. The discharge volume is expected to decrease after the East Bay Communities complete East Bay I/ICP in 2017.

Table 1 Discharge Frequency from 1998 to 2003 (Number of discharges per year per facility)

Facility	Targeted Discharge Frequency	Actual Discharge Frequency
Point Isabel	10	8.6
San Antonio	10	2
Oakport	10	7.2

Table 2 Total Discharge Volume from 1998 to 2003
(Total volume discharged per season)

Season	Targeted Discharge Volume, MG	Actual Discharge Volume, MG
Winter of 1998-1999	100	236
Winter of 1999-2000	100	549
Winter of 2000-2001	100	214
Winter of 2001-2002	100	320
Winter of 2002-2003	100	362

Table 3 Annual Discharge Volume from Each Facility from 1998 to 2003
(Volume discharged per facility per year)

Facility	Season	Season total, MG	Volume of discharge events, MG		
			Minimum	Maximum	Average
Point Isabel	1998-1999	53.7	0.4	36	6.7
	1999-2000	161	2.2	111	23.0
	2000-2001	110	1.2	49.7	13.8
	2001-2002	167	0.9	76.8	15.2
	2002-2003	189.4	1.1	62.6	21
San Antonio	1998-1999	3.8	3.8	3.8	3.8
	1999-2000	53.5	21	32.5	26.8
	2000-2001	0	0	0	0
	2001-2002	8.1	2.5	3	2.7
	2002-2003	18.5	0.7	11.7	4.6
Oakport	1998-1999	178	0.7	60	29.7
	1999-2000	334	10	128	55.7
	2000-2001	104	3	59	17.3
	2001-2002	145	1	36	13.2
	2002-2003	154	1	51	19.3

16. *Discharge effluent qualities for conventional pollutants*. The three WWFs provide primary treatment to wet weather flows. Due to severe I/I in the Communities' sewer systems, about 80% of wet weather flows are storm water. The BOD_5 and TSS removal efficiencies are about 20 to 40 percent. Tables 4 through 6 summarize conventional pollutant concentrations in the effluents from these WWFs.

a. Point Isabel WWF. Table 4 summarizes effluent concentrations for conventional pollutants from Point Isabel WWF from 2001 through 2003.

Table 4 Effluent Conventional Pollutant Concentration Summary for Point Isabel WWF
(From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	28	89	19	51	47
TSS, mg/L	30	100	23	37	46
Oil & Grease, mg/L	28	24	U3.9	13	14
Total Coliform, MPN/100 ml	41	12	<2	2	3
Fecal Coliform, MPN/100 ml	41	2	<2	<2	2

U = Analyte not detected.

b. San Antonio Creek wet-weather treatment facility. Table 5 summarizes effluent concentrations for conventional pollutants from San Antonio Creek WWF from 2001 through 2003.

Table 5 Effluent Conventional Pollutant Concentration Summary for San Antonio Creek WWF (From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	8	70	14	56	47
TSS, mg/L	8	180	58	107	113
Oil & Grease, mg/L	8	24	U4.0	6.8	9.6
Total Coliform, MPN/100 ml	10	1300	7	140	334
Fecal Coliform, MPN/100 ml	10	110	<2	13	25

U = Analyte not detected.

c. Oakport wet-weather treatment facility. Table 6 summarizes effluent concentrations for conventional pollutants from Point Isabel WWF from 2001 through 2003.

Table 6 Effluent Conventional Pollutant Concentration Summary for Oakport WWF (From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	23	220	25	77	93
TSS, mg/L	23	160	36	69	71
Oil & Grease, mg/L	24	37	U3.3	18	18
Total Coliform, MPN/100 ml	43	2200	2	4	101
Fecal Coliform, MPN/100 ml	43	30	2	2	3

U = Analyte not detected.

Applicable Plans, Policies and Regulations

Basin Plan

17. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on January 21, 2004. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 22, 2004, and October 4, 2004, respectively, and approved by the U.S. Environmental Protection Agency, Region IX on January 5, 2005. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. The Basin Plan also prescribes, in Chapter 4 and Table 4-8, a Conceptual Approach to controlling wet weather overflows of wastewater, including the designation of alternative levels of maintenance and guidance for the design of overflow discharge structures. This Order is in compliance with the Basin Plan.

Beneficial Uses

18. Discharges from Point Isabel and San Antonio Creek WWFs enter central and lower San Francisco. Discharge from Oakport WWF enters East Creek Slough at its confluence with lower San Francisco Bay. It is therefore appropriate to apply the Basin Plan's tributary rule in determining the beneficial uses of East Creek Slough, by applying designated uses for lower San Francisco Bay. Common beneficial uses for central and lower San Francisco Bay, as identified in the Basin Plan, are:

a. Commercial and sport fishing
b. Estuarine habitat
c. Industrial service supply

d. Fish migration
e. Navigation
f. Preservation of rare and endangered species
g. Water contact and non-contact recreation
h. Shellfish harvesting
i. Fish spawning
j. Wildlife habitat

In addition to the above beneficial uses, central San Francisco has additional beneficial use for water for industrial activities.

19. Exception to Basin Plan Prohibition No. 1
The Basin Plan contains a prohibition against discharge of any wastewater, which has particular characteristics of concern to beneficial uses, at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 or into any non-tidal water, dead-end slough, similar confined waters, or immediate tributaries thereof (Prohibition 1 in Basin Plan Table 4-1). The Basin Plan also gives exceptions to this prohibition if (1) an inordinate burden would be placed on the Discharger relative to beneficial uses provided, and (2) an equivalent level of environmental protection can be achieved by alternate means.

20. Discharges from these WWFs do not achieve a minimum initial dilution of 10:1. In issuing the previous Order, the Water Board granted the Discharger an exception for this prohibition because requiring achievement of 10:1 dilution would have placed an inordinate burden on the Discharger with minimum environmental benefit achieved. The previous permit required the Discharger to conduct an environmental enhancement project to provide environmental benefits to San Francisco Bay. The environmental enhancement projects completed under this requirement include design, printing and distribution of K-1 and middle school curriculums on water recycling; and development of recycled water irrigation customer training guidebooks and videos. The Discharger originally committed to spend $100,000, but reportedly spent approximately $200,000 on these projects.

21. For this Order, the Water Board determines that the exception from the Discharge Prohibition No. 1 continues to be appropriate at this time. In support of granting this exception, this Order directs the Discharger to submit a proposed Interim Environmental Enhancement Project Work Plan to the Water Board within six months of the effective date of this Permit that describes in detail a proposed Interim Environmental Enhancement Project ("Project") that will reduce pollutant loading to San Francisco Bay during the next five years. The Discharger should spend a sufficient amount on the Project(s) to ensure that it will meet the goal of substantial pollutant reduction and document the reduction. The Discharger should consider spending no less than the cost of the projects for the previous permit (i.e., $200,000). The Board directs the Executive Officer to seek and duly to consider public comment on the proposed Project(s) in approving the Work Plan and Project.

State Implementation Policy (SIP)

22. The State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Policy or SIP) on March 2, 2000, and the Office of Administrative Law (OAL) approved the SIP on April 28, 2000. The State Board also amended the SIP on February 24, 2005 (approval by OAL still pending as of August 1, 2005). The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the federal Clean Water Act. The SIP establishes implementation provisions for priority pollutant criteria promulgated by the U.S.

EPA through the National Toxics Rule (NTR) and California Toxics Rule (CTR), and for priority pollutant objectives established by the Regional Water Boards in their water quality control plans (Basin Plans). The SIP also establishes monitoring requirements for 2,3,7,8-TCDD equivalents, chronic toxicity control provisions, and Pollutant Minimization Programs.

23. The SIP provides for exceptions where the "... watersheds differ sufficiently from statewide conditions and those differences cannot be addressed through other provisions ..." of the SIP. The Discharger has stated its intent to apply to the State Board for mass offsets through SIP exceptions for toxic pollutants in the discharges that do not immediately comply with water quality standards. This Board adopted a Time Schedule Order No. R2-2005-0048 (TSO) concurrent with this Permit that, among other tasks, establishes a strategy leading towards an application for SIP exceptions. Once these necessary studies are completed and if the Board agrees it is justified, the Board will support the Discharger's efforts for mass offsets through SIP exceptions. However, until the State Board makes a determination and obtains U.S. EPA's concurrence, this Permit must implement the provisions of the SIP. Because the process for granting an exception may be lengthy, the Board encourages the Discharger to finish the necessary studies and submit a complete application to State Board in a timely manner so that any determinations by the State Board will be available by the time of the next permit reissuance.

California Toxics Rule (CTR)

24. On May 18, 2000, U.S. EPA published the *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (Federal Register, Volume 65, Number 97, 18 May 2000). These standards are generally referred to as the CTR. The CTR specified water quality criteria (WQC) for numerous pollutants, of which some are applicable to the Discharger's effluent discharges.

Other Regulatory Bases

25. On March 30, 2000, U.S. EPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for Clean Water Act (CWA) purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under U.S. EPA's new regulation (also known as the Alaska rule), new and revised standards submitted to U.S. EPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by U.S. EPA.

26. WQOs/WQC and effluent limits in this permit are based on the SIP; the plans, policies and WQOs and criteria of the Basin Plan; California Toxics Rule (Federal Register Volume 65, 97); Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136) and Best Professional Judgment (BPJ) as defined in the Basin Plan. Where numeric effluent limits have not been established or updated in the Basin Plan, 40 CFR 122.44(d) specifies that water quality based effluent limits (WQBELs) may be set based on U.S. EPA criteria and supplemented where necessary by other relevant information to attain and maintain narrative WQC to fully protect designated beneficial uses. Discussion of the specific bases and rationale for effluent limits are given in the associated Fact Sheet for this Permit, which is incorporated as part of this Order.

Applicable Water Quality Objectives/Criteria (WQO/WQC)

27. The WQOs and WQCs applicable to the receiving waters for this discharge are from the Basin Plan, the CTR, and the NTR.

a. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in freshwater, lead, mercury, nickel, silver, zinc, and cyanide (see also c. below). The narrative toxicity objective states in part "[a]ll waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states in part "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life."

b. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries, except that where the Basin Plan's Tables 3-3 and 3-4 specify numeric objectives for certain priority toxic pollutants, the Basin Plan's numeric objectives apply over the CTR (except in the South Bay, south of the Dumbarton Bridge).

c. The NTR established numeric aquatic life criteria for selenium, numeric aquatic life and human health criteria for cyanide, and numeric human health criteria for 34 toxic organic pollutants for waters of San Francisco Bay upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. This includes the receiving waters for this Discharger.

Basin Plan Receiving Water Salinity Policy

28. The Basin Plan states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable WQC. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one ppt at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria, (the latter calculated based on ambient hardness), for each substance. In applying CTR criteria, it is appropriate to use the CTR definition for determining if the receiving water is fresh, marine, or estuarine.

Receiving Water Salinity

29. The receiving water for the discharge from the Point Isabel WWF is central San Francisco Bay. Data collected during the winter wet season (January and February) by the Regional Monitoring Program (RMP) for Point Isabel Station (Station BC41) were used to determine the salinity of the receiving water. Based on the 1999 to 2001 salinity data for the above referenced station, the receiving water has salinities above 10 ppt more than 95% of the time. Therefore, the receiving water is characterized as saltwater.

30. The receiving water for the discharges from San Antonio Creek and Oakport WWFs is lower San Francisco Bay. Data collected during the winter wet season (January and February) by the RMP for Alameda Station (Station BB70) were used to determine the salinity of the receiving water. Based on the 1999 to 2001 salinity data for the above referenced station, the receiving water has salinities above 10 ppt more than 95% of the time. Therefore, the receiving water is characterized as saltwater.

Reasonable Potential Analysis (RPA)

31. As specified in 40 CFR 122.44(d) (1) (i), permits are required to include Water Quality Based Effluent Limits (WQBELs) for all pollutants "which the Director 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." Using the method prescribed in Section 1.3 of the SIP, Board staff has analyzed the effluent data to determine if the discharge has a reasonable potential to cause or contribute to an excursion above a State water quality standard ("Reasonable Potential Analysis" or "RPA"). For all parameters that have reasonable potential, WQBELs are required. The RPA compares the effluent data with numeric and narrative WQOs in the Basin Plan and numeric WQC from the U.S. EPA, the NTR, and the CTR.

32. *RPA Methodology.* The method for determining reasonable potential involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent, based on effluent concentration data. The RPA for all constituents is based on zero dilution, according to section 1.3 of the SIP. There are three triggers in determining reasonable potential.

    a. The first trigger is activated when the MEC is greater than or equal to the lowest applicable WQO/WQC, which has been adjusted for pH, hardness (assumed in this permit analysis at 300 mg/L), and translator data, if appropriate. An MEC that is greater than or equal to the (adjusted) WQO/WQC means that there is reasonable potential for that constituent to cause or contribute to an excursion above the WQO/WQC and a WQBEL is required. (Is the MEC≥WQO/WQC?)

    b. The second trigger is activated if the observed maximum ambient background concentration (B) is greater than the adjusted WQO/WQC and the MEC is less than the adjusted WQO/WQC or the pollutant was not detected in any of the effluent samples and all of the detection levels are greater than or equal to the adjusted WQO/WQC. If B is greater than the adjusted WQO/WQC, then a WQBEL is required. (Is B>WQO/WQC?)

    c. The third trigger is activated after a review of other information determines that a WQBEL is required even though both MEC and B are less than the WQO/WQC. A limit is only required under certain circumstances to protect beneficial uses.

33. *Effluent and Receiving Water Ambient Background Data used in Reasonable Potential Analysis.* Effluent data used in the reasonable potential analysis are from the Discharger's self-monitoring data from October 2000 to January 2004, including effluent data obtained under the requirements of the Water Board August 6, 2001, letter. Due to color interference of the test method used for chromium IV, total chromium data are used in the RPA and calculation of interim and final WQBELs. The receiving waters for the discharges regulated by this Order are the waters of central and lower San Francisco Bay. Data from the Regional Monitoring Program (RMP) for Yerba Buena Station (Station BC10) were used as ambient background concentrations. Salinity data obtained in January and February of 1994 through 2001 from RMP Point Isabel Station (Station BC41) is used for discharges from the Point Isabel WWF. Salinity data obtained in January and February of 1994 through 2001 from RMP Alameda Station (Station BB70) is used for discharges from the San Antonio Creek and Oakport WWFs.

34. *Summary of RPA Data and Results.* Tables 7 through 10 summarize the constituents that have been found to have reasonable potential to cause or contribute to an excursion above water quality objectives (results of RPA). Constituents not listed in the tables below are found not to show reasonable potential to cause or contribute to an excursion above applicable water quality objectives.

Table 7. Reasonable Potential Analysis Summary for Point Isabel WWF

Toxic Pollutants	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	53	2.45	MEC>C
7. Lead	8.1	BP	18	0.8	MEC>C
8. Mercury	0.025	BP	0.3	0.0086	MEC>C
9. Nickel	8.2	BP	26	3.7	MEC>C
11. Silver	1.9	BP	20.3	0.0516	MEC>C
13. Zinc	81	BP	134	4.4	MEC>C
14. Cyanide	1	NTR	7	-	MEC>C
16. Dioxin TEQ	0.000000014	BP	0.00000197	0.000000071	MEC>C B>C
27. Dichlorobromomethane	46	CTR	52	-	MEC>C
108. 4,4-DDT	0.00059	CTR	0.011	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
110. 4,4-DDD	0.00084	CTR	0.0059	0.000313	MEC>C
111. Dieldrin	0.00014	CTR	0.0029	0.000264	MEC>C; B>C
115. Endrin	0.002	CTR	0.003	0.000036	MEC>C
118. Heptachlor Expoxide	0.00011	CTR	0.0057	0.000094	MEC>C

Notes: C: Criteria
MEC: Maximum Effluent Concentration
B: Background concentration
RP: Reasonable potential

Table 8. Reasonable potential Analysis Summary for San Antonio Creek WWF

Toxic Pollutants	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	61	2.45	MEC>C
7. Lead	8.1	BP	36.1	0.8	MEC>C
8. Mercury	0.025	BP	0.46	0.0086	MEC>C
9. Nickel	8.2	BP	26	3.7	MEC>C
11. Silver	1.9	BP	23	0.0516	MEC>C
13. Zinc	81	BP	185	4.4	MEC>C
14. Cyanide	1	NTR	28	-	MEC>C
16. Dioxin TEQ	0.000000014	BP	0.00000274	0.000000071	MEC>C B>C
61. Benzo(a)pyrene	0.049	CTR	0.04	0.00029	MEC>C
73. Chrysene	0.049	CTR	0.066	0.0024	MEC>C
108. 4,4-DDT	0.00059	CTR	0.0037	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
111. Dieldrin	0.00014	CTR	0.00077	0.000264	MEC>C B>C

Notes: C: Criteria
MEC: Maximum Effluent Concentration.
B: Background concentration.
RP: Reasonable potential.

Table 9. Reasonable potential Analysis Summary for Oakport WWF

Toxic Pollutants	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	86.2	2.45	MEC>C
7. Lead	8.15	BP	36.8	0.8	MEC>C
8. Mercury	0.025	BP	0.17	0.0086	MEC>C
9. Nickel	8.2	BP	22	3.7	MEC>C
11. Silver	1.9	BP	26.4	0.0516	MEC>C
13. Zinc	81	BP	216	4.4	MEC>C
14. Cyanide	1	NTR	11	-	MEC>C
16. Dioxin TEQ	0.000000014	BP	0.00000542	0.000000071	MEC>C B>C
38. Tetrachloroethylene	8.85	CTR	74	-	MEC>C
88. Hexachlorobenzene	0.00077	CTR	0.023	0.000022	MEC>C
108. 4,4-DDT	0.00059	CTR	0.0087	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
110. 4,4-DDD	0.00084	CTR	0.015	0.000313	MEC>C
111. Dieldrin	0.00014	CTR	0.022	0.000264	MEC>C; B>C

Notes: C: Criteria
MEC: Maximum Effluent Concentration
B: Background concentration
RP: Reasonable potential

Requirement for Monitoring of Pollutants in Effluent and Receiving Water to Implement New Statewide Regulations and Policy

35. *Effluent monitoring.* On August 6, 2001, the Board sent a letter to all the permitted dischargers, pursuant to Section 13267 of the California Water Code requiring the submittal of effluent and receiving water data on priority pollutants. This formal request for technical information addressed the insufficient effluent and ambient background data, and the dioxin study. The Discharger has submitted monitoring data from winters of 2002 and 2003 based on the requirements in the August 6, 2001, letter. These data are included in the data set for RPA and for developing limits for toxic pollutants in this Order. The Self-Monitoring Program for this Order requires the Discharger to continue monitoring effluent from all three (3) WWFs for priority pollutants to obtain additional effluent data for the next permit reissuance.

Regional Monitoring Program

36. *Receiving water monitoring.* On April 15, 1992, the Board adopted Resolution No. 92-043 directing the Executive Officer to implement the RMP for the San Francisco Bay. Subsequent to a public hearing and various meetings, Board staff requested major permit holders in this region, under authority of Section 13267 of California Water Code, to report on the water quality of the estuary. Permit holders, including the Discharger, responded to this request by participating in a collaborative effort, through the San Francisco Estuary Institute (formerly the Aquatic Habitat Institute). This effort has come to be known as the San Francisco Bay Regional Monitoring Program for Trace Substances. The Discharger is participating in the RMP through the requirements in the permit issued to its main treatment plant (NPDES No. CA0037702 in Order No. 01-072). The RMP involves collection of data on pollutants and toxicity in water, sediment and biota of the estuary. Annual reports from the RMP are referenced elsewhere in this Order.

Basis for Effluent Limits

General Basis

37. *Federal Water Pollution Control Act.* Effluent limits and toxic effluent standards are established pursuant to sections 301 through 305, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharges herein.

Technology Based Effluent Limits

38. According to 40 CFR Part 125.3, technology-based limits signify the minimum level of control that a discharger must attain for conventional pollutants. As described in Finding 14, the Board relied upon U.S. EPA's June 18, 1986, letter, and did not impose secondary treatment limits on the subject discharges. Instead, the Board established technology-based effluent limits based on Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable, or BCT/BAT, in the previous permits (Order Nos. 87-18, 92-97 and 98-005). During the 1987-permit reissuance, the Board relied upon various factors identified in 40 CFR 125.3(d) in setting case-by-case based limits in the absence of U.S. EPA guidance or examples from other states. The following factors were analyzed in 1987 in determining BCT limits for conventional pollutants:

    a. Pollutant concentrations in the Discharger's existing overflows;

    b. Compliance with Basin Plan water quality standards;

    c. Alternative control technologies available;

    d. The performance of each technology based on
    (1) Effluent limits attainable;
    (2) Pollutant removal rates; and
    (3) Per-unit cost of removal.

    e. Comparison of removal costs with those typical of secondary treatment plants.

Time Schedule Order

39. The technology based effluent limits in this Permit are the same as those prescribed in the previous orders, which were based on BCT/BAT (see Finding 14). However, these technology based effluent limits were determined based on treatment technologies available in 1987. Over the past 18 years, new technologies have been developed for treating intermittent wet weather flows and lateral infiltration controls, which were not available in 1987. This gives rise to the possibility that the Discharger's WWFs no longer comply with BCT/BAT requirements.

    Additionally, the discharge has reasonable potential to cause or contribute to exceedances of water quality standards for toxics and as a result, the discharges from these facilities threaten to violate the receiving water limitation set forth in this Order. The Discharger has represented that it believes additional toxic pollutant mass reduction is possible. The Water Board finds that investigating where and how such reductions are possible is appropriate and necessary.

    For these reasons, the Water Board is imposing a Time Schedule Order ("TSO"), concurrent with this Permit, requiring the Discharger to investigate, over the next 4.5 years, how best to reduce toxic pollutant loading to San Francisco Bay, to improve technology based performance for conventional pollutants, and to make progress toward compliance with applicable water quality objectives via

direct controls or offsets in the form of pollutant mass reductions into San Francisco Bay from other off-site sources. Some examples of other off-site source reductions are treatment of nuisance flows from storm drain systems during dry weather, treatment of storm water from the first storm events ("first flush"), and funding clean-up or closure of abandoned mines that would otherwise not be cleaned-up or closed. Specifically, the TSO requires the Discharger to:

a. Investigate new treatment technologies that could be added to the facilities;

b. Investigate a "one-system" permit model;

c. Investigate offsetting reductions of toxic pollutants;

d. Investigate additional wet-weather flow storage and transportation;

e. Investigate regional infiltration and inflow (I/I) management and reduction; and,

f. Investigate the application of various methods, eg: water effects ratios, site-specific translators, site-specific objectives, aggressive pretreatment, mixing zones and dilution credits, to achieve compliance.

Water Quality-Based Effluent Limits (WQBELs)

40. Toxic substances are regulated by WQBELs derived from water quality objectives listed in the Basin Plan Tables 3-3 and 3-4, the NTR, U.S. EPA recommended criteria, the CTR, the SIP, and/or BPJ. Reasonable potential is determined using the methodology outlined in the SIP. If the Discharger demonstrates that the final limits will be infeasible to meet and provides justification for a compliance schedule, then interim limits are established, with compliance schedules to achieve the final limits. Further details about the effluent limits are given in the associated Fact Sheet.

41. The Basin Plan allows substituting alternative bacteriological effluent limitations for total coliform limitations if the Discharger can demonstrate such substitution will not result in unacceptable adverse impacts on the beneficial uses of the receiving water. This Order contains a provision for an optional study for the Discharger to take effluent and receiving water samples to demonstrate appropriateness of such a substitution.

Interim Limits and Compliance Schedules

42. Interim limits in this Order are calculated by using the Discharger's self-monitoring data from October 2000 to January 2004, including effluent data obtained under the requirements of the Board August 6, 2001, letter. However, there are only one or two detected values for organic pollutants in these data. The staff is unable to calculate the performance-based limits based on one or two data points. Therefore, this Order requires accelerated monitoring of toxic organic pollutants to monthly if data show concentrations above the applicable criteria. If the future monitoring results show consistent exceedance of WQOs, the Board will reopen this Order to include interim limits as necessary.

43. This Order establishes compliance schedules based on Sections 2.1 and 2.2 of the SIP for limits derived from CTR criteria or based on the Basin Plan for limits derived from the Basin Plan WQOs. If an existing Discharger cannot immediately comply with a new and more stringent effluent limit, the SIP and the Basin Plan authorize a compliance schedule in the permit. To qualify for a compliance schedule, both the SIP and the Basin Plan require that the Discharger demonstrate that it

is infeasible to achieve immediate compliance with the new limits. The SIP and the Basin Plan require that the following information be submitted to the Board to support a finding of infeasibility:

a. Documentation that diligent efforts have been made to quantify pollutant levels in the discharge and sources of the pollutant in the waste stream, including the results of those efforts;
b. Documentation of source control and/or pollution minimization efforts currently under way or completed;
c. A proposed schedule for additional or future source control measures, pollutant minimization or waste treatment; and
d. A demonstration that the proposed schedule is as short as practicable.

44. On July 14, 2004, the Discharger submitted an infeasibility study. Based on the information in this report, the Board believes that the Discharger has fulfilled all of the above requirements and is eligible for a compliance schedule. In summary, the infeasibility analysis consisted of comparing the mean, 95th percentile and 99th percentile of the effluent data from Outfall E-2 (from winters of years 2000 through 2003) to the LTA (Long Term Average), AMEL (Average Monthly Effluent Limit), and MDEL (Maximum Daily Effluent Limit) calculated using SIP procedures. The result shows that mean, 95th or 99th percentiles of effluent data were greater than LTA, AMEL or MDEL, thus it is infeasible to achieve immediate compliance.

45. According to the Basin Plan (page 4-14, Compliance Schedule) or the SIP (Section 2.1, Compliance Schedule), if the Discharger demonstrates that it is infeasible to immediately comply with the WQBELs calculated according to Section 1.4 of the SIP, the permit should allow a compliance schedule to achieve such compliance. Therefore, this Order establishes a five-year compliance schedule for final limits based on CTR or NTR criteria (e.g., copper, and cyanide), and compliance schedule of January 1, 2015, for final limits based on the Basin Plan numeric objectives affected by the recent amendment (e.g., lead, nickel, silver and zinc). This provision has been construed to authorize compliance schedules for new interpretations of existing standards, such as the numeric water quality objectives specified in the Basin Plan, resulting in more stringent limits than those in the previous permit.

46. Until final WQBELs or WLAs are adopted, state and federal anti-backsliding and antidegradation policies, and the SIP, require that the Board include interim effluent limits. The interim effluent limits in this Order are based on the more stringent of performance based limits or limits from the previous Order.

Total Maximum Daily Loads (TMDLs) and Waste Load Allocations (WLAs)

47. On July 25, 2003, the U.S. EPA approved a revised list of impaired water bodies prepared by the State. The list (hereinafter referred to as the 303(d) list) was prepared in accordance with Section 303(d) of the federal Clean Water Act to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limits on point sources. Both central and lower San Francisco Bay are listed as an impaired water body. The central San Francisco Bay is impaired for Chlordane, DDT; Diazinon, Dieldrin, Dioxin and Furan compounds, Mercury, PCBs, Selenium and exotic species. The lower San Francisco Bay at Oakland Inner Harbor (Fruitvale site) is impaired for chlordane and chlordane sediment, DDT, diazinon, dieldrin, dioxin and furan compounds, mercury, PCBs, selenium and exotic species.

48. Based on the 303(d) list of pollutants impairing San Francisco Bay, the Board plans to adopt TMDLs for these pollutants no later than 2010, with the exception of dioxin and furan compounds. The Board defers development of the TMDL for dioxin and furan compounds to the U.S. EPA. Future

review of the 303(d) list for San Francisco Bay may result in revision of the schedules and/or provide schedules for other pollutants.

49. The TMDLs will establish WLAs and load allocations for point sources and non-point sources, respectively, and will result in achieving the water quality standards for the listed water body. The final effluent limits for pollutants with TMDLs and WLAs will be based on WLAs, which are derived from the TMDLs.

Source Control and Pollution Prevention

50. The Discharger has established a Pollution Prevention Program under the requirements specified by the Water in its NPDES permit for the Discharger's main treatment plant (CA0038702).

    a. Section 2.4.5 of the SIP specifies under what situations and for which priority pollutant(s) (i.e., reportable priority pollutants) the Discharger shall be required to conduct a Pollutant Minimization Program in accordance with Section 2.4.5.1.

    b. There may be some redundancy between the Pollution Prevention Program and the Pollutant Minimization Program requirements.

    c. Where the two programs' requirements overlap, the Discharger is allowed to continue/modify/expand its existing Pollution Prevention Program to satisfy the Pollutant Minimization Program requirements.

    d. For constituents identified under Effluent Limits, the Discharger will conduct appropriate source control or pollutant minimization measures that are consistent with its approved Pretreatment and Pollution Prevention Programs. For constituents with compliance schedules under this permit, the applicable source control/pollutant minimization requirements of SIP Section 2.1 will also apply.

Permit Reopener

51. This Order includes a reopener provision to allow numeric effluent limitations to be added or deleted for any constituent that exhibits or does not exhibit, respectively, reasonable potential. The Board will make this determination based on monitoring results required in this Order.

Antibacksliding and Antidegradation

52. *Antidegradation and Anti-backsliding.* The limits in this Order are in compliance with the Clean Water Act Section 402(o) prohibition against establishment of less stringent WQBELs for the following reasons:

    a. For impairing pollutants, the revised final limits will be in accordance with TMDLs and WLAs once they are established;

    b. For non-impairing pollutants, the final limitations are/will be consistent with current State WQOs/WQC.

    c. Antibacksliding does not apply to the interim limits established under previous Orders;

    d. If antibacksliding policies apply to interim limits under 402(o)(2)(c), a less stringent limit is necessary because of events over which the Discharger has no control and for which there is no reasonable available remedy, and/or new information is available that was not available during previous permit issuance.

CEQA Exemption and Public Hearing

53. *NPDES Permit.* This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

54. *Notification.* The Discharger and interested agencies and persons have been notified of the Water Board's intent to reissue requirements for the existing discharges and have been provided an opportunity to submit their written views and recommendations. Board staff prepared a Fact Sheet and Response to Comments, which are hereby incorporated by reference as part of this Order.

55. *Public Hearing.* The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

56. During reissuance of this permit, members of the public expressed concerns that the Board would not act in a timely manner to reissue this permit in 5 years. Therefore, provided the Discharger has timely applied for permit reissuance, the Board directs its staff to expeditiously work on and prioritize reissuing the permit, and bring it before the Board prior to this permit's expiration date, if possible.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code, regulations, and plans and policies adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

2. Discharge of dry weather wastewater from the wet weather outfalls is prohibited.

3. Discharge to waters of the State is prohibited except as defined below:

   The Discharger shall design, construct and operate its interceptor system and wet-weather treatment facilities to achieve a long-term average of no more than 10 discharges per year per discharge location, for a total of no more than 100 million gallons per year. The numerical design criteria in this prohibition are the long-term goals to be achieved after the East Bay Communities complete their I/ICP in 2017. These numerical criteria will not be used to determine compliance or non-compliance with this prohibition.

B. IMPLEMENTATION AND ENFORCEMENT OF PROHIBITION A.3

Compliance with Prohibition A.3 can be demonstrated by compliance with both of the following:

1. The April 1988 Wet Weather Facilities Operating and Control Plan, which is consistent with the following objectives:

   a. Maximize the volume of wastewater delivered to the main treatment plant consistent with that plant's hydraulic and treatment capacities; and

b. Assure that all wastewater entering the Discharger's interceptor receives treatment prior to discharge (at least floatables removal and disinfection/dechlorination).

2. Requirements in the Time Schedule Order No. R2-2005-0048.

C. EFFLUENT LIMITATIONS

1. Effluent limitations for conventional pollutants

Effluent discharged from Point Isabel, San Antonio Creek and Oakport wet-weather treatment facilities shall comply with the following limitations:

Constituents	Units	Instantaneous Max.	Moving median of 5-consecutive sample	Any single sample
Total Coliform Organisms[1]				
1. Point Isabel facility	MPN/100 ml		240	10,000
2. San Antonio Creek facility	MPN/100 ml		240	10,000
3. Oakport facility	MPN/100 ml		240	10,000
Chlorine Residual[2]	mg/L	0.0		
pH, in pH units[3]	Discharge must be within 6.5 to 8.5			

[1] The Discharger may propose a study to support the conversion to alternative bacteriological effluent limits.

[2] The chlorine residual requirement is defined as below the limit of detection defined in *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, chlorine and sodium bisulfate dosage, and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Board may conclude that these false positive chlorine residual exceedances are not violations of this permit limit.

[3] If the Discharger continuously monitoring pH, the Discharger shall be in compliance with the pH limitation provided that both of the following conditions are satisfied: (1) The total time during which the pH values are outside the required range of 6.5 to 8.5 pH values shall not exceed 99% of the total duration of discharge during any calendar month; and (2) No individual excursion from the range of pH values shall exceed 60 minutes.

2. Toxic Substances

Effluent discharged from **Point Isabel** WWF shall comply with the following limitations:

Constituent	Unit	Interim Daily Max	Notes
Copper	µg/L	77	(1) (2)
Lead	µg/L	20	(1) (5)
Mercury	µg/L	0.40	(1) (3)(4)
Nickel	µg/L	32	(1) (5)
Silver	µg/L	20	(1) (5)
Zinc	µg/L	197	(1) (5)

Effluent discharged from **San Antonio Creek** WWF shall comply with the following limitations:

Constituent	Unit	Interim Daily Max	Notes
Copper	µg/L	94	(1) (2)
Lead	µg/L	60	(1) (5)
Mercury	µg/L	1.0	(1) (3)(4)
Nickel	µg/L	31	(1) (5)
Silver	µg/L	23	(1)5
Zinc	µg/L	228	(1) (5)

Effluent discharged from **Oakport** WWF shall comply with the following limitations:

Constituent	Unit	Interim Daily Max	Notes
Copper	µg/L	100	(1) (2)
Lead	µg/L	46	(1) 5
Mercury	µg/L	0.25	(1) (3) (4)
Nickel	µg/L	25	(1) 5
Silver	µg/L	26	(1) 5
Zinc	µg/L	269	(1) 5

Notes:

(1) (a) Compliance with these limits is intended to be achieved through pretreatment and source control.

(b) All analyses shall be performed using current U.S. EPA methods. The Discharger is in violation of the limit if the discharge concentration exceeds the effluent limitation and the reported minimum level (ML) for the analysis.

(c) Limits apply to the average concentration of all samples collected during the averaging period (Daily = 24-hour period).

(2) This interim limit shall remain in effect until May 18, 2010, or until the Board amends the limit based on site-specific objectives or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

(3) This interim limit shall remain in effect until April 28, 2010, or until the Board amends the limit based on site-specific objectives or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

(4) Mercury: Effluent mercury monitoring shall be performed by using ultra-clean sampling and analysis techniques or U.S. EPA method 245.2, with a minimum level of 0.002 µg/L or lower.

(5) This interim limit shall remain in effect until January 1, 2015, or until the Board amends the limit based on site-specific objectives or the Waste Load Allocation in the TMDL. However, during the next permit reissuance, Board staff may re-evaluate the interim limits.

D. RECEIVING WATER LIMITATIONS

1. The discharges of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible floating, suspended, or deposited oil or other products of petroleum origin; and

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which 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 discharges shall not cause nuisance, or adversely affect the beneficial uses of the receiving water.

3. The discharges shall not cause the following limits to be violated in waters of the State at any one place within one foot of the water surface:

   a. Dissolved Oxygen: 5.0 mg/L, minimum
   The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharges shall not cause further reduction in ambient dissolved oxygen concentrations.

   b. Dissolved Sulfide: 0.1 mg/L, maximum

   c. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH by more than 0.5 pH units.

   d. Un-ionized Ammonia: 0.025 mg/L as N, annual median; and 0.4 mg/L as N, maximum.

   e. Nutrients: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

4. The discharges shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted there under. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. PROVISIONS

1. Time Schedule Order

The Discharger shall comply with all provisions and requirements in the Time Schedule Order No. R2-2005-0048 ("TSO") issued for the subject discharges in this Order.

2. Interim Environmental Enhancement Project

As a condition of the Board's granting of an exception to the "less than 10:1" prohibition, the Discharger shall propose one or more environmental enhancement project(s), which will result in substantially reduced pollutant loading to San Francisco Bay. Specifically, within six months of the effective date of this Permit, the Discharger shall submit to the Board's Executive Officer for approval a work plan for one or more Project(s). The Discharger shall include in the work plan a review of considered Project alternatives, with recommendations for Projects to be selected based on criteria that include water quality benefit, time-frame for implementation and project cost. The Discharger shall implement the environmental Project(s) upon the approval by the Board's Executive Officer, and complete the Project by the timeline as approved by the Executive Officer.

The Discharger shall submit semi-annual progress reports, on the first of April and November of each year, to the Board documenting progress toward Project implementation, as well as (1) any revised workplan(s) necessitated by problems encountered in implementation and (2) a final report documenting Project completion. The final report shall be submitted within 90 days of Project completion. The progress reports must identify steps taken toward Project completion, the costs of Project implementation, and the environmental benefits obtained by the Project, including mass amount of pollutant loading reduction to San Francisco Bay achieved.

3. 5-Day Biological Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) RemovalEfficiency Study

The Discharger shall conduct a BOD_5 and TSS removal efficiency study at each of the three WWFs. The Study shall include sufficient BOD_5 and TSS monitoring data in order to confidently calculate BOD_5 and TSS removal efficiency at each WWF. The Discharger shall discuss the status of this study in its Annual Self-Monitoring Reports, and submit the completed study result with its NPDES renewal application for this Order.

4. SSO/TMDL Participation Requirement

The Discharger shall participate in the region-wide group effort to develop TMDLs or Site-Specific Objectives (SSOs) for copper, mercury, nickel, cyanide, dioxin TEQ, and chlorinated pesticides (for those with reasonable potential). By January 31 of each year, an update shall be submitted to the Board by the group to document progress made on development of TMDLs or SSOs. This submittal may be done as part of a collaborative effort with other dischargers.

5. Operation and Maintenance Manual

The Discharger shall review and update its Operation and Maintenance Manual annually or, in the event of significant facility or process changes, shortly after such change occur. The Discharger shall keep the manual at its facility and have it readily available to its employees and Board staff for inspection.

6. Pollutant Prevention and Minimization Program (PMP)

The Discharger shall continue to implement and improve its existing Pollution PMP in order to reduce pollutant loadings to the treatment plant and therefore to the receiving waters. Compliance with this provision can be demonstrated by showing compliance with Provision 6 of Order No. 01-072 for the Discharger's main treatment plant.

7. Optional Receiving Water Study on Alternate Bacteriological Limitations

To develop information on substituting alternate bacteriological effluent limitations for the existing total coliform limits, the Discharger may conduct a receiving water study to assess its appropriateness. Depending on the results of the final study, this Order may be amended to make such a substitution. Study tasks shall include:

a. Develop a study plan, acceptable to the Executive Officer, to include selection and justification for an alternate bacteriological limit and tasks to be completed.

b. Following approval by the Executive Officer, commence work in accordance with the study plan and time schedule.

c. Submit a final report, acceptable to the Executive Officer, documenting results of the investigation.

8. Self-Monitoring Program

The Discharger shall comply with the Self-Monitoring Program (SMP) for this Order as adopted by the Board. The SMP may be amended by the Executive Officer pursuant to U.S. EPA regulations 40 CFR 122.62, 122.63, and 124.5.

9. Standard Provisions and Reporting Requirements

The Discharger shall comply with all applicable items of the Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits, August 1993 (attached), or any amendments thereafter. Where provisions or reporting requirements specified in this Order are different from equivalent or related provisions or reporting requirements given in 'Standard Provisions', the specifications of this Order shall apply.

10. Change in Control or Ownership

a. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Board.

b. To assume responsibility of and operations under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order (see Standard Provisions & Reporting Requirements, August 1993, Section E.4.). Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

11. Order Reopener

The Board may modify or reopen this Order and Permit prior to its expiration date in any of the following circumstances:

a. If present or future investigations demonstrate that the discharge(s) governed by this Order and Permit will or have a reasonable potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters;

b. New or revised WQOs come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this permit will be modified as necessary to reflect updated WQOs. Adoption of effluent limitations contained in this Order and Permit are not intended to restrict in any way future modifications based on legally adopted WQOs or as otherwise permitted under Federal regulations governing NPDES permit modifications; or

c. The Discharger has successfully demonstrated that substitution of an alternate bacteriological effluent limit for total coliform will not result in unacceptable adverse impacts on the beneficial uses of the receiving water.

12. Order Effective Date and Rescission of Previous Waste Discharge Requirements

The Discharger shall comply with all sections of this Order beginning on its effective date. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 98-005; Order No. 98-005 is hereby rescinded upon the effective date of this Order.

13. NPDES Permit Effective Date

This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective on October 1, 2005, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

14. Order Expiration and Reapplication

a. This Order expires on March 31, 2010.

b. In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a report of waste discharge requirements no later than 180 days before the expiration date of this Order as application for reissue of this permit and waste discharge requirements. The application shall be accompanied by a summary of all available water quality data including conventional pollutant data from no less than the most recent three (3) years, and of toxic pollutant data no less than from the most recent five (5) years, in the discharge and receiving water. Additionally, the Discharger must include with the application the final results of any studies that may have bearing on the limits and requirements of the next permit. Such studies include, but are not limited to, dilution studies, translator studies, alternate bacteria indicator studies, and the conventional pollutant removal efficiency study required by this Order.

I, Bruce H. Wolfe, 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, San Francisco Bay Region, on September 21, 2005.

for
Bruce H. Wolfe
Executive Officer

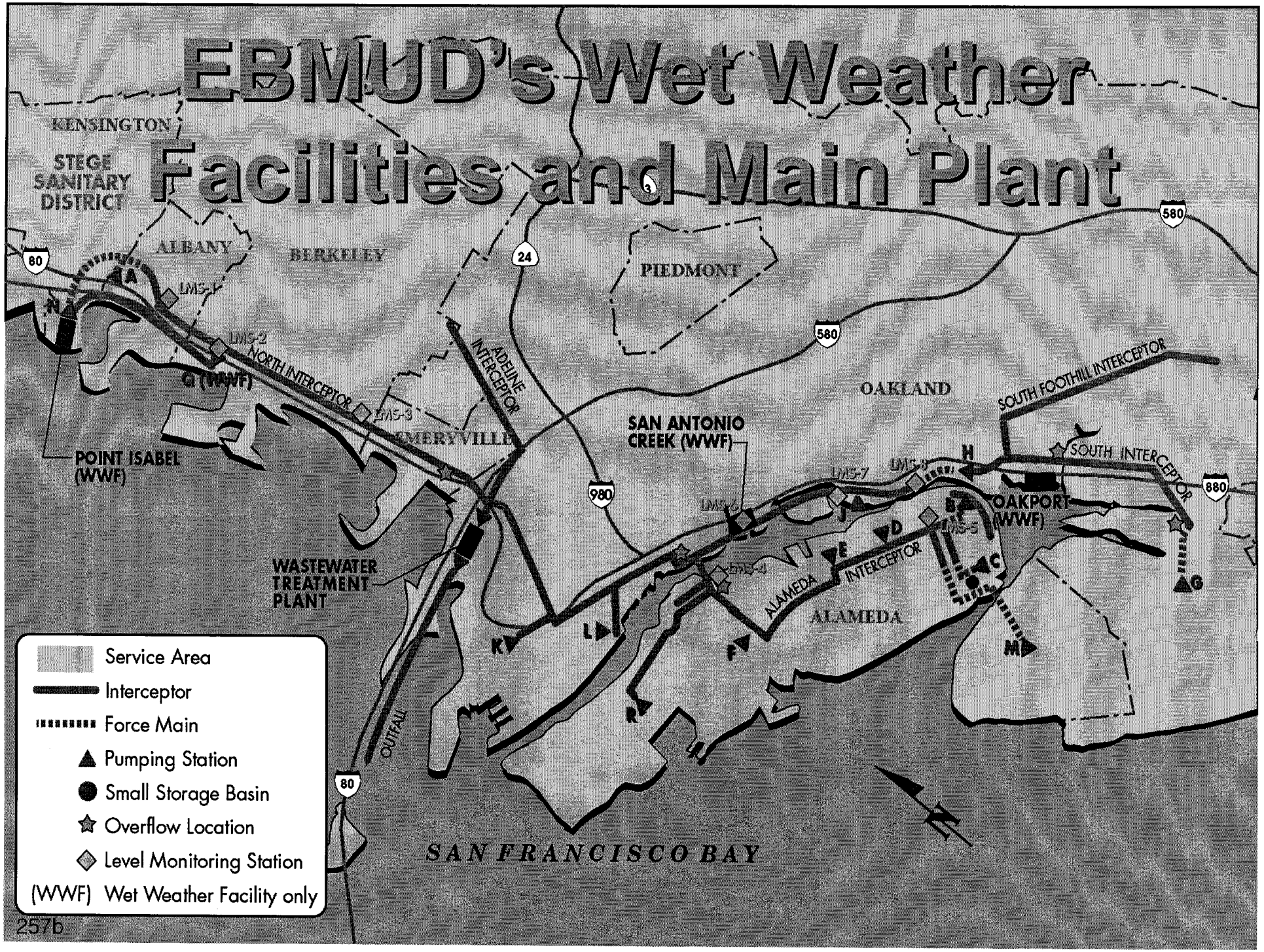
Attachments:
A. Figure 1. EBMUD WWFs
B. Self-Monitoring Program, Part B
C. Fact Sheet

The following documents are part of this Order, but are not physically attached due to volume. They are available on the internet under downloadable documents at www.waterboards.ca.gov/sanfranciscobay:

- Part A (dated August 1993), not enclosed
- Standard Provisions and Reporting Requirements, August 1993
- Board Resolution No. 74-1

Attachment A

Figure 1: EBMUD WWFs


EBMUD's Wet Weather Facilities and Main Plant
KENSINGTON
STEGE SANITARY DISTRICT
ALBANY
BERKELEY
PIEDMONT
OAKLAND
EMERYVILLE
ALAMEDA
SAN FRANCISCO BAY
80
24
580
980
880
LMS-1
LMS-2
LMS-3
LMS-4
LMS-5
LMS-6
LMS-7
LMS-8
NORTH INTERCEPTOR
ADELINE INTERCEPTOR
SOUTH FOOTHILL INTERCEPTOR
SOUTH INTERCEPTOR
ALAMEDA INTERCEPTOR
POINT ISABEL (WWF)
SAN ANTONIO CREEK (WWF)
OAKPORT (WWF)
WASTEWATER TREATMENT PLANT
OUTFALL
Service Area
Interceptor
Force Main
Pumping Station
Small Storage Basin
Overflow Location
Level Monitoring Station
(WWF) Wet Weather Facility only
257b

Attachment B

Self-Monitoring Program, Part B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

EAST BAY MUNICIPAL UTILITIES DISTRICT
SPECIAL DISTRICT NO. 1
WET WEATHER FACILITIES
ALAMEDA and CONTRA COSTA COUNTY

NPDES PERMIT NO. CA0038440

Consists of:
Part A (not attached), except as modified in Section VI.C of Part B
Adopted August 1993

and

Part B (Attached)
Adopted: September 21, 2005
Effective: October 1, 2005

Note: Part A (dated August 1993) and Standard Provisions and Reporting Requirements for NPDES Surface Water Discharger Permits (dated August 1993) referenced in this Self Monitoring Program are not attached but are available for review or download on the Board's website at www.swrcb.ca.gov/rwqcb2.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2005-0047
NPDES PERMIT NO. CA0038440

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1
WET WEATHER FACILITIES (WWFs)
ALAMEDA AND CONTRA COSTA COUNTIES

SELF-MONITORING PROGRAM
Part B

I. Description of Sampling and Observation Stations

A. EFFLUENT STATIONS

Stations	Description
E-001	At any point in the Pt. Isabel WWF outfall where all waste tributaries to that outfall are present (may be the same as E-001-D)
E-002	At any point in the San Antonio WWF outfall where all waste tributaries to that outfall are present (may be the same as E-002-D)
E-003	At any point in the Oakport WWF outfall where all waste tributaries to that outfall are present (may be the same as E-003-D)
E-001-D	At any point in the Pt. Isabel WWF outfall at which adequate disinfection has taken place
E-002-D	At any point in the San Antonio WWF outfall at which adequate disinfection has taken place
E-003-D	At any point in the Oakport WWF outfall at which adequate disinfection has taken place

B. UNTREATED SEWAGE OVERFLOWS AND SPILLS

Station	Description
OV-1	Oakland Inner harbor overflow structure at Alice Street
OV-2	Oakland Inner harbor overflow structure at Webster Street
OV-3	Overflow structure at Elmhurst Creek
OV-4	Overflow structure at San Leandro Creek
OV-5	Overflow structure at Temescal Creek
OV-X	Any sewerage overflow locations, such as manholes, pump stations, interceptors, etc.

II. Schedule of Sampling, Analysis and Observations

Effluent sampling is required only during discharge events lasting more than one hour. For monitoring purposes, a discharge ceases if there is no effluent flow from the facility for a period of at least 4 hours. Effluent flow after a 4-hour cessation constitutes a new discharge.

The schedule of sampling, analysis and observation shall be that given in Tables 1 and 2 below.

Table 1

SCHEDULE of SAMPLING, ANALYSES and OBSERVATIONS [1]

Sampling Station			E-001 to E-003	E-001 to E-003	E-001-D to E-003-D
Type of Sample			GRAB	C-X	GRAB
Parameter	**Units**	**Notes**			
Flow Rate	mgd	[2]	Cont.		
pH	pH units		E		
Total Coliform	MPN / 100 ml	[3]	M		
Chlorine Residual	mg/L	[4]			Cont.
Oil and Grease	mg/L	[6]	M		
BOD_5	mg/L	[6]		M	
TSS	mg/L	[6]		M	
Table 3 Constituents as required per the 13267 letter – see below	µg/L	[5]			
SILVER	µg/L			M	
ARSENIC	µg/L			M	
CADMIUM	µg/L			M	
CHROMIUM	µg/L			M	
COPPER	µg/L			M	
ZINC	µg/L			M	
NICKEL	µg/L			M	
LEAD	µg/L			M	
SELENIUM	µg/L			M	
MERCURY	µg/L		M		
CYANIDE	µg/L		M		
ANTIMONY	µg/L			M	
BERYLLIUM	µg/L			1/Y	
THALLIUM	µg/L			M	
TOTAL SOLIDS	µg/L		1/Y		
DIOXINS and FURANS	pg/L	[7]	1/Y		
VOLATILE ORGANICS		[7]	1/Y		
SEMI-VOLATILE ORGANICS	µg/L	[7]	1/Y		
PAH's	µg/L	[7]	1/Y		
Chlorinated pesticides and PCBs	µg/L	[7]	1/Y		

Table 2
SCHEDULE of SAMPLING, ANALYSES and OBSERVATIONS

Sampling Stations						
Parameter	OV-1	OV-2	OV-3	OV-4	OV-5	OV-n
Flow (MG)	E	E	E	E	E	E

NOTE: A map and description of each known or observed overflow or by-pass location shall accompany each monthly report. A summary of these occurrences and their location shall be included with the Annual Report for each calendar year.

LEGEND FOR TABLES 1 and 2

Sampling Stations:

E-00n = effluent
E-00n-D = Chlorinated effluent

Types of Samples
(includes continuous sampling, such as for flows)

GRAB = Grab sample
C-X = Composite sample (1/hour) over X hours (the duration of the discharge, not to exceed 24 hours).

Frequency of Sampling

E = each occurrence of a discharge
Cont. = Continuous
M = Once each calendar month
2/A = twice each calendar year (at about 6 months intervals, once in the dry season, once in the wet season)
1/Y = once every year

Parameter and Unit Abbreviations

Mgd = million gallons per day
mg/L = milligrams per liter
µg/L = micrograms per liter
kg/d = kilograms per day
pg/L = Pico gram per litler
kg/mo = kilograms per month
MG = million gallon

MPN/100 ml = Most Probable Number per 100 milliliters

NOTES FOR TABLE 1

[1] Additional details regarding sampling, analyses and observations are given in Section VI of this SMP, *Specifications for Sampling, Analyses and Observations*.
[2] Flow Monitoring, see SMP Section III. A
[3] Total Coliform Monitoring, see SMP Section III. B
[4] Chlorine Residual Monitoring, see SMP Section III. C
[5] Table 2 Selected Constituents, see SMP Section IV
[6] If the Discharger conducts BOD_5 and TSS monitoring pursuant to requirements of the TO or TSO, the supporting monitoring plan/schedule may replace these monitoring requirements.
[7] For those pollutants measured at or above the lowest applicable water quality criterion, the Discharger should consider increasing the frequency of monitoring with a goal of providing sufficient data to evaluate performance of the facility.

III. Specifications for Sampling, Analysis and Observations

Sampling, analyses and observations, and recording and reporting of results shall be conducted in accordance with the schedule given in Table 1 of this SMP, and in accordance with the following specifications, as well as all other applicable requirements given in this SMP. All analyses shall be conducted using analytical methods that are commercially and reasonably available, and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits.

A. Flow Monitoring.
Flow monitoring shall be conducted by continuous measurement of flow and reporting of the following measurements:

1. Effluent (EFF):
   a. Each Occurrence:
      (1) Total Discharge (MG)
      (2) Hourly Discharge Flow (mgd)

   b. Monthly: Total Discharge volume for the calendar month.

B. Total Coliform Monitoring. Because of the difficulty of analyzing coliform samples from an intermittent discharge within the maximum holding period, sampling for total coliform may be taken at any time during the discharge.

C. Disinfection Process Monitoring.
Chlorine Residual Monitoring
During all times when chlorination is used for disinfection of the effluent, effluent chlorine residual concentrations shall be monitored continuously, or by grab samples taken hourly. Chlorine residual concentrations shall be monitored and reported for sampling points both prior to and following dechlorination.

IV. Selected Constituents Monitoring

A. Effluent monitoring shall include evaluation for all constituents listed in Table 3 below, by sampling and analysis of final effluent from outfalls E-001 through E-003.

B. Analyses shall be conducted using the lowest commercially available and reasonably achievable detection limits. The objective is to provide quantification of constituents sufficient to allow evaluation of observed concentrations with respect to water quality objectives.

V. Monitoring Methods and Minimum Detection Levels

A. The Discharger may use the methods listed in the Table 3 below, or alternate test procedures that have been approved by the U.S. EPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5 (revised as of May 14, 1999); or

B. Where no methods are specified for a given pollutant in Table 3, the Discharger shall use the methods approved by the State Water Board or the Regional Water Board.

Table 3

List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l											
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
1.	Antimony	14	204.2						10	5	50	0.5	5	0.5		1000
2.	Arsenic	36	206.3					20		2	10	2	2	1		1000
3.	Beryllium								20	0.5	2	0.5	1			1000
4.	Cadmium	2.2	200 or 213					10	0.5	10	0.25	0.5				1000
5a.	Chromium (III)	180	SM 3500													
5b.	Chromium (VI)	11	SM 3500					10	5							1000
6.	Copper	3.1	200.9						25	5	10	0.5	2			1000
7.	Lead	2.5	200.9						20	5	5	0.5	2			10,000
8.	Mercury	0.025	1631[5]									0.5			0.2	
9.	Nickel	7.1	249.2						50	5	20	1	5			1000
10.	Selenium	5	SM 3114B or C							5	10	2	5	1		1000
11.	Silver	1.2	272.2						10	1	10	0.25	2			1000
12.	Thallium	1.7	279.2						10	2	10	1	5			1000

[1] The criterion serves only as a point of reference for the selection of the appropriate analytical method.

- Some metals are hardness dependent and are expressed as dissolved values. The above listed criteria have not been translated to total values and may be too low or too high depending on the actual hardness of your receiving water.
- Two criteria are listed for some organics. The value in parentheses are applicable only to those dischargers who discharge to MUN designated receiving waters (Municipal and Domestic Supply).

[2] The suggested method is the U.S. EPA Method unless otherwise specified (SM = Standard Methods). The discharger may use another U.S. EPA approved or recognized method if that method has a level of quantification below the applicable criterion. Where no method is suggested, the discharger has the discretion to use any standard method.

[3] Constituents where this column is asterisked "*" indicates that the currently available analytical technique is not low enough for the stated purpose of this letter requirement. The discharger has the option of 1) going forth with the current U.S. EPA analytical method, or 2) participating in a regional study to investigate the feasibility and reliability of increasing sample volumes to lower the detection limits.

[4] Minimum levels are from the State Implementation Policy. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; 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. U.S. EPA 200.9); DCP = Direct Current Plasma.

[5] The Minimum level for mercury is 2 ng/l (or 0.002 ug/l) pursuant to Regional Board letters dated August 4, 1999, and October 22, 1999.

EBMUD Wet Weather Permit
Self-Monitoring Program-CA0038440

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l											
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
13.	Zinc	58	200 or 289						20		20	1	10			
14.	Cyanide	1	SM 4500 CN^- C or I	*				5								
15.	Asbestos (only required for dischargers to MUN waters[2])	7,000,000 fibers/L	0100.2 [6]													
16.	2,3,7,8-TCDD, 17 congeners (Dioxin)	0.13E-07	1613	*												
17.	Acrolein	320	603		2.0	5										
18.	Acrylonitrile	0.059	603	*	2.0	2										
19.	Benzene	1.2	602		0.5	2										
33.	Ethylbenzene	3100	602		0.5	2										
39.	Toluene	6,800	602		0.5	2										
20.	Bromoform	4.3	601	*	0.5	2										
21.	Carbon Tetrachloride	0.25	601	*	0.5	2										
22.	Chlorobenzene	680	601		0.5	2										
23.	Chlorodibromomethane	34(0.401)	601	(*)	0.5	2										
24.	Chloroethane		601		0.5	2										
25.	2-Chloroethylvinyl Ether		601		1	1										
26.	Chloroform		601		0.5	2										
75.	1,2-Dichlorobenzene	2700	601		0.5	2										
76.	1,3-Dichlorobenzene	400	601		0.5	2										
77.	1,4-Dichlorobenzene	400	601		0.5	2										
27.	Dichlorobromomethane	0.56	601		0.5	2										
28.	1,1-Dichloroethane		601		0.5	1										
29.	1,2-Dichloroethane	0.38	601	*	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	3.2(0.057)	601	(*)	0.5	2										
31.	1,2-Dichloropropane	0.52	601		0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	10	601		0.5	2										
34.	Methyl Bromide or Bromomethane	48	601		1.0	2										

[6] Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water using MCE filters, U.S. EPA 600/R-94-134, June 1994.

EBMUD Wet Weather Permit
Self-Monitoring Program-CA0038440

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l											
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
35.	Methyl Chloride or Chloromethane		601		0.5	2										
36.	Methylene Chloride or Dichlorormethane	4.7	601		0.5	2										
37.	1,1,2,2-Tetrachloroethane	11(0.17)	601	(*)	0.5	1										
38.	Tetrachloroethylene	8.85(0.8)	601	(*)	0.5	2										
40.	1,2-Trans-Dichloroethylene	700	601		0.5	1										
41.	1,1,1-Trichloroethane		601		0.5	2										
42.	1,1,2-Trichloroethane	42(0.60)	601		0.5	2										
43.	Trichloroethene	2.7)	601		0.5	2										
44.	Vinyl Chloride	2(525)	601		0.5	2										
45.	2-Chlorophenol	120	604		2	5										
46.	2,4-Dichlorophenol	93	604		1	5										
47.	2,4-Dimethylphenol	540	604		1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	13.4	604		10	5										
49.	2,4-Dinitrophenol	70	604		5	5										
50.	2-Nitrophenol		604			10										
51.	4-Nitrophenol		604		5	10										
52.	4-chloro-3-methylphenol		604		5	1										
53.	Pentachlorophenol	7.9(0.28)	604	(*)	1	5										
54.	Phenol	21,000	604		1	1		50								
55.	2,4,6-Trichlorophenol	2.1	604	*	10	10										
56.	Acenaphthene	1,200	610 HPLC		1	1	0.5									
57.	Acenaphthylene		610 HPLC			10	0.2									
58.	Anthracene	9,600	610 HPLC			10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	0.0044	610 HPLC	*	10	5										
61.	Benzo(a)Pyrene	0.0044	610 HPLC	*		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzofluoranthene	0.0044	610 HPLC	*		10	10									
63.	Benzo(ghi)Perylene		610 HPLC			5	0.1									
64.	Benzo(k)Fluoranthene	0.0044	610 HPLC	*		10	2									

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l										
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
74.	Dibenzo(a,h) Anthracene	0.0044	610 HPLC	*		10	0.1									
86.	Fluoranthene	300	610 HPLC		10	1	0.05									
87.	Fluorene	1,300	610 HPLC			10	0.1									
92.	Indeno(1,2,3-cd)Pyrene	0.0044	610 HPLC	*		10	0.05									
100.	Pyrene	960	610 HPLC			10	0.05									
68.	Bis(2-Ethylhexyl) Phthalate	1.8	606 or 625	*	10	5										
70.	Butylbenzyl Phthalate	3,000	606 or 625		10	10										
79.	Diethyl Phthalate	23,000	606 or 625		10	2										
80.	Dimethyl Phthalate	31,3000	606 or 625		10	2										
81.	Di-n-Butyl Phthalate	2,700	606 or 625			10										
84.	Di-n-Octyl Phthalate		606 or 625			10										
59.	Benzidine	0.00012	625	*		5										
65.	Bis(2-Chloroethoxy) Methane		625			5										
66.	Bis(2-Chloroethyl) Ether	1.4(0.031)	625	(*)	10	1										
67.	Bis(2-Chloroisopropyl) Ether	1,400	625		10	2										
69.	4-Bromophenyl Phenyl Ether		625		10	5										
71.	2-Chloronaphthalene	1,700	625	*		10										
72.	4-Chlorophenyl Phenyl Ether		625			5										
73.	Chrysene	0.0044	625	*		10	5									
78.	3,3'-Dichlorobenzidine	0.04	625	*		5										
82.	2,4-Dinitrotoluene	9.1(0.11)	625	(*)	10	5										
83.	2,6-Dinitrotoluene		625			5										
85.	1,2-Diphenylhydrazine[7]	0.04	625	*		1										
88.	Hexachlorobenzene	0.00075	625	*	5	1										
89.	Hexachlorobutadiene	50(0.44)	625	(*)	5	1										
90.	Hexachlorocyclopentadiene	240	625		5	5										
91.	Hexachloroethane	8.9(1.9)	625		5	1										
93.	Isophorone	8.4	625		10	1										
94.	Naphthalene		625		10	1	0.2									

[7] Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene measured at >1 ug/l, then analyze for 1,2-Diphenylhydrazine.

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l											
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
95.	Nitrobenzene	17	625		10	1										
96.	N-Nitrosodimethylamine	8.1(0.00069)	625	(*)	10	5										
97.	N-Nitrosodi-n-Propylamine	0.005	625	*	10	5										
98.	N-Nitrosodiphenylamine	5	625		10	1										
99.	Phenanthrene		625			5	0.05									
101.	1,2,4-Trichlorobenzene		625		1	5										
102.	Aldrin	0.00013	608	*	0.005											
103.	α-BHC	0.0039	608	*	0.01											
104.	β-BHC	0.014	608		0.005											
105.	γ-BHC (Lindane)	0.019	608	*	0.02											
106.	δ-BHC		608		0.005											
107.	Chlordane	0.00057	608	*	0.1											
108.	4,4'-DDT	0.00059	608	*	0.01											
109.	4,4'-DDE	0.00059	608	*	0.05											
110.	4,4'-DDD	0.00083	608	*	0.05											
111.	Dieldrin	0.00014	608	*	0.01											
112.	Endosulfan (alpha)	0.0087	608	*	0.02											
113.	Endosulfan (beta)	0.0087	608	*	0.01											
114.	Endosulfan Sulfate	110	608		0.05											
115.	Endrin	0.0023	608	*	0.01											
116.	Endrin Aldehyde	0.76	608		0.01											
117.	Heptachlor	0.00021	608	*	0.01											
118.	Heptachlor Epoxide	0.0001	608	*	0.01											
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	0.00017	608	*	0.5											
126.	Toxaphene	0.00073	608	*	0.5											
	Tributyltin	0.01	note [8]	Tributyltin is only required for sewage treatment plant discharges, and cooling tower blowdown discharges.												
	Chlorpyrifos	0.0056	614	Chloropyrifos and Diazinon are only required for sewage treatment plant discharges												

[8] Battelle technical article N-0959-2602, or East Bay Municipal Utilities District method for wastewaters

CTR No.	Pollutant/Parameter	Criterion Approx.[1] µg/l	Analytical Method[2]	Optional Lower DL Study[3]	Minimum Levels[4] µg/l											
					GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
	Diazinon	0.05	614	Chloropyrifos and Diazinon are only required for sewage treatment plant discharges												
	Total Solids		SM 2540B	Grab sample at the same time as samples for dioxins and furans, and PCBs												
	pH			Required only for discharges to estuarine or fresh water rivers or streams, at a location upstream of the point of discharge.												
	Stream Flow Rate, upstream			Required only for discharges to estuarine or fresh water rivers or streams, at a location upstream of the point of discharge.												
	Hardness			Required only for discharges to estuarine or fresh water rivers or streams, at a location downstream of the point of discharge.												
	Salinity			Required for all discharges at a location downstream of the point of discharge.												

VI. REPORTING REQUIREMENTS

A. General Reporting Requirements are described in Section E of the Board's "*Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits*", dated August 1993.

B. Monthly Self-Monitoring Report (SMR) Requirements are described in Section F.4 of Part A of the *Self-Monitoring Program,* dated August 1993.

C. Modification of Self-Monitoring Program, Part A (Part A):

1. Section C.2.b of Part A insert the following:

   The requirements of this section apply to facilities with continuous or predictable flow. Due to the variability and unpredictability of flow rates at the WWFs, the requirements of this section do not apply.

2. Section C.3 of Part A, insert the following:

   The requirements of this sections do not apply to the WWFs.

3. Section C.4 of Part A, insert the following:

   The requirements of this section only apply when receiving water sampling is required by Table 1 of Part B. Receiving water sampling is not specified in Table 1 of Part B of this permit. Therefore, the requirements of this section do not apply.

4. Section C.5 of Part A, insert the following:

   The requirements of this section only apply when collection of bottom sediment samples is specified in Table 1 of Part B. Collection of bottom sediment samples is not specified in Table 1 of Part B of this permit so the requirements of this section do not apply.

5. Section D.1 of Part A, insert the following:

   The requirements of this section only apply when receiving water standard observations are specified in table 1 of Part B. Receiving water standard observations are not specified in Table 1 of Part B of this permit. Therefore, the requirements of this section do not apply.

6. Section D.3 of Part A, insert the following:

   The requirements of this section only apply when beach and shoreline standard observations are specified in Table 1 of Part B. Beach and shoreline standard observations are not specified in Table 1 of Part B of this permit. Therefore, the requirements of this section do not apply.

7. Section D.5 of Part A, insert the following:

The requirements of this section only apply when facility periphery standard observations are specified in Table 1 of Part B. Facility periphery standard observations are not specified in Table 1 of Part B of this permit. Therefore, the requirements of this section do not apply.

8. Section E.1 of Part A shall be modified as follows:

Written reports, electronic records, strip charts, equipment calibration and maintenance records, and other records pertinent to demonstrating compliance with waste discharge requirements including self-monitoring program requirements, shall be maintained by the Discharger in a manner and at a location (e.g., wastewater treatment plant or Discharger offices) such that the records are accessible to Board staff. These records shall be retained by the Discharger for a minimum of three years. The minimum period of retention shall be extended during the course of any unresolved litigation regarding the subject discharges, or when requested by the Board or by the Regional Administrator of the U.S. EPA, Region IX. Records to be maintained shall include the following:

a. Parameter Sampling and Analyses, and Observations

For each sample, analysis or observation conducted, records shall include the following:

(1) Parameter

(2) Identity of sampling or observation station, consistent with the station descriptions given in this SMP.

(3) Date and time of sampling or observation.

(4) Method of sampling (grab, composite, other method)

(5) Date and time analysis started and completed, and name of personnel or contract laboratory performing the analysis.

(6) Reference or description of procedure(s) used for sample preservation and handling, and analytical method(s) used.

(7) Calculations of results.

(8) Analytical method detection limits and related quantitation parameters.

(9) Results of analyses or observations.

b. Flow Monitoring Data

For all required flow monitoring, records shall include the following:

(1) Total flow or volume, for each day.
(2) Hourly flow (mgd)
(3) Duration of each discharge

c. Disinfection Process

For the disinfection process, records shall be maintained documenting process operation and performance, including the following:

d. For bacteriological analyses:

(1) Date and time of each sample collected

(2) Wastewater flow rate at the time of sample collection

(3) Results of sample analyses (coliform count)

e. For chlorination process, at least daily average values for the following:

(1) Chlorine residual in contact basin (mg/L)

(2) Chlorine dosage (kg/day)

9. Section F.1 of Part A shall be modified as follows:

a. A report shall be made of any spill of oil or other hazardous material to waters of the U.S. and any spill and overflow of untreated sewage from any of the overflow structures and sewage collection systems.

b. The spill and overflows shall be reported by telephone as soon as possible and no later than 24 hours following Discharger's knowledge of occurrence. Spills shall be reported by telephone as follows. Spills or overflow of untreated sewage can also be made via through the Board's electronic reporting system at www.r2esmr.net/sso_login2.asp.

(1) During weekdays, during office hours of 8 am to 5 pm, to the Board:
Current phone number: (510) 622 - 2300.
Current Fax number: (510) 622 – 2460.

(2) During non-office hours, to the State Office of Emergency Services:
Current phone number: (800) 852 - 7550.

c. A written report shall be submitted to the Board within five (5) working days following telephone notification, unless directed otherwise by Board staff. A report submitted by facsimile transmission is acceptable for this reporting. The written report shall include the following:

(1) Date and time of spill, and duration if known.
(2) Location of spill (street address or description of location).
(3) Nature of material spilled.
(4) Quantity of material involved.
(5) Receiving water body affected.
(6) Cause of spill.
(7) Observed impacts to receiving waters (e.g., discoloration, oil sheen, fish kill).
(8) Corrective actions that were taken to contain, minimize or cleanup the spill.

(9) Future corrective actions planned to be taken in order to prevent recurrence, and time schedule of implementation.
(10) Persons or agencies contacted.

10. Section F.2 of Part A shall be modified as follows:

In the event the Discharger violates or threatens to violate the conditions of this permit the Discharger shall notify the Board office by telephone as soon as he or his agents have knowledge of the incident, or potential incident and confirm this notification in writing within 5 working days of the telephone notification. The written report shall include time, date, nature, and cause, or potential cause, of the violation to the degree known. The report shall also identify what steps have been or will be taken to investigate, remediate, and/or prevent the problem from recurring as applicable.

In addition, the Discharger shall promptly accelerate his monitoring program to analyze the discharge at least once every discharge event. Such accelerated monitoring shall continue until such time as the effluent limits have been attained or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

11. Section F.4 of Part A shall be modified as follows:
For each calendar month, a self-monitoring report (SMR) shall be submitted to the Board in accordance with the following:

a. The report shall be submitted to the Board no later than the first day of the second month following the reporting month.

b. *Letter of Transmittal*
Each report shall be submitted with a letter of transmittal. This letter shall include the following:

(1) Identification of all violations of effluent limits or other discharge requirements found during the monitoring period;

(2) Details of the violations: parameters, magnitude, test results, frequency, and dates;

(3) The cause of the violations;

(4) Discussion of corrective actions taken or planned to resolve violations and prevent recurrence, and dates or time schedule of action implementation. If previous reports have been submitted that address corrective actions, reference to such reports is satisfactory.

(5) Signature: The letter of transmittal shall be signed by the Discharger's principal executive officer or ranking elected official, or duly authorized representative, and shall include the following certification statement:

"I certify under penalty of law that this document and all attachments have been prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information

submitted. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

c. *Compliance Evaluation Summary*
Each report shall include a compliance evaluation summary. This summary shall include, for each parameter for which effluent limits are specified in the Permit, the number of samples taken during the monitoring period, and the number of samples in violation of applicable effluent limits.

d. *Results of Analyses and Observations.*
(1) Tabulations of all required analyses and observations, including parameter, sample date and time, sample station, and test result.

(2) If any parameter specified in Table 1 of Part B is monitored more frequently than required by this permit and SMP, the results of this additional monitoring shall be included in the monitoring report, and the data shall be included in data calculations and compliance evaluations for the monitoring period.

(3) Calculations for all effluent limits that require averaging of measurements shall utilize an arithmetic mean, unless specified otherwise in this permit or SMP.

e. *Data Reporting for Results Not Yet Available.*
The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in timely manner. The Board recognizes that certain analyses require additional time in order to complete analytical processes and result reporting. For cases where required monitoring parameters require additional time to complete analytical processes and reporting, and results are not available in time to be included in the SMR for the subject monitoring period, such cases shall be described in the SMR. Data for these parameters, and relevant discussions of any observed violations, shall be included in the next SMR due after results are available.

f. *Report Submittal*:
The Discharger shall submit SMRs to:

Bruce Wolfe, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Attn: NPDES Division

g. *Reporting Data in Electronic Format.*
The Discharger has the option to submit all monitoring results in electronic reporting format approved by the Executive Officer. If the Discharger chooses to submit the SMRs electronically, the following shall apply:

(1) *Reporting Method*: The Discharger shall submit SMRs electronically via the process approved by the Executive Officer in a letter dated December 17, 1999, Official Implementation of Electronic Reporting System (ERS).

(2) *Modification of reporting requirements:* Reporting requirements F.4 in the attached *Self-Monitoring program, Part A*, dated August 1993, shall be modified as follows. In the future, the Board intends to modify Part A to reflect these changes.

(i) Monthly Report Requirements:
Monthly Reporting Requirements: For each calendar month, a self-monitoring report (SMR) shall be submitted to the Board in accordance with the following:

1. The report shall be submitted to the Board on the first day of the second month of the reporting period ends.

2. Letter *of Transmittal*
Each report shall be submitted with a letter of transmittal. This letter shall include the following:

   a. Identification of all violations of effluent limits or other discharge requirements found during the monitoring period;
   b. Details of the violations: parameters, magnitude, test results, frequency, and dates;
   c. The cause of the violations;
   d. Discussion of corrective actions taken or planned to resolve violations and prevent recurrence, and dates or time schedule of action implementation. If previous reports have been submitted that address corrective actions, reference to such reports is satisfactory.
   e. Signature: The letter of transmittal shall be signed by the Discharger's principal executive officer or ranking elected official, or duly authorized representative, and shall include the following certification statement:
   f. "I certify under penalty of law that this document and all attachments have been prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

3. Compliance Evaluation Summary
Each report shall include a compliance evaluation summary. This summary shall include the number of samples in violation of applicable effluent limits.

4. Results of Analyses and Observations.

   a. Tabulations of all required analyses and observations, including parameter, sample date, sample station, and test result.
   b. If any parameter is monitored more frequently than required by this permit and SMP, the results of this additional monitoring shall be included in the monitoring report, and the data shall be included in data calculations and compliance evaluations for the monitoring period.
   c. Calculations for all effluent limits that require averaging of measurements shall utilize an arithmetic mean, unless specified otherwise in this permit or SMP.

5. Data Reporting for Results Not Yet Available.
   The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in timely manner. The Board recognizes that certain analyses require additional time in order to complete analytical processes and result reporting. For cases where required monitoring parameters require additional time to complete analytical processes and reporting, and results are not available in time to be included in the SMR for the subject monitoring period, such cases shall be described in the SMR. Data for these parameters, and relevant discussions of any observed violations, shall be included in the next following SMR.

(ii) Annual Report Requirements:
An Annual Report shall be submitted for each calendar year. The report shall be submitted to the Board by February 15 of the following year. This report shall include the following:

1. Annual Compliance Summary Table of treatment plant performance during the calendar year.

2. A comprehensive discussion of treatment plant performance and compliance with waste discharge requirements. This discussion should include any corrective actions taken or planned such as changes to facility equipment or operation practices which may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment or disposal practices.

12. Section G.2 of Part A shall be modified as follows:

A composite sample is defined as a sample composed of individual grab samples collected manually or by an autosampling device on the basis of time and/or flow as specified in Table 1 of Part B. For flow-based compositing, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent from the representative flow rate of the waste stream being sampled measured at the time of grab sample collection. Alternately, equal volume grab samples may be individually analyzed and the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples forming time-based composite samples shall be collected at intervals not greater than those specified in Table 1 of Part B. The quantity of each grab sample forming a time-based composite sample shall be a set or flow proportional volume as specified in Table 1 of Part B. For cyanide, Oil and Grease, and phenol, a minimum of four grab samples, one every six hours over a 24-hour period shall be used. If a particular time or flow-based composite sampling protocol is not specified in Table 1 of Part B, the Discharger shall determine and implement the most representative sampling protocol for the given parameter subject to approval by the Executive Officer.

13. Section G.5 of Part A shall be modified as follows:

    Average values for daily and monthly values are obtained by taking the sum of all daily values divided by the number of all daily values measured during the specified period. In calculating the monthly average, when there is more than one value for a given day, all the values for that day shall be averaged and the average value used as the daily value for that day.

VII. SELF-MONITORING PROGRAM CERTIFICATION

I, Bruce Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

A. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Board Order No. R2-2005-0047

B. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger, and revisions will be ordered by the Executive Officer.

C. Is effective as of October 1, 2005.

for
Bruce Wolfe
Executive Officer

Attachment C.

Fact Sheet

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1515 CLAY STREET, SUITE 1400
OAKLAND, CA 94612
(510) 622–2300 ◊ Fax: (510) 622-2460

FACT SHEET

FOR
NPDES PERMIT and WASTE DISCHARGE REQUIREMENTS for
East Bay Municipal Utility District, Special District 1
Wet Weather Facilities (WWFs)
Alameda and Contra Costa Counties

NPDES Permit No. CA0038440

PUBLIC NOTICE:

Written Comments

- Interested persons are invited to submit written comments concerning this draft permit.
- Comments must be received by the Water Board no later than 5:00 p.m. on September 3, 2004.
- Send comments to the ATTN: Ann Powell

Public Hearing

- The draft permit will be considered for adoption by the Board at a public hearing during the Board's regular monthly meeting at: Elihu Harris State Office Building, 1515 Clay Street, Oakland, CA; 1st floor Auditorium.
- This meeting will be held on: September 21, 2005, starting at 9:00 a.m.

Additional Information

- For additional information about this matter, interested persons should contact Water Board staff member: Ann Powell, phone: (510) 622-2474; email: apowell@waterboards.ca.gov

This Fact Sheet contains information regarding an application for waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit for the East Bay Municipal Utility District, Special District No. 1 (Discharger) from its wet weather outfalls. The Fact Sheet describes the factual, legal, and methodological basis for the proposed permit and provides supporting documentation to explain the rationale and assumptions used in deriving the limits.

I. INTRODUCTION

East Bay Municipal Utility District, Special District No. 1 (hereafter the Discharger) has applied to the Board for reissuance of waste discharge requirements and a permit to discharge treated wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES). This NPDES permit regulates the intermittent discharge of treated effluents from the Point Isabel, San Antonio Creek and Oakport WWFs. The effluent from the Point Isabel wet-weather treatment facility discharges to Richmond Inner Harbor, part of central San Francisco Bay at latitude 37°53'43"N and longitude 122°19'24"W (Outfall E-001). The effluent from the San Antonio Creek wet-weather treatment facility discharges to Oakland Inner Harbor, part of lower San Francisco Bay, at latitude 37°47'30"N and longitude 122°15'44"W (Outfall E-002).

The effluent from the Oakport wet-weather treatment facility discharges to East Creek Slough at latitude 37°45'39"N and longitude 122°12'52"W about 700 feet upstream of lower San Francisco Bay (Outfall E-003).

The Discharger serves nine (9) cities and communities in the East Bay area with a population of approximately 650,000. The nine (9) cities and communities (East Bay Communities) include Cities of Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont and Stege Sanitary District (El Cerrito, Kensington and part of Richmond). Each of the cities and Stege Sanitary District owns and operates its own wastewater collection system.

The Discharger's wastewater treatment facilities consist of a main wastewater treatment plant, an interceptor system, and three WWFs, which provide treatment to extreme peak wet weather flows in the winter season. These WWFs were designed and constructed based on Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable ("BCT/BAT") in 1980s. According to the studies and analysis conducted by the Discharger in 1980s, the BCT/BAT is to provide primary treatment to the wet weather flow.

1. Point Isabel WWF. The Point Isabel WWF is located at 2755 Point Isabel Street, Richmond. It was constructed in 1993 and has a design capacity of 100 million gallons per day (mgd). The Point Isabel WWF provides treatment to wastewaters diverted from the North Interceptor during peak wet weather flow conditions. The technology consists of coarse screens, bar screens, grit chambers, and sedimentation/disinfection basins. Screenings are disposed to landfill; grit and sludge are returned to the interceptor. The effluent is discharged through a submerged diffuser about 300 feet offshore at depth of 8 feet below mean low tide line to Richmond Inner Harbor, part of central San Francisco Bay.

2. San Antonio Creek WWF. The San Antonio Creek WWF is located at 225 5th Avenue, Oakland. It was constructed in 1996 and has a design capacity of 51 mgd. The San Antonio Creek WWF provides treatment to wastewaters diverted from the middle portion of the South Interceptor during peak wet weather flow conditions. The technology consists of grit removal, fine screening, and disinfection. Both screenings and grits are returned to the interceptor. The effluent is discharged to Oakland Inner Harbor, part of lower San Francisco Bay.

3. Oakport WWF. The Oakport WWF is located at 5597 Oakport Street, Oakland. It was constructed in 1990 and has a design capacity of 158 mgd. The Oakport WWF provides to wastewaters diverted from the south portion of the South Interceptor. The technology consists of course screens and sedimentation/disinfection basins. Both screenings and sludge are returned to the interceptor. The effluent is discharged to East Creek Slough, which flows to Oakland Inner Harbor, part of lower San Francisco Bay.

II. DESCRIPTION OF EFFLUENTS

1. Discharge volume and frequency

Board Order No. 98-005 (hereinafter the previous permit) presently regulates the discharge from all three WWFs. The following tables summarize discharge frequency and discharge volume from three WWFs. The Point Isabel WWF has the highest discharge frequencies and discharge volumes, followed by Oakport and San Antonio Creek wet weather treatment facilities.

Discharge Frequency from 1998 to 2003 (Number of discharges per year per facility)

Facility	Targeted Discharge Frequency	Actual Discharge Frequency
Point Isabel	10	8.6
San Antonio	10	2
Oakport	10	7.2

Total Discharge Volume from 1998 to 2003
(Total volume discharged from all three WWFs)

Season	Targeted Discharge Volume, MG	Actual Discharge Volume, MG
Winter of 1998-1999	100	236
Winter of 1999-2000	100	549
Winter of 2000-2001	100	214
Winter of 2001-2002	100	320
Winter of 2002-2003	100	362

Annual Discharge Volume from Each Facility from 1998 to 2003
(Volume discharged per facility per year)

Facility	Season	Season total, MG	Volume of discharge events, MG		
			Minimum	Maximum	Average
Point Isabel	1998-1999	53.7	0.4	36	6.7
	1999-2000	161	2.2	111	23.0
	2000-2001	110	1.2	49.7	13.8
	2001-2002	167	0.9	76.8	15.2
	2002-2003	189.4	1.1	62.6	21
San Antonio	1998-1999	3.8	3.8	3.8	3.8
	1999-2000	53.5	21	32.5	26.8
	2000-2001	0	0	0	0
	2001-2002	8.1	2.5	3	2.7
	2002-2003	18.5	0.7	11.7	4.6
Oakport	1998-1999	178	0.7	60	29.7
	1999-2000	334	10	128	55.7
	2000-2001	104	3	59	17.3
	2001-2002	145	1	36	13.2
	2002-2003	154	1	51	19.3

2. Discharge effluent qualities for conventional pollutants

The three WWFs provide primary treatment to the wet weather flows. Due to severe I/I in the East Bay Communities' sewer systems, about 80% of wet weather flows are storm water. The BOD_5 and TSS removal efficiencies are about 20 to 40 percent. The items below summarize conventional pollutant concentrations in the effluents from these WWFs.

a. Point Isabel WWF. Table 4 summarizes effluent concentrations for conventional pollutants from Point Isabel WWF from 2001 - 2003.

Table 4. Effluent Conventional Pollutants Concentration Summary for Pt. Isabel WWF (From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	28	89	19	51	47
TSS, mg/L	30	100	23	37	46
Oil & Grease, mg/L	28	24	U3.9	13	14
Total Coliform, MPN/100 ml	41	12	<2	2	3
Fecal Coliform, MPN/100 ml	41	2	<2	<2	2

Note 1. U: Analyte not detected.

b. San Antonio Creek wet-weather treatment facility. Table 5 summarizes effluent concentrations for conventional pollutant from San Antonio Creek WWF from 2001 - 2003.

Table 5. Effluent Conventional Pollutants Concentration Summary for San Antonio Creek WWF (From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	8	70	14	56	47
TSS, mg/L	8	180	58	107	113
Oil & Grease, mg/L	8	24	U4.0	6.8	9.6
Total Coliform, MPN/100 ml	10	1300	7	140	334
Fecal Coliform, MPN/100 ml	10	110	<2	13	25

Note 1. U: Analyte not detected.

c. Oakport wet-weather treatment facility. Table 6 summarizes effluent concentrations for conventional pollutant from Point Isabel wet weather treatment facility from 2001 - 2003.

Table 6. Effluent Conventional Pollutants Concentration Summary for Oakport WWF (From January 1, 2001 through December 31, 2003)

Conventional Pollutants	Data Count	Maximum	Minimum	Median	Mean
$CBOD_5$, mg/L	23	220	25	77	93
TSS, mg/L	23	160	36	69	71
Oil & Grease, mg/L	24	37	U3.3[1]	18	18
Total Coliform, MPN/100 ml	43	2200	2	4	101
Fecal Coliform, MPN/100 ml	43	30	2	2	3

Note 1. U: Analyte not detected.

III. GENERAL RATIONALE

The following documents are the bases for the requirements contained in the proposed Order, and are referred to under the specific rationale section of this Fact Sheet.

- Federal Water Pollution Control Act, as amended (hereinafter the CWA).
- Federal Code of Regulations, Title 40 (40 CFR)- Protection of Environment, Chapter 1, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-129 (hereinafter referred to as 40 CFR specific part number).
- Water Quality Control Plan, San Francisco Bay Basin, adopted by the Board on June 21, 1995 (hereinafter the Basin Plan). The California State Water Resources Control Board (hereinafter the State Board) approved the Basin Plan on July 20, 1995 and by California State Office of Administrative Law approved it on November 13, 1995. The Basin Plan defines beneficial uses and contains water quality objectives (WQOs) for waters of the State, including Suisun Bay.
- California Toxics Rules, Federal Register, Vol. 65, No. 97, May 18, 2000 (hereinafter the CTR).
- National Toxics Rules 57 FR 60848, December 22, 1992, as amended (hereinafter the NTR).
- State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, May 1, 2000 (hereinafter the State Implementation Policy, or SIP).

IV. SPECIFIC RATIONALE

Several specific factors affecting the development of limitations and requirements in the proposed Order are discussed as follows:

1. **Technology Based Effluent Limits**
   According to 40 CFR Part 125.3, technology-based limits signify the minimum level of control that a discharger must attain for conventional pollutants. The U.S. EPA Region IX determined in its June 18, 1986, letter (attached) that EBMUD's wet weather overflow structures are not Publicly Owned Treatment Works (POTWs), and are therefore not subject to secondary treatment requirements pursuant to 40 CFR 122.2. The Board relied upon the U.S. EPA's June 18, 1986, letter, and did not impose secondary treatment limits on the subject discharges in the previous permit. Instead, the Board established technology-based effluent limits based on Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable, or BCT/BAT, in the previous permits (Order Nos. 87-18, 92-97 and 98-005). During the 1987-permit reissuance, the Board relied upon various factors identified in 40 CFR 125.3(d) in setting case-by-case based limits in the absence of U.S. EPA guidance or examples from other states. The technology based effluent limits in this Permit are the same as those prescribed in the previous orders.

   However, the Board is requiring, through a Time Schedule Order (TSO), the Discharger investigate, the feasibility of compliance with, or to make progress towards compliance with receiving water standards and objectives to, thereby addressing threatened violations of these standards and objectives. The Board expects the Discharger to achieve this compliance through completion of a variety of requirements specified in the TSO that will be adopted concurrently

with this Order. This strategy will provide the Board with the necessary information to evaluate its permitting options for the next permit reissuance. Specifically, the TSO requires the Discharger to:

a. Investigate upgrading the level of treatment provided by the Point Isabel, San Antonio Creek and Oakport WWFs.;

b. Investigate "One-System" Permit Model;

c. Investigate Offsetting Reductions of Toxic Pollutants;

d. Additional wet-weather flow storage and transportation study;

e. Regional infiltration and inflow (I/I) management and reduction study; and,

f. Investigate the application of various methods, eg: water effects ratios, site-specific translators, site-specific objectives, aggressive pretreatment, mixing zones, and dilution credits.

2. Recent Plant Performance for Water Quality Based Effluent Limits

Section 402(o) of the CWA and 40 CFR 122.44(l) require that water-quality based effluent limits (WQBELs) in re-issued permits are at least as stringent as in the previous permit. The SIP specifies that interim effluent limitations must be based on current treatment facility performance or on previous permit limitations whichever is more stringent. In determining what constitutes "current plant performance", effluent monitoring data collected from January 1999 to January 2004 are used in the Reasonable Potential Analysis (RPA) and to calculate interim limits for toxic pollutants in this Order. However, the following data are not used in the RPA and interim limit calculations:

a. Earlier metals data obtained using U.S. EPA method 200.7 are not used, except for total chromiumand silver. These data are not used because the levels of sensitivity of the 200.7 Method for those analytes are considered highly uncertain where the method detection limits are at or near the expected concentration of the target analytes in the sample. The exception for chromium is because EPA Method 200.7 analysis gives similar detection limits as that of the more recently used Standard Methods (18th ed.) 3113BThe exception for silver is because, unlike other earlier metal data obtained by using 200.7 method, the silver concentrations measured using 200.7 were an order of magnitude greater than the detection limits. Though the 200.7 results for silver do appear much higher than the more recent method used, EBMUD has not provided sufficientevidence to invalidate the results of the U.S. EPA approved 200.7 method.

b. Chromium VI data are not used due to color interference by spectrophotometric method [SM(18)3500:CR-D]. Because a dilution must frequently be made to minimize background color interferences in wastewater, the minimum detection level can range from 15 to 150 µg/L, depending on the dilution factor. Chromium VI is a subset of total chromium. Therefore, the total chromium data are used in the RPA and interim limit calculation.

3. Impaired Water Bodies in 303(d) List

The U.S. EPA Region 9 office approved the State's 303(d) list of impaired waterbodies on July 25, 2003. The list was prepared in accordance with section 303(d) of the CWA 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. Both central and lower San Francisco Bay are listed as impaired water bodies. The pollutants that impair central San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, PAHs (sediment), PCBs, and selenium. The pollutants impairing lower San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, mercury, nickel, PCBs and exotic species.

The SIP requires final effluent limits for all 303(d)-listed pollutants to be based on total maximum daily loads (TMDL) and wasteload allocation (WLA) results. The SIP and federal regulations also require that final concentration limits be included for all pollutants with reasonable potential (RP).

4. Basis for Prohibitions

a. Prohibition A.1 (no discharges other than as described in the permit):

This prohibition is based on the Basin Plan, previous permit and general concepts embodied in the California Water Code and Clean Water Act, which requires that all waste discharges must be first permitted.

b. Prohibition A.2 (no discharge of dry weather flow through the wet weather outfall):

This prohibition is based on the Basin Plan. The Basin Plan prohibits discharges of wastewater, which has particular characteristics of concern to beneficial uses and does not receive a minimum dilution of at least 10:1. Discharges during dry weather condition violate these two prohibitions. The Board has granted an exception to these prohibitions during extreme wet weather.

c. Prohibition A.3 (The maximum discharge volume shall meet the long-term design goal for these WWFs):

The East Bay wet weather program is planned and designed to achieve a long-term average of ten (10) discharges per year per discharge location for a total of 100 million gallons per year. The discharger is expected to achieve this goal after East Bay Communities complete the East Bay Inflow/Infiltration Correction Program (I/ICP).

5. Basis for item B. Implementation and Enforcement of Prohibition A.3.

This item is added to clarify the Board intention on enforcement for Prohibition 3.c., and it is self-explanatory.

6. Basis for Effluent Limitations

a. Effluent Limitations C.1 Effluent limitations for conventional pollutants:

Effluent discharged from Point Isabel, San Antonio Creek and Oakport wet-weather treatment facilities shall comply will the following limitations:

Constituents	Units	Instantaneous Max.	Moving median of 5-consecutive sample [1]	Any single sample
Total Coliform Organisms				
1. Point Isabel facility	MPN/100 ml		240	10,000
2. San Antonio Creek facility	MPN/100 ml		240	10,000
3. Oakport facility	MPN/100 ml		240	10,000
Chlorine Residual[1]	mg/L	0.0		
pH, in pH units[2]	Discharge must be within 6.5 to 8.5			

Aside from the total coliform limit for the San Antonio WWF, these limits are based on previous permits. In those permits, the Board relied upon the U.S. EPA's June 18, 1986, letter, and established technology-based effluent limits based on Best Conventional Pollution Control Technology and Best Available Technology Economically Achievable, or BCT/BAT, (Order Nos. 87-18, 92-97 and 98-005). This was a case-by-case determination because there are no U.S. EPA guidelines for wet weather overflows or any similar discharges. Upon review of the total coliform data, it appears these limits remain appropriate. The 5-consecutive sample moving median limit for the San Antoino WWF, however, has been lowered from 1,000 to 240 MPN/100ml to make it consistent the performance limits for the two other facilities.

In addition to these technology-based effluent limits, the Board will adopt a companion enforcement order, or TSO, which requires the Discharger to investigate, over the next five (5) years, the feasibility of compliance with, or to make progress towards compliance with applicable standards and objectives.

b. Effluent Limitation C.2 – Toxic Substances:

(1) Reasonable Potential Analysis (RPA): 40 CFR 122.44(d)(1)(i) specifies that permits are required to include water quality based effluent limits (WQBELs) for all pollutants "which the Director 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". Thus, the fundamental step in determining whether or not a WQBEL is required is to assess a pollutant's reasonable potential of excursion from its applicable water quality objective or criterion. The following section describes the reasonable potential analysis and the results of this analysis for the pollutants identified in the Basin Plan and the CTR.

i. *WQOs and WQCs*: The RPA involves the comparison of effluent data with appropriate WQOs including narrative toxicity objectives in the Basin Plan, applicable WQC in the CTR/NTR, and U.S. EPA's 1986 Quality Criteria for Water.

ii. *Methodology*: RPA is conducted using the method and procedures prescribed in section 1.3 of the SIP. Board staff has analyzed the effluent data to determine if the discharge had reasonable potential to cause or contribute to exceedances of applicable WQOs or WQCs. Attached Table 1 of this Fact Sheet shows the step-wise process described in Section 1.3 of the SIP.

iii. *Effluent and Receiving Water Ambient Background Data used in Reasonable Potential Analysis.* Effluent data used in the reasonable potential analysis are from the Discharger's self-monitoring data from October 2000 to January 2004, including effluent data obtained under the requirements of the Board's August 6, 2001 letter. Due to color interference in test method for chromium VI, total chromium data are used in the reasonable potential analysis and calculation of interim and final WQBELs. The receiving waters for the discharges regulated by this Order are the waters of central and lower San Francisco Bay. Data from Regional Monitoring Program (RMP) for Yerba Buena Station (Station BC10) were used as ambient background information. Salinity data obtained in January and February of 1994 through 2001 from RMP Point Isabel Station (Station BC41) is used for discharges from Point Isabel WWF. Salinity data obtained in January and February of 1994 through 2001 from RMP Alameda Station (Station BB70) is used for discharges from San Antonio Creek and Oakport WWFs.

iv. *RPA determination*: The RPA results are shown in the attached Tables. RPA summary is shown below:

Reasonable potential Analysis Summary for Point Isabel WWF

Toxic Pollutants (with CTR#)	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	53	2.45	MEC>C
7. Lead	8.5	95 BP	18	0.8	MEC>C
8. Mercury	0.025	95 BP	0.3	0.0086	MEC>C
9. Nickel	8.3	95 BP	26	3.7	MEC>C
11. Silver	2.2	CTR	20.3	0.0516	MEC>C
13. Zinc	85.6	95 BP	134	4.4	MEC>C
14. Cyanide	1	NTR	7	-	MEC>C
16. Dioxin TEQ	0.000000014	95 BP	0.00000197	0.000000071	MEC>C B>C
27. Dichlorobromomethane	46	CTR	52	-	MEC>C
108. 4,4-DDT	0.00059	CTR	0.011	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
110. 4,4-DDD	0.00084	CTR	0.0059	0.000313	MEC>C
111. Dieldrin	0.00014	CTR	0.0029	0.000264	MEC>C; B>C
115. Endrin	0.002	CTR	0.003	0.000036	MEC>C
118. Heptachlor Expoxide	0.00011	CTR	0.0057	0.000094	MEC>C

Note: MEC: Maximum Effluent Concentration.
B: Background concentration.
RP: Reasonable potential.

Reasonable potential Analysis Summary for San Antonio Creek WWF

Toxic Pollutants	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	61	2.45	MEC>C
7. Lead	8.5	95 BP	36.1	0.8	MEC>C
8. Mercury	0.025	95 BP	0.46	0.0086	MEC>C
9. Nickel	8.3	95 BP	26	3.7	MEC>C
11. Silver	2.2	CTR	23	0.0516	MEC>C
13. Zinc	85.6	95 BP	185	4.4	MEC>C
14. Cyanide	1	NTR	28	-	MEC>C
16. Dioxin TEQ	0.000000014	95 BP	0.00000274	0.000000071	MEC>C B>C
61. Benzo(a)pyrene	0.049	CTR	0.04	0.00029	MEC>C
73. Chrysene	0.049	CTR	0.066	0.0024	MEC>C
108. 4,4-DDT	0.00059	CTR	0.0037	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
111. Dieldrin	0.00014	CTR	0.00077	0.000264	MEC>C B>C

Note: MEC: Maximum Effluent Concentration.
B: Background concentration.
RP: Reasonable potential.

Reasonable potential Analysis Summary for Oakport WWF

Toxic Pollutants	C (µg/L)	Basis	MEC (µg/L)	B (µg/L)	RP Basis
6. Copper	3.7	CTR	86.2	2.45	MEC>C
7. Lead	8.5	95 BP	36.8	0.8	MEC>C
8. Mercury	0.025	95 BP	0.17	0.0086	MEC>C
9. Nickel	8.3	95 BP	22	3.7	MEC>C
11. Silver	2.2	CTR	26.4	0.0516	MEC>C
13. Zinc	85.6	95 BP	216	4.4	MEC>C
14. Cyanide	1	NTR	11	-	MEC>C
16. Dioxin TEQ	0.000000014	95 BP	0.00000542	0.000000071	MEC>C B>C
38. Tetrachloroethylene	8.85	CTR	74	-	MEC>C
88. Hexachlorobenzene	0.00077	CTR	0.023	0.000022	MEC>C
108. 4,4-DDT	0.00059	CTR	0.0087	0.000066	MEC>C
109. 4,4-DDE	0.00059	CTR	0.00097	0.000693	MEC>C B>C
110. 4,4-DDD	0.00084	CTR	0.015	0.000313	MEC>C
111. Dieldrin	0.00014	CTR	0.022	0.000264	MEC>C; B>C

Note: MEC: Maximum Effluent Concentration.
B: Background concentration.
RP: Reasonable potential.

v. *Pollutants with no reasonable potential*: WQBEL effluent limits are not included in this Order for constituents that do not have reasonable potential to cause or contribute to an exceedance of applicable water quality objectives.

vi. *Permit Reopener*: The permit includes a reopener provision to allow numeric effluent limits to be added for any constituent that in the future exhibits reasonable potential to cause or contribute to exceedance of a water quality objective.

(2) Final Water Quality Based Effluent Limits (WQBELs): The final effluent limitations for toxic substances in this Order are water-quality based. They were developed and set for the toxic and priority pollutants that were determined to have reasonable potential to cause or contribute to exceedances of the WQOs or WQCs. Final effluent limitations were calculated based on the appropriate procedures specified in Section 1.4 of the SIP (See attachment to this Fact Sheet). The WQO or WQC used for each pollutant with reasonable potential is indicated below as well as in the table for reasonable potential analysis attached to this Fact Sheet.

Final Limitations for Toxic Pollutants Calculated Based on SIP Procedure (Pt. Isabel WWF)

Constituent	Units	Monthly Average	Daily Max
Copper	µg/L	4.3	2.8
Mercury	µg/L	0.021	0.041
Lead	µg/L	4.7	8.8
Nickel	µg/L	6.6	8.9
Silver	µg/L	0.89	2.2
Zinc	µg/L	51	82
Cyanide	µg/L	0.46	1.0
Dioxin, TEQ	pg/L	0.007	0.014
Dichlorobromomethane	µg/L	23	46
4,4-DDE	µg/L	0.00029	0.00059
4,4-DDT	µg/L	0.00029	0.00059
4,4-DDD	µg/L	0.00042	0.00084
Dieldrin	µg/L	0.00014	0.00028
Endrin	µg/L	0.0019	0.0038
Heptachlor Epoxide	µg/L	0.00011	0.00022

Final Limitations for Toxic Pollutants Calculated Based on SIP Procedure (San Antonio Creek WWF)

Constituent	Units	Monthly Average	Daily Max
Copper	µg/L	2.8	4.8
Lead	µg/L	4.6	9.2
Mercury	µg/L	0.021	0.04
Nickel	µg/L	5.8	11.7
Silver	µg/L	1.1	2.2
Zinc	µg/L	47.5	92.3
Cyanide	µg/L	0.50	1.0

Constituent	Units	Monthly Average	Daily Max
Dioxin, TEQ	pg/L	0.007	0.014
Benzo(a) Pyrene	µg/L	0.024	0.049
Chrysene	µg/L	0.024	0.049
4,4-DDE	µg/L	0.00029	0.00059
4,4-DDT	µg/L	0.00029	0.00059
Dieldrin	µg/L	0.00014	0.00028

Final Limitations for Toxic Pollutants Calculated Based on SIP Procedure (Oakport WWF)

Constituent	Units	Monthly Average	Daily Max
Copper	µg/L	2.6	4.8
Lead	µg/L	4.8	8.6
Mercury	µg/L	0.022	0.037
Nickel	µg/L	6.4	9.6
Silver	µg/L	0.88	2.2
Zinc	µg/L	51	84
Cyanide	µg/L	0.41	1.0
Dioxin, TEQ	pg/L	0.007	0.014
Hexachlorobenzene	µg/L	0.00038	0.001
Tetrachloroethene	µg/L	4.2	8.5
4,4-DDE	µg/L	0.00029	0.00059
4,4-DDT	µg/L	0.00029	0.00059
4,4-DDD	µg/L	0.00042	0.00084
Dieldrin	µg/L	0.00014	0.00028

(3) Interim Limits: Interim effluent limitations were derived for those constituents for which the Discharger has shown infeasibility of complying with the final water quality based limits and has demonstrated that compliance schedules are justified based on the discharger's source control and pollution minimization efforts in the past and continued efforts in the present and future. Interim limits in this Order are calculated by using the Discharger's self-monitoring data from October 2000 to January 2004, including effluent data obtained under the requirements of the Board August 6, 2001, letter (with some exceptions for earlier metal data as described in item IV.2.a of this Fact Sheet). With the exception of silver, the interim limits are set at 99.87 percentile (or mean + 3x standard deviation) of the past performance level. In the case of silver, the interim limit is set equal to the MEC. This is because the two different analytical methods used to generate silver data resulted in significantly different concentrations. As such, it was not possible to fit this data to a normal distribution, which is necessary to perform a meaningful statistical evaluation of current performance. In the case of organic pollutants, there are only one or two detected values in the data sets. Board staff is unable to calculate performance-based limits based on one or two data points. Therefore, this Order requires accelerated monitoring of toxic organic pollutants to monthly if data show a concentration above the applicable criteria. If future monitoring results show consistent exceedance of WQOs, the Board will reopen this Order to include interim limits as necessary.

Interim Performance Based limits for Toxic Pollutants
(EBMUD WWFs)

Pollutants	Unit	Pt. Isabel	San Antonio	Oakport	Basis [1]
Copper	µg/L	77	94	100	MiniTab
Lead	µg/L	20	60	46	MiniTab
Mercury	µg/L	0.40	1.0	0.25	MiniTab
Nickel	µg/L	32	31	25	MiniTab
Silver	µg/L	20	23	26	MEC
Zinc	µg/L	197	228	269	MiniTab

Notes 1. MiniTab: Interim limit = mean + 3 x standard deviation; mean and standard deviation is calculated using statistic program of MiniTab.
2. MEC: Maximum Effluent Concentration.

(4) Compliance Schedules and Infeasibility Analysis: The infeasibility analysis consisted of comparing the mean, 95th percentile, and 99th percentile of the effluent data from Discharger's self-monitoring data from October 2000 to January 2004 including effluent data obtained under the requirements of Board August 6, 2001 letter (with some exceptions for earlier metal data as described in item IV.2.aof this Fact Sheet). The LTA (Long Term Average), AMEL (Average Monthly Limit), and MDEL (daily Maximum Limit) calculated using SIP procedures. Due to color interference in the test method used for chromium VI, total chromium data were used in the analysis. The result shows that mean, 95th or 99th percentiles of effluent data were greater than the LTA, AMEL or MDEL, thus it is infeasible to achieve immediate compliance. Some pollutants have only three or fewer detected effluent concentration; in these cases, there were not a sufficient number of detected values to perform statistical analysis. Infeasibility analysis for these pollutants is performed by comparing the maximum effluent concentrations (MECs) with the newly calculated final WQBELs (presented in this Fact Sheet). If the MEC is greater than the WQBEL, then it is infeasible to achieve immediate compliance. The Discharger is required to demonstrate that it is infeasible to comply with these limits immediately through pollution prevention efforts, and is also required to measure these efforts' effectiveness and prepare future plans for focused pollution prevention efforts.

On July 14, 2004, the Discharger submitted an infeasibility study that demonstrated, according to the Basin Plan (page 4-14, Compliance Schedule) and the SIP (Section 2.1, Compliance Schedule) that it is infeasible to immediately comply with the WQBELs. This permit establishes a compliance schedule of May 18, 2010 for final limits based on CTR criteria (e.g., copper), a compliance schedule of April 28, 2010 (10 years from effective date of SIP) for limits based on the Basin Plan and a compliance schedule of January 1, 2015 (10 years from effective date of the 2005 Basin Plan Amendment) for limits based on newly interpreted SIP criteria (eg lead, nickel, silver and zinc).

Because these compliance schedules equal or exceed the length of this permit, these calculated final limits in the table shown above are intended for only as a point of reference for the infeasibility demonstration.

(5) This Order establishes compliance schedules for those pollutants that the Discharger cannot achieve compliance with final limits within one year of permit issuance. Pursuant to the SIP, and 40 CFR 122.47, the Board shall establish interim numeric limitations and

interim requirements to control the pollutants. The NPDES permit for the Discharger's main wastewater treatment plant under NPDES Permit No. CA0037702 in Order No. 01-072 has interim requirements for development and improvement of a Pollution Prevention Program to reduce pollutant loadings to the treatment plant, and for submittal of annual reports on this Program. The Discharger has also committed to support development of TMDLs for these pollutants, which its discharge may be contributing to the impairment. Bay Area Clean Water Agencies (BACWA), an organization of which the Discharger is a member , has entered into a Memorandum of Understanding with the Board to accelerate development of these TMDLs to reduce overall loading of these pollutants to the Bay. In addition, the Discharger is participating in the Clean Estuary Partnership (CEP) Copper/Nickel Study, which addresses San Francisco Bay north of the Dumbarton Bridge for copper and nickel. The results of these studies will also apply to the Discharger.

7. Basis for Receiving Water Limitations

a. Receiving water limitations D.1 and C.3 (conditions to be avoided):

These limits are based on the previous permit and the narrative/numerical objectives contained in Chapters 2 and 3 of the Basin Plan.

b. Receiving water limitation D.4 (compliance with State Law):

This requirement is in the previous permit, requires compliance with Federal and State law, and is self-explanatory.

8. Basis for Provisions

a. Provision E.1. (Time Schedule Order)

This requirement is to ensure compliance with the TSO that is proposed for adoption concurrent with this permit.

b. Provision E.2. (Environmental Enhancement Projects)

This requirement is based on the Basin Plan requirement for obtaining an exception to 10:1 dilution. The Basin Plan contains a prohibition against discharge of any wastewater, which has particular characteristics of concern to beneficial uses, at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 or into any non-tidal water, dead-end slough, similar confined waters, or immediate tributaries thereof (Prohibition 1 in Basin Plan Table 4-1). The Basin Plan also gives exceptions to this prohibition if (1) an inordinate burden would be placed on the Discharger relative to beneficial uses provided, and (2) an equivalent level of environmental protection can be achieved by alternate means. In issuing the previous Order, the Board granted the Discharger an exception for this prohibition because requiring achievement of 10:1 dilution would have placed an inordinate burden on the Discharger with minimum environmental benefit achieved. This provision requires the Discharger propose and complete supplemental environmental project(s) to satisfy the second requirement of the Basin Plan.

c. Provision E.3. (BOD_5 and TSS removal efficiency study)

These WWFs are often used as wet-weather storage facilities, in other words, wastewater flows into these WWFs are often returned back to interceptor depending on the length of the storm and amount of wet weather flow. Therefore, there is not necessarily a discharge, or effluent, for each influent. Due to this special operational condition, the Self-Monitoring Program for this permit does not require sampling of influent BOD_5 and TSS. In order to obtain data on BOD_5 and TSS removal rates, this Order requires the Discharger to conduct this study of the BOD and TSS removal efficiency achieved by the facilities.

d. Provision E.4. (SSO/TMDL participation Requirement)

Support for TMDLs is required by the SIP (2.1.1) and is a condition for granting compliance schedules for pollutants for which TMDLs are being conducted.

e. Provision E.5. (Operation and Maintenance Manual)

This provision requires the Discharger to keep its O&M manual update, and it is self-expletory.

f. Provision E.6. (Pollutant Prevention and Minimization Program)

This provision is based on the Basin Plan and SIP. Preparation of such a program is requiredfor a Discharger to be granted interim limits.

g Provision E.7. (Optional Receiving Water Study on Alternate Bacteriological Limitations)

This provision is based on the Basin Plan allowance for substitution of alternate bacteriological limits with fecal coliform limits.

h. Provision E.8. (Self-Monitoring Program)

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the Self Monitoring Program (SMP) of the Permit. This provision requires compliance with the SMP, and is based on 40 CFR 122.44(i), 122.62, 122.63 and 124.5. The SMP is a standard requirement in almost all NPDES permits (including this Order) issued by the Board. In addition to containing definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and the Board's policies. The SMP also contains a sampling program specific for the discharger regulated under this Order. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include parameters for which effluent limitations are specified. Additional constituents, for which no effluent limitations are established, are also required to be monitored to provide data for a future determination of their reasonable potential of exceeding the applicable WQOs or WQC in the receiving water.

i. Provision E.9. (Standard Provisions and Reporting Requirements)

The purpose of this provision is to require compliance with the standard provisions and reporting requirements given in this Board's document titled, Standard Provisions and Reporting

Requirements for NPDES Surface Water Discharge Permits, August 1993, or any amendments thereafter. This document is included as part of the permit and as an attachment of the permit. Where provisions or reporting requirements specified in the permit are different from equivalent or related provisions or reporting requirements given in 'Standard Provisions', the specifications given in the permit shall apply. The standard provisions and reporting requirements given in the above document are based on various state and federal regulations with specific references cited therein.

j. Provision E.10. (Change in Control or Ownership):

This provision is based on 40 CFR 122.61.

k. Provisions E.11&13 (Order Re-opener and NPDES Permit /):

This provision is based on 40 CFR 123.

l. Provision F.12. (Permit compliance and rescission of previous permit):

Time of compliance is based on 40 CFR 122. The basis of this Order supercedes and rescinds the previous permit in accordance with 40 CFR 122.46.

m. Provision F.14 (Order Expiration and Reapplication):

This provision is based on 40 CFR 122.46 (a).

V. WASTE DISCHARGE REQUIREMENT APPEALS

Any person may petition the State Water Resources Control Board to review the decision of the Board regarding the Waste Discharge Requirements. A petition must be made within 30 days of the Board public hearing.

VI. ATTACHMENTS

U.S. EPA June 18, 1986 letter
Table 1. Reasonable Potential Analysis (RPA) for Pt. Isabel WWF
Table 2. Reasonable Potential Analysis (RPA) for San Antonio Creek WWF
Table 3. Reasonable Potential Analysis (RPA) for Oakport WWF
Table 4. Effluent data for pollutants with reasonable potential for Pt Isabel WWF
Table 5. Effluent data for pollutants with reasonable potential for San Antonio Creek WWF
Table 6. Effluent data for pollutants with reasonable potential for Oakport WWF
Table 7. Final WQBELs Calculation for Pt. Isabel WWF
Table 8. Final WQBELs Calculation for San Antonio Creek WWF
Table 9. Final WQBELs Calculation for Oakport WWF
Table 10. Infeasibility study and statistic calculation of interim limits for Pt. Isabel WWF
Table 11. Infeasibility study and statistic calculation of interim limits for San Antonio Creek WWF
Table 12. Infeasibility study and statistic calculation of interim limits for Oakport WWF

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

18 JUN 1986

Mr. Roger James, Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street
Oakland, Ca. 94607

Dear Mr. James:

SUBJECT: APPLICABLE NPDES PERMIT LIMITATIONS FOR EAST BAY MUNICIPAL UTILITIES DISTRICT (EBMUD) SPECIAL DISTRICT #1 WET WEATHER OVERFLOW STRUCTURES, NPDES PERMIT NO. CA0038440

In response to your letter of June 3, 1986 and pursuant to requests from Dr. Teng-Chung Wu of your staff and Mr. Walter Bishop of EBMUD, we have reviewed the EBMUD wet weather overflow situation and have discussed it with your staff, EBMUD officials and EPA Headquarters. Our review has focused on Federal requirements for waste discharge from EBMUD's seven wet weather overflow structures. In particular, we have investigated the applicability of secondary treatment based effluent limitations for publicly owned treatment works (POTWs) as contained in the Clean Water Act (CWA) Title III. The present NPDES permit includes secondary treatment limitations for the EBMUD overflow points.

We have determined that EBMUD's wet weather overflow structures are not POTW's under EPA's permits regulations. 40 CFR 122.2. Therefore, these discharges are not subject to secondary treatment limitations but are subject to Best Conventional Pollution Control Technology, Best Available Technology Economically Achievable and San Francisco Basin Plan water quality standards. CWA 301(b)(1)(c), 301(b)(2). It is also our interpretation that these overflow points are not subject to the current prohibition against bypasses as contained in EPA's regulations. 40 CFR 122.41(m)(4).

The bases for our determinations follow:

1. According to materials supplied by EBMUD, the EBMUD interceptor system was designed and constructed to handle wet weather flows from both combined sewers and separate sewers with high infiltration/inflow (I/I).

   The combined sewers have since been separated, but wet weather peaking factors remain high due to increasing I/I. EBMUD does not own or control the wastewater collection systems; instead they are a joint powers

agency with seven communities as members. EBMUD is the lead agency for the proposed I/I correction program, but each of the seven communities is responsible for the actual completion of their individual I/I correction programs. The proposed I/I correction program for the entire District will take about 20 years, at a cost of over $400 million, to reduce present I/I by 45%.

The interceptor overflow structures, which were designed to discharge excess peak wet weather flows, were an integral part of the wastewater control system. These structures discharged combined sewage without treatment and continue to function in the same way, despite the fact that the sewers have since been separated. EPA has previously found that combined sewer overflows are not POTW's and are not subject to secondary treatment requirements. This position was upheld in the October 8, 1980 appeal decision of Montgomery Environmental Coalition, et. al., v. Costle, 646 F.2d 568.

2. EPA's NPDES permits regulations state: "Publicly owned treatment works ('POTW') means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a 'State' or 'municipality'. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment." 40 CFR 122.2. The EBMUD wet weather overflow structures do not convey wastewater to a POTW providing treatment. This was the essential point upon which the Montgomery Environmental Coalition CSO decision was based.

3. By definition, "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. Therefore, because the wet weather overflow structures are not POTWs and are not part of a POTW, they are not bypass points and do not fall under the bypass prohibition of EPA permits regulations.

Based on our knowledge and conversations with RWQCB staff, EBMUD's wet weather overflow situation appears to be unique in the San Francisco Bay area. Throughout this area other overflows or bypasses occur, but they originate at pump stations or wastewater treatment plants and are not allowed but are prohibited by permits.

The present permit can be revised without violating the backsliding prohibition of the permits regulations if the original requirement was imposed in error, as we now believe to be the case. 40 CFR 122.44(l)(2)(iv), 122.62(a)(16).

EPA is very concerned about water quality and health impacts of these discharges on San Francisco Bay and its beneficial uses. If your Board concurs with the above determination and decides to modify the NPDES permit accordingly, we request opportunity to review the proposed action. We believe that the following actions would be essential:

1. Strictly apply the Basin Plan water quality standards;

    a. Provide full protection of designated receiving water beneficial uses.

    b. Provide that any and all allowable overflows be treated to a degree commensurate with the beneficial uses to be protected.

    c. Ensure that the permit clearly defines the applicable water quality standards and requires immediate compliance.

2. Formally provide a determination of Best Conventional Pollution Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) to be applied in lieu of secondary treatment requirements and provide a Best Professional Judgement (BPJ) analysis to support the determination. 40 CFR 125.3.

3. Provide a thorough review of EBMUD's proposals and their ability to achieve full compliance with applicable limitations.

4. Require immediate compliance with all final effluent and receiving water limitations. A schedule for compliance should be incorporated in a consent decree entered in State Court.

If you would like to discuss this matter, please call me or have your staff contact Ken Sutherland, Chief, Permits and Pretreatment Section, at (415) 974-8290 or Bill Robberson of the Program Support Branch at (415) 974-8302.

Sincerely,

Frank M. Covington
Director, Water Management Division

Table 1 Reasonable Potential Analysis for Point Isabel WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [a]
		C (µg/L)		MinDL(µg/L)	If all data points are	MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C		
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C,	Maximum Ambient Background	If B>C, effluent limitation is required	7) Review other information in the SIP	
1	Antimony	4300	21	5		8.12	MED<C, go to Step 5	1.8	B<C, go to Step 7		N
2	Arsenic	36	46	0.2		5.9	MEC<C, go to Step 5	2.46	B<C, go to Step 7		N
3	Beryllium	No Criteria	21	0.04	No Criteria	0.17E	No criteria	0.215	No criteria		No criteria
4	Cadmium	9.3	31	0.07		0.28E	MEC<C, go to Step 5	0.1268	B<C, go to Step 7		N
5a	Chromium (III)	No Criteria			No Criteria		No criteria		No criteria		No criteria
5b	Chromium (VI)/Total Cr	50	36	0.9		28.4	MEC<C, go to Step 5	4.4	B<C, go to Step 7		N
6	Copper	3.7	31	3.3		52.9	Effluent Limit required	2.45	B<C, go to Step 7		Y
7	Lead	5.6	30	0.9		18.2	Effluent Limit required	0.8	B<C, go to Step 7		Y
8	Mercury	0.025	45	0.00024		0.3	Effluent Limit required	0.0086	B<C, go to Step 7		Y
9	Nickel	7.1	29	3.3		26	Effluent Limit required	3.7	B<C, go to Step 7		Y
10	Selenium	5	30	0.2		0.9	Effluent Limit required	0.39	B<C, go to Step 7		N
11	Silver	2.2	36	0.06		20.3	Effluent Limit required	0.0516	B<C, go to Step 7		Y
12	Thallium	6.3	20	0.23	All data are ND		MEC<C, go to Step 5	0.21	B<C, go to Step 7		N
13	Zinc	58	31	4.4		134	Effluent Limit required	4.4			Y
14	Cyanide	1	36	3		7	Effluent Limit required		No ambient data, Step 7		Y
15	Asbestos	No Criteria	0		Not Applicable		Not Applicable		Not Applicable		Not Applicable
16	2,3,7,8 TCDD (303d listed) (apply to Dioxin TEQ)	0.000000014 0.000000014	1	Only has 3/7/02 data		0.000000042	Effluent Limit required	0.000000071	Effluent limit required		Y(B)
17	Acrolein	780	6	5	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
18	Acrylonitrile	1	6	1	All data are ND		MEC<C, go to Step 5	0.03	B<C, go to Step 7		N
19	Benzene	71	6	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
20	Bromoform	360	6	0.1	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
21	Carbon Tetrachloride	4	6	0.14	All data are ND		MEC<C, go to Step 5	0.06	B<C, go to Step 7		N
22	Chlorobenzene	21000	6	0.05		0.15E	MEC<C, go to Step 5		No ambient data, Step 7		N
23	Chlorodibromomethane	34	6	0.06		12.00	MEC<C, go to Step 5		No ambient data, Step 7		N
24	Chloroethane	No Criteria	6	0.19	No criteria		No criteria		No criteria		No criteria
25	2-Chloroethylvinyl ether	No Criteria	6	0.1	No criteria		No criteria		No criteria		No criteria
26	Chloroform	No Criteria	6	0.07	No criteria	180	No criteria		No criteria		No criteria
27	Dichlorobromomethane	46	6	0.04		52.0	Effluent limit required		No ambient data, Step 7		Y
28	1,1-Dichloroethane	No Criteria	6	0.03	All data are ND		No criteria		No criteria		No criteria
29	1,2-Dichloroethane	99	6	0.05	All data are ND		MEC<C, go to Step 5	0.04	No ambient data, Step 7		N
30	1,1-Dichloroethylene	3	6	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
31	1,2-Dichloropropane	39	6	0.12	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
32	1,3-Dichloropropylene	1700	6	0.02	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
33	Ethylbenzene	29000	6	0.08		0.13E	MEC<C, go to Step 5		No ambient data, Step 7		N
34	Methyl Bromide	4000	6	0.21	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
35	Methyl Chloride	No Criteria	6	0.1	All data are ND		No criteria		No criteria		No criteria
36	Methylene Chloride	1600	6	0.07		0.34	MEC<C, go to Step 5	0.5	B<C, go to Step 7		N
37	1,1,2,2-Tetrachloroethane	11	6	0.11	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
38	Tetrachloroethylene	9	6	0.11		1.3E	MEC<C, go to Step 5		No ambient data, Step 7		N
39	Toluene	200000	6	0.07		0.28E	MEC<C, go to Step 5		No ambient data, Step 7		N

File Name: RPA for EBMUDWWF
Date Print: 9/26/2005

Table 1 Reasonable Potential Analysis for Point Isabel WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [q]
		C (µg/L)		MinDL(µg/L)	If all data points are	MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C		
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C,	Maximum Ambient Background	If B>C, effluent limitation is required	7) Review other information in the SIP	
40	1,2-Trans-Dichloroethylene	140000	6	0.14	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
41	1,1,1-Trichloroethane	No Criteria	6	0.08	No criteria		No criteria		No criteria		No criteria
42	1,1,2-Trichloroethane	42	6	0.03	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
43	Trichloroethylene	81	6	0.05		0.49E	MEC<C, go to Step 5		No ambient data, Step 7		N
44	Vinyl Chloride	525	6	0.07	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
45	2-Chlorophenol	400	2	0.19			MEC<C, go to Step 5		No ambient data, Step 7		N
46	2,4-Dichlorophenol	790	2	0.29	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
47	2,4-Dimethylphenol	2300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
48	2-Methyl- 4,6-Dinitrophenol	765	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
49	2,4-Dinitrophenol	14000	2	0.96	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
50	2-Nitrophenol	No Criteria	2	0.096	All data are ND		No criteria		No criteria		No criteria
51	4-Nitrophenol	No Criteria	2	1.9	All data are ND		No criteria		No criteria		No criteria
52	3-Methyl 4-Chlorophenol	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
53	Pentachlorophenol	7.9	2	1.9	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
54	Phenol	4600000	2	0.19		0.7E	MEC<C, go to Step 5		No ambient data, Step 7		N
55	2,4,6-Trichlorophenol	7	2	0.096			MEC<C, go to Step 5		No ambient data, Step 7		N
56	Acenaphthene	2700	33	0.046	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
57	Acenaphthylene	No Criteria	33	0.062	No criteria		No criteria	0.00053	No criteria		No criteria
58	Anthracene	110000	33	0.0034	All data are ND		MEC<C, go to Step 5	0.0005	B<C, go to Step 7		N
59	Benzidine	0.00058	2	4.8	MinDL>C, to Step 5				No ambient data, Step 7		DL
60	Benzo(a)Anthracene	0.04900	33	0.0058			MEC<C, go to Step 5	0.0053	B<C, go to Step 7		N
61	Benzo(a)Pyrene	0.049	33	0.0079	All data are ND		MEC<C, go to Step 5	0.00029	B<C, go to Step 7		N
62	Benzo(b)Fluoranthene	0.049	33	0.0079	All data are ND		MEC<C, go to Step 5	0.0046	B<C, go to Step 7		N
63	Benzo(ghi)Perylene	No Criteria	33	0.012	No criteria		No criteria	0.0027	No criteria		No criteria
64	Benzo(k)Fluoranthene	0.049	33	0.041	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
65	Bis(2-Chloroethoxy)Methane	No Criteria	2	0.096	No criteria		No criteria		No criteria		No criteria
66	Bis(2-Chloroethyl)Ether	1.4	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
67	Bis(2-Chloroisopropyl)Ether	170000	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
68	Bis(2-Ethylhexyl)Phthalate	5.9	2	0.048	All data are ND	1.2E	MEC<C, go to Step 5		No ambient data, Step 7		N
69	4-Bromophenyl Phenyl Ether	No Criteria	2	0.096	No criteria		No criteria		No criteria		No criteria
70	Butylbenzyl Phthalate	5200	2	0.096		0.43E	MEC<C, go to Step 5		No ambient data, Step 7		N
71	2-Chloronaphthalene	4300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
72	4-Chlorophenyl Phenyl Ether	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
73	Chrysene	0.049	33	0.0036		0.25E	MEC<C, go to Step 5	0.0024	B<C, go to Step 7		N
74	Dibenzo(a,h)Anthracene	0.049	33	0.0054	All data are ND		MEC<C, go to Step 5	0.00064	B<C, go to Step 7		N
75	1,2-Dichlorobenzene	17000	6	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
76	1,3-Dichlorobenzene	2600	8	0.06	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
77	1,4-Dichlorobenzene	2600	8	0.04		1.4E	MEC<C, go to Step 5		No ambient data, Step 7		N
78	3,3 Dichlorobenzidine	0.077	2	0.096	MinDL>C, to Step 5				No ambient data, Step 7		DL
79	Diethyl Phthalate	120000	2	0.047		0.56E	MEC<C, go to Step 5		No ambient data, Step 7		N
80	Dimethyl Phthalate	2900000	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
81	Di-n-Butyl Phthalate	12000	2	0.24		0.91E	MEC<C, go to Step 5		No ambient data, Step 7		N

Table 1 Reasonable Potential Analysis for Point Isabel WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [d]
		C (µg/L)		MinDL(µg/L)	If all data points are	MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C,	Maximum Ambient Background	If B>C, effluent limitation is required	other information in the SIP	
82	2,4-Dinitrotoluene	9.1	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
83	2,6-Dinitrotoluene	No Criteria	2	0.19	No criteria		No criteria		No criteria		No criteria
84	Di-n-Octyl Phthalate	No Criteria	2	0.096	No criteria		No criteria		No criteria		No criteria
85	1,2-Diphenylhydrazine	0.54	2	0.096	All data are ND		MEC<C, go to Step 5	0.0037	No ambient data, go to Step 7		N
86	Fluoranthene	370	33	0.009		0.34	MEC<C, go to Step 5	0.011	B<C, go to Step 7		N
87	Fluorene	14000	33	0.0073			MEC<C, go to Step 5	0.00208	B<C, go to Step 7		N
88	Hexachlorobenzene	0.00077	5	0.0015	All data are ND		MEC<C, go to Step 5	0.0000202	B<C, go to Step 7		N
89	Hexachlorobutadiene	50	2	0.38	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
90	Hexachlorocyclopentadiene	17000	2	0.94	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
91	Hexachloroethane	9	2	0.38	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
92	Indeno(1,2,3-cd)Pyrene	0.049	28	0.0045	All data are ND		MEC<C, go to Step 5	0.004	B<C, go to Step 7		N
93	Isophorone	600	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
94	Naphthalene	No Criteria	33	0.037	No criteria	0.122	No criteria	0.0023	No criteria		No criteria
95	Nitrobenzene	1900	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
96	N-Nitrosodimethylamine	8.1	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
97	N-Nitrosodi-n-Propylamine	1.4	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
98	N-Nitrosodiphenylamine	16	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
99	Phenanthrene	No Criteria	33	0.0063	No criteria	0.071	No criteria	0.0061	No criteria		No criteria
100	Pyrene	11000	33	0.0027	All data are ND		MEC<C, go to Step 5	0.0051	B<C, go to Step 7		N
101	1,2,4-Trichlorobenzene	No Criteria	2	0.290	No data, No criteria	No data	No criteria		No criteria		No criteria
102	Aldrin	0.00014	3	0.0018	MinDL>C, to Step 5				No ambient data, Step 7		DL
103	alpha-BHC	0.013	3	0.00061	All data are ND		MEC<C, go to Step 5	0.000496	B<C, go to Step 7		N
104	beta-BHC	0.046	3	0.001	All data are ND		MEC<C, go to Step 5	0.000413	B<C, go to Step 7		N
105	gamma-BHC	0.063	3	0.0031	All data are ND		MEC<C, go to Step 5	0.0007034	B<C, go to Step 7		N
106	delta-BHC	No Criteria	3	0.00064	No criteria		No criteria	0.000042	No criteria		No criteria
107	Chlordane	0.00059	3	0.014	MinDL>C, to Step 5			0.00018	B<C, go to Step 7		DL
108	4,4'-DDT	0.00059	3	0.0013		0.011	Effluent limit required	0.000066	B<C, go to Step 7		Y
109	4,4'-DDE (linked to DDT)	0.00059	3	0.00097	MinDL>C, to Step 5			0.000693	Effluent Limit required		Y(B)
110	4,4'-DDD	0.00084	3	0.00077		0.0059E	Effluent limit required	0.000313	B<C, go to Step 7		Y
111	Dieldrin	0.00014	3	0.00077	MinDL>C, to Step 5	0.0029E		0.000264	Effluent Limit required		Y
112	alpha-Endosulfan	0.0087	3	0.00067	All data are ND		MEC<C, go to Step 5	0.000031	B<C, go to Step 7		N
113	beta-Endolsulfan	0.0087	3	0.00055	All data are ND		MEC<C, go to Step 5	0.000069	B<C, go to Step 7		N
114	Endosulfan Sulfate	240	3	0.00078	All data are ND		MEC<C, go to Step 5	0.0000819	B<C, go to Step 7		N
115	Endrin	0.0023	3	0.00063	All data are ND	0.003	Effluent limit required	0.000036	B<C, go to Step 7		Y
116	Endrin Aldehyde	0.81	3	0.00042	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
117	Heptachlor	0.00021	3	0.00084	MinDL>C, to Step 5			0.000019	B<C, go to Step 7		DL
118	Heptachlor Epoxide	0.00011	3	0.0012	MinDL>C, to Step 5	0.0057	Effluent limit required	0.000094	B<C, go to Step 7		Y
119-125	PCBs sum (2)	0.00017	3 each	0.02/0.14/0.06/0.1/0.8/0.09	MinDL>C, to Step 5				No ambient data, Step 7		DL
126	Toxaphene	0.0002	3	0.072	MinDL>C, to Step 5				No ambient data, Step 7		DL
688-73-3	Tributylin	0.01			No data, to Step 5	No data	No data, to Step 5		No ambient data, Step 7		DC

File Name: RPA for EBMUDWWF
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Table 1 Reasonable Potential Analysis for Point Isabel WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [a]
		C (µg/L)		MinDL(µg/L)	If all data points are	MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review	
	Constituent name [1]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C,	Maximum Ambient Background	If B>C, effluent limitation is required	other information in the SIP	
130498-29-2	SUM PAHS (SFEI)	15				0.6579	MEC<C, go to Step 5	0.052	B<C, go to Step 7		N

PAH Effluent Data Summary

CTR No.	Individual PAHs compounds	Detected Conc.	Detection Limits	Conc. Used in Calculation
56	Acenaphthene	0.046		0.046
57	Acenaphthylene	0.062		0.062
58	Anthracene	0.0034		0.0034
60	Beno(a)anthracene	0.0058		0.0058
61	Benzo(a)pyrene	0.0079		0.0079
62	Benzo(b)fluoranthene	0.0079		0.0079
63	Benzo(ghi)perylene	0.012		0.012
64	Benzo(k)fluoranthene	0.041		0.041
73	Chrysene		0.25	0.25
74	Dibenzo(a,h)anthrancene	0.0054		0.0054
86	Fluoranthene	0.009		0.009
87	Fluorene	0.0073		0.0073
92	Indeno(1,2,3-c)pyrene	0.0045		0.0045
94	Naphthalene		0.122	0.122
99	Phenanthrene		0.071	0.071
100	Pyrene	0.0027		0.0027

Acronyms in the "Final Result" column:
CD: Cannot determine reasonable potential due to the absence of data
N: No resonable potential
Y: Has resonable potential
DL: Detection limit above water quality objective or CTR criteria
Y(B): Reasonable potential due to ambient data exceedances

E: Estimated value, concentration outside calibration range.
B: Analyte detected in method blank.

Table 2 Reasonable potential Analysis for San Antonio WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [a]
	Constituent name [i]	C (µg/L) Lowest (most stringent)	Number of data points	MinDL(µg/L) Minimum Detection	If all data points are ND and MinDL>C, interim monitoring is	MEC (µg/L) Maximum Pollutant	MEC vs. C 1. If MEC> or =C, effluent limitation is	B (µg/L) Maximum Ambient	B vs. C If B>C, effluent limitation is required	7) Review other information	
1	Antimony	4300	15	5		12.9	MED<C, go to Step 5	1.8	B<C, go to Step 7		N
2	Arsenic	36	11	0.2		7.3	Effluent Limit required	2.46	B<C, go to Step 7		N
3	Beryllium	No Criteria	5	0.11	No Criteria	0.21E	No criteria	0.215	No criteria		No criteria
4	Cadmium	9.3	9	0.07		0.5	MEC<C, go to Step 5	0.1268	B<C, go to Step 7		N
5a	Chromium (III)	No Criteria			No Criteria	No data	No criteria		No criteria		No criteria
5b	Chromium (VI)/Total Cr	50	9	0.9		19	MEC<C, go to Step 5	4.4	B<C, go to Step 7		N
6	Copper	3.7	9	3.3		60.9	Effluent Limit required	2.45	B<C, go to Step 7		Y
7	Lead	5.6	9	0.9		36.1	Effluent Limit required	0.8	B<C, go to Step 7		Y
8	Mercury	0.025	11	0.00017		0.46	Effluent Limit required	0.0086	B<C, go to Step 7		Y
9	Nickel	7.1	9	3.3		26	Effluent Limit required	3.7	B<C, go to Step 7		Y
10	Selenium	5	8	0.2		0.7E	MEC<C, go to Step 5	0.39	B<C, go to Step 7		N
11	Silver	2.2	15	0.06		23	Effluent Limit required	0.0516	B<C, go to Step 7		Y
12	Thallium	6.3	5	0.23	All data are ND		MEC<C, go to Step 5	0.21	B<C, go to Step 7		N
13	Zinc	58	9	4.4		185	Effluent Limit required	4.4			Y
14	Cyanide	1	9	3		28	Effluent Limit required		No ambient data, Step 7		Y
15	Asbestos	No Criteria	0		Not Applicable	Not Applicable	Not Applicable		Not Applicable		Not Applicable
16	2,3,7,8 TCDD (303d listed) (apply to Dioxin TEQ)	0.000000014 0.000000014	1	Only has 11/8/02 data		0.000000093	Effluent Limit required	0.000000071	Effluent limit required		Y
17	Acrolein	780	4	5	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
18	Acrylonitrile	1	4	1	All data are ND		MEC<C, go to Step 5	0.03	B<C, go to Step 7		N
19	Benzene	71	6	0.05		0.23E	MEC<C, go to Step 5		No ambient data, Step 7		N
20	Bromoform	360	4	0.1	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
21	Carbon Tetrachloride	4	4	0.14	All data are ND		MEC<C, go to Step 5	0.06	B<C, go to Step 7		N
22	Chlorobenzene	21000	6	0.05		0.92E	MEC<C, go to Step 5		No ambient data, Step 7		N
23	Chlorodibromomethane	34	5	0.06	All data are ND	0.45E	MEC<C, go to Step 5		No ambient data, Step 7		N
24	Chloroethane	No Criteria	4	0.19	No criteria		No criteria		No criteria		No criteria
25	2-Chloroethylvinyl ether	No Criteria	4	0.1	No criteria		No criteria		No criteria		No criteria
26	Chloroform	No Criteria	4	0.07	No criteria	66	No criteria		No criteria		No criteria
27	Dichlorobromomethane	46	4	0.0	All data are ND	10	MEC<C, go to Step 5		No ambient data, Step 7		CD
28	1,1-Dichloroethane	No Criteria	4	0.07	All data are ND		No criteria		No criteria		No criteria
29	1,2-Dichloroethane	99	4	0.06	All data are ND		MEC<C, go to Step 5	0.04	No ambient data, Step 7		N
30	1,1-Dichloroethylene	3	4	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
31	1,2-Dichloropropane	39	4	0.12	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
32	1,3-Dichloropropylene	1700	4	0.02	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
33	Ethylbenzene	29000	4	0.08		0.31E	MEC<C, go to Step 5		No ambient data, Step 7		N
34	Methyl Bromide	4000	4	0.21	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
35	Methyl Chloride	No Criteria	0		No data		No criteria		No criteria		No criteria
36	Methylene Chloride	1600	4	0.07		2.6	MEC<C, go to Step 5	0.5	B<C, go to Step 7		N
37	1,1,2,2-Tetrachloroethane	11	4	0.08	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
38	Tetrachloroethylene	9	4	0.11		0.51E	MEC<C, go to Step 5		No ambient data, Step 7		N
39	Toluene	200000	4	0.07		2.5	MEC<C, go to Step 5		No ambient data, Step 7		N

Table 2 Reasonable potential Analysis for San Antonio WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [c]
	Constituent name [i]	C (µg/L) Lowest (most stringent)	Number of data points	MinDL(µg/L) Minimum Detection	If all data points are ND and MinDL>C, interim monitoring is	MEC (µg/L) Maximum Pollutant	MEC vs. C 1. If MEC> or =C, effluent limitation is	B (µg/L) Maximum Ambient	B vs. C If B>C, effluent limitation is required	7) Review other information	
40	1,2-Trans-Dichloroethylene	140000	4	0.14	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		CD
41	1,1,1-Trichloroethane	No Criteria	4	0.08	No criteria		No criteria		No criteria		No criteria
42	1,1,2-Trichloroethane	42	4	0.03	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
43	Trichloroethylene	81	4	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
44	Vinyl Chloride	525	4	0.07	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
45	2-Chlorophenol	400	2	0.19			MEC<C, go to Step 5		No ambient data, Step 7		N
46	2,4-Dichlorophenol	790	2	0.29	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
47	2,4-Dimethylphenol	2300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
48	2-Methyl- 4,6-Dinitrophenol	765	2	0.96	All data are ND		No data, go to Step 5		No ambient data, Step 7		CD
49	2,4-Dinitrophenol	14000	2	0.96	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
50	2-Nitrophenol	No Criteria	2	0.096	All data are ND		No criteria		No criteria		No criteria
51	4-Nitrophenol	No Criteria	2	1.9	All data are ND		No criteria		No criteria		No criteria
52	3-Methyl 4-Chlorophenol	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
53	Pentachlorophenol	7.9	2	1.9	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
54	Phenol	4600000	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
55	2,4,6-Trichlorophenol	7	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
56	Acenaphthene	2700	11	0.046	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
57	Acenaphthylene	No Criteria	11	0.062	No criteria		No criteria	0.00053	No criteria		No criteria
58	Anthracene	110000	11	0.0034	All data are ND		MEC<C, go to Step 5	0.0005	B<C, go to Step 7		N
59	Benzidine	0.00054	2	4.8	MinDL>C, to Step 5				No ambient data, Step 7		DL
60	Benzo(a)Anthracene	0.04900	11	0.0058		0.04E	MEC<C, go to Step 5	0.0053	B<C, go to Step 7		N
61	Benzo(a)Pyrene	0.049	11	0.0079		0.051E	Effluent limit required	0.00029	B<C, go to Step 7		Y
62	Benzo(b)Fluoranthene	0.049	11	0.0079	All data are ND	0.0190	MEC<C, go to Step 5	0.0046	B<C, go to Step 7		N
63	Benzo(ghi)Perylene	No Criteria	11	0.012	No criteria	0.035	No criteria	0.0027	No criteria		No criteria
64	Benzo(k)Fluoranthene	0.049	11	0.041	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
65	Bis(2-Chloroethoxy)Methane	No Criteria	2	0.096	No criteria		No criteria		No criteria		No criteria
66	Bis(2-Chloroethyl)Ether	1.4	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
67	Bis(2-Chloroisopropyl)Ether	170000	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
68	Bis(2-Ethylhexyl)Phthalate	5.9	2	0.048	All data are ND	4.1E	MEC<C, go to Step 5		No ambient data, Step 7		N
69	4-Bromophenyl Phenyl Ethe	No Criteria	2	0.096	No criteria		No criteria		No criteria		No criteria
70	Butylbenzyl Phthalate	5200	2	0.096		0.72E	MEC<C, go to Step 5		No ambient data, Step 7		N
71	2-Chloronaphthalene	4300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
72	4-Chlorophenyl Phenyl Ethe	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
73	Chrysene	0.049	11	0.004		0.066 E B	Effluent limit required	0.0024	B<C, go to Step 7		Y
74	Dibenzo(a,h)Anthracene	0.049	11	0.0054	All data are ND		MEC<C, go to Step 5	0.00064	B<C, go to Step 7		N
75	1,2-Dichlorobenzene	17000	6	0.05			MEC<C, go to Step 5		No ambient data, Step 7		N
76	1,3-Dichlorobenzene	2600	6	0.06			MEC<C, go to Step 5		No ambient data, Step 7		N
77	1,4-Dichlorobenzene	2600	6	0.04		14.0	MEC<C, go to Step 5		No ambient data, Step 7		N
78	3,3 Dichlorobenzidine	0.077	2	0.096	MinDL>C, to Step 5				No ambient data, Step 7		DL
79	Diethyl Phthalate	120000	2	0.048		0.51E	MEC<C, go to Step 5		No ambient data, Step 7		N
80	Dimethyl Phthalate	2900000	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
81	Di-n-Butyl Phthalate	12000	2	0.24		0.66E	MEC<C, go to Step 5		No ambient data, Step 7		N

Table 2 Reasonable potential Analysis for San Antonio WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [d]
	Constituent name [i]	C (µg/L) Lowest (most stringent)	Number of data points	MinDL(µg/L) Minimum Detection	If all data points are ND and MinDL>C, interim monitoring is	MEC (µg/L) Maximum Pollutant	MEC vs. C 1. If MEC> or =C, effluent limitation is	B (µg/L) Maximum Ambient	B vs. C If B>C, effluent limitation is required	7) Review other information	
82	2,4-Dinitrotoluene	9.1	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
83	2,6-Dinitrotoluene	No Criteria	2	0.19	No criteria		No criteria		No criteria		No criteria
84	Di-n-Octyl Phthalate	No Criteria	2	0.096	No criteria	0.27E	No criteria		No criteria		No criteria
85	1,2-Diphenylhydrazine	0.54	2	0.0960	All data are ND		MEC<C, go to Step 5	0.0037	No ambient data, go to Step 7		CD
86	Fluoranthene	370	11	0.009		0.13	MEC<C, go to Step 5	0.011	B<C, go to Step 7		N
87	Fluorene	14000	11	0.0073	All data are ND		MEC<C, go to Step 5	0.00208	B<C, go to Step 7		N
88	Hexachlorobenzene	0.00077	4	0.0015	All data are ND		MEC<C, go to Step 5	0.0000202	B<C, go to Step 7		DL
89	Hexachlorobutadiene	50	3	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
90	Hexachlorocyclopentadiene	17000	2	0.96	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
91	Hexachloroethane	9	2	0.38	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
92	Indeno(1,2,3-cd)Pyrene	0.049	11	0.0045		0.019	MEC<C, go to Step 5	0.004	B<C, go to Step 7		N
93	Isophorone	600	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
94	Naphthalene	No Criteria	12	0.037	No criteria	0.63	No criteria	0.0023	No criteria		No criteria
95	Nitrobenzene	1900	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
96	N-Nitrosodimethylamine	8.1	3	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
97	N-Nitrosodi-n-Propylamine	1.4	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
98	N-Nitrosodiphenylamine	16	2	0.096	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
99	Phenanthrene	No Criteria	11	0.0063	No criteria	0.033E	No criteria	0.0061	No criteria		No criteria
100	Pyrene	11000	11	0.0027		0.024E	MEC<C, go to Step 5	0.0051	B<C, go to Step 7		N
101	1,2,4-Trichlorobenzene	No Criteria	3	0.11	No data, No criteria		No criteria		No criteria		No criteria
102	Aldrin	0.00014	2	0.0018	MinDL>C, to Step 5				No ambient data, Step 7		DL
103	alpha-BHC	0.013	2	0.00061	All data are ND		MEC<C, go to Step 5	0.000496	B<C, go to Step 7		N
104	beta-BHC	0.046	2	0.001	All data are ND		MEC<C, go to Step 5	0.000413	B<C, go to Step 7		N
105	gamma-BHC	0.063	2	0.0031	All data are ND	0.024 I	MEC<C, go to Step 5	0.0007034	B<C, go to Step 7		N
106	delta-BHC	No Criteria	2	0.00064	No criteria		No criteria	0.000042	No criteria		No criteria
107	Chlordane	0.00059	2	0.014	MinDL>C, to Step 5			0.00018	B<C, go to Step 7		DL
108	4,4'-DDT	0.00059	2	0.0013		0.0037 E	Effluent limit required	0.000066	B<C, go to Step 7		Y
109	4,4'-DDE (linked to DDT)	0.00059	2	0.00097	MinDL>C, to Step 5			0.000693	Effluent Limit required		Y(B)
110	4,4'-DDD	0.00084	2	0.00077	All data are ND		MEC<C, go to Step 5	0.000313	B<C, go to Step 7		N
111	Dieldrin	0.00014	2	0.00077	MinDL>C, to Step 5			0.000264	Effluent Limit required		Y(B)
112	alpha-Endosulfan	0.0087	2	0.00067	All data are ND		MEC<C, go to Step 5	0.000031	B<C, go to Step 7		N
113	beta-Endolsulfan	0.0087	2	0.00055	All data are ND		MEC<C, go to Step 5	0.000069	B<C, go to Step 7		N
114	Endosulfan Sulfate	240	2	0.00078		0.0055E	MEC<C, go to Step 5	0.0000819	B<C, go to Step 7		N
115	Endrin	0.0023	2	0.00063	All data are ND		MEC<C, go to Step 5	0.000036	B<C, go to Step 7		N
116	Endrin Aldehyde	0.81	2	0.00042	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
117	Heptachlor	0.00021	2	0.00084	MinDL>C, to Step 5			0.000019	B<C, go to Step 7		DL
118	Heptachlor Epoxide	0.00011	2	0.0012	MinDL>C, to Step 5			0.000094	B<C, go to Step 7		DL
119-125	PCBs sum (2)	0.00017	2 each	0.02/0.14/0.06/0.1/0.8/0.09	MinDL>C, to Step 5				No ambient data, Step 7		DL
126	Toxaphene	0.0002	2	0.072	MinDL>C, to Step 5				No ambient data, Step 7		DL
688-73-3	Tributylin	0.01			No data, to Step 5		No data, to Step 5		No ambient data, Step 7		DC

Table 2 Reasonable potential Analysis for San Antonio WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [a]
	Constituent name [i]	C (µg/L) Lowest (most stringent)	Number of data points	MinDL(µg/L) Minimum Detection	If all data points are ND and MinDL>C, interim monitoring is	MEC (µg/L) Maximum Pollutant	MEC vs. C 1. If MEC> or =C, effluent limitation is	B (µg/L) Maximum Ambient	B vs. C If B>C, effluent limitation is required	7) Review other information	
130498-29-2	SUM PAHS (SFEI)	15				0.9314	MEC<C, go to Step 5	0.052	B<C, go to Step 7		N

PAH Effluent Data Summary

CTR No.	Individual PAHs compounds	Detected Conc.	Detection Limits	Conc. Used in Calculation
56	Acenaphthene	0.046		0.046
57	Acenaphthylene	0.062		0.062
58	Anthracene	0.0034		0.0034
60	Beno(a)anthracene		0.21	0.21
61	Benzo(a)pyrene	0.0079		0.0079
62	Benzo(b)fluoranthene	0.0079		0.0079
63	Benzo(ghi)perylene		0.014	0.014
64	Benzo(k)fluoranthene	0.041		0.041
73	Chrysene		0.038	0.038
74	Dibenzo(a,h)anthrancene	0.0054		0.0054
86	Fluoranthene		0.07	0.07
87	Fluorene		0.029	0.029
92	Indeno(1,2,3-c)pyrene	0.0045		0.0045
94	Naphthalene		0.33	0.33
99	Phenanthrene	0.0063		0.0063
100	Pyrene		0.056	0.056

Acronyms in the "Final Result" columr CD: Cannot determine reasonable potential due to the absence of data
N: No resonable potential
Y: Has resonable potential
DL: Detection limit above water quality objective or CTR criteria
Y(B): Reasonable potential due to ambient data exceedances

E: Estimated value, concentration outside calibration range.
B: Analyte detected in method blank.

Table 3 Reasonable Potential Analysis for Oakport WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [g]
		C (µg/L)		MinDL(µg/L)		MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review other information in the SIP page 4. If information is unavailable or insufficient: 8) the RWQCB shall establish interim monitoring requirements. [h]	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	If all data points are ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration from the effluent	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C, go to Step 5	Maximum Ambient Background Concentration	If B>C, effluent limitation is required		
1	Antimony	4300	18	5		12.8	MED<C, go to Step 5	1.8	B<C, go to Step 7		N
2	Arsenic	36	39	0.2		19.4	MEC<C, go to Step 5	2.46	B<C, go to Step 7		N
3	Beryllium	No Criteria	18	0.11	No Criteria	0.383	No criteria	0.215	No criteria		No criteria
4	Cadmium	9.3	26	0.07		0.25	MEC<C, go to Step 5	0.1268	B<C, go to Step 7		N
5a	Chromium (III)	No Criteria			No Criteria	No data	No criteria		No criteria		No criteria
5b	Chromium (VI)/Total Cr	50	26	1.1		32.9	MEC<C, go to Step 5	4.4	B<C, go to Step 7		N
6	Copper	3.7	26	3.3		86.2	Effluent Limit required	2.45	B<C, go to Step 7		Y
7	Lead	5.6	26	0.9		36.8	Effluent Limit required	0.8	B<C, go to Step 7		Y
8	Mercury	0.025	40	0.00017		0.17	Effluent Limit required	0.0086	B<C, go to Step 7		Y
9	Nickel	7.1	26	3.3		22	Effluent Limit required	3.7	B<C, go to Step 7		Y
10	Selenium	5	24	0.2		1.3	MEC<C, go to Step 5	0.39	B<C, go to Step 7		N
11	Silver	2.2	36	0.06		26.4	Effluent Limit required	0.0516	B<C, go to Step 7		Y
12	Thallium	6.3	18	0.23	All data are ND		MEC<C, go to Step 5	0.21	B<C, go to Step 7		N
13	Zinc	58	26	4.4		216	Effluent Limit required	4.4			Y
14	Cyanide	1	26	3		11	Effluent Limit required		No ambient data, Step 7		Y
15	Asbestos	No Criteria	0		Not Applicable	Not Applicable	Not Applicable		Not Applicable		Not Applicable
16	2,3,7,8 TCDD (303d listed) (apply to Dioxin TEQ)	0.000000014 0.000000014	1	Only has 3/7/02 data		0.000000037	No data, go to Step 5 Effluent Limit required	0.000000071	Effluent limit required		Y
17	Acrolein	780	6	5	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
18	Acrylonitrile	1	6	1	All data are ND		MEC<C, go to Step 5	0.03	B<C, go to Step 7		N
19	Benzene	71	6	0.05		0.39 E	MEC<C, go to Step 5		No ambient data, Step 7		N
20	Bromoform	360	6	0.1	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
21	Carbon Tetrachloride	4	6	0.14	All data are ND		MEC<C, go to Step 5	0.06	B<C, go to Step 7		N
22	Chlorobenzene	21000	6	0.05		0.6 E	MEC<C, go to Step 5		No ambient data, Step 7		N
23	Chlorodibromomethane	34	6	0.06		0.23E	MEC<C, go to Step 5		No ambient data, Step 7		N
24	Chloroethane	No Criteria	6	0.19	No criteria		No criteria		No criteria		No criteria
25	2-Chloroethylvinyl ether	No Criteria	6	0.1	No criteria		No criteria		No criteria		No criteria
26	Chloroform	No Criteria	6	0.07	No criteria	37	No criteria		No criteria		No criteria
27	Dichlorobromomethane	46	6	0.04		5.6	MEC<C, go to Step 5		No ambient data, Step 7		N
28	1,1-Dichloroethane	No Criteria	6	0.07	All data are ND		No criteria		No criteria		No criteria
29	1,2-Dichloroethane	99	6	0.06	All data are ND		MEC<C, go to Step 5	0.04	No ambient data, Step 7		N
30	1,1-Dichloroethylene	3	6	0.05	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
31	1,2-Dichloropropane	39	6	0.12	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
32	1,3-Dichloropropylene	1700	6	0.02	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
33	Ethylbenzene	29000	6	0.08		2.8 E	MEC<C, go to Step 5		No ambient data, Step 7		N
34	Methyl Bromide	4000	6	0.21	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [g]
		C (µg/L)		MinDL(µg/L)		MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review other information in the SIP page 4. If information is unavailable or insufficient: 8) the RWQCB shall establish interim monitoring requirements. [h]	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	If all data points are ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration from the effluent	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C, go to Step 5	Maximum Ambient Background Concentration	If B>C, effluent limitation is required		
35	Methyl Chloride	No Criteria	6	0.1	All data are ND		No criteria		No criteria		No criteria
36	Methylene Chloride	1600	6	0.07		1.2	MEC<C, go to Step 5	0.5	B<C, go to Step 7		N
37	1,1,2,2-Tetrachloroethane	11	6	0.11	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
38	Tetrachloroethylene	9	6	0.11		74	Effluent limit required		No ambient data, Step 7		Y
39	Toluene	200000	6	0.07		8	MEC<C, go to Step 5		No ambient data, Step 7		N
40	1,2-Trans-Dichloroethylene	140000	6	0.14	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
41	1,1,1-Trichloroethane	No Criteria	6	0.08	No criteria	0.08	No criteria		No criteria		No criteria
42	1,1,2-Trichloroethane	42	6	0.03	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
43	Trichloroethylene	81	6	0.05		1.3E	MEC<C, go to Step 5		No ambient data, Step 7		N
44	Vinyl Chloride	525	6	0.07	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
45	2-Chlorophenol	400	2	0.19		0.34 E	MEC<C, go to Step 5		No ambient data, Step 7		N
46	2,4-Dichlorophenol	790	2	0.28	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
47	2,4-Dimethylphenol	2300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
48	2-Methyl- 4,6-Dinitrophenol	765	2	0.94	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
49	2,4-Dinitrophenol	14000	2	0.94	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
50	2-Nitrophenol	No Criteria	2	0.094	All data are ND		No criteria		No criteria		No criteria
51	4-Nitrophenol	No Criteria	2	1.9	All data are ND		No criteria		No criteria		No criteria
52	3-Methyl 4-Chlorophenol	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
53	Pentachlorophenol	7.9	2	1.9	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
54	Phenol	4600000	2	0.19		0.62 E	MEC<C, go to Step 5		No ambient data, Step 7		N
55	2,4,6-Trichlorophenol	7	2	0.094		0.59 E	MEC<C, go to Step 5		No ambient data, Step 7		N
56	Acenaphthene	2700	28	0.046	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
57	Acenaphthylene	No Criteria	28	0.062	No criteria		No criteria	0.00053	No criteria		No criteria
58	Anthracene	110000	26	0.0034	All data are ND		MEC<C, go to Step 5	0.0005	B<C, go to Step 7		N
59	Benzidine	0.00054	2	4.7	MinDL>C, to Step 5				No ambient data, Step 7		DL
60	Benzo(a)Anthracene	0.04900	28	0.0058		0.021 E	MEC<C, go to Step 5	0.0053	B<C, go to Step 7		N
61	Benzo(a)Pyrene	0.049	28	0.0079	All data are ND		MEC<C, go to Step 5	0.00029	B<C, go to Step 7		N
62	Benzo(b)Fluoranthene	0.049	28	0.0079	All data are ND		MEC<C, go to Step 5	0.0046	B<C, go to Step 7		N
63	Benzo(ghi)Perylene	No Criteria	28	0.012	No criteria	0.014 E	No criteria	0.0027	No criteria		No criteria
64	Benzo(k)Fluoranthene	0.049	28	0.041	All data are ND		MEC<C, go to Step 5	0.0015	B<C, go to Step 7		N
65	Bis(2-Chloroethoxy)Methan	No Criteria	2	0.094	No criteria		No criteria		No criteria		No criteria
66	Bis(2-Chloroethyl)Ether	1.4	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
67	Bis(2-Chloroisopropyl)Ethe	170000	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
68	Bis(2-Ethylhexyl)Phthalate	5.9	2	0.047	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
69	4-Bromophenyl Phenyl Eth	No Criteria	2	0.094	No criteria		No criteria		No criteria		No criteria
70	Butylbenzyl Phthalate	5200	2	0.094		0.45 E	MEC<C, go to Step 5		No ambient data, Step 7		N
71	2-Chloronaphthalene	4300	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N

Table 3 Reasonable Potential Analysis for Oakport WWF

Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [d]
		C (µg/L)		MinDL(µg/L)		MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review other information in the SIP page 4. If information is unavailable or insufficient: 8) the RWQCB shall establish interim monitoring requirements. [h]	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	If all data points are ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration from the effluent	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C, go to Step 5	Maximum Ambient Background Concentration	If B>C, effluent limitation is required		
72	4-Chlorophenyl Phenyl Eth	No Criteria	2	0.19	All data are ND		No criteria		No criteria		No criteria
73	Chrysene	0.049	28	0.004		0.038 E B	MEC<C, go to Step 5	0.0024	B<C, go to Step 7		N
74	Dibenzo(a,h)Anthracene	0.049	26	0.0054	All data are ND		MEC<C, go to Step 5	0.00064	B<C, go to Step 7		N
75	1,2-Dichlorobenzene	17000	8	0.05		0.1 E	MEC<C, go to Step 5		No ambient data, Step 7		N
76	1,3-Dichlorobenzene	2600	8	0.06			MEC<C, go to Step 5		No ambient data, Step 7		N
77	1,4-Dichlorobenzene	2600	8	0.04		8.5	MEC<C, go to Step 5		No ambient data, Step 7		N
78	3,3 Dichlorobenzidine	0.077	2	0.094	MinDL>C, to Step 5				No ambient data, Step 7		DL
79	Diethyl Phthalate	120000	2	0.047		0.84 E B	MEC<C, go to Step 5		No ambient data, Step 7		N
80	Dimethyl Phthalate	2900000	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
81	Di-n-Butyl Phthalate	12000	2	0.2		1.8 Est. B	MEC<C, go to Step 5		No ambient data, Step 7		N
82	2,4-Dinitrotoluene	9.1	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
83	2,6-Dinitrotoluene	No Criteria	2	0.19	No criteria	0.33 E	No criteria		No criteria		No criteria
84	Di-n-Octyl Phthalate	No Criteria	2	0.094	No criteria	0.14 E	No criteria		No criteria		No criteria
85	1,2-Diphenylhydrazine	0.54	2	0.094	All data are ND		MEC<C, go to Step 5	0.0037	B<C, go to Step 7		N
86	Fluoranthene	370	28	0.009		0.07	MEC<C, go to Step 5	0.011	B<C, go to Step 7		N
87	Fluorene	14000	29	0.0073		0.029	MEC<C, go to Step 5	0.00208	B<C, go to Step 7		N
88	Hexachlorobenzene	0.00077	5	0.0015		0.023 E	Effluent limit required	0.0000202	B<C, go to Step 7		Y
89	Hexachlorobutadiene	50	2	0.38	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
90	Hexachlorocyclopentadiene	17000	2	0.94	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
91	Hexachloroethane	9	2	0.38	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
92	Indeno(1,2,3-cd)Pyrene	0.049	28	0.0045	All data are ND		MEC<C, go to Step 5	0.004	B<C, go to Step 7		N
93	Isophorone	600	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
94	Naphthalene	No Criteria	28	0.037	No criteria	0.33	No criteria	0.0023	No criteria		No criteria
95	Nitrobenzene	1900	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
96	N-Nitrosodimethylamine	8.1	2	0.19	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
97	N-Nitrosodi-n-Propylamine	1.4	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
98	N-Nitrosodiphenylamine	16	2	0.094	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
99	Phenanthrene	No Criteria	28	0.0063	No criteria		No criteria	0.0061	No criteria		No criteria
100	Pyrene	11000	28	0.0027	All data are ND		MEC<C, go to Step 5	0.0051	B<C, go to Step 7		N
101	1,2,4-Trichlorobenzene	No Criteria	2	0.28	All data are ND		No criteria		No criteria		No criteria
102	Aldrin	0.00014	3	0.0018	MinDL>C, to Step 5				No ambient data, Step 7		DL
103	alpha-BHC	0.013	3	0.00061	All data are ND		MEC<C, go to Step 5	0.000496	B<C, go to Step 7		N
104	beta-BHC	0.046	3	0.001	All data are ND		MEC<C, go to Step 5	0.000413	B<C, go to Step 7		N
105	gamma-BHC	0.063	3	0.0031	All data are ND		MEC<C, go to Step 5	0.0007034	B<C, go to Step 7		N
106	delta-BHC	No Criteria	3	0.00064	No criteria	0.0039 I	No criteria	0.000042	No criteria		No criteria
107	Chlordane	0.00059	3	0.014	MinDL>C, to Step 5			0.00018	B<C, go to Step 7		DL
108	4,4'-DDT	0.00059	3	0.0013		0.0087 E	Effluent limit required	0.000066	B<C, go to Step 7		Y

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Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [g]
		C (µg/L)		MinDL(µg/L)		MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review other information in the SIP page 4. If information is unavailable or insufficient: 8) the RWQCB shall establish interim monitoring requirements. [h]	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	If all data points are ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration from the effluent	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C, go to Step 5	Maximum Ambient Background Concentration	If B>C, effluent limitation is required		
109	4,4'-DDE (linked to DDT)	0.00059	3	0.00097	MinDL>C, to Step 5			0.000693	Effluent Limit required		Y(B)
110	4,4'-DDD	0.00084	3	0.00077		0.015 E	Effluent limit required	0.000313	B<C, go to Step 7		Y
111	Dieldrin	0.00014	3	0.00077	MinDL>C, to Step 5	0.022 I	Effluent limit required	0.000264	Effluent Limit required		Y(B) & Y
112	alpha-Endosulfan	0.0087	3	0.00067	All data are ND		MEC<C, go to Step 5	0.000031	B<C, go to Step 7		N
113	beta-Endolsulfan	0.0087	3	0.00055	All data are ND		MEC<C, go to Step 5	0.000069	B<C, go to Step 7		N
114	Endosulfan Sulfate	240	3	0.00078	All data are ND	0.0042 E	MEC<C, go to Step 5	0.0000819	B<C, go to Step 7		N
115	Endrin	0.0023	3	0.00063	All data are ND		MEC<C, go to Step 5	0.000036	B<C, go to Step 7		N
116	Endrin Aldehyde	0.81	3	0.00042	All data are ND		MEC<C, go to Step 5		No ambient data, Step 7		N
117	Heptachlor	0.00021	3	0.00084	MinDL>C, to Step 5			0.000019	B<C, go to Step 7		DL
118	Heptachlor Epoxide	0.00011	3	0.0012	MinDL>C, to Step 5			0.000094	B<C, go to Step 7		DL
119-125	PCBs sum (2)	0.00017	3 each	0.02/0.14/0.06/0.1/0.8/0.09	MinDL>C, to Step 5				No ambient data, Step 7		DL
126	Toxaphene	0.0002	3	0.072	MinDL>C, to Step 5				No ambient data, Step 7		DL
688-73-3	Tributylin	0.01			No data, to Step 5		No data, to Step 5		No ambient data, Step 7		DC
130498-29-2	SUM PAHS (SFEI)	15				0.9314	MEC<C, go to Step 5	0.052	B<C, go to Step 7		N

PAH Effluent Data Summary

CTR No.	Individual PAHs compounds	Detected Conc.	Detection Limits	Conc. Used in Calculation
56	Acenaphthene	0.046		0.046
57	Acenaphthylene	0.062		0.062
58	Anthracene	0.0034		0.0034
60	Beno(a)anthracene		0.21	0.21
61	Benzo(a)pyrene	0.0079		0.0079
62	Benzo(b)fluoranthene	0.0079		0.0079
63	Benzo(ghi)perylene		0.014	0.014
64	Benzo(k)fluoranthene	0.041		0.041
73	Chrysene		0.038	0.038
74	Dibenzo(a,h)anthrancene	0.0054		0.0054
86	Fluoranthene		0.07	0.07
87	Fluorene		0.029	0.029
92	Indeno(1,2,3-c)pyrene	0.0045		0.0045

Acronyms in the "Final Result" column: CD: Cannot determine reasonable potential due to the absence of data
N: No resonable potential
Y: Has resonable potential
DL: Detection limit above water quality objective or CTR criteria
Y(B): Reasonable potential due to ambient data exceedances

E: Estimated value, concentration outside calibration range.
B: Analyte detected in method blank.

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Beginning		Step 1	Step 2	Step 3			Step 4	Step 5	Step 6	Steps 7 & 8	Final Result [d]
		C (µg/L)		MinDL(µg/L)		MEC (µg/L)	MEC vs. C	B (µg/L)	B vs. C	7) Review other information in the SIP page 4. If information is unavailable or insufficient: 8) the RWQCB shall establish interim monitoring requirements. [h]	
	Constituent name [i]	Lowest (most stringent) Criteria	Number of data points	Minimum Detection Limits	If all data points are ND and MinDL>C, interim monitoring is required	Maximum Pollutant Concentration from the effluent	1. If MEC> or =C, effluent limitation is required; 2. If MEC<C, go to Step 5	Maximum Ambient Background Concentration	If B>C, effluent limitation is required		
94	Naphthalene		0.33	0.33							
99	Phenanthrene	0.0063		0.0063							
100	Pyrene		0.056	0.056							

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
6	12/31/2002 3:45	COPPER		11.6	ug/L	7.7	
6	12/31/2001 7:30	COPPER		14.5	ug/L	3.3	
6	2/22/2001 12:00	COPPER		18.5	ug/L	3.3	
6	12/5/2001 22:30	COPPER		18.5	ug/L	3.3	
6	1/1/2004 7:20	COPPER		19.3	ug/L	7.7	
6	12/29/2002 1:10	COPPER		21.9	ug/L	7.7	
6	12/15/2002 14:20	COPPER		23.1	ug/L	7.7	
6	2/12/2001 1:50	COPPER		23.4	ug/L	3.3	
6	4/13/2003 10:35	COPPER		24.9	ug/L	7.7	
6	3/7/2002 10:20	COPPER		25.2	ug/L	3.3	
6	12/1/2001 15:00	COPPER		25.9	ug/L	3.3	
6	2/11/2001 3:40	COPPER		26.3	ug/L	3.3	
6	12/19/2002 15:40	COPPER		26.8	ug/L	7.7	
6	12/17/2001 13:10	COPPER		27.9	ug/L	3.3	
6	12/24/2003 17:30	COPPER		28.3	ug/L	7.7	
6	11/24/2001 10:20	COPPER		29.3	ug/L	3.3	
6	12/13/2002 11:30	COPPER		29.3	ug/L	7.7	
6	1/10/2003 2:00	COPPER		29.3	ug/L	7.7	
6	3/4/2001 22:00	COPPER		29.4	ug/L	3.3	
6	2/18/2001 1:15	COPPER		30.1	ug/L	3.3	
6	2/10/2001 5:30	COPPER		30.5	ug/L	3.3	
6	4/12/2003 22:30	COPPER		31.8	ug/L	7.7	
6	12/28/2001 13:30	COPPER		33.2	ug/L	3.3	
6	11/29/2001 0:30	COPPER		34.4	ug/L	3.3	
6	12/22/2001 13:40	COPPER		34.5	ug/L	3.3	
6	12/29/2003 12:30	COPPER		35.9	ug/L	7.7	
6	2/19/2001 18:30	COPPER		39.1	ug/L	3.3	
6	3/6/2002 20:30	COPPER		41.5	ug/L	3.3	
6	10/28/2000 20:30	COPPER		50.5	ug/L	3.3	
6	11/12/2001 14:30	COPPER		51	ug/L	3.3	
6	2/9/2001 12:30	COPPER		52.9	ug/L	3.3	
	Maximum			**52.9**	µg/L		
	Average			**29.6**	µg/L		
	std			**9.8**	µg/L		
	CV=std/average			**0.332**	µg/L		
7	12/31/2002 3:45	LEAD		2.1	ug/L	0.9	
7	12/15/2002 14:20	LEAD		3	ug/L	0.9	
7	12/29/2002 1:10	LEAD		3	ug/L	0.9	
7	12/13/2002 11:30	LEAD		3.7	ug/L	0.9	
7	3/7/2002 10:20	LEAD		4.2	ug/L	0.9	
7	4/13/2003 10:35	LEAD		4.2	ug/L	0.9	
7	1/10/2003 2:00	LEAD		4.6	ug/L	0.9	
7	1/1/2004 7:20	LEAD		5.1	ug/L	0.9	
7	4/12/2003 22:30	LEAD		5.6	ug/L	0.9	
7	12/19/2002 15:40	LEAD		6.7	ug/L	0.9	
7	3/6/2002 20:30	LEAD		8.1	ug/L	0.9	
7	12/29/2003 12:30	LEAD		8.1	ug/L	0.9	
7	12/24/2003 17:30	LEAD		13	ug/L	0.9	
	Maximum			**13**	µ/L		
	Average			**5.5**	µ/L		
	std			**2.9**	µ/L		
	CV=std/average			**0.5331**	µ/L		

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
8	12/29/2002 1:10	MERCURY		0.042	ug/L	0.00024	4.880
8	12/31/2001 7:30	MERCURY		0.048	ug/L	0.0005	4.564
8	2/22/2001 12:00	MERCURY		0.049	ug/L	0.0005	4.518
8	2/19/2001 20:19	MERCURY		0.053	ug/L	0.0005	4.344
8	4/13/2003 10:35	MERCURY		0.059	ug/L	0.00024	4.117
8	12/5/2001 22:30	MERCURY		0.06	ug/L	0.0005	4.082
8	3/6/2002 20:30	MERCURY		0.065	ug/L	0.00017	3.922
8	12/1/2001 15:00	MERCURY		0.07	ug/L	0.0005	3.780
8	12/28/2001 13:30	MERCURY		0.072	ug/L	0.0005	3.727
8	2/11/2001 7:20	MERCURY		0.073	ug/L	0.0005	3.701
8	2/18/2001 1:15	MERCURY		0.075	ug/L	0.0005	3.651
8	12/16/2002 8:00	MERCURY		0.075	ug/L	0.00024	3.651
8	12/24/2003 12:30	MERCURY		0.077	ug/L	0.00024	3.604
8	3/7/2002 10:20	MERCURY		0.079	ug/L	0.00017	3.558
8	12/31/2002 3:45	MERCURY		0.083	ug/L	0.00024	3.471
8	2/10/2001 8:00	MERCURY		0.086	ug/L	0.0005	3.410
8	3/4/2001 22:00	MERCURY		0.087	ug/L	0.0025	3.390
8	1/10/2003 0:30	MERCURY		0.088	ug/L	0.00024	3.371
8	12/22/2001 13:40	MERCURY		0.0905	ug/L	0.001	3.324
8	11/29/2001 0:30	MERCURY		0.12	ug/L	0.001	2.887
8	1/1/2004 7:20	MERCURY		0.14	ug/L	0.00024	2.673
8	2/12/2001 7:30	MERCURY		0.15	ug/L	0.005	2.582
8	12/29/2003 12:30	MERCURY		0.15	ug/L	0.00024	2.582
8	11/12/2001 11:30	MERCURY		0.16	ug/L	0.001	2.500
8	10/28/2000 20:30	MERCURY		0.2	ug/L	0.0025	2.236
8	2/9/2001 12:30	MERCURY		0.21	ug/L	0.005	2.182
8	12/19/2002 15:40	MERCURY		0.21	ug/L	0.00024	2.182
8	*12/31/2001 7:30*	*MERCURY*	*GRAB*	*0.046*	*ug/L*	*0.02*	4.663
8	*2/19/2001 18:30*	*MERCURY*	*GRAB*	*0.054*	*ug/L*	*0.02*	4.303
8	*2/22/2001 12:00*	*MERCURY*	*GRAB*	*0.054*	*ug/L*	*0.02*	4.303
8	*12/5/2001 22:30*	*MERCURY*	*GRAB*	*0.055*	*ug/L*	*0.02*	4.264
8	*2/12/2001 1:50*	*MERCURY*	*GRAB*	*0.067*	*ug/L*	*0.02*	3.863
8	*2/11/2001 3:40*	*MERCURY*	*GRAB*	*0.077*	*ug/L*	*0.02*	3.604
8	*2/18/2001 1:15*	*MERCURY*	*GRAB*	*0.08*	*ug/L*	*0.02*	3.536
8	*12/1/2001 15:00*	*MERCURY*	*GRAB*	*0.082*	*ug/L*	*0.02*	3.492
8	*12/17/2001 13:10*	*MERCURY*	*GRAB*	*0.087*	*ug/L*	*0.02*	3.390
8	*12/28/2001 13:30*	*MERCURY*	*GRAB*	*0.091*	*ug/L*	*0.02*	3.315
8	*2/10/2001 5:30*	*MERCURY*	*GRAB*	*0.1*	*ug/L*	*0.02*	3.162
8	*3/4/2001 22:00*	*MERCURY*	*GRAB*	*0.1*	*ug/L*	*0.02*	3.162
8	*11/24/2001 10:20*	*MERCURY*	*GRAB*	*0.12*	*ug/L*	*0.02*	2.887
8	*12/22/2001 13:40*	*MERCURY*	*GRAB*	*0.12*	*ug/L*	*0.02*	2.887
8	*11/29/2001 0:30*	*MERCURY*	*GRAB*	*0.13*	*ug/L*	*0.02*	2.774
8	*10/28/2000 20:30*	*MERCURY*	*CFV*	*0.25*	*ug/L*	*0.02*	2.000
8	*11/12/2001 14:30*	*MERCURY*	*CFV*	*0.26*	*ug/L*	*0.02*	1.961
8	*2/9/2001 12:30*	*MERCURY*	*GRAB*	*0.3*	*ug/L*	*0.02*	1.826
	Maximum			**0.300**	µ/L		
	Average			**0.105**	µ/L		
	std			**0.061**	µ/L		
	CV=std/average			**0.5825**	µ/L		
9	12/31/2002 3:45	NICKEL		12	ug/L	5	
9	2/22/2001 12:00	NICKEL		12.7	ug/L	3.3	
9	3/4/2001 22:00	NICKEL		13.6	ug/L	3.3	

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
9	3/7/2002 10:20	NICKEL		14	ug/L	5	
9	12/15/2002 14:20	NICKEL		14	ug/L	5	
9	1/10/2003 2:00	NICKEL		14	ug/L	5	
9	12/29/2002 1:10	NICKEL		15	ug/L	5	
9	4/13/2003 10:35	NICKEL		15	ug/L	5	
9	2/18/2001 1:15	NICKEL		15.4	ug/L	3.3	
9	2/12/2001 1:50	NICKEL	B	15.5	ug/L	3.3	
9	12/1/2001 15:00	NICKEL		15.8	ug/L	3.3	
9	12/5/2001 22:30	NICKEL		15.9	ug/L	3.3	
9	12/22/2001 13:40	NICKEL		16	ug/L	3.3	
9	12/13/2002 11:30	NICKEL		16	ug/L	5	
9	4/12/2003 22:30	NICKEL		17	ug/L	5	
9	12/28/2001 13:30	NICKEL		17.7	ug/L	3.3	
9	12/19/2002 15:40	NICKEL		18	ug/L	5	
9	12/24/2003 17:30	NICKEL		18	ug/L	5	
9	1/1/2004 7:20	NICKEL		18	ug/L	5	
9	12/17/2001 13:10	NICKEL		18.1	ug/L	3.3	
9	12/31/2001 7:30	NICKEL		18.1	ug/L	3.3	
9	12/29/2003 12:30	NICKEL		19	ug/L	5	
9	2/10/2001 5:30	NICKEL	B	20.9	ug/L	3.3	
9	3/6/2002 20:30	NICKEL		21	ug/L	5	
9	11/24/2001 10:20	NICKEL		21.1	ug/L	3.3	
9	2/11/2001 3:40	NICKEL	B	21.7	ug/L	3.3	
9	11/12/2001 14:30	NICKEL		22	ug/L	3.3	
9	2/9/2001 12:30	NICKEL	B	22.9	ug/L	3.3	
9	2/19/2001 18:30	NICKEL		25	ug/L	3.3	
9	11/29/2001 0:30	NICKEL		25.8	ug/L	3.3	
9	10/28/2000 20:30	NICKEL		26	ug/L	3.3	
	Maximum			**26**	µ/L		
	Average			**17.9**	µ/L		
	std			**3.8**	µ/L		
	CV=std/average			**0.2129**	µ/L		
11	10/28/2000 20:30	SILVER	U	3.3	ug/L	3.3	
11	3/4/2001 22:00	SILVER	U	3.3	ug/L	3.3	
11	11/12/2001 14:30	SILVER	U	3.3	ug/L	3.3	
11	12/31/2001 7:30	SILVER		5.84	ug/L	3.3	
11	2/22/2001 12:00	SILVER		8.35	ug/L	3.3	
11	2/12/2001 1:50	SILVER		10.7	ug/L	3.3	
11	11/29/2001 0:30	SILVER		12.3	ug/L	3.3	
11	12/1/2001 15:00	SILVER		12.6	ug/L	3.3	
11	2/18/2001 1:15	SILVER		12.8	ug/L	3.3	
11	2/11/2001 3:40	SILVER		13.1	ug/L	3.3	
11	2/19/2001 18:30	SILVER		13.5	ug/L	3.3	
11	2/10/2001 5:30	SILVER		14.6	ug/L	3.3	
11	12/5/2001 22:30	SILVER		15.5	ug/L	3.3	
11	12/22/2001 13:40	SILVER		15.8	ug/L	3.3	
11	12/28/2001 13:30	SILVER		17.5	ug/L	3.3	
11	11/24/2001 10:20	SILVER		19.1	ug/L	3.3	
11	12/17/2001 13:10	SILVER		19.4	ug/L	3.3	
11	2/9/2001 12:30	SILVER		20.3	ug/L	3.3	
11	12/13/2002 11:30	SILVER	E	0.2	ug/L	0.06	
11	12/31/2002 3:45	SILVER	E	0.2	ug/L	0.06	

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
11	3/7/2002 10:20	SILVER	E	0.28	ug/L	0.06	
11	1/1/2004 7:20	SILVER	E,B	0.29	ug/L	0.06	
11	12/24/2003 17:30	SILVER	E	0.34	ug/L	0.06	
11	12/15/2002 14:20	SILVER	E	0.35	ug/L	0.06	
11	4/13/2003 10:35	SILVER	E	0.45	ug/L	0.06	
11	3/6/2002 20:30	SILVER	E	0.57	ug/L	0.06	
11	12/29/2003 12:30	SILVER	E,B	0.7	ug/L	0.06	
11	12/29/2002 1:10	SILVER	E	0.84	ug/L	0.06	
11	4/12/2003 22:30	SILVER		1.1	ug/L	0.06	
11	12/19/2002 15:40	SILVER		1.6	ug/L	0.06	
11	1/10/2003 2:00	SILVER		1.8	ug/L	0.06	
	Maximum			**20.3**	µ/L		
	Average			**7.4**	µ/L		
	std			**7.2**	µ/L		
	CV=std/average			**0.9669**	µ/L		
13	12/31/2001 7:30	ZINC		25.5	ug/L	4.4	
13	12/29/2002 1:10	ZINC		29.2	ug/L	12.1	
13	12/31/2002 3:45	ZINC		30.8	ug/L	12.1	
13	1/1/2004 7:20	ZINC		43.3	ug/L	12.1	
13	3/7/2002 10:20	ZINC		44	ug/L	4.4	
13	12/15/2002 14:20	ZINC		46.9	ug/L	12.1	
13	2/12/2001 1:50	ZINC		47.7	ug/L	4.4	
13	12/5/2001 22:30	ZINC	B	52.8	ug/L	4.4	
13	4/13/2003 10:35	ZINC		53	ug/L	12.1	
13	1/10/2003 2:00	ZINC		59.7	ug/L	12.1	
13	12/13/2002 11:30	ZINC		59.8	ug/L	12.1	
13	12/19/2002 15:40	ZINC		65.4	ug/L	12.1	
13	2/18/2001 1:15	ZINC	B	66	ug/L	4.4	
13	2/22/2001 12:00	ZINC	B	66	ug/L	4.4	
13	12/28/2001 13:30	ZINC	B	66	ug/L	4.4	
13	4/12/2003 22:30	ZINC		66	ug/L	12.1	
13	12/22/2001 13:40	ZINC		67.1	ug/L	4.4	
13	12/1/2001 15:00	ZINC	B	67.3	ug/L	4.4	
13	3/4/2001 22:00	ZINC		70.2	ug/L	4.4	
13	12/24/2003 17:30	ZINC		70.6	ug/L	12.1	
13	2/10/2001 5:30	ZINC		71.5	ug/L	4.4	
13	2/11/2001 3:40	ZINC		76.2	ug/L	4.4	
13	2/19/2001 18:30	ZINC	B	76.4	ug/L	4.4	
13	11/29/2001 0:30	ZINC		77.2	ug/L	4.4	
13	11/24/2001 10:20	ZINC	B	82.7	ug/L	4.4	
13	12/17/2001 13:10	ZINC		84.8	ug/L	4.4	
13	12/29/2003 12:30	ZINC		85.6	ug/L	12.1	
13	3/6/2002 20:30	ZINC		87	ug/L	4.4	
13	2/9/2001 12:30	ZINC		118	ug/L	4.4	
13	11/12/2001 14:30	ZINC		124	ug/L	4.4	
13	10/28/2000 20:30	ZINC		134	ug/L	4.4	
	Maximum			**134**	µ/L		
	Average			**68.2**	µ/L		
	std			**25.0**	µ/L		
	CV=std/average			**0.3666**	µ/L		
14	10/28/2000 20:30	Total Cyanide	U	3	µg/L	3	1.5
14	2/9/2001 12:30	Total Cyanide	U	3	µg/L	3	1.5

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
14	2/11/2001 3:40	Total Cyanide	U	3	µg/L	3	1.5
14	2/12/2001 1:50	Total Cyanide	U	3	µg/L	3	1.5
14	2/18/2001 1:15	Total Cyanide	U	3	µg/L	3	1.5
14	2/19/2001 18:30	Total Cyanide	U	3	µg/L	3	1.5
14	2/22/2001 12:00	Total Cyanide	B	3	µg/L	3	1.5
14	3/4/2001 22:00	Total Cyanide		3	µg/L	3	1.5
14	11/12/2001 14:30	Total Cyanide	U	3	µg/L	3	1.5
14	11/24/2001 10:20	Total Cyanide	U	3	µg/L	3	1.5
14	11/29/2001 0:30	Total Cyanide	U	3	µg/L	3	1.5
14	12/1/2001 15:00	Total Cyanide	U	3	µg/L	3	1.5
14	12/5/2001 22:30	Total Cyanide	U	3	µg/L	3	1.5
14	12/17/2001 13:10	Total Cyanide	U	3	µg/L	3	1.5
14	12/22/2001 13:40	Total Cyanide		3	µg/L	3	1.5
14	12/13/2002 11:30	Total Cyanide	U	3	µg/L	3	1.5
14	4/12/2003 22:30	Total Cyanide	E	3	µg/L	3	1.5
14	12/24/2003 17:30	Total Cyanide	U	3	µg/L	3	1.5
14	12/29/2003 12:30	Total Cyanide	U	3	µg/L	3	1.5
14	1/1/2004 7:20	Total Cyanide	U	3	µg/L	3	1.5
14	12/30/2001 16:30	Total Cyanide		4	µg/L	3	4
14	1/10/2003 0:30	Total Cyanide	E	4	µg/L	3	4
14	4/13/2003 10:35	Total Cyanide	E	4	µg/L	3	4
14	3/6/2002 20:30	Total Cyanide	E	5	µg/L	3	5
14	12/19/2002 15:40	Total Cyanide	E	5	µg/L	3	5
14	12/28/2002 17:30	Total Cyanide	E	5	µg/L	3	5
14	2/10/2001 5:30	Total Cyanide		6	µg/L	3	6
14	12/28/2001 13:30	Total Cyanide		7	µg/L	3	7
14	3/7/2002 10:20	Total Cyanide		7	µg/L	3	7
14	12/15/2002 14:20	Total Cyanide	E	7	µg/L	3	7
14	12/31/2002 3:45	Total Cyanide	E	7	µg/L	3	7
14	**Maximum**				µg/L		**7**
14	**Average**				µg/L		**2.935**
14	**std**				µg/L		**2.105**
14	**CV=std/average**				µg/L		**0.7169**
16		Dioxin TEQ		0.00000197	µg/L		
16	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**			
27	3/7/2002 1:45	BROMODICHLOROMETHANE	U	0.04	ug/L	0.04	
27	12/31/2002 8:22	BROMODICHLOROMETHANE	U	0.04	ug/L	0.04	
27	12/24/2003 12:30	BROMODICHLOROMETHANE	U	0.04	ug/L	0.04	
27	3/7/2002 1:45	BROMODICHLOROMETHANE		5.5	ug/L	0.04	
27	12/24/2003 12:30	BROMODICHLOROMETHANE		20	ug/L	0.04	
27	12/31/2002 8:22	BROMODICHLOROMETHANE		52	ug/L	0.04	
27	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**			
108	3/7/2002 1:45	4,4'-DDT	U	0.0013	ug/L	0.0013	
108	12/24/2003 12:30	4,4'-DDT	U	0.0013	ug/L	0.0013	
108	12/31/2002 7:40	4,4'-DDT	I	0.011	ug/L	0.0013	
		Interim limit=1.6*max concentration		0.0176	ug/L		
108	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.01*	
109	3/7/2002 1:45	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	12/31/2002 7:40	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	12/24/2003 12:30	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.05*	

Table 4 Pt. Isabel Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
110	3/7/2002 1:45	4,4'-DDD	U	0.00077	ug/L	0.00077	
110	12/24/2003 12:30	4,4'-DDD	U	0.00077	ug/L	0.00077	
110	12/31/2002 7:40	4,4'-DDD	E	0.0059	ug/L	0.00077	
	CV	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.05*	
111		Dieldrin	U	0.0008	ug/L	0.00077	
111		Dieldrin	U	0.0008	ug/L	0.00077	
111		Dieldrin	E	0.0029	ug/L	0.00077	
111	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**			
115	3/7/2002 1:45	ENDRIN	U	0.00063	ug/L	0.00063	
115	12/24/2003 12:30	ENDRIN	U	0.00063	ug/L	0.00063	
115	12/31/2002 7:40	ENDRIN	E	0.003	ug/L	0.00063	
		Interim limit=1.6*max concentration		0.0048	ug/L		
	CV	**(Less than 10 data points, use SIP default CV)**		**0.6**			
118	3/7/2002 1:45	HEPTACHLOR EPOXIDE	U	0.0012	ug/L	0.0012	
118	12/24/2003 12:30	HEPTACHLOR EPOXIDE	U	0.0012	ug/L	0.0012	
118	12/31/2002 7:40	HEPTACHLOR EPOXIDE	E	0.0057	ug/L	0.0012	
		Interim limit=1.6*max concentration		0.009	effluent limit		
118	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.01*	

Table 5 San Antonio Creek Pollutants Data with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL
6	12/16/2002 5:10	COPPER		22.4	ug/L	7.7
6	1/1/2004 11:15	COPPER		25.7	ug/L	7.7
6	12/19/2002 15:20	COPPER		25.8	ug/L	7.7
6	12/13/2002 23:40	COPPER		27.1	ug/L	7.7
6	12/30/2001 21:00	COPPER		29.2	ug/L	3.3
6	12/2/2001 8:00	COPPER		33.6	ug/L	3.3
6	12/29/2003 18:35	COPPER		40.5	ug/L	7.7
6	11/12/2001 12:10	COPPER		57.6	ug/L	3.3
6	11/8/2002 10:20	COPPER		60.9	ug/L	7.7
6	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
7	12/13/2002 23:40	LEAD		12	ug/L	0.9
7	1/1/2004 11:15	LEAD		14	ug/L	0.9
7	12/16/2002 5:10	LEAD		16	ug/L	0.9
7	11/8/2002 10:20	LEAD		22	ug/L	0.9
7	12/19/2002 15:20	LEAD		26	ug/L	0.9
7	12/29/2003 18:35	LEAD		35	ug/L	0.9
7	*12/30/2001 21:00*	*LEAD*		*19*	*ug/L*	*9.9*
7	*12/2/2001 8:00*	*LEAD*		*20.8*	*ug/L*	*9.9*
7	*11/12/2001 12:10*	*LEAD*		*36.1*	*ug/L*	*9.9*
7	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
8	12/2/2001 8:45	MERCURY		0.083	ug/L	0.0005
8	12/30/2001 21:00	MERCURY		0.12	ug/L	0.0025
8	1/1/2004 11:15	MERCURY		0.12	ug/L	0.00024
8	12/16/2002 5:10	MERCURY		0.13	ug/L	0.00024
8	12/19/2002 15:20	MERCURY		0.14	ug/L	0.00024
8	12/13/2002 23:40	MERCURY		0.23	ug/L	0.00024
8	12/29/2003 18:35	MERCURY		0.28	ug/L	0.00024
8	11/12/2001 12:10	MERCURY		0.4	ug/L	0.0025
8	11/8/2002 10:20	MERCURY		0.46	ug/L	0.00024
8	*12/30/2001 21:00*	*MERCURY*		*0.13*	*ug/L*	*0.02*
8	*12/2/2001 8:00*	*MERCURY*		*0.25*	*ug/L*	*0.02*
8	*11/12/2001 12:10*	*MERCURY*		*0.38*	*ug/L*	*0.02*
8	**Maximum**			**0.46**	ug/L	
8	**Average**			**0.227**	ug/L	
8	**std**			**0.128**	ug/L	
8	**CV=std/average**			**0.5653**	µg/L	
9	1/1/2004 11:15	NICKEL		12	ug/L	5
9	12/13/2002 23:40	NICKEL		13	ug/L	5
9	12/30/2001 21:00	NICKEL		13.6	ug/L	3.3
9	12/19/2002 15:20	NICKEL		14	ug/L	5
9	12/2/2001 8:00	NICKEL		18.8	ug/L	3.3
9	11/12/2001 12:10	NICKEL		19.4	ug/L	3.3
9	12/16/2002 5:10	NICKEL		20	ug/L	5
9	12/29/2003 18:35	NICKEL		21	ug/L	5
9	11/8/2002 10:20	NICKEL		26	ug/L	5
9	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
11	11/12/2001 12:10	SILVER	U	3.3	ug/L	3.3
11	12/30/2001 21:00	SILVER		22.2	ug/L	3.3
11	12/2/2001 8:00	SILVER		23	ug/L	3.3
11	12/16/2002 5:10	SILVER	E	0.09	ug/L	0.06
11	12/13/2002 23:40	SILVER	E	0.19	ug/L	0.06
11	1/1/2004 11:15	SILVER	E,B	0.31	ug/L	0.06

Table 5 San Antonio Creek Pollutants Data with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL
11	12/19/2002 15:20	SILVER	E	0.45	ug/L	0.06
11	11/8/2002 10:20	SILVER		1.2	ug/L	0.06
11	12/29/2003 18:35	SILVER		1.2	ug/L	0.06
	Maximum			**26**	ug/L	
	Average			**8.295**	ug/L	
	std			**10.986**	ug/L	
	CV=std/average			**1.3244**	µg/L	
13	12/13/2002 23:40	ZINC		95	ug/L	12.1
13	1/1/2004 11:15	ZINC		97.6	ug/L	12.1
13	12/16/2002 5:10	ZINC		103	ug/L	12.1
13	12/2/2001 8:00	ZINC	B	111	ug/L	4.4
13	12/30/2001 21:00	ZINC	B	114	ug/L	4.4
13	12/19/2002 15:20	ZINC		126	ug/L	12.1
13	12/29/2003 18:35	ZINC		135	ug/L	12.1
13	11/8/2002 10:20	ZINC		154	ug/L	12.1
13	11/12/2001 12:10	ZINC		185	ug/L	4.4
13	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
14	11/12/2001 12:10	Total Cyanide		3	ug/L	3
14	11/8/2002 10:20	Total Cyanide	U	3	ug/L	3
14	12/13/2002 23:40	Total Cyanide	U	3	ug/L	3
14	12/29/2003 18:35	Total Cyanide	U	3	ug/L	3
14	1/1/2004 11:15	Total Cyanide	U	3	ug/L	3
14	12/16/2002 5:10	Total Cyanide	E	6	ug/L	3
14	12/2/2001 8:00	Total Cyanide		16	ug/L	3
14	12/30/2001 21:00	Total Cyanide		16	ug/L	3
14	12/19/2002 15:20	Total Cyanide		28	ug/L	3
14	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
16	11/8/2002	Dioxin TEQ		0.00000274		
16	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
62	11/12/2001 12:10	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/30/2001 21:00	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/13/2002 23:40	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/16/2002 5:10	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/19/2002 15:20	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/29/2003 18:35	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	1/1/2004 11:15	BENZO(A)PYRENE	U	0.0079	ug/L	0.0079
62	12/2/2001 8:00	BENZO(A)PYRENE		0.029	ug/L	0.0079
62	11/8/2002 10:20	BENZO(A)PYRENE	E	0.051	ug/L	0.0079
62	12/29/2003 18:30	BENZO(A)PYRENE	U	0.096	ug/L	0.096
62	11/8/2002 9:40	BENZO(A)PYRENE	U	0.1	ug/L	0.1
		Interim limit=1.6*Max effluent concentration		0.08	effluent limit	
62	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		
73	1/1/2004 11:15	CHRYSENE	U	0.0036	ug/L	0.0036
73	12/30/2001 21:00	CHRYSENE		0.011	ug/L	0.0036
73	12/13/2002 23:40	CHRYSENE	E	0.018	ug/L	0.0036
73	12/19/2002 15:20	CHRYSENE	E	0.021	ug/L	0.0036
73	12/29/2003 18:35	CHRYSENE	E	0.025	ug/L	0.0036
73	12/16/2002 5:10	CHRYSENE	E	0.031	ug/L	0.0036
73	12/2/2001 8:00	CHRYSENE		0.04	ug/L	0.0036
73	12/29/2003 18:30	CHRYSENE	U	0.048	ug/L	0.048
73	11/8/2002 9:40	CHRYSENE	U	0.05	ug/L	0.05

Table 5 San Antonio Creek Pollutants Data with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL
73	11/12/2001 12:10	CHRYSENE	B	0.051	ug/L	0.0036
73	11/8/2002 10:20	CHRYSENE	E,B	0.066	ug/L	0.0036
73	**Maximum**			**0.066**	µ/L	
73	**Average**			**0.033**	µ/L	
73	**std**			**0.019**	µ/L	
73	**CV=std/average**			**0.5851**	µ/L	
109	11/8/2002 9:40	4,4'-DDE	U	0.00097	ug/L	0.00097
109	12/29/2003 18:30	4,4'-DDE	U	0.00097	ug/L	0.00097
109	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**	*ML=0.05*	
108	12/29/2003 18:30	4,4'-DDT	U	0.0013	ug/L	0.0013
108	11/8/2002 9:40	4,4'-DDT	E	0.0037	ug/L	0.0013
108	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**	*ML=0.01*	
111	11/8/2002 9:40	DIELDRIN	U	0.00077	ug/L	0.00077
111	12/29/2003 18:30	DIELDRIN	U	0.00077	ug/L	0.00077
111	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**	*ML=0.01*	

Table 6 Oakport Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
6	1/25/2001 19:30	COPPER	B	54.4	ug/L	3.3	
6	2/11/2001 5:30	COPPER		20.9	ug/L	3.3	
6	2/12/2001 6:30	COPPER		16.7	ug/L	3.3	
6	2/19/2001 19:45	COPPER		86.2	ug/L	3.3	
6	2/24/2001 13:15	COPPER		47.6	ug/L	3.3	
6	11/12/2001 14:20	COPPER		41.9	ug/L	3.3	
6	11/29/2001 1:40	COPPER		36.4	ug/L	3.3	
6	12/2/2001 5:15	COPPER		18.3	ug/L	3.3	
6	12/6/2001 1:00	COPPER		25.7	ug/L	3.3	
6	12/14/2001 4:05	COPPER		30.2	ug/L	3.3	
6	12/17/2001 11:20	COPPER		25.3	ug/L	3.3	
6	12/22/2001 14:30	COPPER		29.3	ug/L	3.3	
6	12/28/2001 14:30	COPPER		41.3	ug/L	3.3	
6	12/30/2001 18:30	COPPER		17.6	ug/L	3.3	
6	1/2/2002 11:25	COPPER		20.4	ug/L	3.3	
6	3/6/2002 22:30	COPPER		49.1	ug/L	3.3	
6	11/8/2002 9:20	COPPER		53.5	ug/L	7.7	
6	12/13/2002 14:00	COPPER		32	ug/L	7.7	
6	12/14/2002 16:30	COPPER		22.4	ug/L	7.7	
6	12/16/2002 4:20	COPPER		21.9	ug/L	7.7	
6	12/19/2002 15:10	COPPER		31.8	ug/L	7.7	
6	12/20/2002 8:10	COPPER		19.1	ug/L	7.7	
6	12/28/2002 21:25	COPPER		23	ug/L	7.7	
6	12/30/2003 8:25	COPPER		28.2	ug/L	7.7	
6	1/1/2004 8:10	COPPER		20.9	ug/L	7.7	
6	1/2/2004 16:30	COPPER		26.5	ug/L	7.7	
	Maximum			**86.2**	ug/L		
	Average			**32.3**	ug/L		
	std			**15.8**	ug/L		
	CV=std/average			**0.4883**	µg/L		
7	3/6/2002 22:30	LEAD		19	ug/L	0.9	
7	11/8/2002 9:20	LEAD		28	ug/L	0.9	
7	12/13/2002 14:00	LEAD		10	ug/L	0.9	
7	12/14/2002 16:30	LEAD		13	ug/L	0.9	
7	12/16/2002 4:20	LEAD		15	ug/L	0.9	
7	12/19/2002 15:10	LEAD		17	ug/L	0.9	
7	12/20/2002 8:10	LEAD		5.7	ug/L	0.9	
7	12/28/2002 21:25	LEAD		7.4	ug/L	0.9	
7	12/30/2003 8:25	LEAD		16	ug/L	0.9	
7	1/1/2004 8:10	LEAD		9.1	ug/L	0.9	
7	1/2/2004 16:30	LEAD		5.8	ug/L	0.9	
7	12/6/2001 1:00	LEAD	U	9.9	µg/L	9.9	
7	12/17/2001 11:20	LEAD	U	9.9	µg/L	9.9	
7	12/22/2001 14:30	LEAD	U	9.9	µg/L	9.9	
7	12/30/2001 18:30	LEAD	U	9.9	µg/L	9.9	
7	1/2/2002 11:25	LEAD		10.6	µg/L	9.9	
7	12/14/2001 4:05	LEAD		11.6	µg/L	9.9	
7	12/2/2001 5:15	LEAD		13.6	µg/L	9.9	
7	2/11/2001 5:30	LEAD		13.9	µg/L	9.9	
7	11/29/2001 1:40	LEAD		14.6	µg/L	9.9	
7	12/28/2001 14:30	LEAD		16.4	µg/L	9.9	
7	2/24/2001 13:15	LEAD		17.2	µg/L	9.9	

Table 6 Oakport Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
7	11/12/2001 14:20	LEAD		18.6	µg/L	9.9	
7	2/19/2001 19:45	LEAD		19.5	µg/L	9.9	
7	1/25/2001 19:30	LEAD		36.8	µg/L	9.9	
7	2/12/2001 6:30	LEAD	U	9.9	µg/L	9.9	
	Maximum			**36.8**	ug/L		
	Average			**14.2**	ug/L		
	std			**6.8**	ug/L		
	CV=std/average			**0.4776**	µg/L		
8	1/25/2001 19:30	MERCURY		0.13	ug/L	0.0025	2.77350098
8	2/11/2001 5:30	MERCURY		0.05	ug/L	0.0005	4.4721
8	2/12/2001 7:00	MERCURY		0.046	ug/L	0.0005	4.6625
8	2/19/2001 20:15	MERCURY		0.092	ug/L	0.0005	3.2969
8	2/24/2001 15:45	MERCURY		0.072	ug/L	0.0005	3.7268
8	11/12/2001 11:17	MERCURY		0.11	ug/L	0.001	3.0151
8	11/29/2001 1:40	MERCURY		0.087	ug/L	0.001	3.3903
8	12/2/2001 5:15	MERCURY		0.057	ug/L	0.0005	4.1885
8	12/5/2001 23:10	MERCURY		0.036	ug/L	0.0005	5.2705
8	12/14/2001 5:00	MERCURY		0.084	ug/L	0.0005	3.4503
8	12/17/2001 10:35	MERCURY		0.075	ug/L	0.0005	3.6515
8	12/22/2001 14:30	MERCURY		0.071	ug/L	0.01	3.7529
8	12/28/2001 14:35	MERCURY		0.066	ug/L	0.0005	3.8925
8	12/30/2001 18:30	MERCURY		0.065	ug/L	0.0005	3.9223
8	1/2/2002 11:25	MERCURY		0.045	ug/L	0.0005	4.7140
8	3/6/2002 22:30	MERCURY		0.12	ug/L	0.00017	2.8868
8	11/8/2002 9:20	MERCURY		0.17	ug/L	0.00024	2.4254
8	12/14/2002 22:30	MERCURY		0.067	ug/L	0.00024	3.8633
8	12/16/2002 4:20	MERCURY		0.096	ug/L	0.00024	3.2275
8	12/19/2002 15:10	MERCURY		0.099	ug/L	0.00024	3.1782
8	12/20/2002 8:10	MERCURY		0.05	ug/L	0.00024	4.4721
8	12/28/2002 17:15	MERCURY		0.082	ug/L	0.00024	3.4922
8	12/29/2003 13:20	MERCURY		0.063	ug/L	0.00024	3.9841
8	1/1/2004 8:10	MERCURY		0.077	ug/L	0.00024	3.6037
8	1/2/2004 16:30	MERCURY		0.069	ug/L	0.00024	3.8069
8	*12/6/2001 1:00*	*MERCURY*		*0.041*	*ug/L*	*0.02*	4.9386
8	*1/2/2002 11:25*	*MERCURY*		*0.041*	*ug/L*	*0.02*	4.9386
8	*2/12/2001 6:30*	*MERCURY*		*0.047*	*ug/L*	*0.02*	4.6127
8	*2/24/2001 13:15*	*MERCURY*		*0.059*	*ug/L*	*0.02*	4.1169
8	*12/30/2001 18:30*	*MERCURY*		*0.059*	*ug/L*	*0.02*	4.1169
8	*12/2/2001 5:15*	*MERCURY*		*0.065*	*ug/L*	*0.02*	3.9223
8	*2/11/2001 5:30*	*MERCURY*		*0.07*	*ug/L*	*0.02*	3.7796
8	*12/22/2001 14:30*	*MERCURY*		*0.088*	*ug/L*	*0.02*	3.3710
8	*12/28/2001 14:30*	*MERCURY*		*0.092*	*ug/L*	*0.02*	3.2969
8	*12/17/2001 11:20*	*MERCURY*		*0.097*	*ug/L*	*0.02*	3.2108
8	*12/14/2001 4:05*	*MERCURY*		*0.1*	*ug/L*	*0.02*	3.1623
8	*11/29/2001 1:40*	*MERCURY*		*0.12*	*ug/L*	*0.02*	2.8868
8	*11/12/2001 14:20*	*MERCURY*		*0.13*	*ug/L*	*0.02*	2.7735
8	*1/25/2001 19:30*	*MERCURY*		*0.15*	*ug/L*	*0.02*	2.5820
8	*2/19/2001 19:45*	*MERCURY*		*0.17*	*ug/L*	*0.02*	2.4254
	Maximum			**0.1700**	ug/L		
	Average			**0.0827**	ug/L		
	std			**0.0339**	ug/L		
	CV=std/average			**0.4098**	µg/L		

Table 6 Oakport Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
9	1/25/2001 19:30	NICKEL	B	19.7	ug/L	3.3	
9	2/11/2001 5:30	NICKEL	B	16.6	ug/L	3.3	
9	2/12/2001 6:30	NICKEL	B	9.52	ug/L	3.3	
9	2/19/2001 19:45	NICKEL		14.4	ug/L	3.3	
9	2/24/2001 13:15	NICKEL		16.8	ug/L	3.3	
9	11/12/2001 14:20	NICKEL		15.3	ug/L	3.3	
9	11/29/2001 1:40	NICKEL		10.5	ug/L	3.3	
9	12/2/2001 5:15	NICKEL		9.84	ug/L	3.3	
9	12/6/2001 1:00	NICKEL		12.5	ug/L	3.3	
9	12/14/2001 4:05	NICKEL		16.9	ug/L	3.3	
9	12/17/2001 11:20	NICKEL		15.1	ug/L	3.3	
9	12/22/2001 14:30	NICKEL		8.54	ug/L	3.3	
9	12/28/2001 14:30	NICKEL		13.2	ug/L	3.3	
9	12/30/2001 18:30	NICKEL		10.7	ug/L	3.3	
9	1/2/2002 11:25	NICKEL		10.7	ug/L	3.3	
9	3/6/2002 22:30	NICKEL		16	ug/L	5	
9	11/8/2002 9:20	NICKEL		22	ug/L	5	
9	12/13/2002 14:00	NICKEL		21	ug/L	5	
9	12/14/2002 16:30	NICKEL		11	ug/L	5	
9	12/16/2002 4:20	NICKEL		12	ug/L	5	
9	12/19/2002 15:10	NICKEL		13	ug/L	5	
9	12/20/2002 8:10	NICKEL		11	ug/L	5	
9	12/28/2002 21:25	NICKEL		12	ug/L	5	
9	12/30/2003 8:25	NICKEL		15	ug/L	5	
9	1/1/2004 8:10	NICKEL		7.8	ug/L	5	
9	1/2/2004 16:30	NICKEL		7	ug/L	5	
	Maximum			**22**	ug/L		
	Average			**13.4**	ug/L		
	std			**3.9**	ug/L		
	CV=std/average			**0.2933**	µg/L		
11	11/29/2001 1:40	SILVER		6.87	ug/L	3.3	
11	2/24/2001 13:15	SILVER		7.54	ug/L	3.3	
11	2/12/2001 6:30	SILVER		9.6	ug/L	3.3	
11	12/30/2001 18:30	SILVER		9.68	ug/L	3.3	
11	11/12/2001 14:20	SILVER		9.83	ug/L	3.3	
11	12/6/2001 1:00	SILVER		9.93	ug/L	3.3	
11	2/11/2001 5:30	SILVER		12.4	ug/L	3.3	
11	12/22/2001 14:30	SILVER		12.7	ug/L	3.3	
11	1/2/2002 11:25	SILVER		13.4	ug/L	3.3	
11	12/17/2001 11:20	SILVER		14	ug/L	3.3	
11	12/2/2001 5:15	SILVER		16.5	ug/L	3.3	
11	12/28/2001 14:30	SILVER		16.5	ug/L	3.3	
11	2/19/2001 19:45	SILVER		16.7	ug/L	3.3	
11	12/14/2001 4:05	SILVER		23.1	ug/L	3.3	
11	1/25/2001 19:30	SILVER		26.4	ug/L	3.3	
11	12/14/2002 16:30	SILVER	U	0.06	ug/L	0.06	
11	12/16/2002 4:20	SILVER	U	0.06	ug/L	0.06	
11	12/20/2002 8:10	SILVER	E	0.07	ug/L	0.06	
11	12/13/2002 14:00	SILVER	E	0.15	ug/L	0.06	
11	12/19/2002 15:10	SILVER	E	0.19	ug/L	0.06	
11	1/1/2004 8:10	SILVER	E,B	0.23	ug/L	0.06	
11	12/28/2002 21:25	SILVER	E	0.29	ug/L	0.06	

Table 6 Oakport Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
11	1/2/2004 16:30	SILVER	E,B	0.29	ug/L	0.06	
11	3/6/2002 22:30	SILVER	E	0.37	ug/L	0.06	
11	11/8/2002 9:20	SILVER	E	0.5	ug/L	0.06	
11	12/30/2003 8:25	SILVER	E	0.53	ug/L	0.06	
	Maximum			**26.4**	ug/L		
	Average			**8.0**	ug/L		
	std			**7.9**	ug/L		
	CV=std/average			**0.9906**	µg/L		
13	1/25/2001 19:30	ZINC	B	216	ug/L	4.4	
13	2/11/2001 5:30	ZINC		92.2	ug/L	4.4	
13	2/12/2001 6:30	ZINC		96.6	ug/L	4.4	
13	2/19/2001 19:45	ZINC	B	164	ug/L	4.4	
13	2/24/2001 13:15	ZINC		66.4	ug/L	4.4	
13	11/12/2001 14:20	ZINC		168	ug/L	4.4	
13	11/29/2001 1:40	ZINC		150	ug/L	4.4	
13	12/2/2001 5:15	ZINC	B	114	ug/L	4.4	
13	12/6/2001 1:00	ZINC	B	63.4	ug/L	4.4	
13	12/14/2001 4:05	ZINC		111	ug/L	4.4	
13	12/17/2001 11:20	ZINC		97.3	ug/L	4.4	
13	12/22/2001 14:30	ZINC		95.7	ug/L	4.4	
13	12/28/2001 14:30	ZINC	B	103	ug/L	4.4	
13	12/30/2001 18:30	ZINC	B	49.2	ug/L	4.4	
13	1/2/2002 11:25	ZINC	B	55.2	ug/L	4.4	
13	3/6/2002 22:30	ZINC		161	ug/L	4.4	
13	11/8/2002 9:20	ZINC		204	ug/L	12.1	
13	12/13/2002 14:00	ZINC		124	ug/L	12.1	
13	12/14/2002 16:30	ZINC		113	ug/L	12.1	
13	12/16/2002 4:20	ZINC		92.3	ug/L	12.1	
13	12/19/2002 15:10	ZINC		149	ug/L	12.1	
13	12/20/2002 8:10	ZINC		75.2	ug/L	12.1	
13	12/28/2002 21:25	ZINC		80	ug/L	12.1	
13	12/30/2003 8:25	ZINC		101	ug/L	12.1	
13	1/1/2004 8:10	ZINC		76.5	ug/L	12.1	
13	1/2/2004 16:30	ZINC		97.2	ug/L	12.1	
	Maximum			**216**	ug/L		
	Average			**112.1**	ug/L		
	std			**43.7**	ug/L		
	CV=std/average			**0.3894**	µg/L		
14	1/25/2001 19:30	Total Cyanide		3	ug/L	3	1.5
14	2/11/2001 5:30	Total Cyanide		3	ug/L	3	1.5
14	2/12/2001 6:30	Total Cyanide	U	3	ug/L	3	1.5
14	2/19/2001 19:45	Total Cyanide	U	3	ug/L	3	1.5
14	2/24/2001 13:15	Total Cyanide	U	3	ug/L	3	1.5
14	11/12/2001 14:20	Total Cyanide	U	3	ug/L	3	1.5
14	11/29/2001 1:40	Total Cyanide	U	3	ug/L	3	1.5
14	12/2/2001 5:15	Total Cyanide	U	3	ug/L	3	1.5
14	12/5/2001 22:35	Total Cyanide	U	3	ug/L	3	1.5
14	12/14/2001 4:05	Total Cyanide	U	3	ug/L	3	1.5
14	12/17/2001 10:35	Total Cyanide	U	3	ug/L	3	1.5
14	12/28/2001 14:35	Total Cyanide		3	ug/L	3	1.5
14	11/8/2002 9:20	Total Cyanide	U	3	ug/L	3	1.5
14	12/13/2002 14:20	Total Cyanide	U	3	ug/L	3	1.5

Table 6 Oakport Priority Pollutants with RP

CTR No.	Collect Date	Analyte	Qual	Results	Units	MDL	Half MDL
14	12/14/2002 16:30	Total Cyanide	U	3	ug/L	3	1.5
14	12/16/2002 4:20	Total Cyanide	E	3	ug/L	3	1.5
14	12/30/2003 8:25	Total Cyanide	U	3	ug/L	3	1.5
14	12/22/2001 14:30	Total Cyanide		4	ug/L	3	4
14	3/6/2002 22:30	Total Cyanide	E	4	ug/L	3	4
14	1/2/2002 11:25	Total Cyanide	*	5	ug/L	3	5
14	12/19/2002 15:10	Total Cyanide	E	5	ug/L	3	5
14	12/28/2002 17:15	Total Cyanide	E	6	ug/L	3	6
14	12/20/2002 8:10	Total Cyanide	E,H	7	ug/L	3	7
14	12/30/2001 18:30	Total Cyanide		9	ug/L	3	9
14	1/2/2004 16:30	Total Cyanide		9.9	ug/L	3	9.9
14	1/1/2004 8:10	Total Cyanide		11	ug/L	3	11
	Maximum				ug/L		**11.0000**
	Average				ug/L		**3.3231**
	std				ug/L		**2.9540**
	CV=std/average				ug/L		**0.8889**
16		Dioxin TEQ		0.00000542	µg/L		
16		**CV**	**(Less than 10 data points, use SI**		**0.6**		
88	3/7/2002 0:30	HEXACHLOROBENZENE	U	0.0015	ug/L	0.0015	
88	12/28/2002 19:45	HEXACHLOROBENZENE	E	0.023	ug/L	0.0015	
88	12/28/2002 19:45	HEXACHLOROBENZENE	U	0.19	ug/L	0.19	
88	12/30/2003 2:35	HEXACHLOROBENZENE	U	0.0015	ug/L	0.0015	
88	12/30/2003 2:35	HEXACHLOROBENZENE	U	0.19	ug/L	0.19	
	CV	**(Less than 10 data points, use SIP default CV)**		**0.6**			
38	3/7/2002 0:30	TETRACHLOROETHENE	U	0.11	ug/L	0.11	
38	3/7/2002 0:30	TETRACHLOROETHENE		74	ug/L	0.11	
38	12/28/2002 19:45	TETRACHLOROETHENE	U	0.11	ug/L	0.11	
38	12/28/2002 19:45	TETRACHLOROETHENE	E	0.53	ug/L	0.11	
38	12/30/2003 2:35	TETRACHLOROETHENE	U	0.11	ug/L	0.11	
38	12/30/2003 2:35	TETRACHLOROETHENE	E	0.16	ug/L	0.11	
	CV	**(Less than 10 data points, use SIP default CV)**		**0.6**			
108	3/7/2002 0:30	4,4'-DDT	U	0.0013	ug/L	0.0013	
108	12/28/2002 19:45	4,4'-DDT	E	0.0087	ug/L	0.0013	
108	12/30/2003 2:35	4,4'-DDT	U	0.0013	ug/L	0.0013	
108	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.01*	
109	3/7/2002 0:30	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	12/28/2002 19:45	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	12/30/2003 2:35	4,4'-DDE	U	0.00097	ug/L	0.00097	
109	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.01*	
110	3/7/2002 0:30	4,4'-DDD	E,I	0.015	ug/L	0.00077	
110	12/28/2002 19:45	4,4'-DDD	E	0.0051	ug/L	0.00077	
110	12/30/2003 2:35	4,4'-DDD	U	0.00077	ug/L	0.00077	
110	**CV**	**(Less than 10 data points, use SIP default CV)**		**0.6**		*ML=0.5*	
111		Dieldrin	U	0.00077			
111		Dieldrin	I	0.022			
111		Dieldrin	U	0.00077			
	CV	**(Less than 10 data points, use SIP default CV)**		**0.6**			

Table 7 Final WQBELs Calculation for Pt. Isabel WWF

PRIORITY POLLUTANT	Copper, µg/L	Lead, µg/L	Mercury, ug/L	Silver, µg/L	Nickle, µg/L	Zinc, µg/L	Cyanide, µg/L	Dioxin, µg/L	Dichlorobromomethane	4,4-DDE, µg/L	4,4-DDT, µg/L	4,4-DDD, µg/L	Dieldrin µg/L	Endrin µg/L	Heptachlor Epoxide,µg/L
Basis and Criteria type	CTR sw, CCC	BP sw (4-d),	BP sw (4-d)	CTR sw, CCC	BP sw (4-d),	BP sw(4-d)	CTR sw CCCC & CMC	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only
Lowest WQO, C	3.7	5.6	0.025	2.2	7.1	58	1	0.000000014	46	0.00059	0.00059	0.00084	0.00014	0.0023	0.00011
Translator (if applicable)	0.83	NA	NA	0.85	NA	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA
Applicable Acute WQO	4.8	140	2.1	2.2	140	170	1	0.000000014	46	0.00059	0.00059	0.00084	0.71	0.037	0.053
Applicable Chronic WQO	3.1	5.6	0.025	2.2	7.1	58	1	0.000000014	46	0.00059	0.00059	0.00084	0.0019	0.0023	0.0036
Applicable Human Health WQO			0.051				220000	0.000000014	46	0.00059	0.00059	0.00084	0.00014	0.00014	0.00011
Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Avg bckgrnd (for HH criteria only)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ECA acute	4.80	140.00	2.10	2.20	140.00	170.00	1.00	0.00	46.00	0.00	0.00	0.00	0.71	0.04	0.05
ECA chronic	3.100	5.600	0.025	2.200	7.100	58.000	1.00	0.000	46.00	0.00	0.00	0.00	0.00	0.00	0.00
avg															
SD															
CV	0.3320	0.5331	0.5828	0.9669	0.2129	0.3666	0.7169	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
ECA acute mult	0.4967	0.3541	0.3290	0.2102	0.6265	0.4663	0.2751	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211
ECA chronic mult	0.6908	0.5627	0.5362	0.3825	0.7856	0.6661	0.4732	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274
LTA acute	2.3840	49.5707	0.6910	0.4624	87.7138	79.2710	0.2751	0.0000	14.7698	0.0002	0.0002	0.0003	0.2280	0.0119	0.0170
LTA chronic	2.1415	3.1509	0.0134	0.8415	5.5780	38.6338	0.4732	0.0000	24.2619	0.0003	0.0003	0.0004	0.0010	0.0012	0.0019
minimum of LTAs	2.141	3.151	0.013	0.462	5.578	38.634	0.275	0.000	14.770	0.000	0.000	0.000	0.001	0.001	0.002
AMEL mult95	1.2939	1.4868	1.5355	1.9134	1.1841	1.3265	1.6678	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524
MDEL mult99	2.0135	2.8242	3.0392	4.7574	1.5961	2.1445	3.6348	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145
AMEL (aq life)	2.7708	4.6849	0.0206	0.8848	6.6049	51.2464	0.4588	0.0000	22.9290	0.0003	0.0003	0.0004	0.0016	0.0019	0.0029
MDEL(aq life)	4.3118	8.8990	0.0407	2.2000	8.9030	82.8518	1.0000	0.0000	46.0000	0.0006	0.0006	0.0008	0.0031	0.0038	0.0059
MDEL/AMEL Multiplier (from Table 2, SIP)															
AMEL (human hlth)	3.7	5.6	0.025	2.2	7.1	58	1	0.000000014	46	0.00059	0.00059	0.00084	0.00014	0.0023	0.00011
MDEL (human hlth)	5.7578	10.6372	0.0495	5.4700	9.5704	93.7706	2.1794	0.000000028	92.2847	0.0012	0.0012	0.0017	0.0003	0.0046	0.0002
minimum of AMEL for Aq. life vs HH	2.7708	4.6849	0.0206	0.8848	6.6049	51.2464	0.4588	0.000000007	22.9290	0.0002941	0.0002941	0.0004187	0.0001	0.0019	0.0001
minimum of MDEL for Aq. Life vs HH	4.312	8.899	0.041	2.200	8.903	82.852	1.000	0.000000014	46.000	0.0005900	0.0005900	0.0008400	0.00028	0.00378	0.00022
Final limit - AMEL (ug/L)	2.771	4.685	0.021	0.885	6.605	51.246	0.459	0.000000007	22.929	0.0002941	0.0002941	0.0004187	0.00014	0.00188	0.00011
Final limit - MDEL (ug/L)	4.312	8.899	0.041	2.200	8.903	82.852	1.000	0.000000014	46.000	0.0005900	0.0005900	0.0008400	0.00028	0.00378	0.00022

Table 8 Final WQBELs Calculation for San Antonio Creek WWF

PRIORITY POLLUTANT	Silver, µg/L	Copper, µg/L	Lead, µg/L	Mercury, ug/L	Nickle, µg/L	Zinc, µg/L	Cyanide, µg/L	Dioxin, µg/L	Benzo(a) Pyrene, µg/L	Chrysene, µg/L	4,4-DDE, µg/L	4,4-DDT, µg/L	Dieldrin µg/L
Basis and Criteria type	CTR sw, CCC	CTR sw, CCC	BP sw (4-d),	BP sw (4-d),	BP sw (4-d),	BP sw(4-d)	CTR sw, CCC	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only
Lowest WQO, C	2.2	3.7	5.6	0.025	7.1	58	1	0.000000014	0.049	0.049	0.00059	0.00059	0.00014
Translator (if applicable)	0.85	0.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Applicable Acute WQO	2.2	4.8	140	2.1	140	170	1	0.000000014	0.049	0.049	0.00059	0.00059	0.71
Applicable Chronic WQO	2.2	3.7	5.6	0.025	7.1	58	1	0.000000014	0.049	0.049	0.00059	0.00059	0.0019
Applicable Human Health WQO								0.000000014	0.049	0.049	0.00059	0.00059	0.00014
Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Avg bckgrnd (for HH criteria only)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ECA acute	2.20	4.80	140.00	2.10	140.00	170.00	1.00	0.00	0.05	0.05	0.00	0.00	0.71
ECA chronic	2.200	3.700	5.600	0.025	7.100	58.000	1.000	0.000	0.049	0.049	0.00	0.00	0.00
avg													
SD													
CV	0.6000	0.6000	0.6000	0.5653	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
ECA acute mult	0.3211	0.3211	0.3211	0.3375	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211
ECA chronic mult	0.5274	0.5274	0.5274	0.5453	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274
LTA acute	0.7064	1.5412	44.9516	0.7087	44.9516	54.5841	0.3211	0.0000	0.0157	0.0157	0.0002	0.0002	0.2280
LTA chronic	1.1604	1.9515	2.9536	0.0136	3.7448	30.5911	0.5274	0.0000	0.0258	0.0258	0.0003	0.0003	0.0010
minimum of LTAs	0.706	1.541	2.954	0.014	3.745	30.591	0.321	0.000	0.016	0.016	0.000	0.000	0.001
AMEL mult95	1.5524	1.5524	1.5524	1.5183	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524
MDEL mult99	3.1145	3.1145	3.1145	2.9630	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145
AMEL (aq life)	1.0966	2.3926	4.5853	0.0207	5.8135	47.4904	0.4985	0.0000	0.0244	0.0244	0.0003	0.0003	0.0016
MDEL(aq life)	2.2000	4.8000	9.1989	0.0404	11.6629	95.2748	1.0000	0.0000	0.0490	0.0490	0.0006	0.0006	0.0031
MDEL/AMEL Multiplier (from Table 2, SIP)													
AMEL (human hlth)	2.2	3.7	5.6	0.025	7.1	58	1	0.000000014	0.049	0.049	0.00059	0.00059	0.00014
MDEL (human hlth)	4.4136	7.4229	11.2347	0.0488	14.2439	116.3590	2.0062	0.000000028	0.0983	0.0983	0.0012	0.0012	0.0003
minimum of AMEL for Aq. life vs HH	1.0966	2.3926	4.5853	0.0207	5.8135	47.4904	0.4985	0.000000007	0.0244244	0.0244244	0.0002941	0.0002941	0.0001
minimum of MDEL for Aq. Life vs HH	2.200	4.800	9.199	0.040	11.663	95.275	1.000	0.000000014	0.0490000	0.0490000	0.0005900	0.0005900	0.000281
Final limit - AMEL (ug/L)	1.097	2.393	4.585	0.021	5.813	47.490	0.498	0.000000007	0.0244244	0.0244244	0.0002941	0.0002941	0.000140
Final limit - MDEL (ug/L)	2.200	4.800	9.199	0.040	11.663	95.275	1.000	0.000000014	0.0490000	0.0490000	0.0005900	0.0005900	0.000281

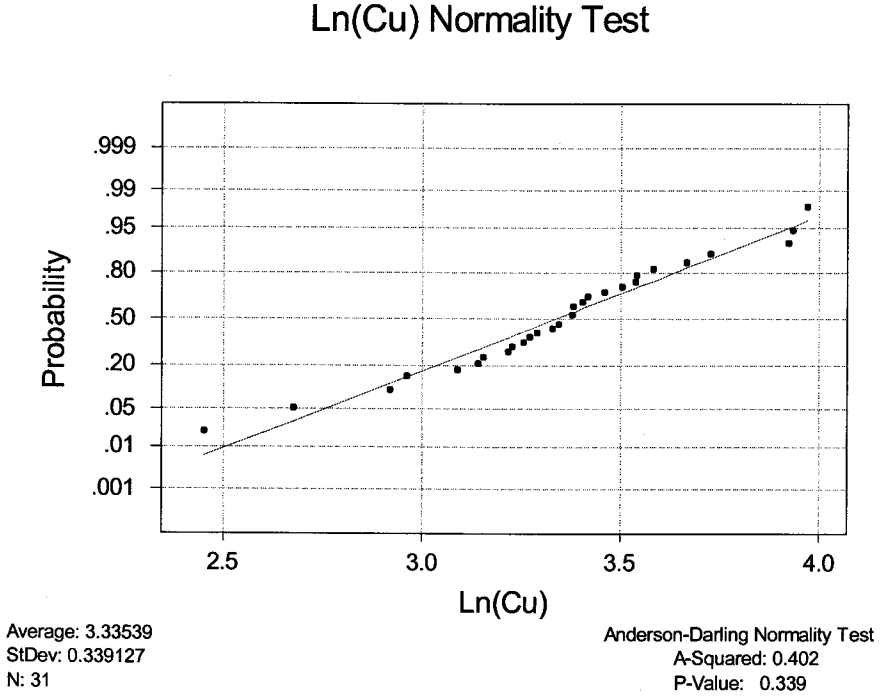
Table 9 Final WQBELs for Oakport WWF

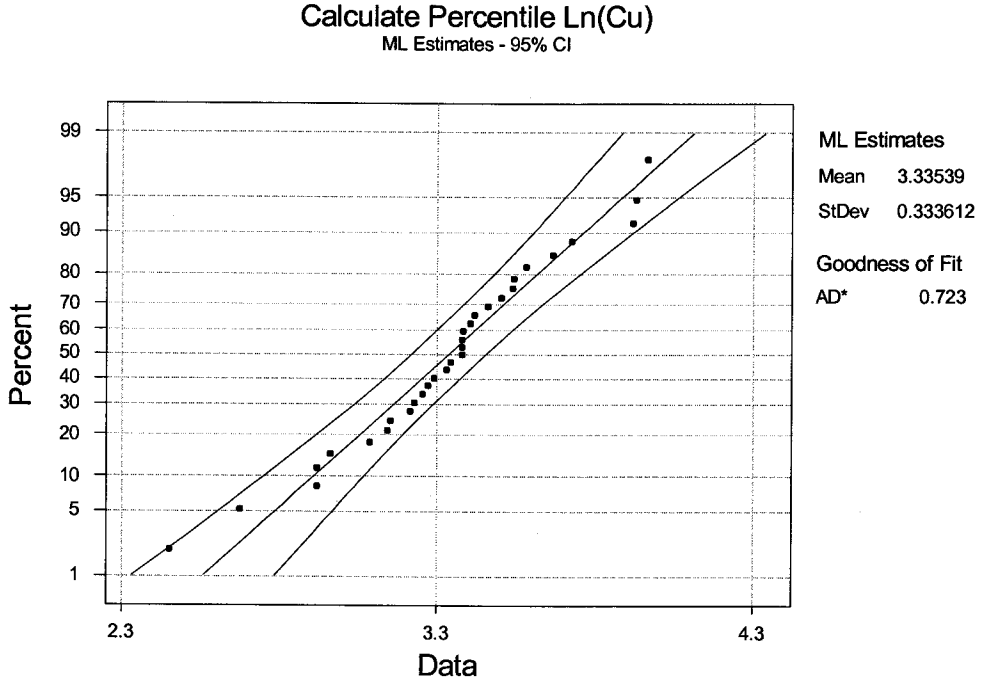
PRIORITY POLLUTANT	Silver, µg/L	Copper, µg/L	Lead, µg/L	Mercury, ug/L	Nickle, µg/L	Zinc, µg/L	Cyanide, µg/l	Dioxin, µg/L	Hexachloroben zene	Tetrachloro ethene	4,4-DDE, µg/L	4,4-DDT, µg/L	4,4-DDD, µg/L	Dieldrin µg/L
Basis and Criteria type	CTR sw, CCC	CTR sw, CCC	BP sw (4-d),	BP sw (4-d),	BP sw (4-d),	BP sw(4-d)	CTR sw CCCC & CMC	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only	CTR hh Organisms only
Lowest WQO, C	2.2	3.7	5.6	0.025	7.1	58	1	0.000000014	0.00077	8.5	0.00059	0.00059	0.00084	0.00014
Translator (if applicable)	0.85	0.83	NA	NA	NA	N/A	NA	NA	NA	NA	NA	NA	NA	NA
Applicable Acute WQO	2.2	4.8	140	2.1	140	170	1	0.000000014	0.00077	8.5	0.00059	0.00059	0.00084	0.71
Applicable Chronic WQO	2.2	3.1	5.6	0.025	7.1	58	1	0.000000014	0.00077	8.5	0.00059	0.00059	0.00084	0.0019
Applicable Human Health WQO				0.051			220000	0.000000014	0.0007	8.5	0.00059	0.00059	0.00084	0.00014
Background	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Avg bckgrnd (for HH criteria only)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ECA acute	2.20	4.80	140.00	2.10	140.00	170.00	1.00	0.00	0.00	8.50	0.00	0.00	0.00	0.71
ECA chronic	2.200	3.100	5.600	0.025	7.100	58.000	1.00	0.000	0.00	8.50	0.00	0.00	0.00	0.00
avg														
SD														
CV	0.9906	0.4883	0.4776	0.4098	0.2933	0.3894	0.8889	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
ECA acute mult	0.2057	0.3796	0.3861	0.4322	0.5342	0.4478	0.2268	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211	0.3211
ECA chronic mult	0.3754	0.5882	0.5945	0.6369	0.7199	0.6505	0.4076	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274	0.5274
LTA acute	0.4525	1.8219	54.0565	0.9077	74.7922	76.1281	0.2268	0.000000004	0.0002	2.7292	0.0002	0.0002	0.0003	0.2280
LTA chronic	0.8259	1.8233	3.3292	0.0159	5.1112	37.7272	0.4076	0.000000007	0.0004	4.4832	0.0003	0.0003	0.0004	0.0010
minimum of LTAs	0.452	1.822	3.329	0.016	5.111	37.727	0.227	0.000000004	0.00025	2.729	0.00019	0.00019	0.00027	0.0010
AMEL mult95	1.9364	1.4432	1.4328	1.3676	1.2577	1.3481	1.8373	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524	1.5524
MDEL mult99	4.8621	2.6345	2.5899	2.3137	1.8719	2.2331	4.4096	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145	3.1145
AMEL (aq life)	0.8762	2.6295	4.7702	0.0218	6.4286	50.8604	0.4167	0.000000007	0.0004	4.2369	0.0003	0.0003	0.0004	0.0016
MDEL(aq life)	2.2000	4.8000	8.6222	0.0368	9.5675	84.2477	1.0000	0.000000014	0.0008	8.5000	0.0006	0.0006	0.0008	0.0031
MDEL/AMEL Multiplier (from Table 2, SIP)														
AMEL (human hlth)	2.2	3.7	5.6	0.025	7.1	58	1	0.000000014	0.00077	8.5	0.00059	0.00059	0.00084	0.00014
MDEL (human hlth)	5.5241	6.7542	10.1220	0.0423	10.5667	96.0741	2.4000	0.000000028	0.0015	17.0526	0.0012	0.0012	0.0017	0.0003
minimum of AMEL for Aq. life vs HH	0.8762	2.6295	4.7702	0.0218	6.4286	50.8604	0.4167	0.000000007	0.0004	4.2369	0.0002941	0.0002941	0.0004187	0.0001
minimum of MDEL for Aq. Life vs HH	2.200	4.800	8.622	0.037	9.567	84.248	1.000	0.000000014	0.001	8.500	0.0005900	0.0005900	0.0008400	0.00028
Final limit - AMEL (ug/L)	0.876	2.629	4.770	0.022	6.429	50.860	0.417	0.000000007	0.00038	4.237	0.0002941	0.0002941	0.0004187	0.00014
Final limit - MDEL (ug/L)	2.200	4.800	8.622	0.037	9.567	84.248	1.000	0.000000014	0.001	8.500	0.0005900	0.0005900	0.0008400	0.00028

Table 10 Infeasibility Determination and Calculation of Interim Limits for Pt. Isabel Wet Weather Treatment Facility

Copper

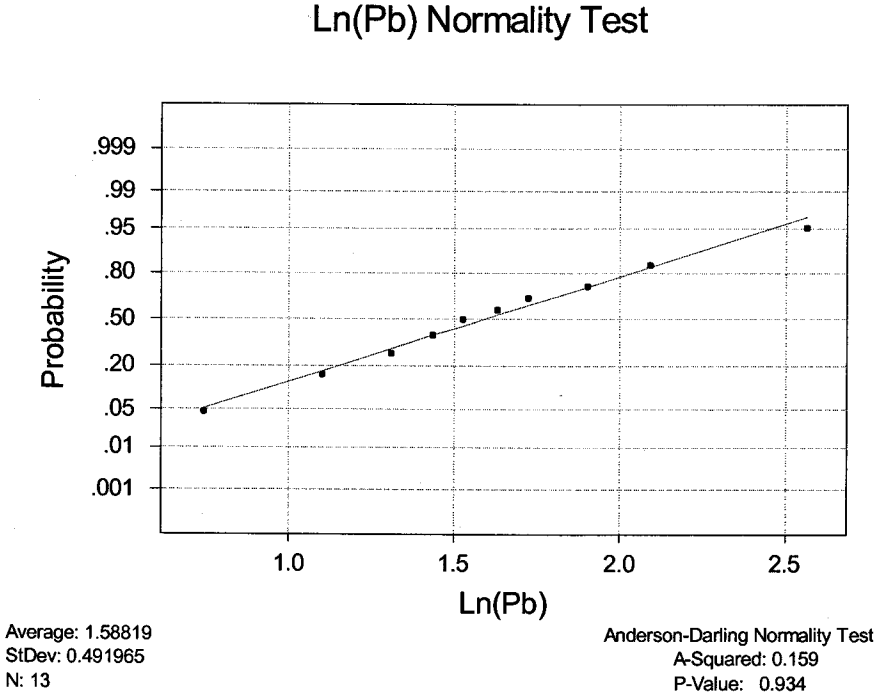
Mean =3.34; SD = 0.334;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(3.34+3x0.334) = 76.9 µg/L

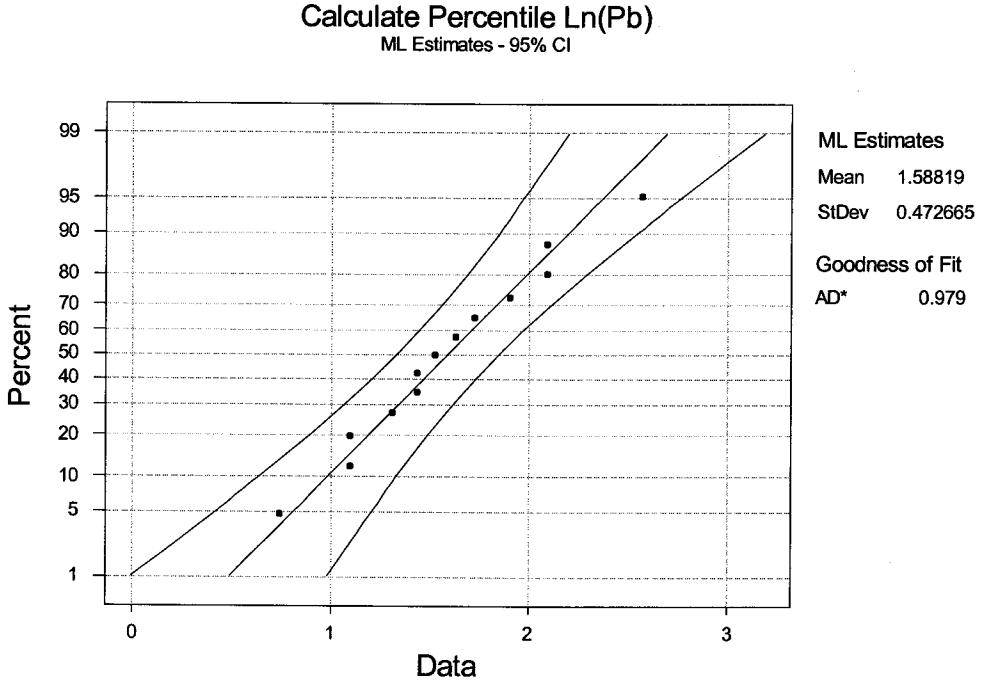




Lead

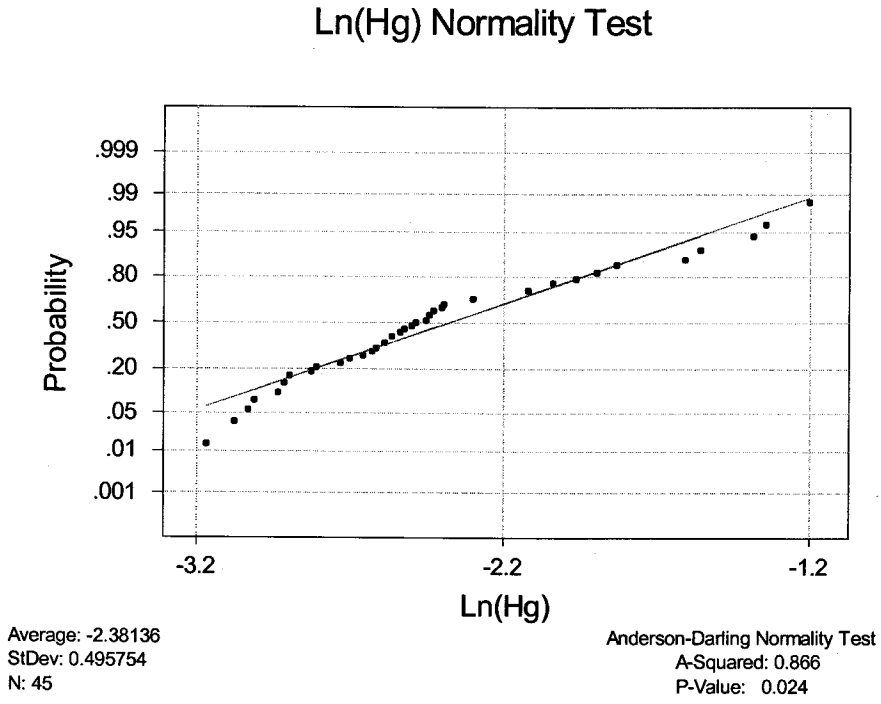
Mean = 1.588; SD = 0.473;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(1.588+3x0.473) =20.23 µg/L

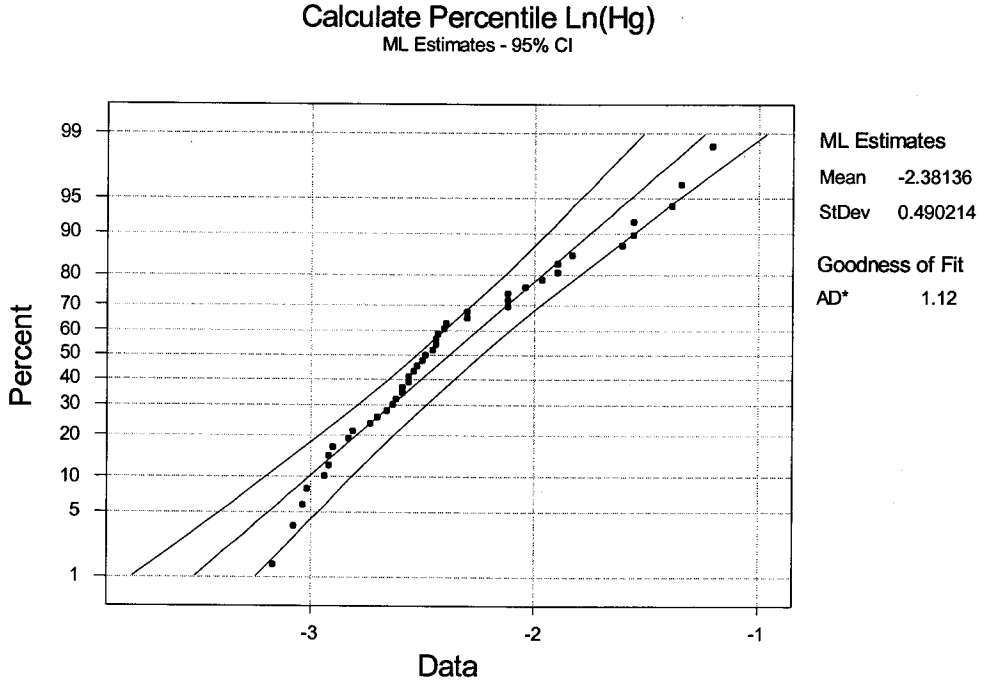




Mercury

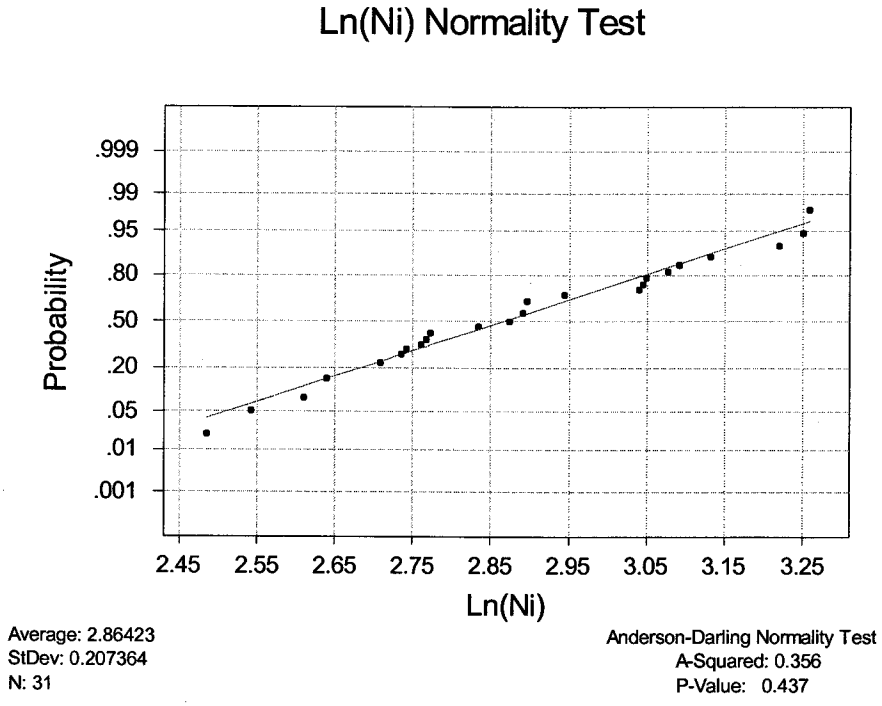
Mean = -2.381; SD = 0.490;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(-2.381+3x0.49) = 0.402 µg/L

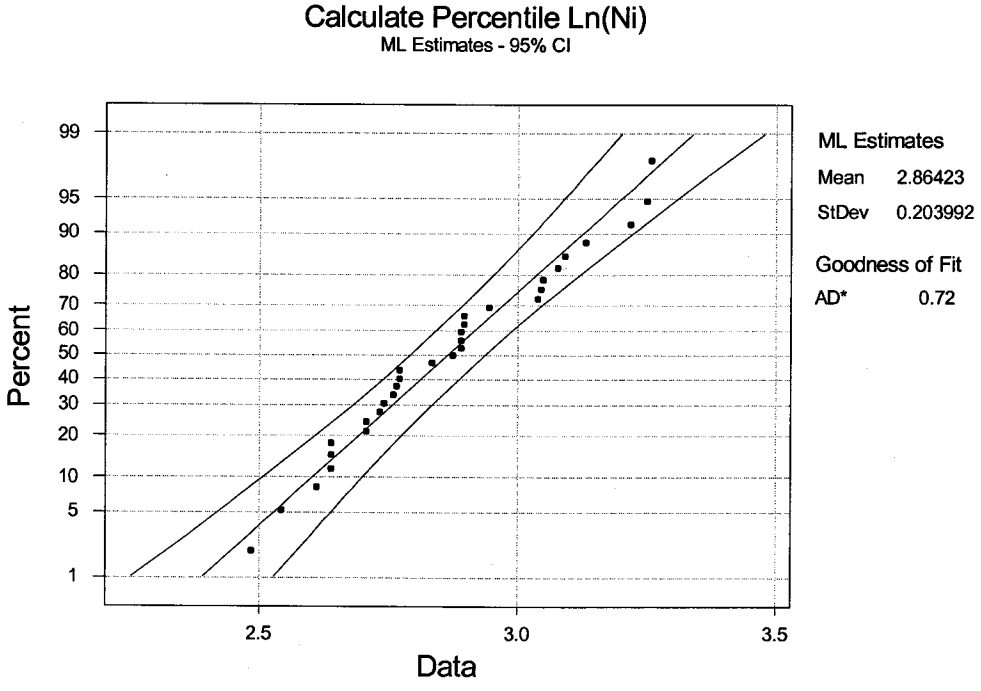




Nickel

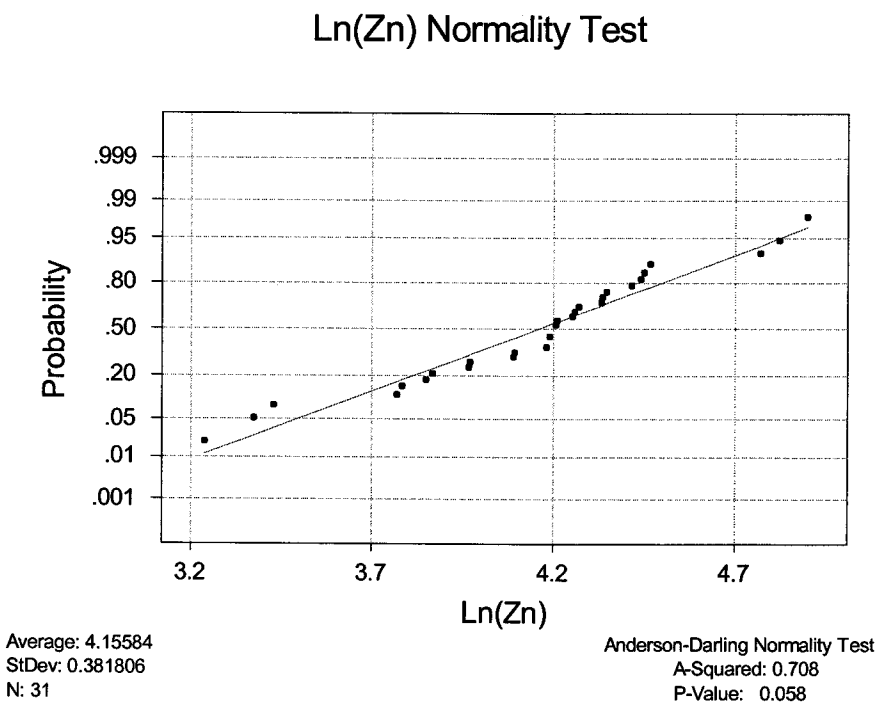
Mean = 2.864; SD = 0.204;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(2.864+3x0.204) = 32.3 µg/L





Zinc

Mean = 4.156; SD = 0.3756;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(4.156+3x0.3756) = 196.9 µg/L



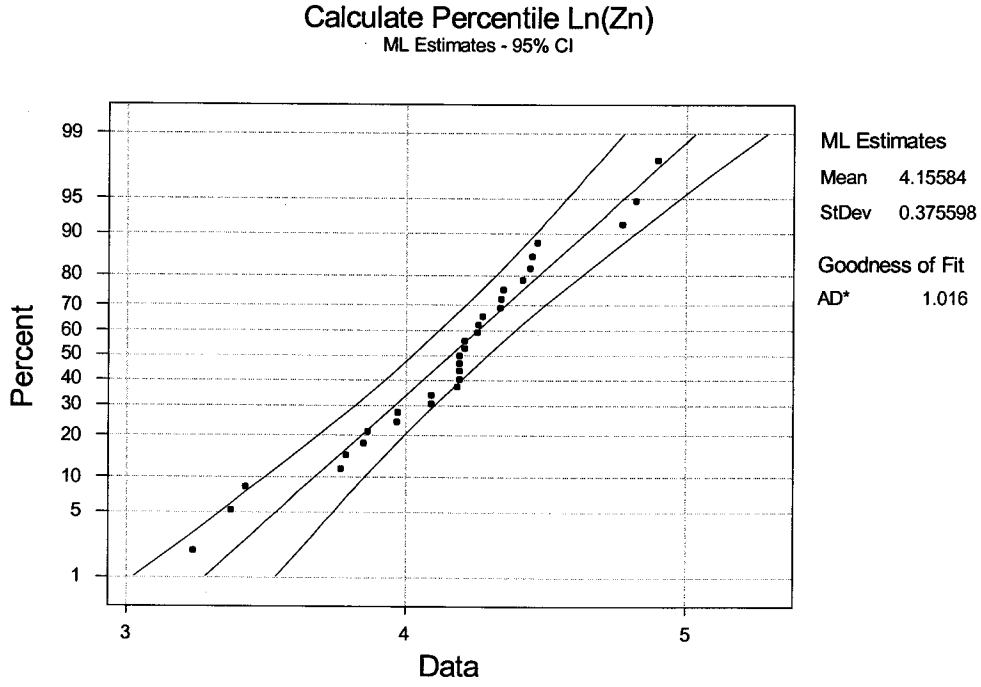
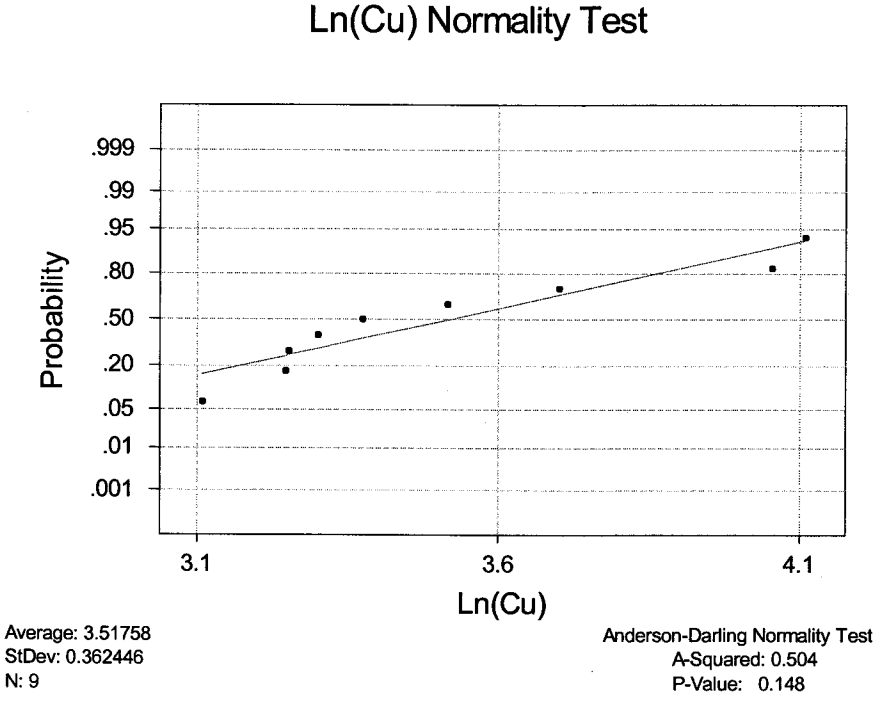
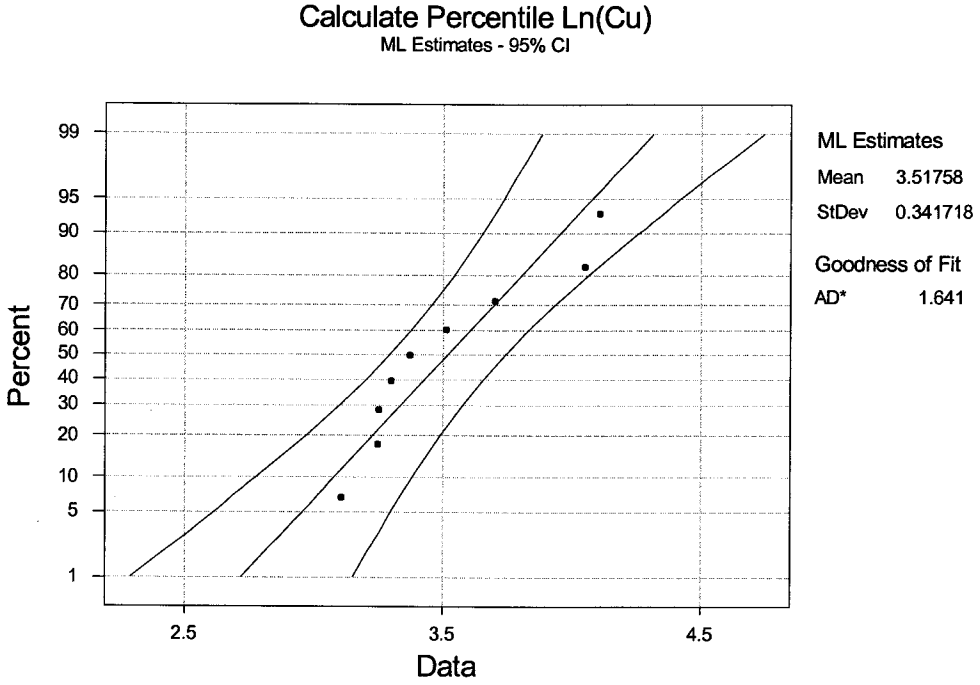


Table 11 Infeasibility Determination and Calculation of Interim Limits for San Antonio Wet Weather Treatment Facility

Copper

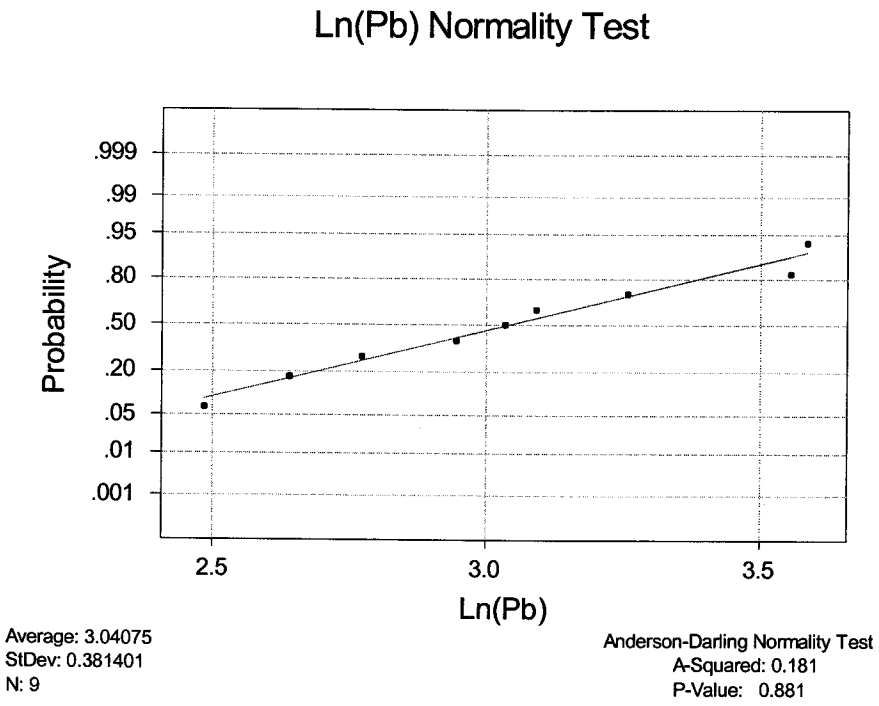
Mean = 3.518; SD = 0.342;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(3.518+3x0.342) = 94.1 µg/L

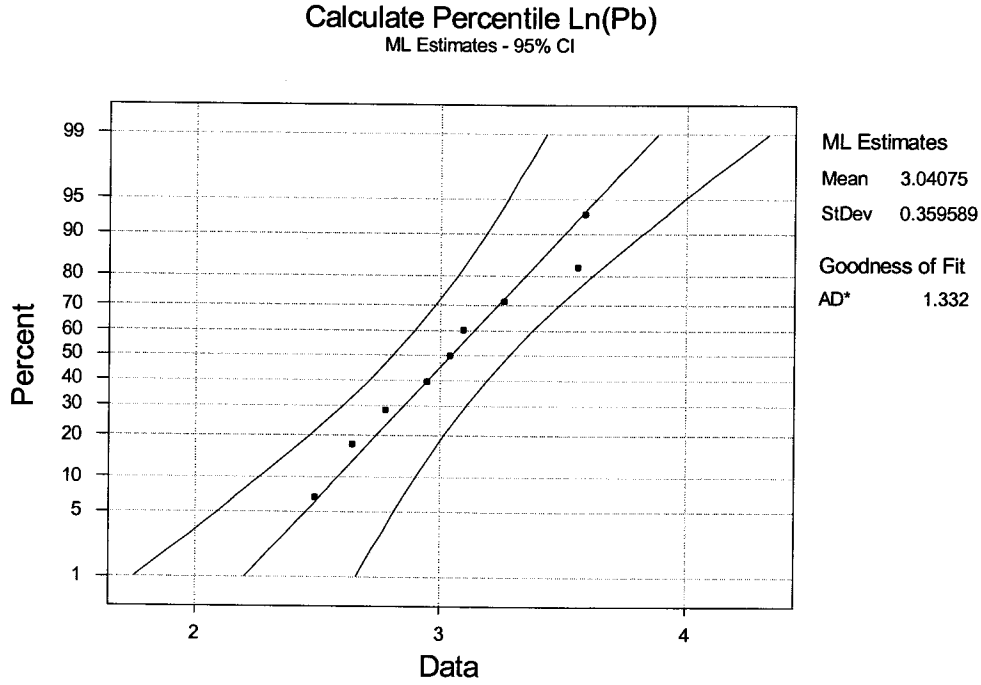




Lead

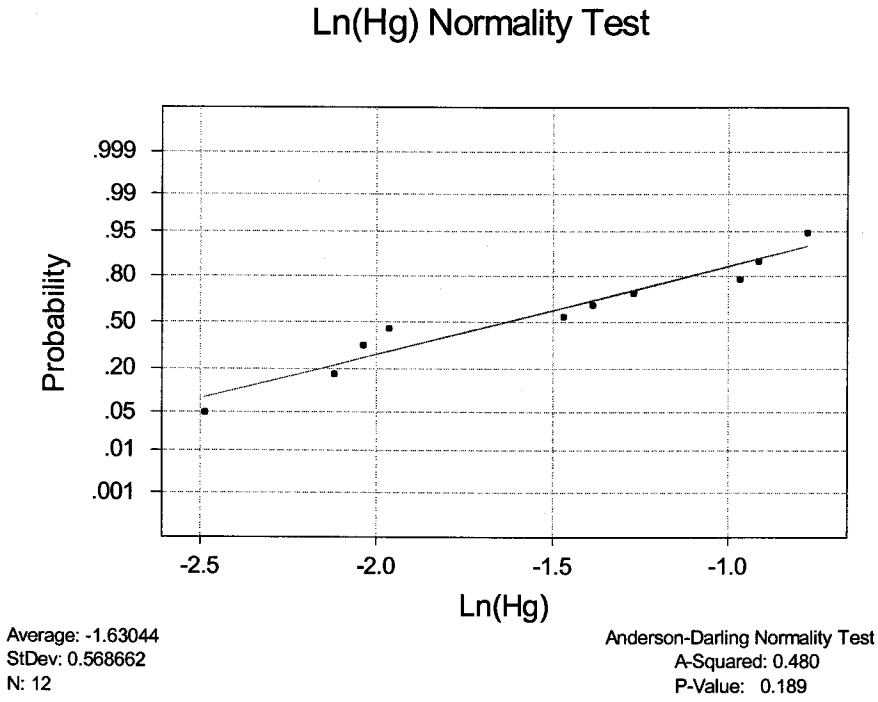
Mean = 3.041; SD = 0.3596;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(3.041+3x0.3596) = 60.0 µg/L

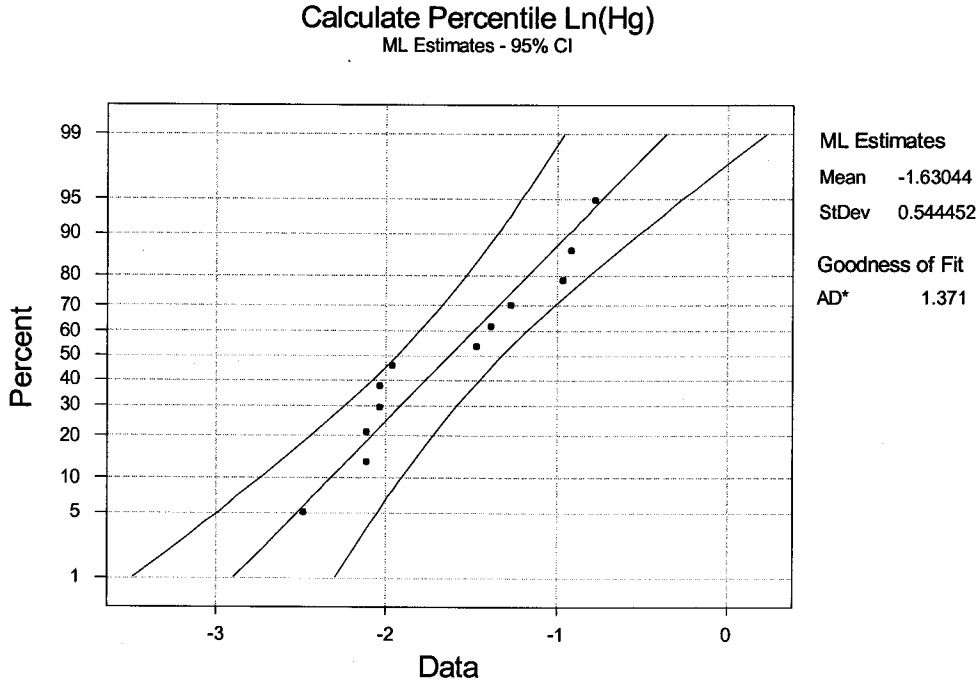




Mercury

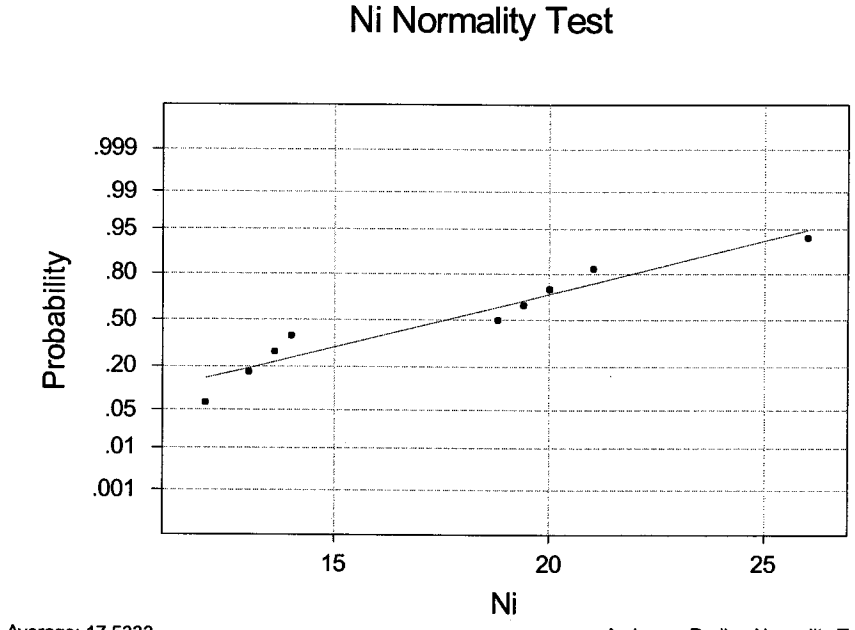
Mean = -1.630; SD = 0.5445;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(-1.630+3x0.5445) = 1.0 µg/L

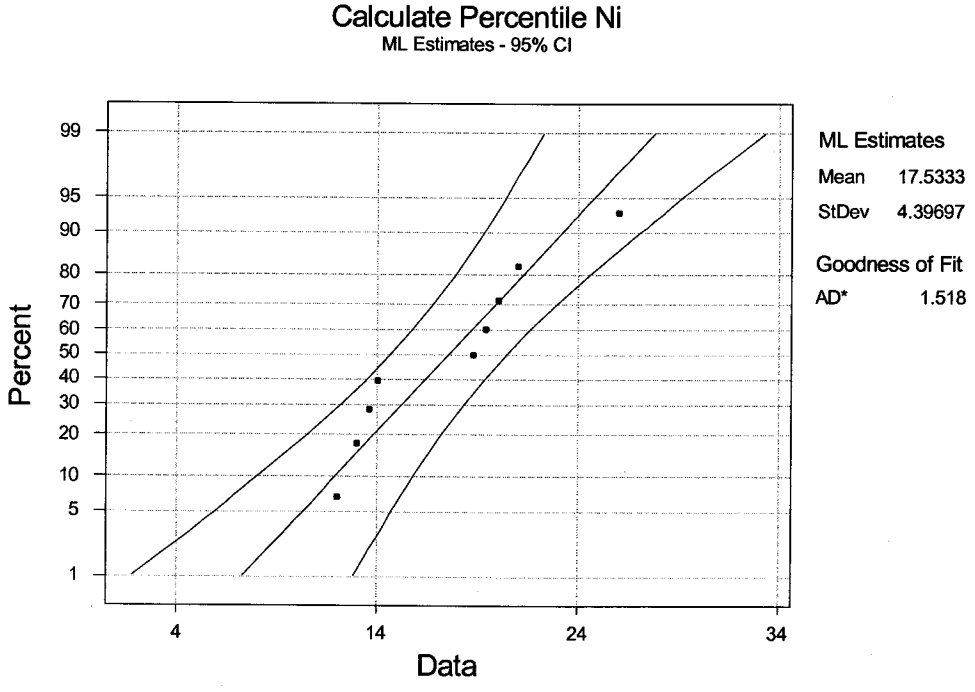




Nickel

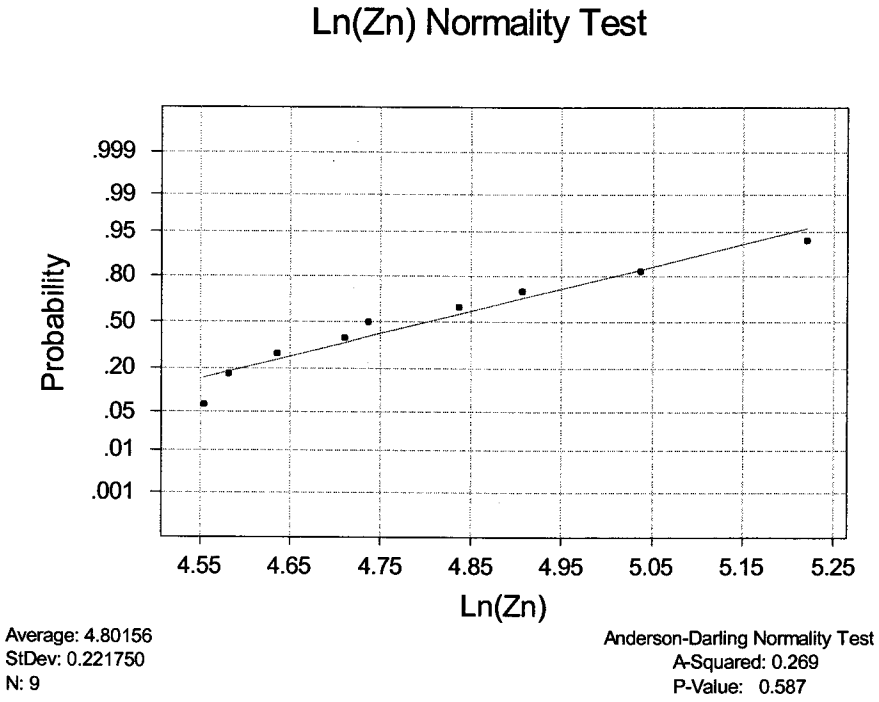
Mean = 17.53; SD = 4.397;
MDEL (Daily Maximum Limit)= 99.87th percentile = mean+ 3*SD = 17.53+3x4.397 = 30.78 µg/L





Zn

Mean = 4.80; SD = 0.209;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(4.80+3x0.209) = 227 µg/L



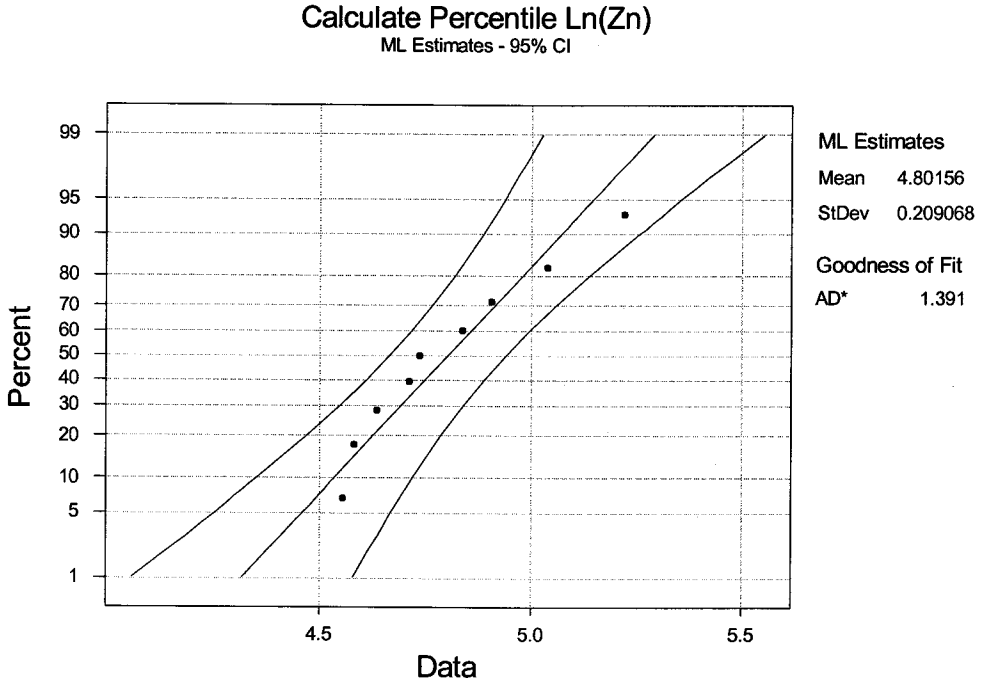
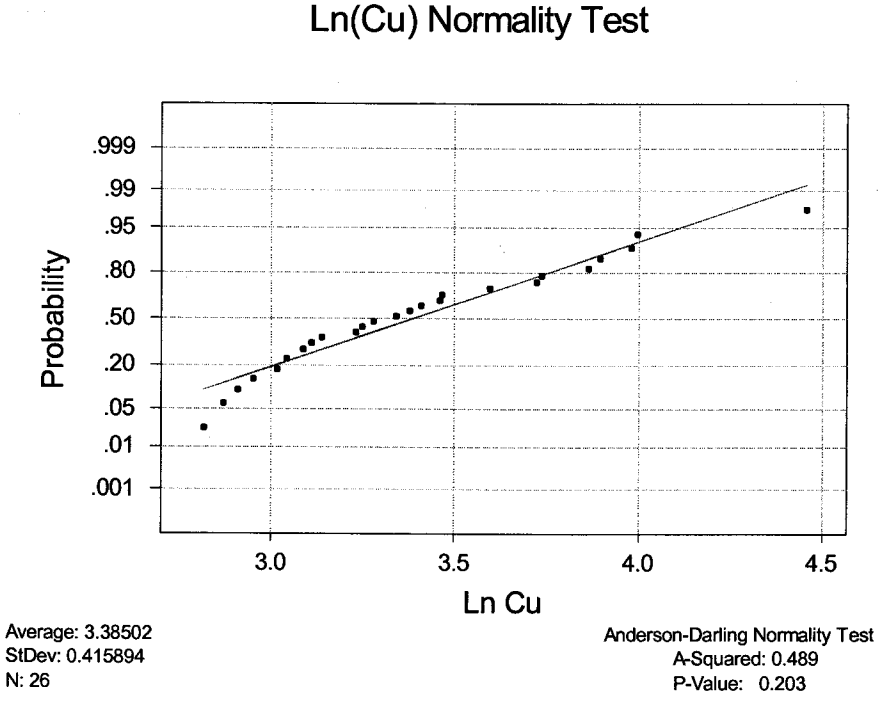
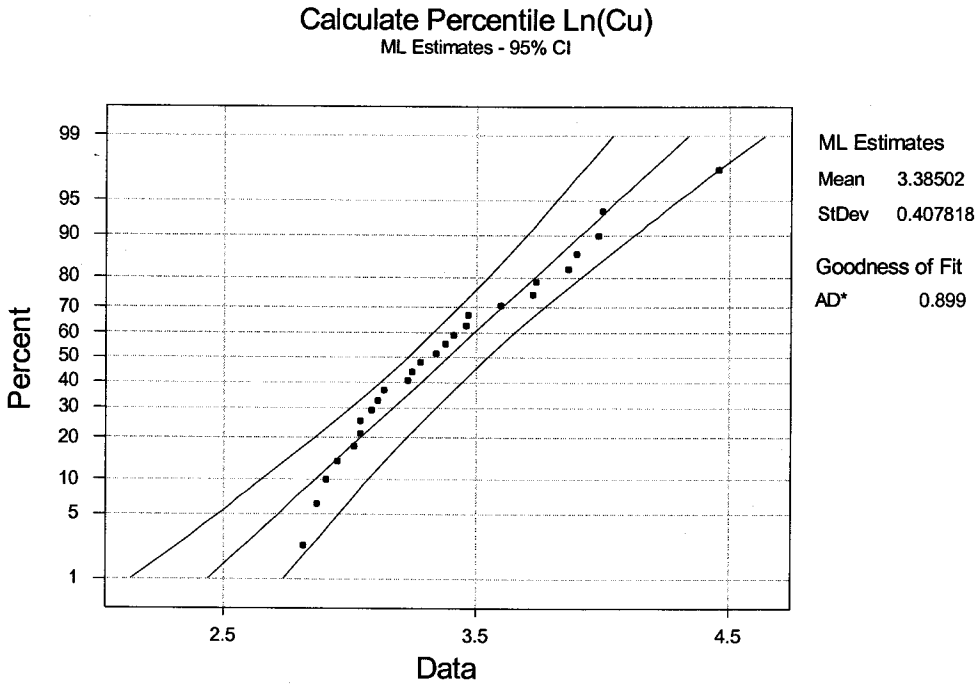


Table 12 Infeasibility Determination and Calculation of Interim Limits for Oakport Wet Weather Treatment Facility

Copper

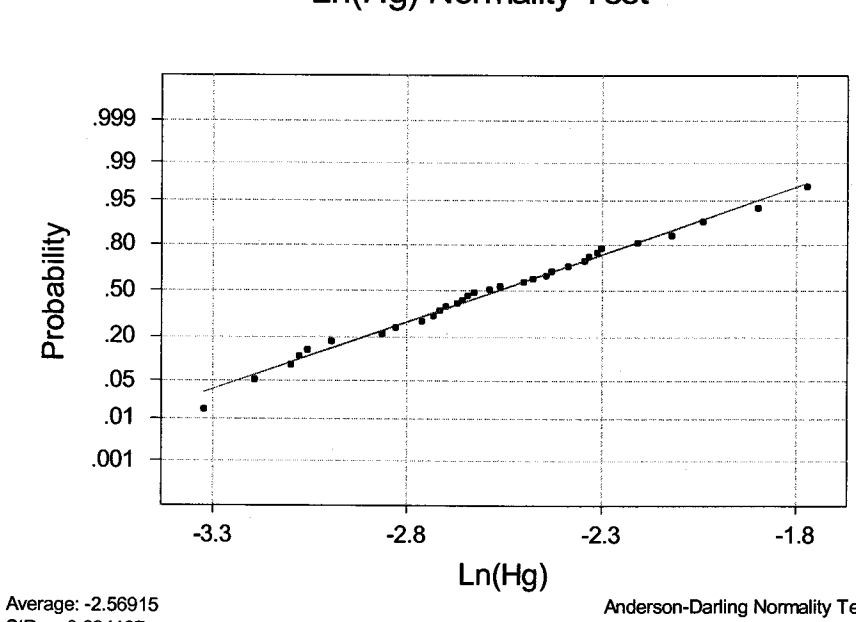
Mean = 3.385; SD = 0.4078;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(3.385+3x0.4078) = 100.32 µg/L

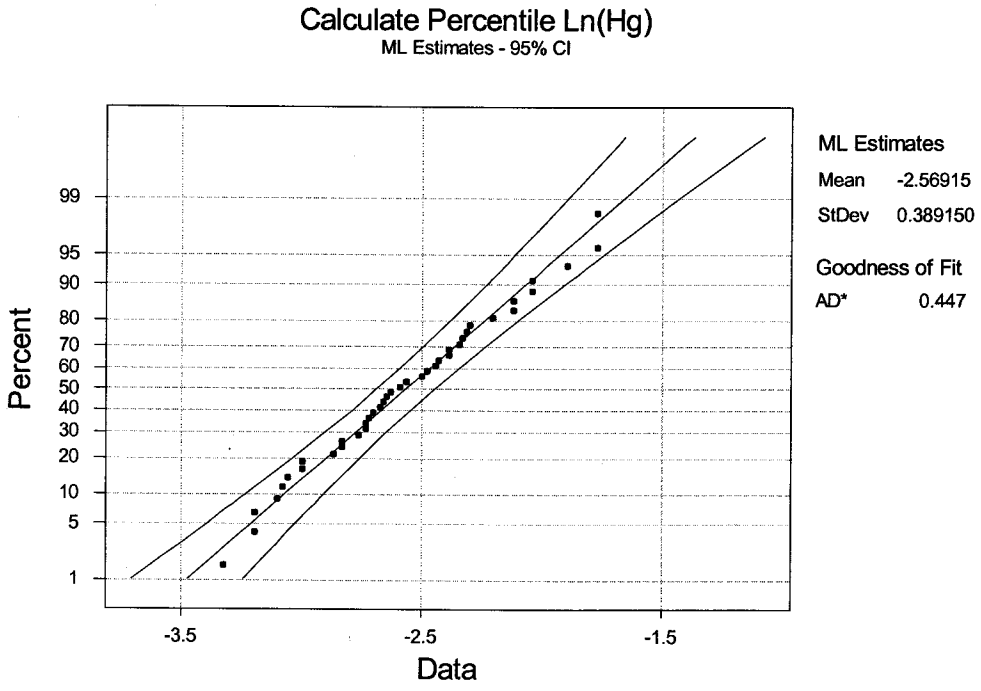




Mercury

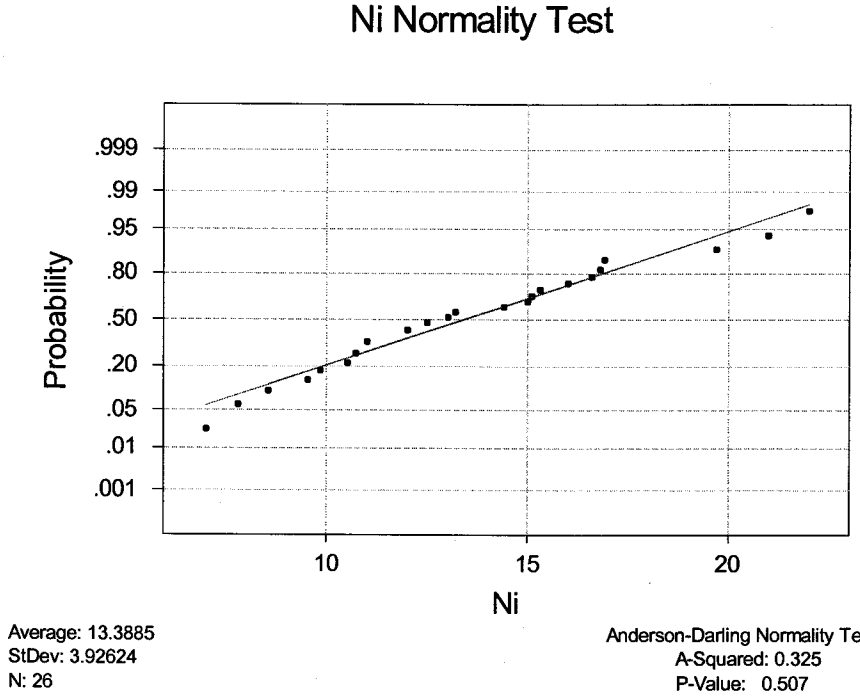
Mean = -2.569; SD = 0.389;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp (mean+ 3*SD)^(-2) = exp(-2.569+3x0.389) = 0.2461 µg/L

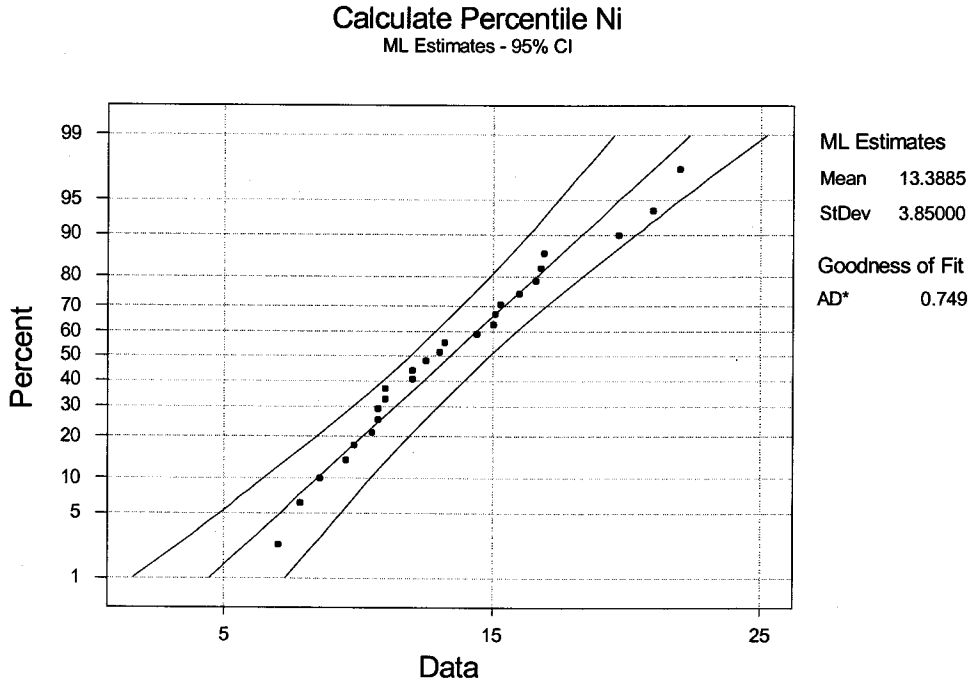




Nickel

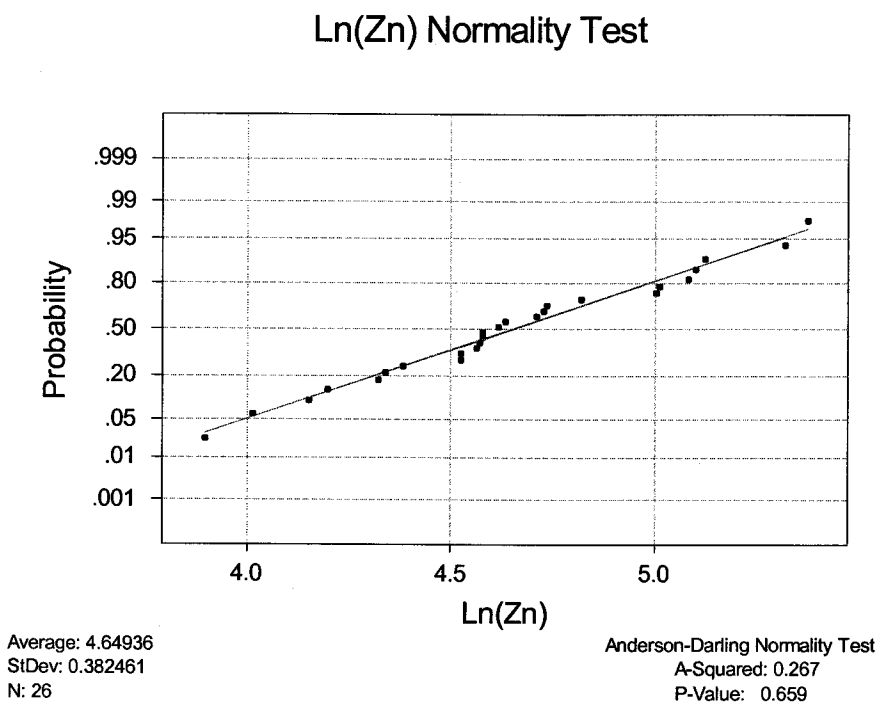
Mean = 13.38; SD = 3.85; MDEL = 99.87th percentile = mean + 3x SD = 13.38+3x3.85 = 24.93 µg/L

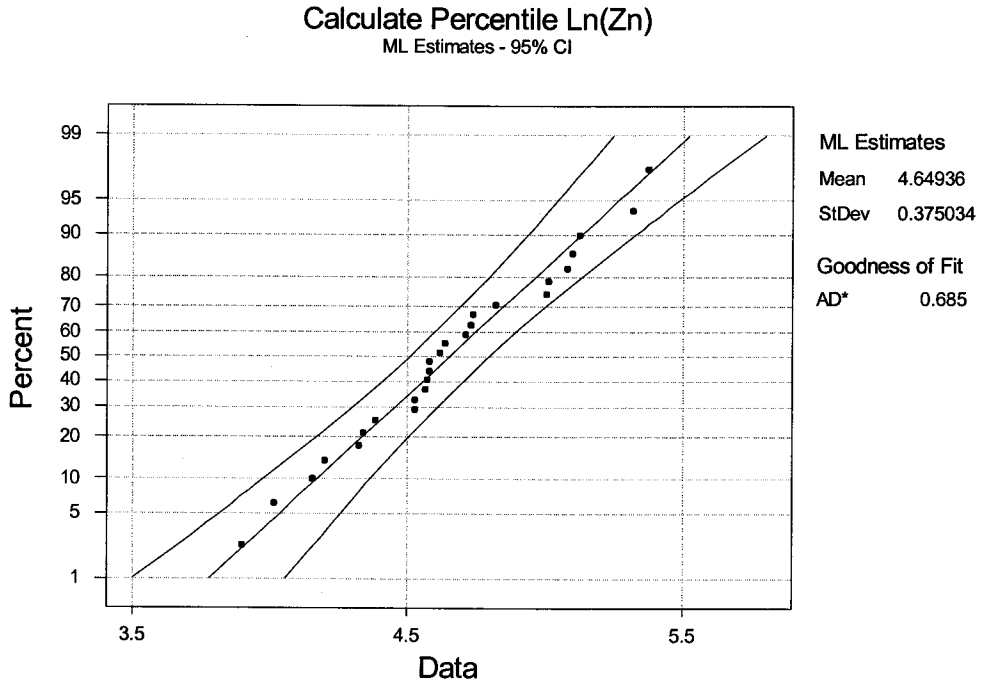




Zinc

Mean = 4.469; SD = 0.375;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(4.469+3x0.375) = 268.801 µg/L





Lead

Mean = 2.621; SD = 0.4489;
MDEL (Daily Maximum Limit)= 99.87th percentile = exp(mean+ 3*SD) = exp(2.621+3x0.4489)