

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

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
EMERY AIR FREIGHT
(Formerly PTI Technologics)**

NPDES Permit No.: CA0064050
Public Notice No.: R4-2003-058

FACILITY ADDRESS

Emery Worldwide
950 Rancho Conejo Boulevard
Newbury Park, CA 91320

FACILITY MAILING ADDRESS

Emery Air Freight
3240 Hillview Avenue
Palo Alto, CA 94304
Contact: Greg Tonkin
Telephone: (650) 813-5376

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

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

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on November 7, 2003.

B. Public Hearing

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

Date: December 4, 2003
Time: 9:00 a.m.
Location: The City of Simi Valley Council Chambers
2929 Tapo Canyon Road
Simi Valley, CA

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

Please be aware that dates and venues may change. Our web address is www.swrcb.ca.gov/rqcb4 where you can access the current agenda for changes in dates and locations.

C. Waste Discharge Requirements Appeals

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board, Office of Chief Counsel
ATTN: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. Register of Interested Persons

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

II. Introduction

Emery Air Freight (hereinafter Emery or Discharger) discharges wastewater to a storm drain which then conveys it to Arroyo Conejo, a tributary to Conejo Creek, Calleguas Creek, and Mugu Lagoon, a water of the United States. Wastes discharged from Emery are regulated by WDRs and NPDES permit contained in Board Order No. 96-090 (NPDES Permit No. CA0064050).

Emery has filed a report of waste discharge and has applied for renewal of its WDRs and NPDES permit. The tentative Order is the reissuance of the WDRs and NPDES permit for discharges from Emery. A site visit was conducted on January 14, 2003, to observe operations and collect additional data to develop permit limits and conditions.

III. Description of Facility and Waste Discharge

Emery is the owner and operator of a vacant site located at 950 Rancho Conejo Boulevard in Newbury Park, California (Figure 1). The facility is an unmanned remediation project extracting and treating groundwater contaminated by leaking underground storage tanks that were previously used during the manufacturing of aerospace filter components. Previous investigations of the site indicated elevated concentrations of volatile organic compounds (VOCs). The contaminants included tetrachloroethene (PCE), trichloroethene (TCE) and isopropyl alcohol. Remedial measures began in February 1997 to remove and treat contaminated groundwater from the shallow and deeper aquifers underlying the site.

Contaminated groundwater is withdrawn through seven extraction wells located on the site. The extracted groundwater is then pumped through high pressure reinforced piping to the treatment facility. At the treatment facility, extracted groundwater is passed through a porous paper prefilter to remove sediment and then treated with two granular activated carbon (GAC) canisters arranged in series. Figure 2 provides a schematic diagram of the wastewater treatment system used at Emery.

The maximum daily discharge flow rate is 3,000 gallons per day (gpd). Emery discharges treated groundwater to the storm drain located at the intersection of Rancho Conejo Boulevard and Amgen Center Drive, which then conveys the wastewater to Arroyo Conejo, through Discharge Serial No. 001 (Latitude 34°11'30", Longitude 118°55'30"). Arroyo Conejo is tributary to Conejo Creek, Calleguas Creek, and Mugu Lagoon, a water of the United States, above the estuary, and is part of the Calleguas Creek Watershed Management Area.

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Emery facility as a minor discharger.

Effluent data presented in the permit renewal application is summarized in the following table:

Constituent (units)	Reported Effluent Concentration (9/24/01)
Flow (gpd)	3,000 ¹
Biochemical oxygen demand (BOD) (mg/L)	ND
Chloride (mg/L)	220
Total suspended solids (mg/L)	ND
Total dissolved solids (mg/L)	670
Total settleable solids (ml/l/hr)	ND
Turbidity (NTU)	ND
Temperature (winter and summer) (deg. C)	20 - 21 ¹
Phenols (mg/L)	ND
pH (standard units)	7.25
Total residual chlorine (mg/L)	ND
Nitrate (as N) (mg/L)	1.9
Nitrite (as N) (mg/L)	0.49
Oil and grease (mg/L)	ND
Sulfate (mg/L)	12
Sulfide (mg/L)	ND
Boron (mg/L)	0.053
Nickel (mg/L)	0.19
Zinc (mg/L)	0.022

¹ Reported as a maximum daily value and average daily value.
 ND = Not Detected.

All other toxic pollutants were reported as “Not Detected”.

Effluent limits contained in the existing permit for Emery Discharge Serial No. 001 and representative monitoring data from the previous permit term are presented in the following table.

Constituent (units)	Effluent Limit		Monitoring Data (February 1997 – February 2002)
	30-Day Average	Daily Maximum	Range of Reported Values
Turbidity (NTU)	50	75	<1.0 – 54
Settleable solids (ml/L)	0.1	0.2	<0.1 – 0.1
Suspended solids (mg/L)	50	75	<5.0 – 96
Suspended solids (lbs/day) ¹	12	71.9	NR
Oil and grease (mg/L)	10	15	<1.0 – 29
Oil and grease (lbs/day) ¹	2.4	3.6	NR
BOD ₅ 20°C (mg/L)	20	30	<2.0 – 4.2
BOD ₅ 20°C (lbs/day) ¹	4.8	7.3	NR
Total dissolved solids (mg/L)	–	1,250	310 – 2,200
Total dissolved solids (lbs/day) ¹	–	300	NR
Sulfate (mg/L)	–	250	8.2 – 58
Sulfate (lbs/day) ¹	–	60.5	NR
Chloride (mg/L)	–	250	55 – 770
Chloride (lbs/day) ¹	–	60	NR
Boron (mg/L)	–	1.0	<0.05 – 0.83
Boron (lbs/day) ¹	–	0.24	NR
Nitrate + Nitrite (as N) (mg/L)	–	10	0.47 – 7

Constituent (units)	Effluent Limit		Monitoring Data (February 1997 – February 2002)
	30-Day Average	Daily Maximum	Range of Reported Values
Nitrate + Nitrite (as N) (lbs/day) ¹	–	2.4	NR
Residual chlorine ² (mg/L)	–	0.1	<0.10 – <0.10
Sulfides (mg/L)	–	1.0	<0.1 – 0.19
Phenols (mg/L)	–	1.0	<0.1 – 0.45
Phenolic compounds (chlorinated) (µg/L)	–	1.0	NR
Benzene (µg/L)	–	1.0	<0.3 – <2.0
Toluene (µg/L)	–	10	<0.3 – <2.0
Xylene (µg/L)	–	10	<0.6 – <2.0
Ethylbenzene (µg/L)	–	10	<0.3 – <2.0
Dichlorobromomethane (µg/L)	–	100	<0.5 – <2.0
Carbon tetrachloride (µg/L)	–	0.5	<0.5 – <5.0
1,1-Dichloroethane (µg/L)	–	5.0	<0.5 – <2.0
1,2-Dichloroethane (µg/L)	–	0.5	<0.5 – <2.0
1,1,1-Trichloroethane (µg/L)	–	5.0	<0.5 – <2.0
1,1-Dichloroethylene (µg/L)	–	6.0	<0.5 – <5.0
Trans 1,2-Dichloroethylene (µg/L)	–	10	<0.5 – <2.0
Trichloroethylene (µg/L)	–	5.0	<0.5 – 7.5
1,1,2-Trichloro-1,2,2- Trifluoroethane (mg/L)	–	1.2	<0.001 – 0.0011
Tetrachloroethylene (µg/L)	–	5.0	<0.5 – 2.6
Vinyl Chloride (µg/L)	–	0.5	<0.5 – <5.0
Arsenic (µg/L)	–	50	<5.0 – 19
Cadmium (µg/L)	–	10	<5.0 – <5.0
Chromium (µg/L)	–	50	<5.0 – 43
Lead (µg/L)	–	50	<5.0 – 5.9
Mercury (µg/L)	–	2.0	<0.2 – 0.27
Selenium (µg/L)	–	10	<5.0 – 93
Silver (µg/L)	–	50	<5.0 – <50
Acute Toxicity (% survival)	–	³	95 – 100

¹ Mass-based effluent limitations were based on 29,000 gallons per day maximum discharge flow rate. The discharger did not report discharge data in units of mass.

² If chlorine is used.

³ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.

NR – Not reported

As shown in the table above, the Discharger exceeded the existing permit effluent limits for turbidity, total suspended solids, oil and grease, total dissolved solids, chloride, trichloroethylene, and selenium. For all parameters except total dissolved solids and chloride, these exceedances occurred only once during the period from February 1997 to February 2002. The discharge exceeded the limits for total dissolved solids during six sampling events with a maximum detected concentration of 2200 mg/L on August 4, 1997. Chloride levels exceeded permit limits during eight sampling events, the most recent occurring on June 25, 2001.

The existing permit also required Emery to monitor for other metals, acid extractables, and volatile organics for which no effluent limitations were developed. The table below summarizes the range of reported effluent concentrations for those pollutants that were reported as detected (all other pollutants were reported as below detection levels).

Constituent (units)	Range of Reported Effluent Concentrations (February 1997 – February 2002)
Antimony (mg/L)	<10 – 12
Copper (mg/L)	<10 – 23
Nickel (mg/L)	28 – 110
Thallium (mg/L)	<5.0 – 58
Zinc (mg/L)	<20 – 79

On February 19, 2002, the Regional Board sent a letter to Emery to request monitoring of priority pollutants regulated under the California Toxics Rule for four quarters (from March 2002 to March 2003). The facility provided monitoring data results for all four quarters to the Regional Board. The table below summarizes data for those priority pollutants that were detected in one of more of the four quarters of monitoring (all other pollutants were reported as below detection levels).

Constituent (units)	Range of Reported Effluent Concentrations (For the following four quarterly reports: March 25, 2002, June 12, 2002, December 19, 2002, March 28, 2003)
Antimony (mg/L)	<2.6 – 5.8
Arsenic (mg/L)	<1.5 – 1.7
Beryllium (µg/L)	<2.0 – 1.4
Chromium (III) (mg/L)	<0.55 – 1
Copper (mg/L)	<1.3 – 3.1
Nickel (mg/L)	2.4 – 170
Zinc (mg/L)	3.2 – 43
2,3,7,8 TCDD (µg/L)	<0.0000031 – <0.0000044
Toluene (µg/L)	<0.13 – 0.13

The Regional Board filed a facility violation report for Emery in January 2000 due to late submission of the 4th Quarter monitoring report. On June 22, 1999 the facility was inspected and no violations were observed. During the facility inspection that occurred on January 14, 2003, the following observations were noted regarding operations at Emery:

- All required NPDES permit records are not maintained on-site.
- Flow monitoring was obtained quarterly as opposed to weekly as required in the existing permit.
- The facility was performing analysis for certain regulated parameters on a quarterly basis as opposed to the monthly frequency required in the existing permit.
- Effluent pollutant loadings are not calculated and reported as required in the existing permit.

IV. Applicable Plans, Policies, and Regulations

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

1. The federal Clean Water Act (CWA). The federal Clean Water Act requires that any point source discharges of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.
2. Title 40, Code of Regulations (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limits for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limits for certain pollutants discharged.
3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The immediate receiving water body for the permitted discharge covered by this permit is storm drain that conveys the wastewater approximately ¾ mile to Arroyo Conejo. The Basin Plan contains beneficial uses and water quality objectives for the Arroyo Conejo. The beneficial uses listed in the Basin Plan for the Arroyo Conejo and tributary receiving waters are:

Arroyo Conejo – Hydro Unit No. 403.64

- Existing: wildlife habitat, and preservation or rare, threatened or endangered species.
- Intermittent: ground water recharge, freshwater replenishment, contact and non-contact water recreation, and warm freshwater habitat.
- Potential: municipal and domestic water supply.

Conejo Creek – Hydro Unit No. 403.63

- Existing: wildlife habitat, spawning.
- Intermittent: groundwater recharge, freshwater habitat, contact and non-contact water recreation, warm freshwater habitat.
- Potential: municipal and domestic water supply.

Calleguas Creek – Hydro Unit No. 403.12

- Existing: industrial service supply, industrial process supply, agricultural supply, ground water recharge, contact and non-contact water recreation, warm freshwater habitat, and wildlife habitat.
- Potential: municipal and domestic water supply.

Calleguas Creek – Hydro Unit No. 403.11

- Existing: agricultural supply, groundwater recharge, freshwater replenishment, contact and non-contact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, preservation of rare, threatened or endangered species, and wetland habitat.
- Potential: municipal and domestic water supply.

Calleguas Creek Estuary – Hydro Unit No. 403.11

- Existing: non-contact water recreation, commercial and sport fishing, estuarine habitat, wildlife habitat, preservation of rare, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development, and wetland habitat.
- Potential: water contact recreation and navigation.

Mugu Lagoon – Hydro Unit No. 403.11

- Existing: navigation, non-contact water recreation, commercial and sport fishing, estuarine habitat, marine habitat, preservation of biological habitats, wildlife habitat, preservation of rare, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development, shellfish harvesting, and wetland habitat.
- Potential: water contact recreation.

The potential beneficial use of MUN for the above listed reaches is consistent with Regional Board Resolution 89-03; however the Regional Board has only conditionally designated the MUN beneficial uses and at this time cannot establish effluent limitations designed to protect the conditional designation.

4. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
5. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR §131.38]. In the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

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6. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Arroyo Conejo.
7. 40 CFR §122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
8. State and Federal antibacksliding and antidegradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) of the CWA and in the Title 40 of the Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
9. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Arroyo Conejo.
10. Existing waste discharge requirements contained in Board Order No. 96-090, adopted by the Regional Board on December 9, 1996. Permit conditions (effluent limits and other special conditions) that were established in the existing waste discharge requirements have been carried over to this permit when those conditions are the most stringent applicable requirements.

V. Regulatory Basis for Effluent Limitations

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for

effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

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

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

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

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

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

1. **Pollutants of Concern**

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations and SIP require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective. The SIP includes provisions for priority pollutant criteria promulgated by USEPA in the CTR and NTR, and for those priority pollutants outlined in the Basin Plan.

Effluent limitations for Discharge Serial No. 001 in the current permit were established for suspended solids, oil and grease, and BOD₅ because they are parameters typically used to characterize wastewater; thus effluent limitations for these parameters have been established in this permit. Total dissolved solids, turbidity, settleable solids, sulfate, sulfides, chloride, boron, and nitrogen (as nitrate + nitrite) are commonly present in groundwater; thus effluent limitations for these parameters were established in the existing permit, and will be established in this permit.

The existing permit established effluent limitations for a number of pollutants believed to be present in the discharge of treated ground water. The storage tanks that previously existed at the site and used as part of the industrial manufacturing processes contained VOCs and metals. The existing regulated pollutants are still considered pollutants of concern in this permit due to the nature of current groundwater remediation activities.

2. **Technology-Based Effluent Limits**

There are currently no national ELGs for groundwater treatment systems. It should be noted that the previous permit stated that the current treatment system is considered to be the best available technology (BAT) economically achievable for the extracted groundwater.

This permit will require the Discharger to continue to develop and implement, consistent with the existing permit requirements, a *Storm Water Pollution Prevention Plan* (SWPPP). The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters.

3. **Water Quality-Based Effluent Limits**

As specified in 40 CFR § 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or USEPA water quality

criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR § 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Arroyo Conejo.

Some water quality criteria are hardness dependent. The Discharger provided hardness data as part of their required CTR monitoring. The immediate receiving water is a storm drain, and is typically dry; thus, hardness measurements were taken of the effluent. The four hardness values reported were 160 mg/L as CaCO₃, 200 mg/L as CaCO₃, 200 mg/L as CaCO₃, and 650 mg/L as CaCO₃. The lowest value, 160 mg/L as CaCO₃, is used for determining reasonable potential to exceed applicable hardness-dependent criteria for certain metals.

(a) Reasonable Potential Analysis (RPA)

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

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

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

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

The RPA was performed for the priority pollutants for which effluent data were available. The existing permit requires monitoring for metals, and certain toxic organic pollutant fractions (volatile and acid extractables). In addition, the Regional Board issued a letter on February 19, 2002 that required Emery to monitor for priority pollutants regulated in the CTR. Monitoring data for these pollutants are available for the period from February 1997 through March 2003. These data were used in the RPA and are summarized in Attachment I.

Based on the RPA, there is reasonable potential to exceed water quality standards for chromium VI, copper, lead, mercury, nickel, selenium, and thallium. Refer to Attachment I for a summary of the RPA and associated effluent limitation calculations.

(b) Calculating WQBELs

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

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

(c) Impaired Water Bodies in 303 (d) List

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

On June 5, 2003 the USEPA has approved the 2002 CWA Section 303(d) List of Water Quality Limited Segments. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired and have been scheduled for TMDL development.

Calleguas Creek and its major tributaries, Revlon Slough, Conejo Creek, Arroyo Conejo, Arroyo Santa Rosa, and Arroyo Simi drain an area of 343 square miles in southern Ventura County and a small portion of Western Los Angeles County. The 2002 Clean Water Act Section 303(d) List of Water Quality Limited Segments classifies Revlon Slough, Conejo Creek, Calleguas Creek, Calleguas Creek Estuary, and Mugu Lagoon as impaired. The pollutants of concern, detected in the water column, in the sediment, and in the fish tissue, include algae, ammonia, Chem A [refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene], chlordane, copper, dacthal, DDT, endosulfan, fecal coliform, chloride, nitrate plus nitrite, boron, chloropyrifos, selenium, trash, mercury, nickel, nitrogen, PCBs, sediment toxicity, silver, sulfate, total dissolved solids, toxaphene, toxicity, sedimentation/siltation, and zinc.

Under the March 23, 1999, amended consent decree between the USEPA and Heal the Bay, et al., (Case No. C 98-4825 SBA, *Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et.al.*), TMDLs for chloride in Calleguas Creek were to be completed by March 2002; nutrients by March 2002; pesticides, historic pesticides, and PCBs by March 2005; and metals by 2006. The remaining TMDLs, such as sulfates are tentatively scheduled for completion in the 2003/2004 fiscal year. On March 22, 2002, the consent decree deadline for the establishment of a chloride TMDL, USEPA Region 9 established the Calleguas Creek Total Maximum Daily Load for chloride. On October 24, 2002, the Regional Board adopted Resolution No. 2002-017, Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in Calleguas Creek (*Nitrogen Compounds and Related Effects TMDL*). The State Board approved the *Nitrogen Compounds and Related Effects TMDL* on March 19, 2003. The Office of Administrative Law approved the TMDL on June 5, 2003 and U.S. EPA approved it on June 20, 2003.

(d) Whole Effluent Toxicity

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

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other

detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit contains acute toxicity limitations and monitoring requirements.

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

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

The discharges at the Emery facility occur continuously and, due to the types of pollutants present in the groundwater treated at the site, could contribute to long-term toxic effects. However, no chronic toxicity data is available for the discharge. Therefore, the Discharger will be required to conduct chronic toxicity testing in order to determine reasonable potential and establish WQBELs as necessary. In addition, the Order includes a chronic testing trigger hereby defined as an exceedance of 1.0 toxic units chronic (TU_c) in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU_c in a critical life stage test.) If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger will be required to immediately implement accelerated chronic toxicity testing according to Monitoring and Reporting Program, Item IV.D.1. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a toxicity identification evaluation (TIE).

4. Specific Rationale for Each Numerical Effluent Limitation

The Regional Board staff has utilized best professional judgement (BPJ) to determine that reasonable potential exists for all priority pollutants that are regulated under the current permit; therefore effluent limitations have been established for these pollutants. The requirements in the proposed Order for conventional and non-conventional pollutants (turbidity, settleable solids, suspended solids, oil and grease, BOD₅, total dissolved solids, sulfate, chloride, boron, nitrate + nitrite (as N), residual chlorine, pH, and sulfides) are also based on the Basin Plan, other similar permits adopted by the Regional Board, and on limits specified in Emery's existing permit.

As described above, the effluent limitations for nitrate + nitrite (as N) in the proposed Order are based on the existing permit limits. The approved nutrient TMDL for the Calleguas Creek watershed includes WLA for the wastewater treatment plants and LA for agricultural discharges. No WLAs were established for oxidized nitrogen for the Discharger or any other treated groundwater discharges. The contribution of nitrate + nitrite (as N)

from the Discharger to the overall loading to Calleguas Creek is insignificant when compared to the loadings from other point (primarily municipal wastewater treatment plants) and nonpoint discharges (the total annual discharge from Emery is less than 10 pounds per year, as compared to the total load of over 2 million pounds per year of oxidized nitrogen to the watershed).

In 1990, the Regional Board adopted Resolution No. 90-004 (Drought Policy) which had a term of 3 years and provided interim relief to dischargers who experienced difficulty meeting chloride objectives because of a state-wide drought. The policy adjusted effluent limits to the lesser of 1) 250 mg/L; or 2) the chloride concentration in the water supply plus 85 mg/L. In 1995, the Regional Board extended the interim limits for 3 years and directed staff to develop a long-term solution to deal with the impact of changing water supply, especially during droughts. In 1997, the Regional Board adopted Resolution No. 97-002 (Chloride Policy) which set the chloride objective at 190 mg/L except in certain watersheds including the Calleguas Creek watershed, where, due to the great concern for protection of agriculture, staff were directed to determine the chloride concentrations that would protect agricultural beneficial uses. The Chloride TMDL for Calleguas Creek Watershed was established on March 22, 2002. WLAs were established for Emery for drought conditions and routine conditions, based on 124 mg/L and 136 mg/L of chloride, respectively. Using a flow of 0.00046 ft³ per second, 290 gallons per day, the waste load allocations for Emery are 0.33 pounds per day under routine conditions and 0.30 pounds per day under drought conditions. This order therefore revises the chloride limits to 124 mg/L and 136 mg/L, under drought and routine conditions, respectively. Effluent monitoring data shows that chloride concentrations for the period from February 1997 to March 2003 ranged from 55 mg/L to 770 mg/L.

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. Therefore, existing effluent limitations for most of the regulated pollutants are carried over to this permit. In addition to these limitations, the Regional Board is implementing the CTR and SIP. For those constituents that do show reasonable potential and for which existing effluent limitations exist, a comparison between existing permit limitations and CTR-based WQBELs was made and the most stringent limitation included in the Order. For mercury, selenium, and lead, the existing permit limitations are less stringent than the CTR-based WQBELs; therefore, the CTR-based WQBELs will be included in this permit. In addition, new CTR-based WQBELs are established for chromium VI, copper, nickel, and thallium because they show reasonable potential to exceed state water quality standards.

This permit will replace the effluent limit for total chromium in the existing permit with the CTR-based WQBEL for chromium VI. Total chromium measures the combined levels of trivalent chromium (chromium III) and hexavalent chromium (chromium VI). Chromium (III) occurs naturally in the environment and is an essential nutrient, while chromium (VI) is generally produced by industrial processes, such as chrome plating, dyes and pigments, leather tanning, and wood preserving. Because chromium VI is more toxic than the chromium III form, and total chromium typically captures the naturally occurring

chromium III form, monitoring for chromium VI instead of total chromium will better indicate the toxicity of the effluent. The existing effluent limit for total chromium was not exceeded; however, chromium VI shows reasonable potential to exceed state water quality standards, and therefore a CTR-based WQBEL was established for chromium VI in this permit.

In compliance with 40 CFR §122.45(d), permit limitations shall be expressed, unless impracticable, as both average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs). The limits for several of the volatiles and metals were taken from the Basin Plan, which incorporates Title 22 limits. These limits are MDELs and no AMELs were developed since it was deemed impracticable.

In compliance with 40 CFR §122.45(f), mass-based limitations have also been established in the proposed Order for conventional, non-conventional, and toxic pollutants. Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. When calculating the mass-based limitations for discharges, the appropriate flow, daily maximum limitations for daily maximum mass calculations, and the monthly average limitations when calculating the monthly average mass, should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where:

- mass = mass limit for a pollutant in lbs/day
- effluent limitation = concentration limit for a pollutant, mg/L
- flow rate = discharge flow rate in MGD

The mass-based effluent limitations contained in the existing Order are based on a maximum discharge flow rate of 29,000 gpd. The maximum flow value reported in the report of waste discharge was 3,000 gpd. Evaluation of data submitted as part of quarterly reports for 1997, 1999, and 2000 (flow data was not provided for 1998 and in subsequent quarterly reports), show average daily flow rates ranging from 34 gpd to 472 gpd. The highest average flows were reported during 1997, and the lowest average flow rates were reported in 2000. The current flows typically average 160 gpd. For purposes of establishing mass-based effluent limitations for this Order, an average daily flow value of 290 gpd (0.00029 MGD) was used (representing the flow used in the Chloride TMDL, which also is consistent with the higher end of the reported average daily flow values).

Effluent limitations established in this Order are applicable to wastewater discharges from the NPDES Discharge Serial No. 001 (Latitude 34°11'30", Longitude 118°55'30").

Constituent (units)	Maximum Daily Discharge Limitations		Average Monthly Discharge Limitations		Rationale ¹
	Concentration	Mass ² (lbs/day)	Concentration	Mass ² (lbs/day)	
pH (standard units)	Between 6.5 – 8.5	--	Between 6.5 – 8.5	--	BP
Turbidity (NTU)	75	--	50	--	BPJ/E

Constituent (units)	Maximum Daily Discharge Limitations		Average Monthly Discharge Limitations		Rationale ¹
	Concentration	Mass ² (lbs/day)	Concentration	Mass ² (lbs/day)	
Settleable solids (ml/L)	0.3	--	0.1	--	BPJ
Total suspended solids (mg/L)	75	0.2	50	0.1	BPJ/E
Oil and grease (mg/L)	15	0.04	10	0.02	BPJ/E
BOD ₅ @ 20°C (mg/L)	30	0.07	20	0.05	BPJ/E
Total dissolved solids (mg/L)	1,250	3.0	---	---	BPJ/E
Sulfate (mg/L)	250	0.6	---	---	BPJ/E
Chloride (mg/L) (routine)	136	0.33	---	---	TMDL
Chloride (mg/L) (drought)	124	0.30	---	---	TMDL
Boron (mg/L)	1.0	0.002	---	---	BPJ/E
Nitrate + Nitrite (as Nitrogen) (mg/L)	10	0.02	---	---	E/BP
Residual Chlorine (mg/L) ³	0.1	0.0002	---	---	E/EP
Sulfides (mg/L)	1.0	0.002	---	---	BPJ/E
Total Phenols (mg/L)	1.0	0.000002	---	---	E/BP
Phenolic Compounds (chlorinated) (µg/L)	1.0	0.000002	---	---	BPJ/E
Benzene (µg/L)	1.0	0.000002	---	---	E/BP
Toluene (µg/L)	10	0.00002	---	---	E/BP
Xylene (µg/L)	10	0.00002	---	---	E/BP
Ethylbenzene (µg/L)	10	0.00002	---	---	E/BP
Dichlorobromomethane (µg/L)	100	0.0002	---	---	E/BP
Carbon tetrachloride (µg/L)	0.5	0.000001	---	---	E/BP
1,1-Dichloroethane (µg/L)	5.0	0.00001	---	---	E/BP
1,2-Dichloroethane (µg/L)	0.5	0.000001	---	---	E/BP
1,1,1-Trichloroethane (µg/L)	5.0	0.00001	---	---	E/BP
1,1-Dichloroethylene (µg/L)	6.0	0.00001	---	---	E/BP
Trans 1,2-Dichloroethylene (µg/L)	10	0.00002	---	---	E/BP
Trichloroethylene (µg/L)	5.0	0.00001	---	---	E/BP

Constituent (units)	Maximum Daily Discharge Limitations		Average Monthly Discharge Limitations		Rationale ¹
	Concentration	Mass ² (lbs/day)	Concentration	Mass ² (lbs/day)	
1,1,2-Trichloro-1,2,2-Trifluoroethane (mg/L)	1.2	0.003	---	---	E/BP
Tetrachloroethylene (µg/L)	5.0	0.00001	---	---	E/BP
Vinyl chloride (µg/L)	0.5	0.000001	---	---	E/BP
2,3,7,8 TCDD (µg/L)	2.04×10^{-8}	4.93×10^{-14}	1.40×10^{-8}	3.39×10^{-14}	CTR, SIP
Arsenic (µg/L) ⁴	50	0.0001	---	---	E/BP
Cadmium (µg/L) ⁴	10	0.00002	---	---	E/BP
Chromium VI (µg/L) ⁴	16	0.00004	11	0.00003	CTR, SIP
Copper (µg/L) ⁴	22	0.00005	13	0.00003	CTR, SIP
Lead (µg/L) ⁴	9.5	0.00002	6.5	0.00002	CTR, SIP
Mercury (µg/L) ⁴	0.07	1.8×10^{-7}	0.05	1.2×10^{-7}	CTR, SIP
Nickel (µg/L) ⁴	130	0.0003	87	0.0002	CTR, SIP
Selenium (µg/L) ⁴	8	0.00002	6	0.00001	CTR, SIP
Silver (µg/L) ⁴	50	0.0001	---	---	E/BP
Thallium (µg/L) ⁴	9	0.00002	6	0.00002	CTR, SIP

¹ BP = Basin Plan, E = Existing Permit, CTR = California Toxics Rule, SIP = State Implementation Policy, TMDL = Total Maximum Daily Load

² The mass-based effluent limitations for pollutants are based on a maximum discharge flow rate of 290 gpd.

³ This limitation only applies if chlorine is used.

⁴ Discharge limitations for these metals are expressed as total recoverable.

⁵ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.

5. **Compliance Schedule**

Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated AMEL values shows that the Discharger will be unable to consistently comply with effluent limitations established in the proposed Order for chromium VI, copper, mercury, nickel, selenium, and thallium. Hence, interim limits have been prescribed for these constituents. As a result, the proposed Order contains a compliance schedule that allows the Discharger up to three years to comply with the revised effluent limitations. Within one year after the effective date of the Order, the Discharger must prepare and submit a compliance plan that describes the steps that will be taken to ensure compliance with applicable limitations.

40 CFR §131.88(e) provides conditions under which interim effluent limits and compliance schedules may be issued. The SIP allows inclusion of an interim limit with a specific compliance schedule included in a NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based. Because the CTR-based effluent limits for chromium VI, copper, mercury, nickel, selenium, and thallium appear infeasible for the Discharger to achieve at this time, interim limits for chromium VI, copper, mercury, nickel, selenium, and thallium are contained in this Order.

The SIP requires that the Regional Board establish other interim requirements such as requiring the discharger to develop a pollutant minimization plan and/or source control measures and participate in the activities necessary to achieve the final effluent limitations. These interim limitations shall be effective until November 30, 2007, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

Pursuant to the SIP (Section 2.2.1, Interim Requirements under a Compliance Schedule), when compliance schedules are established in an Order, interim limitations must be included based on current treatment facility performance or existing permit limitations, whichever is more stringent to maintain existing water quality. Order No. 96-090 contains effluent limitations for total chromium, mercury, and selenium. For chromium VI and mercury the MEC will serve as the interim effluent limit concentration for these constituents. For selenium, the existing permit effluent limitation is more stringent than the MEC; therefore the existing permit limitation shall serve as the interim effluent limitation for selenium. Order No. 96-090 does not contain effluent limitations for copper, nickel, and thallium; therefore the corresponding MECs will serve as the basis for the interim effluent limitations for these constituents. It should be noted that the Board will take appropriate enforcement actions if interim limitations and requirements are not met.

From the effective date of this Order until November 30, 2007 the discharge of effluent from Discharge Serial No. 001 in excess of the following is prohibited:

Constituent (units)	Daily Maximum Concentration	Rationale¹
Chromium VI (µg/L)	43	MEC
Copper (µg/L)	23	MEC
Mercury (µg/L)	0.27	MEC
Nickel (µg/L)	170	MEC
Selenium (µg/L)	10	EP
Thallium (µg/L)	58	MEC

¹MEC = Maximum Effluent Concentration, EP = Existing Permit (Order No. 96-090) Effluent Limitation

According to the SIP, pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. Mercury has strong bioaccumulative properties and can cause adverse human health impacts. Because the RPA determined that mercury could exceed the applicable criteria, this permit requires that the Discharger develop and implement a pollution minimization plan for mercury. Described in detail in section 2.4.5.1 of the SIP, pollutant minimization includes: monitoring for potential sources of the pollutants, quarterly

monitoring of the pollutant, control strategy, control measure implementation, and an annual status report sent to the Regional Board.

The discharger also will be required to develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of chloride, total dissolved solids, chromium VI, nickel, selenium, and thallium in their discharge. This plan should evaluate options to achieve compliance with the revised final permit limitations. These options can include, for example, evaluating and updating available treatment unit processes, upgrading the system if necessary, and maintaining proper operation and maintenance of the treatment system.

6. **Monitoring Requirements**

Order No. 96-090 required weekly monitoring of the flow and monthly monitoring for temperature, pH, turbidity, residual chlorine, and several volatiles listed as chemicals of concern (COCs). Quarterly monitoring for several other volatiles, conventional pollutants, settleable solids, chloride, sulfate, total dissolved solids, nitrate + nitrite (as N), and boron were also required by Order No. 96-090.

Remaining metals and volatile organic compounds listed in Attachment T-A of Monitoring and Reporting Program CI-7743 also were required to be monitored quarterly (including chlorinated phenolic compounds), unless the results of three consecutive quarterly analyses for a constituent were not detectable, in which case the frequency of analysis could revert to annually. In addition, the previous permit required annual monitoring for toxicity. Monitoring requirements are discussed in greater detail in Section III of the Monitoring and Reporting Program CI-7743.

(a) Effluent Monitoring

To demonstrate compliance with effluent limitations established in the permit, this Order carries over the existing monitoring requirements for most parameters. Because the existing permit limits for turbidity, oil and grease, chloride, trichloroethylene, and selenium were exceeded, monthly monitoring for these constituents will be required. The total dissolved solids exceedances last occurred in 1999, hence the monitoring requirements will not change from the existing frequency of quarterly.

Monitoring data during the previous permit term suggest that the Discharger has the potential to exceed the established effluent limitations for chromium VI, copper, mercury, nickel, and thallium. Therefore, the Board is establishing monthly monitoring frequencies for these constituents, to demonstrate compliance with interim limitations. Lead also has the potential to exceed applicable water quality criteria, however the MEC did not exceed the CTR-based WQBELs and interim limits were not required, therefore monthly monitoring will be required to demonstrate compliance with the final established WQBELs.

Except for toluene, the remainder of toxic pollutants with effluent limitations in the proposed Order (benzene, ethylbenzene, xylene, dichlorobromomethane, carbon tetrachloride, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, and vinyl chloride), will be monitored annually. According to the discharge data, none of these pollutants were detected over the previous permit term. Although toluene was not detected in any of the quarterly monitoring results during the previous permit term, it was detected in one of the four CTR sampling events. Therefore, monthly monitoring will be required for toluene.

In addition, this Order carries over the annual monitoring requirement for methyl ethyl ketone and acute toxicity, and establishes an annual monitoring requirement for chronic toxicity and all other priority pollutants except asbestos.

Because the characteristics of the wastewater being treated by the Discharger are not expected to vary significantly over time, grab samples are required for all limited pollutants. This Order also requires the Discharger to collect the effluent sample prior to the effluent entering the receiving water (i.e., storm drain).

(c) Receiving Water Monitoring

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

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

(d) Storm Water Monitoring

The Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges of all storm water discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. Furthermore, the Discharger shall implement the Storm Water Pollution Prevention Plan Requirements (SWPPP) as is enumerated in Attachment A of the WDR Order No. R4-2003-0148.