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 EQUILON ENTERPRISES, LLC DBA SHELL OIL PRODUCTS US SHELL SERVICE STATION #204-1944-0100

NPDES Permit No.: CA0064289 Public Notice No.: 04-041

FACILITY ADDRESS Shell Service Station #204-1944-0100 3801 Sepulveda Boulevard Culver City, CA 90230 FACILITY MAILING ADDRESS Shell Service Station 24551 Raymond Way, Suite 160 Lake Forest, CA 92630 Contact: Brad Boschetto Telephone: (949) 699-0393

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 August 16, 2004.

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: September 2, 2004 Time: 9 A.M. Location: The Metropolitan Water District, Board Room 700 North Alameda Street Los Angeles, California

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/rwqcb4 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

Equilon Enterprises, LLC dba Shell Oil Products US (hereinafter Shell or Discharger) discharges treated groundwater to a storm drain, which conveys the wastewater to Ballona Creek, a water of the United States. Wastes discharged from Shell are regulated by WDRs and the NPDES permit contained in Board Order No. 99-065 (NPDES Permit No. CA0064289), which was adopted on July 8, 1999.

The Discharger had applied for coverage under the General Permit on December 4, 2003. However, Regional Board staff determined that coverage under an individual permit is more appropriate. In response to this determination, the Discharger submitted a formal request on January 29, 2004 for its application to be transferred from the General Permitting Group to the Individual Permitting Group and subsequently submitted a new application for coverage under an individual permit. The Order is the reissuance of the WDRs and NPDES permit for discharges from Shell. A site inspection was conducted on March 22, 2004 to observe operations and collect additional data to develop permit limits and conditions.

III. Description of Facility and Waste Discharge

Shell Oil Company was the operator of Shell Service Station #204-1944-0100 at the time of a gasoline release that resulted in contamination of the groundwater beneath the site. Equilon Enterprises, LLC is a joint venture between Shell Oil Company and Texaco Refining and Marketing. During late 2001, Texaco merged with Chevron Corporation. At that time, Texaco's interests in Equilon were purchased by Shell. As of March 1,2002, Equilon Enterprises LLC is a legally viable, operating entity doing business as Shell Oil Products US. Shell Service Station #204-1944-0100 is located at 3801 Sepulveda Boulevard, Culver City, California. The remediation system is located on Metropolitan Water District property at 3816 Tuller Avenue, approximately 160 feet southwest of the Shell site.

The site is located near the City of Santa Monica's Charnock Wellfield and the Southern California Water Company Wellfield (Figure 1). Groundwater pumped from the Charnock Wellfields was used as a municipal supply water for public distribution. The Charnock Wellfields draw water from the Charnock Sub-Basin consisting of the Shallow Unnamed Aquifer, the Upper Silverado Aquifer, and the Silverado Aquifer. The Charnock Wellfields had seven active municipal water supply wells prior to their shut down due to methyl tertiary butyl either (MTBE) pollution in 1996. The Regional Board has identified Shell Service Station #204-1944-0100 as a potential source site contributing to the MTBE pollution of the Charnock Sub-Basin. The service station operations reportedly began in January 1940. Historically, station operations consisted of retail gasoline sales and automobile repair and maintenance. The site is an active service station with five 12,000-gallon double walled fiberglass underground storage tanks used to store gasoline, diesel, and methanol, four dispenser islands, and a kiosk.

Investigations performed in the past at the site and in the vicinity of the site have indicated that the soil and groundwater are contaminated with total petroleum hydrocarbons (as gasoline), benzene,

toluene, ethyl benzene, xylene, MTBE, tertiary butyl alcohol (TBA), and other associated petroleum constituents.

Shell remediates the contaminated soil and local groundwater using soil vapor extraction and groundwater extraction and treatment prior to discharge. The purpose of these remediation methods is to contain the migration of polluted groundwater and to clean up the Shallow Unnamed Aquifer and the Upper Silverado Aquifer near the site. Since groundwater pumping commenced in November 1999, wells historically used for groundwater pumping have included at various times, nine extraction wells used to extract water from the Shallow Unnamed Aquifer and five extraction wells used to extract water from the Shallow Unnamed Aquifer and five extraction wells used to extract water from the Upper Silverado Aquifer. The current active pumping array consists of five extraction wells used to extract water from the Upper Silverado Aquifer. In the future, wells may be added to or removed from the active pumping array as necessary to optimize groundwater remediation. The maximum combined groundwater pump rate will not exceed 400 gallons per minute (576,000 gallons per day).

Shell treats the groundwater using a combination of treatment technologies (Figure 3). First, groundwater is injected with hydrogen peroxide for flocculation of various metals. Next, the groundwater flows through three (4,500-gallon) inlet surge tanks. The groundwater is then treated with a filtration aid, and is subsequently sent through filters for iron and manganese removal. Next, the groundwater is sent through three air strippers for total petroleum hydrocarbons (as gasoline), benzene, toluene, ethylbenzene, and xylene, and methyl tertiary butyl ether removal followed by an air stripper off-gas control system. The wastewater is then sent through two (10,000-pound) granular activated carbon adsorbers for polishing and TBA removal. Finally, the discharge is treated for pH prior to discharge. At the time of the site inspection conducted on March 22, 2004, the facility was running a pilot program utilizing a sand filter to treat 30 gallons per minute of the wastewater for metals and minerals removal. If successful, a sand filter will replace the bag filters in the treatment train. The discharge point is a storm drain located on Venice Boulevard near the intersection of Venice Boulevard and Sepulveda Boulevard (Latitude 34°00'47", Longitude 118°24'58") (Figure 2). The treated groundwater flows approximately one mile to Ballona Creek, a water of the United States.

The soil and groundwater cleanup plans were approved by the Regional Board and United States Environmental Protection Agency (U.S. EPA) on June 21, 1999, and the systems have been operational since 1999.

The Discharger investigated re-use options and stated in the permit renewal application that directing the discharge to the sanitary sewer is either not feasible or may be prohibitively expensive.

The Regional Board and the U.S. EPA have classified the Shell facility as a minor discharge.

	Reported Maximum Value		Long Term Average Value		
Constituent (units)	Concentration	Mass (lbs/day)	Concentration	Mass (lbs/day)	
BOD₅ (mg/L)	1.6	2.4	< 1.0		
Total suspended solids (mg/L)	3.2	4.1	< 1.0		
Bromide (mg/L)	1.0	1.8	0.86	1.3	
Fluoride (mg/L)	1.6	3.1	0.97	1.5	
Nitrate-Nitrite (as N) (mg/L)	1.1	1.6	0.64	1.0	
Phosphorus (as P) (mg/L)	0.36	0.49	0.21	0.31	
Sulfate (mg/L)	310	477	262	393	
Aluminum (mg/L)	0.052	0.08	0.025	0.05	
Barium (mg/L)	0.052	0.08	0.045	0.07	
Boron (mg/L)	0.328	0.53	0.287	0.41	
Cobalt ¹ (mg/L)	0.0036	0 ²	0.0008	0 ²	
Iron (mg/L)	0.22	0.33	0.07	0.11	
Magnesium (mg/L)	65.1	120	60.7	92	
Molybdenum ¹ (mg/L)	0.009	0.011	0.006	0.008	
Manganese (mg/L)	0.06	0.08	0.008	0.01	
Tin, total ¹ (mg/L)	0.006	0 ²	0.0015	0 ²	
Titanium, total ¹ (mg/L)	0.005	0.007	0.004	0.006	
Antimony ¹ (mg/L)	0.005	0 ²	0.0017	0 ²	
Arsenic, total ¹ (mg/L)	0.008	0.009	0.005	0.007	
Beryllium, total ¹ (mg/L)	0.003	0 ²	< 0.001	0 ²	
Cadmium, total ¹ (mg/L)	0.003	0 ²	< 0.0002	0 ²	
Chromium, total ¹ (mg/L)	0.004	0 ²	0.0016	0 ²	
Copper, total ¹ (mg/L)	0.004	0.005	0.0015	0.002	
Lead, total ¹ (mg/L)	0.004	0 ²	< 0.001	0 ²	
Nickel, total ¹ (mg/L)	0.007	0.010	0.005	0.007	
Selenium, total (mg/L)	0.016	0.021	0.011	0.015	
Silver, total ¹ (mg/L)	0.001	0 ²	<0.001	0 ²	
Thallium, total ¹ (mg/L)	0.0139	0 ²	<0.001	0 ²	
Zinc, total ¹ (mg/L)	0.020	0.031	0.009	0.014	
Flow (gallons per day)	263,000		181,000		
pH (standard units)	$6.5^3 - 8.14$		$7.62^3 - 7.97^4$		

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

¹These pollutants were marked as "believed absent;" however, the Discharger included detected effluent data.

²The Discharger indicated on the permit renewal application that mass values were approximately zero.

³Minimum pH value.

⁴Maximum 30-day value.

Effluent data was submitted to the Regional Board for the dates between November 1999 and September 2003 in Discharge Monitoring Reports, in addition to data submitted for the California Toxics Rule (April 2002), are summarized in the following table:

	Daily Maximum	Average Monthly	
Constituent (units)	Effluent Limits	Effluent Limits	Range of Reported Values
Flow (gpd)	576,000		125,435 – 263,023 ¹
Temperature (°F)	100		NR

	Daily Maximum Effluent	Average Monthly Effluent	Range of Reported
Constituent (units)	Limits	Limits	Values
pH (Standard units)	6 – 9		6.5 – 9.45
Total suspended solids (mg/L)	150	50	<1 – 7
Total settleable solids (ml/L)	0.3	0.1	<0.1 – <1
Turbidity (NTU)	150	50	<1 – 12
Oil and grease (mg/L)	15	10	<1 – 3
Lead (i g/L)	50		0.0651 – 5.9
Total petroleum hydrocarbons (i g/L)	100		<50 - <100
Benzene (i g/L)	1.0		<0.05 - <2
Toluene (î g/L)	150		<0.3 - <2
Ethylbenzene (ig/L)	700		<0.3 - <2
Xylene (i g/L)	1750		<0.6 - <4
Napthalene (î g/L)	50		0.4 - <20
Methyl tertiary butyl ether (i g/L)	13		0.41 – 1.8
Tertiary butyl alcohol (i g/L)	1750		<0.02 - 450
Ethylene Dibromide (î g/L)	0.05		<0.018 - <1
Tetrachloroethylene (ig/L)	5		<1 – 1.3
Trichloroethylene (i g/L)	5		<1 – <5
1,1,1-Trichloroethane (îg/L)	200		<1 – <5
1,1-Dichloroethane(ig/L)	5		<1 – <5
1,1-Dichloroethylene (i g/L)	6		<1 – <5
Hydrogen peroxide (mg/L)	5		0.02 - 0.04
Acute toxicity (Tua)	1.0		0
Acute toxicity (percent survival)	2		100

¹ Reported as monthly maximum flow.

² 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.

On July 30, 2001, the Regional Board issued a Notice of Violation letter to the Discharger for the exceedance of the effluent limit for pH at 9.45 on November 4, 1999, for the exceedance of the effluent limit for turbidity at 622 NTU on November 6, 2000, and for not including a report of waste hauling in the monitoring reports. In response to this letter, the Discharger sent a letter on August 20, 2001 to request that the Notice of Violation letter be rescinded. The letter explains that the water from which the pH sample was taken was not actually discharged, and explains that the exceedance for turbidity was anomalous and also was not discharged from the site. In addition, the Discharger included in the letter a description of past waste haulings. Data submitted for the period from November 1999 through September 2003 indicate that, except for pH and turbidity, the Discharger has complied with effluent limits established in Order No. 99-065.

The existing Order also required Shell to monitor for constituents for which no effluent limitations were developed. The Table below summarizes the range of reported effluent concentrations for these constituents.

Constituent (units)	Range of Reported Effluent Concentrations (November 1999 – September 2003)
Total dissolved solids (mg/L)	392 - 1,100
Calcium (mg/L)	22 – 160
Magnesium (mg/L)	17 – 68.5
Sodium (mg/L)	53 – 129
Potassium (mg/L)	2.5 - 80.9
Chloride (mg/L)	29 – 210
Sulfate (mg/L)	61 – 320
Sulfide (mg/L)	<0.05 - <0.1
Nitrate(mg/L)	<0.1 - 1.1
Nitrite (mg/L)	< 0.01 - 0.18
Methanol (mg/L)	<0.01 - 2.7
BOD ₅ (mg/L)	<1 - 38

The facility inspection that occurred on March 22, 2004, indicated that the facility appeared to be generally well operated and maintained, however several findings were noted:

- The Discharger does not sample effluent prior to commencing a discharge.
- The Discharger has not submitted summaries as required in Part D of the M&RP.
- pH is analyzed on-site.
- Magnesium hydroxide was observed on-site without secondary containment.

It should be noted that although sampling effluent prior to commencing a discharge was required in the previous *M&RP*, due to the continuous nature of the discharge, this requirement is not appropriate for this facility and will not be carried over to this permit. In addition, graphical summaries required in Part D of the previous *M&RP* will only be required for annual summary reports, as described in Section I, Part B of the *M&RP*. As described in Section I, Part C of the *M&RP*, pH must be analyzed in accordance with analytical methods described in 40 CFR 136.3, 136.4, and 136.5. Also, it was observed that potentially hazardous materials were not stored within secondary containment. The Discharger shall ensure that potentially hazardous materials are not released on-site. The storage of materials used onsite and the development and implementation of best management practices (BMPs) to address the potential transport of contaminants offsite will be addressed in the Storm Water Pollution Prevention Plan which is a requirement of the tentative Order.

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 in conformance with

an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.

- Code of Regulations, Title 40 (40 CFR) Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limits for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limits for certain pollutants discharged by Shell.
- 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 Basin Plan contains beneficial uses and water quality objectives for Ballona Creek.

Existing Uses: Non-contact water recreation and wildlife habitat.

Potential Uses: Municipal and domestic supply, water contact recreation (prohibited by LA County DPW), and warm freshwater habitat.

The potential beneficial use of municipal and domestic supply (MUN) for Ballona Creek 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. Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life. The ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.
- 5. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
- 6. On May 18, 2000, the U.S. Environmental Protection Agency (U.S. EPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR § 131.38]. In the CTR, U.S. EPA promulgated

criteria that protect the general population at an incremental cancer risk level of one in a million (10⁻⁶), for all priority toxic pollutants regulated as carcinogens. The CTR also allows 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 effluent limits derived from the CTR criteria.

- 7. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the Dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for 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 Ballona Creek.
- 8. 40 CFR section 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 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 water quality criteria to fully protect designated beneficial uses.
- 9. 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 sections 402(o) and 303(d)(4) 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.
- 10. 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 Ballona Creek.
- 11. Existing waste discharge requirements contained in Board Order No. 99-065, were adopted by the Regional Board on July 8, 1999. In some cases, permit conditions (effluent limits and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

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 requirements for 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 water quality-based effluent limitations (WQBELs) that are developed to protect applicable designated uses of the receiving water.

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

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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 or do not consider certain pollutants.

If a reasonable potential to exceed water quality standards exists for pollutants in a discharge, 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 from this facility to inland surface waters, enclosed bays,

and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by U.S. EPA through the CTR and NTR, as well as priority pollutant objectives in the Basin Plan.

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

1. Pollutants of Concern

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

The existing permit established effluent limitations for a number of pollutants believed to be present in the discharge of treated groundwater, but was not specific in the basis for this determination. It is presumed that the existing regulated pollutants are still considered pollutants of concern in this permit due to the nature of current groundwater remediation activities. Effluent limitations for Discharge Serial No. 001 in the previous Order were established for total suspended solids, total settleable solids, turbidity, oil and grease, lead, total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene (total), naphthalene, methyl tertiary butyl ether, TBA, ethylene dibromide, tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethylene, hydrogen peroxide, and acute toxicity, because the groundwater was contaminated by a historical release of fuel and solvents from underground storage tanks. These constituents may still be present in the untreated groundwater and are therefore considered pollutants of concern.

Treated groundwater has the potential to affect the pH and temperature of the receiving water body; therefore, effluent limitations for pH and temperature are established in this Order.

2. <u>Technology-Based Effluent Limits</u>

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.

As stated previously, during the March 22, 2004 inspection, it was noted that potentially hazardous materials were not stored within secondary containment. The Discharger shall ensure that these materials are not released on-site. The Discharger shall investigate means by which to provide secondary containment for hazardous materials, and maintain spill cleanup materials on-site; to prevent the release of hazardous materials on-site.

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 U.S. EPA 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 condition 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 salinity level from a sample collected on April 2, 2002 was 0.77 ppt. The CTR criteria for the protection of aquatic freshwater organisms or human health for consumption of organisms, whichever is most stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Ballona Creek.

Some water quality criteria are hardness dependent. The Discharger provided hardness data for the receiving water (Ballona Creek) as part of their required CTR monitoring. The immediate receiving water is a storm drain, and is typically dry; the effluent water makes up most of the flow in the channel. The storm drain enters the receiving water approximately one mile from the facility; therefore, the sampling of receiving water was not feasible. Thus, hardness measurements were taken of the effluent. The hardness value reported April 2, 2002 was 580 mg/L as CaCO₃. This value exceeds the maximum recommended value of 400 mg/L as CACO₃; hence the 400 mg/L value is used for determining reasonable potential to exceed hardness-dependent criteria for certain metals.

(a) Reasonable Potential Analysis (RPA)

The Regional Board conducts a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board analyzed 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 has identified the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

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

- 1) <u>Trigger 1</u> If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
- 2) <u>Trigger 2</u> If MEC<C and background water quality (B) > C, a limit is needed.
- 3) <u>Trigger 3</u> 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 is 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 is reopened for appropriate modification.

The RPA was performed for the priority pollutants for which effluent data were available. Effluent and receiving water data were provided pursuant to a letter dated February 28, 2002 from the Regional Board addressed to Shell requiring quarterly monitoring for priority pollutants regulated in the CTR. A correspondence dated March 14, 2002 from the Regional Board to the Discharger indicated that the Discharger would only be required to collect one sample for priority pollutants regulated in the CTR. Data collected on April 2, 2002 were used in the RPA. In addition, samples for certain priority pollutants were collected from November, 1999 through September, 2003, as required by their existing permit. These data were also used to perform the RPA and are summarized in Attachment A.

Based on the RPA, there is reasonable potential to exceed water quality criteria at Discharge Serial No. 001 for selenium. Thus, effluent limitations and effluent monitoring requirements for selenium have been established. In addition, this Order carries over the technology-based effluent limits established in the previous Order for benzene, 1,1-dichloroethane, 1,1-dichloroethene, ethylbenzene, naphthalene, tetrachloroethylene, toluene, 1,1,1-trichloroethane, and trichloroethene. Further, the existing Order limitations for lead have been replaced with CTR-based WQBELs to ensure the protection of water quality.

(b) Calculating WQBELs

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

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

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

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

The U.S. EPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Board's California 303(d) List classifies Ballona Creek as impaired. The pollutants of concern include cadmium (sediment), ChemA (tissue) [refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene], chlordane (tissue), dissolved copper, DDT (tissue), dieldrin (tissue) enteric viruses, high coliform count, dissolved lead, PCBs (tissue), pH, sediment toxicity, total selenium, silver (sediment), toxicity, and dissolved zinc. The Trash TMDL for the Ballona Creek and Wetland was adopted by the Regional Board on September 19, 2001. It designates Waste Load Allocations for Permittees and Co-Permittees of the Los Angeles County Municipal Stormwater Permit that are located within (entirely or partially) the Ballona Creek Watershed. Waste Load allocations are based on a phased reduction from the estimated current discharge over a 10-year period until the final Waste Load Allocation (currently set at zero) is met. Because the discharge from this facility is treated groundwater, it is not likely to contribute trash to the Ballona Creek Watershed. However, because the facility discharges to the Los Angeles County municipal separate storm sewer system, Los Angeles County may invoke requirements on the facility in order to meet the waste load allocation.

(d) Whole Effluent Toxicity

Whole Effluent Toxicity (WET) requirements protect 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 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.

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. The previous Order contained limits for acute toxicity, where acute toxicity levels greater than 1.0 toxic units acute (TU_a) were prohibited. The previous Order also required 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. This Order carries over effluent limitations for acute toxicity (measured in units of percent survival) to be consistent with Basin Plan requirements.

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

The discharges at the Shell 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 are 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 defined as the monthly median exceeding 1.0 toxic units 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

Section 402(o) of the Clean Water Act and 40 CFR 122.44(I) 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 many of the regulated pollutants are carried over to this permit. Furthermore, the requirements in the proposed Order for conventional, and non-

conventional, and toxic pollutants (total suspended solids, total settleable solids, turbidity, oil and grease, total petroleum hydrocarbons, xylene, MTBE, TBA, ethylene dibromide, tetrachloroethylene, and hydrogen peroxide) are based on limits specified in Shell's existing permit. The effluent limitations for pH and temperature are based on the Regional Board's interpretation of the Basin Plan.

In addition to these limitations, the Regional Board is implementing the CTR and SIP, and additional effluent limitations are required for those regulated pollutants that show reasonable potential to exceed water quality standards. CTR-based WQBELs are established for selenium because it shows reasonable potential to exceed state water quality standards.

The previous permit also contained effluent limitations for benzene, 1,1-dichloroethane, 1,1dichloroethene, ethylbenzene, lead, naphthalene, tetrachloroethylene, toluene, 1,1,1trichloroethane, and trichloroethylene. These pollutants did not show statistical reasonable potential. However, they are associated with gasoline, total petroleum hydrocarbons, and solvents which are the contaminants present in the groundwater contaminant plume. Hence best professional judgment (BPJ) was based to retain the effluent limits. A comparison between existing permit limitations and CTR-based WQBELs was made and the most stringent limitation included in the Order to ensure the protection of water guality. For lead, the existing permit limitations are less stringent; therefore, the CTR-based WQBELs will be included in this Order. For benzene, 1,1-dichloroethane, 1,1-dichloroethene, ethylbenzene, naphthalene, tetrachloroethylene, toluene, 1,1,1-trichloroethane, and trichloroethylene, limits in the previous Order were more stringent and will therefore be carried over to this Order. In addition, it should be noted that these effluent limits are technology-based, and are therefore subject to the anti-backsliding requirements set forth in sections 402(o) and 303(d)(4) of the CWA and in the Title of the Code of Federal Regulations (40 CFR), section 122.44(I), which require a reissued permit to be as stringent as the previous 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). AMELs for TSS, total settleable solids, turbidity, and oil and grease, are based on AMELs in the existing permit. For a number of constituents the daily maximum concentration limit in the existing permit was based on the Basin Plan and the Title 22 maximum contaminant limits (MCLs). These constituents which include the volatiles with effluent limits, oil and grease, total settleable solids, and total suspended solids do not have AMELs.

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:

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

The mass-based effluent limitations contained in the existing Order are based on a maximum discharge flow rate of 576,000 gpd. The maximum discharge flow rate of 576,000 gpd was used, which is the design capacity of the treatment system, was used to establish mass-based effluent limitations for this Order. If the Discharger wishes to discharge at higher volumes because they have added more extraction wells to their current system, which consists of 24 monitoring wells, they must notify the Regional Board and request a permit modification.

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

Constituents	Units	Average Monthly Effluent		Maximum Daily Effluent		Rationale
		Concentration	Mass ²	Concentration	Mass ²	
		Concentration	(lbs/dav)	Concentration	(lbs/dav)	
Flow	bap			576,000		E
Temperature	F°			86		BP, BPJ
pH ³	S.U.			6.5 - 8.5		BP
Oil and grease	mg/L	10	48	15	72	E
Total settleable solids	ml/L	0.1		0.3		E
Total suspended solids	mg/L	50	240	150	721	E
Turbidity	NTU	50		150		E
Lead ⁴	ì g/L	15.2	0.07	30.5	0.15	CTR, SIP
Selenium	ì g/L	4.0	0.02	8.2	0.04	CTR, SIP
Benzene	ì g/L			1	0.005	E, BPJ
1,1-Dichloroethane	ì g/L			5	0.02	E, BPJ
1,1-Dichloroethylene	ì g/L			6	0.03	E, BPJ
Ethylbenzene	ì g/L			700	3.4	E, BPJ
Ethylene dibromide	ì g/L			0.05	0.0002	E, BPJ
Methyl tertiary butyl ether	ì g/L			13	0.06	E, BPJ
Napthalene	ì g/L			50	0.24	E, BPJ
Tertiary butyl alcohol	ì g/L			1750	8.4	E, BPJ
Tetrachloroethylene	ì g/L			5.0	0.02	E, BPJ
Toluene	ì g/L			150	0.72	E, BPJ
Total petroleum	ìal			100	0.49	
hydrocarbons	⊺ g/L			100	0.46	E, DPJ
1,1,1-Trichloroethane	ì g/L			200	1.0	E, BPJ
Trichloroethylene	ì g/L			5	0.02	E, BPJ
Xylene	ì g/L			1750	8.4	E, BPJ
Hydrogen Peroxide	mg/L			5	24	E, BPJ
Acute toxicity	% survival					BP
Chronic toxicity	TUc	6				BP

¹ BP – Limits are established in the Basin Plan; CTR, SIP - Water quality-based effluent limits established based on the procedures in the SIP; E – Existing permit limit; BPJ – Best Professional Judgment

² Mass-based effluent limitations for pollutants are based on a maximum discharge flow rate of 576,000 gpd (0.576 mgd).

³ The pH must remain within this range at all times.

⁴ Effluent limitations for lead are expressed as total recoverable.

⁵ For any three consecutive 96-hour static or continuous flow bioassay tests must be at least 90%, with no single test producing less than 70% survival (more information can be found in Section I.B.3.a. of the tentative permit.)

⁶ The monthly median for chronic toxicity of 100% effluent shall not exceed 1 TUc in a critical life stage test (more information can be found in Section I.B.3.b. of the tentative permit.)

5. <u>Compliance Schedule</u>

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 selenium. Hence, interim limits have been prescribed. As a result, the proposed Order contains a compliance schedule that allows the Discharger up to three and one-half years to comply with the revised effluent limitation. Within six months 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 §131.38(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 selenium appear infeasible for the Discharger to achieve at this time, interim limits for selenium 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 March 2, 2008, 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. 99-065 does not contain effluent limitations for selenium. When sufficient effluent data exist, a statistical analysis can performed using the Plimit[™] program to calculate interim limits. The Plimit[™] program is based on the Appendix E of the TSD for calculating effluent limits. Effluent data for the period from March 2003 through January 2004 (11 data points) were used in the analysis to calculate interim limits for selenium. A log-normal distribution of the effluent values was assumed. The 99th percentile occurrence probability was used for the daily maximum concentration. It should be noted that the Board may take appropriate enforcement actions if interim limitations and requirements are not met.

From the effective date of this Order until March 2, 2008 the discharge of effluent from Discharge Serial No. 001 in excess of the following is prohibited:

Constituent (units)	Daily Maximum Concentration	Mass ¹ (Ibs/dav)	Bationale ²
Selenium (µg/L)	20	0.10	Plimit [™]

¹ The mass-based effluent limitations are based on a flow rate of 576,000 gpd. ² PlimitTM – Calculated using the PlimitTM Statistical Software Package.

The Discharger provided effluent monitoring data for selenium in their permit renewal application transmittal and requested an interim effluent limit of 20 μ g/L with a compliance schedule of three and one-half years. The Discharger also stated in their application transmittal that they will assist the Regional Board and conduct studies to support development of a site-specific objective and perform a technical and economical evaluation to determine the availability of treatment technologies to meet the CTR-based WQBEL for

selenium.

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 selenium, in their discharge. This plan should evaluate options to achieve compliance with the revised 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

The previous permit for Shell required daily monitoring for total flow, and weekly monitoring for pH. Monthly monitoring was required for total suspended solids, total settleable solids, total dissolved solids, turbidity, oil and grease, lead, general minerals, chloride, sulfate, sulfides, nitrite+nitrate as nitrogen, total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylene, MTBE, TBA, ethylene dibromide, methanol, tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, 1,1-dichlorothane, 1,1-dichloroethylene, hydrogen peroxide, and BOD₅@20°C. Further, the previous permit required annual monitoring for acute toxicity.

As discussed previously, in Part A of the previous *M&RP*, the Discharger was required to analyze a sample of treated effluent prior to commencing discharge. Because the discharge from this facility is continuous, it is not appropriate to require a sample be analyzed prior to commencing discharge; therefore, this requirement will not be carried over to this *M&RP*. In addition, Part D of the existing Order required the Discharger to submit graphical summaries of the data and to collect water samples from the waste stream, intermediate treatment, post treatment. In this *M&RP*, graphical summaries will be required for only the annual summary report (not each quarterly monitoring report) and only sampling of the final effluent will be required. These requirements are discussed further in Sections I and II of the *M&RP*.

On February 28, 2002 the Regional Board sent a letter to Shell requiring the monitoring of priority pollutants regulated in the CTR. A Regional Board correspondence dated March 14, 2002 stated that only one quarter of monitoring of the effluent was required.

Monitoring requirements are discussed in greater detail in Section III of the Monitoring and Reporting Program No. 8030. As described in the Monitoring and Reporting Program, monitoring reports must be submitted quarterly.

(a) Effluent Monitoring

To demonstrate compliance with effluent limitations established in the permit, and to assess the impact of the discharge on the beneficial uses of the receiving waters, this Order carries over the existing monitoring requirements for many parameters and adds monitoring requirements for some parameters. Monitoring daily for flow and weekly for pH and temperature are required to ensure compliance with effluent limitations. Weekly monitoring requirements for temperature are established in this Order. In addition, monthly monitoring requirements for total suspended solids, total settleable solids, total dissolved solids, turbidity, oil and grease, lead, general minerals, chloride, sulfate, sulfides, nitrite+nitrate as nitrogen, total petroleum hydrocarbons, xylene, MTBE, TBA, ethylene dibromide, methanol, tetrachloroethylene, hydrogen peroxide, and BOD₅@20°C are carried over from the previous Order to ensure compliance with effluent limitations. Furthermore, monthly monitoring requirements will be established for naphthalene. to ensure compliance with effluent limitations. Because benzene, 1,1-dichloroethane, 1,1-dichloroethene, ethylbenzene, toluene, 1,1,1-trichloroethane, and trichloroethylene were not detected during the previous Order term, monitoring requirements for these pollutants will be reduced from monthly to semiannually.

Monitoring data during the previous permit term suggest that the Discharger has the potential to exceed the CTR-based effluent limitations for selenium. Therefore, the proposed Order establishes a monthly monitoring requirement for selenium, to demonstrate compliance with the new CTR-based effluent limits.

In addition, this Order carries over the annual monitoring requirement for acute toxicity, and establishes a quarterly monitoring requirement for chronic toxicity for one year. If the results indicate compliance the monitoring frequency may be reduced to annually thereafter.

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 storm drain.

The effluent monitoring program for the discharge of treated groundwater through Discharge Serial No. 001 (Latitude 34°00'47" and Longitude 118°24'58") is specified in the Monitoring and Reporting Program No. 8030.

(b) Receiving Water Monitoring

The receiving water monitoring program shall consist of periodic surveys of the receiving water at the location where the effluent enters the storm drain and shall include observations of those physical-chemical characteristics of the receiving water that may be impacted by the discharge.

(c) Storm Water Monitoring And Reporting

Storm water runoff discharges from the facility are subject to requirements stipulated in this NPDES permit and the Discharger is required to comply with all applicable provisions of the Storm Water Pollution Prevention Plan (Attachment A of the Order). This plan includes requirements to develop, implement, and when appropriate update a Storm Water Pollution Prevention Plan (SWPPP) along with Best Management Practices (BMPs) with the intent of preventing all pollutants from contacting storm water and with the intent of keeping all contaminants of concern from moving into receiving waters.