ORDER NO. R8-2008-0059 WAS AMENDED. PLEASE DOWNLOAD ALSO A COPY OF THE AMENDING ORDER NO. R8-2009-0004

California Regional Water Quality Control Board
Santa Ana Region

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288 • TDD (951) 782-3221
www.waterboards.ca.gov/santaana

ORDER NO. R8-2008-0059
NPDES NO. CAG648001

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS OF PROCESS WASTEWATER ASSOCIATED WITH CERTAIN WELLHEAD TREATMENT SYSTEMS

A Discharger, as described in the following table, who has complied with the requirements for coverage under this Order, is authorized to discharge under this Order, once permit coverage is effective, as described in this Order.

Dischargers	Facilities that have been polluted by petroleum hydrocarbons, solvents, etc. and propose discharges to inland surface and ocean waters of process wastewater associated with certain wellhead treatment system at treatment sites

This Order was adopted by the Regional Water Quality Control Board on:	**June 6, 2008**
This Order shall become effective on:	**June 6, 2008**
This Order shall expire on:	**June 1, 2013**
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **minor** discharge.	

IT IS HEREBY ORDERED, that this Order supercedes Order No. R8-2003-0002 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 6, 2008.

Gerard J. Thibeault, Executive Officer

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I. DISCHARGE INFORMATION

Order No. R8-2003-0002, NPDES No. CAG648001 is a general NPDES permit adopted by the Regional Water Board on May 16, 2003 for discharges to surface waters of process wastewater associated with the operation of wellhead treatment systems (WTS) within the Santa Ana Region. The Order facilitated the processing of permit applications and the early implementation of wellhead treatment system projects. It is anticipated that current dischargers will be submitting renewal applications for continued discharges from their WTS operations. These circumstances necessitate the renewal of this general NPDES permit.

II. GENERAL PERMIT APPLICATION

A. New Dischargers

At least 180 days before the start of a new discharge, the Discharger shall submit an application and obtain the authorization letter from the Executive Officer to discharge WTS wastewater to surface waters. The application shall include the following information:

1. Notice of Intent to be covered under this general permit.

2. A report that shall include the following:

   a. Chemical analysis of the untreated groundwater. A representative groundwater sample shall be analyzed for organic pollutants using EPA method 8260B, priority pollutants, total dissolved solids, total inorganic nitrogen, hardness, and perchlorate. Test results shall be reported with Minimum levels (ML) and method detection limit (MDL);

   b. A site characterization study that defines the onsite contaminants and their properties and the three-dimensional extent and concentration of contaminants in the subsurface, and includes a description of the geologic and hydrologic factors that control the migration of the contaminants.

   c. The name of the proposed receiving water body, including the location (Latitude and Longitude) of the discharge point (s);

   d. The estimated average and maximum daily flow rates, the start date of discharge (if a new discharge), the duration of the discharge, and the estimated total volume of the discharge;

   e. A map showing the path from the point of initial discharge to the ultimate location of discharge;

f. A description of the proposed treatment system and a certification report on the adequacy of each component of the proposed treatment system. This certification report shall contain a requirement-by-requirement analysis, based on accepted engineering practice, of how the process(es) and physical design(s) of the treatment system will ensure compliance with this Order. The design engineer shall affix his/her signature and engineering license number to this certification report. The report(s) shall also certify the following:

   (1) all treatment facility startup and operation instruction manuals are adequate and available to operating personnel;
   (2) all treatment facility maintenance and testing schedules are included in the treatment facility operation and maintenance manual (O&M Manual), which shall be kept readily accessible to onsite operating personnel; and
   (3) influent and effluent sampling locations and ports are located in areas where samples representative of the waste stream to be monitored can be obtained.

g. A discussion of a plan for the prevention of run-on, interception and diversion of runoff, and prevention of infiltration and runoff from contaminated soils stored on-site, if the discharge is associated with a groundwater remediation project and soils containing petroleum projects or other pollutants will be maintained on-site.

h. Any other information deemed necessary by the Executive Officer.

3. The General Permit Application, including the NOI (see Attachment A of this Order), map(s), report, and fee, must be submitted to the following address:

   Permitting Section
   California Regional Water Quality Control Board
   3737 Main Street, Suite 500
   Riverside, CA 92501-3348

B. Existing Dischargers

1. Within forty five (45) days of the effective date of this Order, existing Dischargers shall submit a copy of their current monitoring and reporting programs along with the Notice of Intent for this general permit. Additional information may be required if there has been a change in ownership of facility or changes in the character and/or treatment of the discharges.

C. General Permit Coverage

For new Dischargers, permit coverage will be effective when the Discharger has submitted a complete application and the Regional Water Board Executive Officer issues a discharge authorization letter accompanied with the self monitoring program for the proposed discharge. For existing Dischargers authorized to discharge under Order No. R8-2003-0002, discharges will continue to be regulated under the terms and conditions of that Order provided that the Discharger submits an NOI, the current M&RP, and proposed treatment modifications (if any) within 45 days of the effective date of Order No. R8-2008-0059 and a new discharge authorization with the self monitoring program for the discharge is issued by the Executive Officer under this Order.

D. Termination of Coverage

The Discharger shall inform the Regional Water Board by a letter if coverage under the permit is no longer needed. The Regional Water Board Executive Officer or designee shall issue a letter terminating coverage under the general permit. Permit coverage will be terminated only for those projects that have complied with all permit requirements. (See also Provisions Section VII.A.3.)

E. Changes from Authorization Under General Permit To Individual Permit.

Dischargers already covered under the NPDES program, whether by general or individual permit, may elect to continue coverage under the existing valid permit(s) or may submit a complete application for coverage under this General Permit. Dischargers who submit a complete application under this General Permit are not required to submit an individual permit application. The Regional Water Board may request additional information and determine that a Discharger is not eligible for coverage under this General Permit and would be better regulated under an individual or other general NPDES permit or, for discharges to land, under waste discharge requirements (WDRs). If the Regional Water Board issues an NPDES permit or WDRs, the applicability of this General Permit to the specified discharge is immediately terminated on the effective date of the individual NPDES permit or WDRs.

III. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Water Board), finds:

A. Background.

This Order replaces Order No. R8-2003-0002. The NPDES permit number, No. CAG618001, remains the same. Dischargers enrolled under the previous Order No. R8-2003-0002 must obtain coverage under this new Order to continue their authorization to discharge. To obtain authorization for continued and future discharge to waters of the United States, existing Dischargers must submit an NOI, the current M&RP, and proposed treatment modifications (if any). New Dischargers must submit a complete application, as described in II.A. above, and obtain coverage in order to be regulated under this General Permit as provided in 40 Code of Federal Regulations (CFR) section 122.28 (b)(2).

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and State laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Industry Description.

This Order regulates discharges to surface water from WTS operation sites. Most discharges are to inland freshwater bodies within the Santa Ana Region.

Wellhead treatment systems (WTS) are operated in the Region such that the product water is discharged to potable water distribution systems, rather than to surface waters. Seven such systems are now and have been operated for some years by the Cities of Riverside and San Bernardino to address groundwater contaminated by solvents and perchlorate. Other wellhead treatment systems are expected to be installed to address other recently identified contamination problems (e.g., perchlorate), with the intent to return the product water to potable water distribution systems. These systems act to restore the quality of the groundwater management zones and provide reliable water supply for domestic, industrial, and municipal uses. Generally, groundwater is extracted, treated and then delivered to the potable water supply systems. Wastes are generated in the treatment process. The most commonly used method of treatment of solvent-contaminated groundwater is granular activated carbon (GAC) adsorption. At some sites in the City of San Bernardino, air-stripping towers are used to treat a small portion of the extracted groundwater. Ion exchange/resins systems are used for treatment of perchlorate contaminated groundwater.

(see additional discussions in the Fact Sheet (Attachment F)).

C. Legal Authorities. This Order is issued pursuant to Section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC) (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from groundwater dewatering and cleanup facilities to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information obtained through issuance and enforcement of general permitOrder No. R8-2003-0002 for WTS discharges, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and, thus constitutes part of the Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.

E. **State law.** The provisions/requirements in subsections VI.B. of this Order are included to implement State law only. These provisions are not required or authorized under the federal CWA; consequently, violations of these provisions are not subject to the enforcement remedies that are available for NPDES violations.

F. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636.)

G. **Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharges authorized by this Order must meet minimum federal technology-based requirements and/or Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. As described in the Fact Sheet, technology-based effluent limitations based on BPJ are included in this Order.

H. **Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) of 40 CFR require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements that are more stringent than technology-based requirements and are necessary to meet applicable water quality standards. The rationale for these requirements is discussed in the Fact Sheet.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant

information, as provided in section 122.44(d)(1)(vi). Section V.C.3 and V.C.4 of Attachment F (Fact Sheet) discuss the reasonable potential determination and the water quality based effluent limit calculation procedure, respectively.

I. **Water Quality Control Plans.** The Regional Water Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region addressed through the plan. The Basin Plan was amended significantly in 2004 to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. This Basin Plan Amendment was adopted by the Regional Water Board on January 22, 2004. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. EPA approved the surface water standards components of the N/TDS Amendment on June 20, 2007.

The existing and potential beneficial uses of surface waters in the Santa Ana Region are designated in Chapter 3 of the Basin Plan and may include:

1. Municipal and Domestic Supply,
2. Agricultural Supply,
3. Industrial Service Supply,
4. Industrial Process Supply,
5. Groundwater Recharge,
6. Hydropower Generation,
7. Water Contact Recreation,
8. Non-contact Water Recreation
9. Warm Freshwater Habitat,
10. Limited Warm Freshwater Habitat,
11. Cold Freshwater Habitat,
12. Preservation of Biological Habitats of Special Significance,
13. Wildlife Habitat,
14. Marine Habitat,
15. Shellfish Harvesting,
16. Rare, Threatened or Endangered Species, and
17. Spawning, Reproduction, and Development.

Many surface waters within the region recharge underlying groundwater basins. The existing and potential beneficial uses of groundwater within the Santa Ana Region generally include:

1. Municipal and Domestic Supply,
2. Agricultural Supply,
3. Industrial Service Supply, and
4. Industrial Process Supply

Requirements of this Order implement the Basin Plan.

J. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new, numeric toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

K. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for toxicity control. Requirements of this Order implement the SIP.

L. **Compliance Schedules and Interim Requirements. Not Applicable**

M. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. section 131.21; 65 Fed. Reg. 24641 (April 27, 2000).). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

N. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality based effluent limitations for individual pollutants. These limitations are not more stringent than required by the CWA.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR and SIP, which was approved by USEPA on May 18, 2000. Apart from certain surface water standards changes resulting from the N/TDS Basin Plan amendment, all beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

O. **Antidegradation Policy.** Section 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy, where the federal policy applies under federal law. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provisions of section 131.12 and State Water Board Resolution 68-16.

P. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. This Order includes the same effluent limitations in Order No. R8-2003-0002.

Q. **Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

R. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

S. **Notification of Interested Parties**. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

T. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

IV. DISCHARGE PROHIBITIONS

A. The discharge of oil, trash, industrial waste sludge, or other solids directly to the surface waters in this region or in any manner that will ultimately affect surface waters in this region is prohibited.

B. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

C. The discharge of wastes to property not owned or controlled by the Discharger is prohibited.

D. Odors, vectors, and other nuisances of waste origin are prohibited beyond the limits of each Discharger's facility.

E. The addition of chemicals to the extracted groundwater, exclusive of chlorine to control biofouling (H_2S) in treatment systems, is prohibited except when approved by the Executive Officer.

F. The direct discharges of waste to Areas of Special Biological Significance are prohibited.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The limitations apply at the end of the discharge pipe. If the receiving surface water body is dry and the wastewater percolates to the same groundwater management zone from which the contaminated groundwater was extracted, these limitations do not apply.

A. Effluent Limitations

1. Final Effluent Limitations

a. The Discharger shall maintain compliance with the following effluent limitations at approved compliance point monitoring locations:

Table 1. Effluent Limitations Applicable to Discharges into Receiving Waters Designated MUN

Constituent	Maximum Daily Concentration Limit (µg/L)	Average Monthly Concentration Limit (µg/L)
Tetrachloroethene (PCE)	1.6	0.8
Trichloroethylene (TCE)	5.4	2.7
Perchlorate	8.0	4.0

Table 2. Effluent Limitations Applicable to Discharges into Receiving Waters Not Designated MUN

Constituent	Maximum Daily Concentration Limit (µg/L)	Average Monthly Concentration Limit (µg/L)
Tetrachloroethene (PCE)	10.0	5.0
Trichloroethylene (TCE)	10.0	5.0
Perchlorate	8.0	4.0

Table 3. Effluent Limitations Applicable to Discharges into All Receiving Waters

Constituent	Maximum Daily Concentration Limit, mg/L
Total Dissolved Solids (TDS)	See Section A.4., below
Total Inorganic Nitrogen (TIN)	See Section A.5., below
Total Residual Chlorine[1]	0.1
Suspended Solids	75

2. The pH of the discharge shall be within 6.5 and 8.5 pH units (see also Receiving Water Lirnitations VI.A.2.h.).

3. There shall be no visible oil and grease in the discharge.

4. For discharges to surface waters where the groundwater will not be affected by the discharge, the TDS and/or TIN of the effluent shall not exceed the water quality objectives for the receiving surface water where the effluent is discharged, as specified in Table 4-1 of the Basin Plan for the Santa Ana Region.

5. For discharges to surface waters where the groundwater will be affected by the discharge, the TDS and/or TIN concentrations of the effluent shall not exceed the water quality objectives for the surface water where the effluent is discharged nor the affected groundwater management zone, as specified in Table 4-1 of the Basin Plan. The more restrictive water quality objectives shall govern. However, discharge exceeding the groundwater management zone water quality objectives may be returned to the same subbasin from which it was extracted without reduction of the TDS or TIN concentrations so long as the concentrations of those constituents are no greater than when the groundwater was first extracted. Incidental increases in the TDS and TIN concentrations (such as may occur during air stripping) of treated effluent will not be considered increases for the purposes of determining compliance with this discharge specification.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

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[1] *If chlorine is used for treatment or disinfection of wastes.*

VI. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Board, as required by the Federal CWA and regulations adopted thereunder.

2. The discharge shall not cause any of the following:

   a. Coloration of the receiving waters that causes a nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other inland, bay and estuarine water resources used for human consumption shall not be impaired.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations that result in a visible film or in coating objects in the water, or which cause a nuisance or adversely affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters that will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

   d. Taste or odor producing substances in the receiving waters at concentrations that cause a nuisance or adversely affect beneficial uses.

   e. The presence of radioactive materials in the receiving waters in concentrations that is deleterious to human, plant or animal life.

   f. The depletion of the dissolved oxygen concentration below 5.0 mg/l.

   g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

   h. Change the ambient pH levels more than 0.5 pH units.

   i. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels, which are harmful to human health.

4. The discharge shall not result in acute toxicity in ambient receiving waters. The effluent shall be deemed to cause acute toxicity when the toxicity test of 100% effluent as required in Attachment E, results in failure of the test as determined using the pass or fail[2] test protocol specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA/821-R-02-012, October 2002). The Discharger shall immediately stop the discharge whenever the discharge fails the toxicity test(s). Prior to resuming the discharge, the Discharger shall identify and correct the source of the toxicity to the satisfaction of the Executive Officer. This limitation applies if the discharge is directly to surface waters. If the discharge percolates to groundwater before it reaches a live stream, this limitation does not apply.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

2. The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations greater than background water quality.

VII. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

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

3. This Order expires on June 1, 2013. However, coverage under the permit shall continue in force and effect until a new Order is issued for those Dischargers who are authorized to discharge under the terms and conditions of the Order and who submit a renewal application by December 3, 2012. For those Dischargers who do not submit a renewal application by December 3, 2012, discharges of wastewater under this Order shall be terminated by June 1, 2013, unless the Executive Officer of the Regional Water Board has given prior approval for a delayed submission of renewal application. If the Executive Officer has given prior approval for a delayed submission of a renewal application, then the discharge can continue after June 1, 2013.

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2 *Control survival must be 90% or greater for an acceptable test. The test "passes" if survival in the control and effluent concentration equals or exceeds 90%. The test "fails" if survival in the effluent is less than 90%, and is significantly different from control survival (which must be 90% or greater), as determined by hypothesis testing.*

4. The Executive Officer shall determine whether the proposed discharge is eligible for coverage under this general permit, after which, the Executive Officer may;

   a. Authorize the proposed discharge by transmitting a "Discharge Authorization Letter" to the discharge proponent (now an "authorized Discharger") authorizing the initiation of the discharge under the conditions of this Order and any other conditions consistent with this Order which are necessary to protect the beneficial uses of the receiving waters; or,

   b. Require the discharge proponent to obtain an individual NPDES permit prior to any discharge to surface waters within the Santa Ana Region.

5. The discharge authorization letter from the Executive Officer shall specify any conditions necessary to protect the beneficial uses of the receiving waters and shall specify the Self-Monitoring Program for the proposed discharge in accordance with this Order. The discharge authorization letter may be terminated or revised by the Executive Officer at any time. The discharge authorization letter, which identifies the discharge location(s), is incorporated by reference into this Order.

6. The Discharger shall comply with all requirements of this Order and the terms, conditions and limitations of the discharge authorization letter.

7. The discharge shall be limited to groundwater and added treatment chemicals approved by the Executive Officer.

8. The Discharger shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with these waste discharge requirements.

9. The Discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

10. The Discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any effluent limitations specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

11. The Discharger shall, at all times, properly operate and maintain[3] all facilities and systems of treatment (and related appurtenances) and control which are installed or used by the Discharger to achieve compliance with this Order and the conditions of the authorization letter(s) from the Executive Officer. Proper operation and maintenance shall include the following:

    a. Effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls and appropriate quality assurance procedures.
    b. Regular maintenance and inspection of all systems.
    c. Maintenance of records of the inspection results that shall be made available to the Regional Water Board whenever required and demanded.

12. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.

13. This Order does not convey any property rights of any sort, or any exclusive privilege.

14. This Order is not transferable to any person except after notice to and approval by the Regional Water Board.

15. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from his liabilities under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.

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

17. Any violation of this Order constitutes a violation of the CWA, its regulations, and the California Water Code, and is grounds for enforcement action and/or termination of the authorization to discharge.

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3 *Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls and appropriate quality assurance procedures.*

18. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

19. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, discharge limitations (e.g., maximum daily effluent limitation), or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (951) 782-4130 within 24 hours of having knowledge of such noncompliance that may endanger public health or the environment, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

20. All treatment facility startup and operation instruction manuals shall be maintained and available to operating personnel at the site where groundwater remediation is being conducted.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the monitoring and reporting program issued by the Executive Officer with the authorization letter. Revision of this monitoring and reporting program by the Executive Officer may be necessary to confirm that the Discharger is in compliance with the requirements and provisions contained in this Order. Revisions may be made by the Executive Officer at any time during the term of this Order, and may include a reduction or an increase in the number of constituents to be monitored, the frequency of monitoring or the number and size of samples collected. Reduction in the number of constituents being monitored and/or frequency of monitoring shall be considered only if the following conditions are satisfied:

1. Only Dischargers without any criminal convictions under any environmental statute and NPDES civil judicial and administrative enforcement actions are eligible.
2. Only Dischargers covered under the previous Order No. R8-2003-0002 or under an existing individual permit for the last consecutive two years who have had no effluent violations of monitored constituents during the last two years are eligible.
3. Constituents with effluent limitations shall be monitored at least once per year.
4. The following performance conditions shall be met:

a. For a specific constituent, reduction of weekly monitoring to bi-monthly (every two weeks) monitoring can be considered for approval by the Executive Officer when the effluent monitoring data for the last 3 months show compliance with effluent limitations.

b. For a specific constituent, reduction of bi-monthly (every two weeks) monitoring to monthly monitoring can be considered for approval by the Executive Officer when the effluent monitoring data for the last 6 months show compliance with effluent limitations.

c. For specific constituent, reduction of monthly monitoring to quarterly monitoring can be considered for approval by the Executive Officer when the effluent monitoring data for the last 12 months show compliance with effluent limitations.

5. Should any of the weekly, bi-monthly, monthly, quarterly or annual monitoring for a specific constituent show effluent concentrations above the effluent limit, the frequency of monitoring for that constituent shall be increased to weekly or daily as directed by the Executive Officer.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant (including organochlorine compounds) generated by special conditions included in this Order. These special conditions may be, but are not limited to whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

b. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, or amendments thereto, the Board will revise and modify this Order in accordance with such standards.

c. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.

d. Any permit noncompliance constitutes a violation of the CWA and the California Water Code and is grounds for enforcement action; for permit or authorization letter termination, revocation and reissuance, or modification; the issuance of an individual permit; or for denial of a renewal application.

e. This Order may be modified by the Regional Water Board prior to the expiration date to include effluent or receiving water limitations for toxic constituents determined to be present in significant amounts in the discharge through the comprehensive monitoring program included as part of this Order.

f. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Discharger for modification, revocation and reissuance, or termination of this Order or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

g. This Order may be reopened to include applicable technology-based effluent limitations, as appropriate when and if the Working Group has identified the selenium treatment technology (-ies) appropriate for these types of discharge.

2. Special Studies, Technical Reports and Additional Monitoring Requirements – Not Applicable

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall develop (update as necessary) and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as Detected, but Not Quantified (DNQ) when the effluent limitation is less than the Method Detection Limit (MDL), sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

(1) A sample result is reported as DNQ and the effluent limitation is less than the RL; or

(2) A sample result is reported as Not Detected (ND) and the effluent limitation is less than the MDL, using reporting protocols described in MRP Section X.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(1) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

(2) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

(3) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

(4) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

(5) An annual status report that shall be sent to the Regional Water Board including:

i. All PMP monitoring results for the previous year;

ii. A list of potential sources of the reportable priority pollutant(s);

iii. A summary of all actions undertaken pursuant to the control strategy; and

iv. A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

An Operation and Maintenance (O&M) Manual shall be developed and updated as necessary (for existing dischargers) prior to the initiation of the discharge and shall be readily accessible to site operating personnel. The O&M Manual shall include the following:

a. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

b. Process and equipment inspection and maintenance schedules.

c. Describe preventive (fail-safe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

d. Identification and description of the possible sources of accidental loss, bypass of untreated or partially treated wastes, and polluted drainage including power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes and possible spills.

5. Special Provisions for Municipal Facilities (POTWs Only) - Not Applicable

6. Other Special Provisions

All treatment facility startup and operation instruction manuals shall be maintained and available to operating personnel at the site where groundwater cleanup operation is controlled and managed.

7. Compliance Schedules - Not Applicable

VIII. COMPLIANCE DETERMINATION

A. Compliance with Discharge Specification A.1. shall be based on the minimum levels specified in Attachment "H" of this Order, unless an alternative minimum level[4] (ML) is approved for the pollutant of concern by the Regional Water Board's Executive Officer. If the Discharger develops a limit of quantitation (LOQ) specific to their matrix, the LOQ shall serve as the ML with the approval of the Executive Officer of the Regional Water Board. If no minimum level is specified for a constituent, the method detection limit (MDL) specified in 40 CFR 136 shall be used. If no MDL is available, the lowest practicable detection limit shall be used with the approval of the Executive Officer. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e.g., weekly, monthly, quarterly), that sample shall serve to characterize the discharge for the entire interval.

C. Multiple Sample Data. When determining compliance with an AMEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

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4 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

D. **Average Monthly Effluent Limitation (AMEL)**. If the average (or when applicable, the median determined by paragraph VIII.C.; above, for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

E. **Maximum Daily Effluent Limitation (MDEL).** If a daily discharge (or when applicable, the median determined by paragraph VIII.C., above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Effect of Conducting a Pollutant Minimization Program (PMP). If a sample result for a priority pollutant, or the arithmetic mean or median of multiple sample results is below the RL, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation <u>and</u> the Discharger conducts a PMP for the priority pollutant (as described in Provision VII.C.3), the Discharger shall <u>not</u> be deemed out of compliance.

G. One Sample Analysis. Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e.g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.

H. **Single Sample vs. Group of Chemicals.** Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL) for that chemical.

I. **Priority Pollutants.** For priority pollutants, the Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation.

Compliance determination shall be based on the reporting level (ML)[5] specified in Attachment "H" of this Order, unless an alternative reporting level is approved by the Regional Water Board's Executive Officer. When there is more than one RL value for a given substance, the Discharger shall select the RL value that is below the calculated effluent limitation, and use its associated analytical method, listed in Attachment "H" of the M&RP. If no RL value is below the effluent limitation, then the Regional Water Board will select the lowest RL value and its associated analytical method.

J. **Non-Priority Pollutants.** The discharge shall be considered to be in compliance with an effluent limitation if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the approved reporting limit shall be assigned a value of zero.

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5 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

Attachment A

California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF INTENT

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE PROCESS WASTEWATER ASSOCIATED WITH CERTAIN WELLHEAD TREATMENT SYSTEMS
(Order No. R8-2008-0059, NPDES No. CAG648001)

I. PERMITTEE (*Person/Agency Responsible for the Discharge*)

Agency/Company Name:_____

Address:_____

Street *City* *State* *ZIP*

Contact Person:_____ Phone:_(_____)_____

II. FACILITY

Name:_____

Location:_____

Street *City* *State* *ZIP*

Contact Person:_____ Phone:_(_____)_____

a. Projected Flow Rate (*gpd*):_____, b. Receiving Water (*identify*):_____

III. BILLING INFORMATION (*Where annual fee invoices should be sent*)

Agency/Company Name:_____

Address:_____

Street *City* *State* *ZIP*

Contact Person:_____ Phone:_(_____)_____

IV. INDICATE EXISTING PERMIT NUMBER: (*if applicable*)

a. Individual permit Order No. _____ NPDES No. _____

b. General Permit Order No. R8-2003-0002-_____

c. Others (specify) _____

V. CERTIFICATION:

I certify under penalty of law that I am an authorized representative of the permittee and that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the permittee will comply with the terms and conditions stipulated in Order No. R8-2008-0059 including the monitoring and reporting program issued by the Executive Officer of the Regional Board.

Name and Official Title:_____
(type or print)

Signature: _____ Date: _____

Remarks: *If changes to facility ownership and/or treatment processes were made after the issuance of the existing permit, please provide a description of such changes on another sheet and submit it with this Notice of Intent.*

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement [*40 CFR §122.41(a)(1)*].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [*40 CFR §122.41(c)*].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [*40 CFR §122.41(d)*].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [*40 CFR §122.41(e)*].

E. Property Rights

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

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [*40 CFR §122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [*40 CFR §122.41(i)*] [*CWC 13383(c)*]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [*40 CFR §122.41(i)(1)*];

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

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

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

G. Bypass

1. Definitions

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

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [*40 CFR §122.41(m)(1)(ii)*].

2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below [*40 CFR §122.41(m)(2)*].

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

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

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [*40 CFR §122.41(m)(4)(B)*]; and

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)(C)*].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [*40 CFR §122.41(m)(4)(ii)*].

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [*40 CFR §122.41(m)(3)(i)*].

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice) [*40 CFR Section 122.41(m)(3)(ii)*].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [*40 CFR §122.41(n)(1)*].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was

caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [*40 CFR Section 122.41(n)(2)*].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [*40 CFR §122.41(n)(3)*]:

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

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

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) [*40 CFR Section 122.41(n)(3)(iii)*]; and

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR §122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR §122.41(b)*].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

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

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

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [*40 CFR §122.41(j)(2)*].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];
2. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];
3. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];
4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];
5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and
6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [*40 CFR Section 122.41(k)*].

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 CFR Section 122.22(a)(3)].

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above [*40 CFR Section 122.22(b)(1)*];

   b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [*40 CFR Section 122.22(b)(2)*]; and

   c. The written authorization is submitted to the Regional Water Board and State Water Board [*40 CFR Section 122.22(b)(3)*].

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR Section 122.22(c)].

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations" [*40 CFR Section 122.22(d)*].

C. Monitoring Reports

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

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

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [*40 CFR §122.41(l)(4)(ii)*].

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

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [*40 CFR §122.41(l)(5)*].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [*40 CFR §122.41(l)(6)(i)*].

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

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

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

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [*40 CFR §122.41(l)(6)(iii)*].

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [*40 CFR §122.41(l)(1)*]:

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

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

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during

the permit application process or not reported pursuant to an approved land application plan [*40 CFR §122.41(l)(1)(iii)*].

G. Anticipated Noncompliance

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

H. Other Noncompliance

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

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information [*40 CFR §122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR Section 122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR Section 122.42(b)(1)*]; and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR Section 122.42(b)(2)*].

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR Section 122.42(b)(3)*].

Attachment E – Monitoring and Reporting Program

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Attachment E – Monitoring and Reporting Program (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. General Monitoring Provision

1. All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (revised as of April 11, 2007) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this MRP. In addition, the Regional Water Board and/or EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136.

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with the provision of Water Code Section 13176, and must include quality assurance/quality control data with their reports, or EPA or at laboratories approved by the Regional Water Board's Executive Officer.

4. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

5. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.

6. For effluent wastewater monitoring:

   a. The Discharger shall require its testing laboratory to calibrate the analytical system down to the minimum level (ML)[1] specified in Attachment "H" for priority pollutants with effluent limitations in this Order, unless an alternative reporting level is approved by the Regional Water Board's Executive Officer. When there is more than one ML value for a given substance, the Discharger shall use the ML values, and their associated analytical methods, listed in Attachment "H" that are below the calculated effluent limitation. The Discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the lowest ML value and its associated analytical method, listed in Attachment "H" shall be used. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

   b. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

      (1) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
      (2) Sample results less than the reported ML, but greater than or equal to the laboratory's current Method Detection Limit (MDL)[2], shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.
      (3) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

   c. The Discharger shall submit to the Regional Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment "G" – Priority Pollutant Lists. The Discharger shall report with each sample result:

      (1) The reporting level achieved by the testing laboratory; and

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1 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

2 *MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analytical concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of April 11, 2007.*

(2) The laboratory's current MDL, as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007).

d. For receiving water monitoring and for those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[3] is below the minimum level value specified in Attachment "H" and the Discharger cannot achieve an MDL value for that pollutant below the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

7. For non-priority pollutants monitoring, all analytical data shall be reported with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007).

8. The Discharger shall have, and implement an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by the Regional Water Board or EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study.

9. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when compliance with the time schedule has been achieved.

10. The Discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years (this retention period supercedes the retention period specified in Section IV.A. of Attachment D) from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Water Board at any time. Records of monitoring information shall include:

    a. The information listed in Attachment D- IV Standard Provisions – Records, subparagraph B. of this Order;
    b. The laboratory which performed the analyses;
    c. The date(s) analyses were performed;

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3 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

d. The individual(s) who performed the analyses;
e. The modification(s) to analytical techniques or methods used;
f. All sampling and analytical results, including
   (1) Units of measurement used;
   (2) Minimum reporting level for the analysis (minimum level);
   (3) Results less than the reporting level but above the method detection limit (MDL);
   (4) Data qualifiers and a description of the qualifiers;
   (5) Quality control test results (and a written copy of the laboratory quality assurance plan);
   (6) Dilution factors, if used; and
   (7) Sample matrix type.
g. All monitoring equipment calibration and maintenance records;
h. All original strip charts from continuous monitoring devices;
i. All data used to complete the application for this Order; and,
j. Copies of all reports required by this Order.
k. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.

11. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

12. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24-hour period, the Discharger shall obtain a representative grab sample each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the Discharger shall specify the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

13. Monitoring and reporting shall be in accordance with the following:

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The monitoring and reporting of influent, effluent, and sludge shall be done more frequently as necessary to maintain compliance with this Order and or as specified in this order.

    c. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

    d. A "grab" sample is defined as any individual sample collected in less than 15 minutes.

e. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.

f. Daily samples shall be collected on each day of the week.

g. Monthly samples shall be collected on any representative day of each month.

h. Quarterly samples: A representative sample shall be taken on any representative day of January, April, July, and October and test results shall be reported in either micrograms/liter (ug/L) or milligrams/liter (mg/L), as appropriate, by the last day of the month following the month that the sample was taken.

i. Semi-annual samples shall be collected in January and July.

j. Annual samples shall be collected in accordance with the following schedule:

Table 1. Annual Sampling Schedule

Year	Annual Samples
2008	October
2009	January
2010	April
2011	July
2012	October
2013	January

14. The discharger shall multiply each measured or estimated congener concentration by its respective toxic equivalency factor (TEF) as shown below and report the sum of these values. The discharger shall use the U.S. EPA approved test method 1613 for dioxins and furans. Dioxin testing is required for new dischargers only.

Table 2. Toxic Equivalency Factors for 2,3,7, 8-TCDD Equivalents

Congener	TEF
2,3,7,8-TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCDD	0.0001
2,3,7,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4,7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0.1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6,7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

B. Laboratory Certification

Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

II. MONITORING LOCATIONS

The Discharger shall establish monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order: The sample station shall be located where representative samples of the discharge can be obtained. The volume of daily discharge flow shall be recorded daily on a permanent log.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. The following shall constitute the effluent monitoring program:

Table 3. Effluent Monitoring Program

Parameter[4]	Unit	Sample Type	Minimum Sapling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Flow	mgd	------	During the first 30 minutes of each discharge event	See Section I.A.3. above, of this MRP
Tetratchloroethylene (PCE)	µg/L	Grab	"	See Section I.A. 2, 3. above, of this MRP
Trichloroethylene (TCE)	µg/L	Grab	"	"
cis-1,2-Dichloroethene	µg/L	Grab	"	"
1,1-Dichloroethene	µg/L	Grab	"	"
Dibromochloropropane (DBCP)	µg/L	Grab	"	"
Perchlorate	µg/L	Grab	"	See Section I.A. 2, 3. above, of this MRP

4 *For testing organic volatile compounds use EPA Method 8260B and report entire suite of detected constituents.*

Table 3. Effluent Monitoring Program

Parameter[4]	Unit	Sample Type	Minimum Sapling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Total Residual Chlorine[5]	mg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A.2. & I.A.3. above, of this MRP
Total Suspended Solids	mg/L	"	"	"
Total Inorganic Nitrogen (TIN)	mg/L	"	"	"
pH	Std. Units	"	"	"
Temperature	°F	"	"	"
2,3,7,8-TetraCDD	µg/L	Grab	Semi-annual (See I.A.13.i. & I.A.14.)	See Section I.A.2. & I.A.3. above, of this MRP
1,2,3,7,8-PentaCDD	"	"	"	"
1,2,3,4,7,8-HexaCDD	"	"	"	"
1,2,3,6,7,8-HexaCDD	"	"	"	"
1,2,3,7,8,9-HexaCDD	"	"	"	"
1,2,3,4,6,7,8-HeptaCDD	"	"	"	"
OctaCDD	"	"	"	"
2,3,7,8-TetraCDF	"	"	"	"
1,2,3,7,8-PentaCDF	"	"	"	"
2,3,4,7,8-PentaCDF	"	"	"	"
1,2,3,4,7,8-HexaCDF	"	"	"	"
1,2,3,6,7,8-HexaCDF	"	"	"	"
1,2,3,7,8,9-HexaCDF	"	"	"	"
2,3,4,6,7,8-HexaCDF	"	"	"	"
1,2,3,4,6,7,8-HeptaCDF	"	"	"	"
1,2,3,4,7,8,9-HeptaCDF	"	"	"	"
OctaCDF	µg/L	"	Semi-annual (See I.A.9.i. & I.A.10.)	"
Total Dissolved Solids	mg/L	Grab	Annually	"
Hardness	mg/L	"	"	"
Priority Pollutant (see Paragraph IV.B., below and Attachment "G")	µg/L	Grab	Once during the first year of WTS operation and one month before submittal of permit renewal application	See Section I.A.2. & I.A.3. above, of this MRP

5 *If chlorine is used for treatment or disinfection of wastes.*

Table 3. Effluent Monitoring Program

Parameter[4]	Unit	Sample Type	Minimum Sapling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Toxicity Testing (see Section V., below)	Pass/ Fail	Grab[6]	At the initiation of the project and annually thereafter	See Section I.A.2. & I.A.3. above, of this MRP

B. The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than the concentration specified for that pollutant in Attachment I shall be accelerated to every discharge event for one year. To return to the annual monitoring frequency, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Toxicity Monitoring Requirements

1. The discharger shall conduct acute toxicity testing as specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA/821-R-02-012, October 2002). Using a control and 100% effluent, static renewal survival (pass/fail) tests for 96 hours shall be conducted using the two test species specified in the table below corresponding to the onsite groundwater salinity, for the first required annual test under this permit. Based on the results, the Discharger shall determine the most sensitive test species. For the required succeeding toxicity monitoring, the Discharger shall use the most sensitive species with prior approval from the Regional Board Executive Officer. The Discharger shall submit documentation supporting the Discharger's determination of the most sensitive test species. The effluent tests must be conducted concurrent with reference toxicant tests. The effluent and reference toxicant tests must meet all test acceptability criteria as specified in the acute manual[7]. If the test acceptability criteria are not achieved, then the discharger must re-sample and re-test within 14 days. The test results must be reported according to the acute manual chapter on Report Preparation, and shall be attached to the monitoring reports. The use of alternative methods for measuring acute toxicity may be considered by the Executive Officer on a case-by-case basis. Toxicity testing is not required if the discharge does not reach a flowing stream.

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6 *If wastewater discharges percolate into the ground before entering a flowing surface water, in lieu of toxicity testing the Discharger shall record on a permanent log and report the observation noting the location where wastewater percolation terminated including the name of the person making the observation and weather condition (dry , sunny or rainy).*

7 *"Acute manual" refers to protocols described in "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" (EPA/821-R-02-012, October 2002).*

Table 4. Test Species

If the Effluent or Receiving Water Salinity is:	Test Species	Test
Less than 1,000 mg/l salinity	Fathead minnow, *Pimphales promelas*	Larval survival test
	Water flea, *Ceriodaphnia dubia*	Survival test
Equal to or greater than 1,000 mg/l salinity	Silverside, *Menedia beryllina*	Survival Test
	Pacific mysid, *Holmesimysis costata*	Survival Test

2. In the event that the required annual toxicity test fails, the Discharger shall stop any discharge of wastewater to waters of the U.S. and shall retest within 14 days of receiving the notice of failure and shall determine the cause of the failure. The Discharger shall stop any discharge of wastewater to waters of the U.S. until such time that the cause of toxicity is determined and appropriately addressed. Commencement of any discharge shall be with prior approval by the Executive Officer.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE.

VII. RECEIVING WATER MONITORING REQUIREMENTS

Whenever there is a discharge and the Discharger claims that the discharge percolates into the ground or otherwise dissipates prior to reaching surface waters, the Discharger shall record on a permanent log the following information: (a) the date(s); (b) time(s); (c) and duration(s) of the discharge; (d) a description of the location where the discharge percolated into the ground, (e) the climatic condition in the area during the discharge and (f) the name of the individual(s) who performed the observation. This information shall be submitted with the required quarterly report.

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. All analytical data shall be reported with method detection limit[8] (MDLs) and with identification of either reporting level or limits of quantitation (LOQs).

3. Laboratory data for effluent samples must quantify each constituent down to the down to ML specified in Attachment "H" for priority pollutants. Any internal quality

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8 *The standardized test procedure to be used to determine the method detection limit (MDL) is given at Appendix B, 'Definition and Procedure for the Determination of the Method Detection Limit' of 40 CFR 136.*

control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

4. Discharge monitoring data shall be submitted in a format acceptable by the Regional Water Board. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Regional Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.

5. The Discharger shall submit to the Regional Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment "G" – Priority Pollutant Lists. The Discharger shall report with each sample result:

   a. The reporting level achieved by the testing laboratory; and
   b. The laboratory's current MDL, as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007).

6. The State or Regional Water Board may notify the Discharger to discontinue submittal of hard copies of reports. When such notification is given, the Discharger shall stop submitting hard copies of required monitoring reports.

B. Reporting Requirements:

1. All monitoring reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22 and shall be submitted under penalty of perjury.

2. All reports shall be arranged in a tabular format to clearly show compliance or noncompliance with each discharge limitation.

3. One week before wastewater discharges recommence after maintenance of well(s) and/or wellhead treatment systems, the Discharger shall notify the Regional Board or its designated compliance officer by email and/or orally by telephone.

4. If no discharge occurs during the previous monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report.

5. Noncompliance Reporting

   a. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided to the Executive Officer (951-782-4130) and the Office of Emergency Services (1-800-852-7550) orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   b. Any violation of a maximum daily discharge limitation for any of the pollutants listed in this Order shall be included as information that must be reported within 24 hours.

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

6. Except for data determined to be confidential under Section 308 of the Clean Water Act (CWA), all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of EPA. As required by the CWA, effluent data shall not be considered confidential.

7. Monitoring reports shall be submitted by the first day of the 2nd month following the monitoring period and shall include:

   a. The results of all chemical analyses for the previous month, and annual samples whenever applicable,

   b. The daily flow data,

   c. A summary of the month's activities including a report detailing compliance or noncompliance with the task for the specific schedule date, and

   d. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed which will bring the discharger into full compliance with requirements at the earliest time, and an estimate of the date when the discharger will be in compliance. The discharger shall notify the Regional Board by letter when compliance with the time schedule has been achieved.

C. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs in accordance with the requirements described in subsection B.5 below. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. Additionally, the Discharger shall report in the SMR the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit monthly, quarterly, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Day after permit effective date	All	30th day of the month following the sampling month.
Hourly	Day after permit effective date	Hourly	30th day of the month following the sampling month.
Daily	Day after permit effective date	Midnight through 11:59 PM or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	30th day of the month following the sampling month.
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	30th day of the month following the sampling month.
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	30th day of the month following the sampling month.
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	April 30 July 30 October 30 January 30
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	July 30 January 30

Table 5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Annually	See Table 1	See Table 1	30th day of the month following the sampling month.
Per Discharge Event	Anytime during the discharge event or as soon as possible after aware of the event	At a time when sampling can characterize the discharge event	30th day of the month following the sampling month.

D. Other Reports – Not Applicable

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this General Permit.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Some sections or subsections of this Order have therefore been identified as "not applicable" to this group of Dischargers. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to the Dischargers authorized by the General Permit.

I. PERMIT INFORMATION

Order No. R8-2003-0002, NPDES No. CAG648001 is a general NPDES permit adopted by the Regional Board on May 16, 2003, for discharges to surface waters of process wastewater associated with the operation of wellhead treatment systems within the Santa Ana Region.

Currently, three Dischargers are regulated under this Order, including the City of Riverside, City of San Bernardino, and University of Loma Linda. Some of these Dischargers operate several wellhead treatment systems (WTS) located at various sites within the upper Santa Ana River Basin.

This Order reissues requirements for discharges of process water associated with wellhead treatment systems to inland surface and ocean waters within the Santa Ana Region. The beneficial uses of these receiving waters are described in Section IV.C.1., below.

II. NOTIFICATION REQUIREMENTS – GENERAL PERMIT APPLICATION

This Order requires each existing Discharger regulated under the previous Order No. R8-2003-0002 and who requires ongoing regulatory coverage, to submit an updated Notice of Intent form to be covered under this permit.

This Order requires each new Discharger[1] to submit to the Executive Officer an application for the proposed discharge at lease 60 days before the start of a new discharge. Submission of the application will constitute a "Notice of Intent" to be covered under this Order. The application for the proposed discharge will require, at a minimum, the following information:

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1 *"New Discharger" refers to those proposing to discharge wastewater under Order No. R8-2008-0059 and not currently covered under Order No. R8-2003-0002.*

A. Notice of Intent to be covered under this general permit (see Attachment A of this Order).

B. A report that shall include the following:

1. Chemical analysis of the untreated groundwater. A representative groundwater sample shall be analyzed for organic pollutants using EPA method 8260B, priority pollutants, total dissolved solids, total inorganic nitrogen, hardness, 1,4-dioxane and perchlorate. Test results shall be reported with Minimum levels (ML) and method detection limit (MDL);
2. A site characterization study that defines the onsite contaminants and their properties and the three-dimensional extent and concentration of contaminants in the subsurface, and includes a description of the geologic and hydrologic factors that control the migration of the contaminants.
3. The name of the proposed receiving water body, including the location (Latitude and Longitude) of the discharge point(s);
4. The estimated average and maximum daily flow rates, the start date of discharge (if a new discharge), the duration of the discharge, and the estimated total volume of the discharge;
5. A map showing the path from the point of initial discharge to the ultimate location of discharge
6. A list of known or suspected pollutant(s) plume(s) that have, or may have impacted the quality of the underlying groundwater;
7. A description of the proposed treatment system and a certification report on the adequacy of each component of the proposed treatment system along with the associated operation. This certification report shall contain a requirement-by-requirement analysis, based on accepted engineering practice, of how the process(es) and physical design(s) of the treatment system will ensure compliance with this Order. The design engineer shall affix his/her signature and engineering license number to this certification report. The report(s) shall also certify the following:
   a All treatment facility startup and operation instruction manuals are adequate and available to operating personnel;
   b All treatment facility maintenance and testing schedules are included in the treatment facility operation and maintenance manual (O&M Manual), which shall be kept readily accessible to onsite operating personnel; and
   c Influent and effluent sampling locations and ports are located in areas where samples representative of the waste stream to be monitored can be easily obtained.
8. A discussion of a plan for the prevention of run-on, interception and diversion of runoff, and prevention of infiltration and runoff from contaminated soils stored on-site if the discharge is associated with a groundwater remediation project and soils containing petroleum projects or other pollutants will be maintained on-site; and
9. Any other information deemed necessary by the Executive Officer.

III. INDUSTRY DESCRIPTION

The wellhead treatment systems (WTS) located at various sites within the upper Santa Ana River Basins treat groundwater polluted by solvents/volatile organic compounds and/or other substances such as perchlorate. These WTS deliver the treated water to potable water supply systems. At these sites, waste streams are derived as the result of facility operations, including well purge water and backwash (see description below). These WTS sites are distinct from other groundwater remediation projects, such as typical petroleum hydrocarbon remediation sites, where the product water is discharged to surface or ground waters. These discharges of treated water are regulated under Order No. R8-2007-0008, NPDES No. CAG918001, general waste discharge requirements for discharges to surface waters of extracted and treated groundwater resulting from the cleanup of groundwater polluted by petroleum hydrocarbons and/or solvents at service stations and similar sites. Pollutants commonly encountered at the WTS sites are perchlorate and volatile organics, such as Tetrachloroethene (PCE) and Trichloroethylene (TCE).

Perchlorate is both a naturally occurring and man-made chemical. Perchlorate is the primary ingredient of solid rocket propellant. Perchlorate affects human health by interfering with the uptake of iodide into the thyroid gland and disrupts the function of the thyroid.

A. Description of Sites

A number of contaminated groundwater plumes have been identified in the upper Santa Ana River Basin. These include: a trichloroethylene (TCE) plume in the western portion of the Bunker Hill B groundwater management zone; a perchlorate plume at the southern portion of the Bunker Hill A management zone; a TCE plume at the former Norton Air Force Base; and, TCE and perchlorate plumes in the eastern portion of Bunker Hill B (Crafton-Redlands area). The Cities of Riverside and San Bernardino have operated groundwater extraction wells in the plume-contaminated areas to restore the quality of the groundwater basins and to provide reliable water supply for domestic, industrial, and municipal uses throughout each service area. Groundwater is extracted, treated, then delivered to the Cities' potable water supply systems.

B. Wastewater Treatment

The most commonly used method of treatment of volatile organic contaminated groundwater is granular activated carbon (GAC) adsorption. At some sites in San Bernardino, air-stripping towers are used to treat a small portion of the extracted groundwater.

To remove perchlorate from water, biological treatment and ion (anion) exchange systems are among the technologies that are being used.

C. Description of Wastewater

WTS generate three kinds of wastewaters:

1. Purged well water discharges. The purged water[2] is discharged at initial and routine startup of the wells and during sampling of influent flow. Discharges of well purge water are raw groundwater without GAC or ion exchange/resin system treatment;
2. Discharges during carbon bed expansion, carbon change, backwashing or fluffing. The backwash water and filter rinse water or fluffing water is discharged at startup and routine operation of the GAC treatment system. Water used for backwashing or fluffing is treated groundwater; and
3. Disinfection and rinse water discharges. Wastewater from chlorine-disinfection of wells and GAC vessel(s) is discharged before startup of the GAC system. Water used for disinfection is potable water.

D. Discharge Points and Receiving Waters

Discharges from the existing WTS sites are, for the most part, to storm drains or creeks that are typically dry. In these cases, the discharged wastewater percolates into the underlying groundwater management zones from which the contaminated groundwater was drawn, without reaching a flowing surface water. Where volatile organic pollutants are concerned (e.g., PCE/TCE), the constituents volatilize upon discharge. Under these circumstances, the discharges do not cause or contribute to further degradation of the affected groundwater management zones, nor do they result in aquatic life toxicity. (In any case, no aquatic life protection objectives for TCE, PCE or perchlorate have been established.) In some cases, the discharges are to streams that are flowing as the result of precipitation or perennial flow. Again, volatile organic compounds are expected to volatilize quickly. Where non-volatile pollutants are concerned, these surface water discharges have the potential to affect use of the affected receiving waters for municipal supply and groundwater recharge. The beneficial uses of these receiving waters are described in Section IV.C.1., below.

E. Compliance Summary - Not Applicable

F. Planned Changes - Not Applicable

IV. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

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2 *Purge water discharges that do not percolate before commingling with surface receiving waters are limited in magnitude (typically less than 2000 gallons per minute) and duration (typically less than 5 minutes). Introduction of the purge water to the treatment systems could compromise the efficacy of the treatment systems due to biofouling.*

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and its implementing regulations adopted by the USEPA, and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for the point source discharges described herein to inland surface and ocean waters within the Santa Ana Region. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260).

Pursuant to NPDES regulations at 40 CFR 122.28, States may request authority to issue general NPDES permits. On June 8, 1989, the State Water Board applied to the USEPA requesting revisions to its NPDES Program in accordance with 40 CFR 122.28, 123.62, and 403.10, including a request to add general permit authority to its approved NPDES Program. On September 22, 1989, the USEPA, Region 9, approved the State Water Board's request, granting authorization for the State to issue general NPDES permits.

Pursuant to NPDES regulations at 40 CFR 122.28(a)(2) general permits may be issued to regulate point source discharges that:

1. Involve the same or substantially similar types of operations,
2. Discharge the same types of wastes,
3. Require the same effluent limitations,
4. Require the same or similar monitoring, and
5. In the opinion of the Executive Officer, are more appropriately controlled under a general permit than under individual permits.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636.).

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Santa Ana Basin (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 (Sources of Drinking Water Policy) requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies.

   On January 22, 2004, the Regional Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The State Water Resources Control Board and Office of Administrative Law (OAL) approved the N/TDS Amendment on September 30, 2004 and December 23, 2004, respectively. EPA approved the surface water standards components of the N/TDS Amendment on June 20, 2007.

   The existing and potential beneficial uses of surface waters in the Santa Ana Region are designated in Chapter 3 of the Basin Plan and may include:

   a. Municipal and Domestic Supply,
   b. Agricultural Supply,
   c. Industrial Service Supply,
   d. Industrial Process Supply,
   e. Groundwater Recharge,
   f. Hydropower Generation,
   g. Water Contact Recreation,
   h. Non-contact Water Recreation
   i. Warm Freshwater Habitat,
   j. Limited Warm Freshwater Habitat,
   k. Cold Freshwater Habitat,
   l. Preservation of Biological Habitats of Special Significance,
   m. Wildlife Habitat,
   n. Marine Habitat,
   o. Shellfish Harvesting,
   p. Rare, Threatened or Endangered Species, and
   q. Spawning, Reproduction, and Development.

Many surface waters within the region recharge underlying groundwater management zones. The existing and potential beneficial uses of groundwater management zones within the Santa Ana Region are designated in Chapter 3 of the Basin Plan and generally include:

a. Municipal and Domestic Supply,
b. Agricultural Supply,
c. Industrial Service Supply, and
d. Industrial Process Supply

This Order implements applicable provisions of the Basin Plan and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP)(see IV.C.3., below).

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. Approximately forty water quality criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR, which established new criteria for toxics in the State and incorporated the previously adopted criteria of the NTR. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority toxic pollutants applicable to inland surface waters, enclosed bays, and estuaries of the State.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, at 40 CFR 131.32, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000)] Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA before May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

5. **Antidegradation Policy.** NPDES regulations require that State water quality standards include an antidegradation policy consistent with the federal policy established at 40 CFR 131.12. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements and incorporates by reference both the state and federal antidegradation policies. The discharges authorized under this Order are consistent with applicable antidegradation provisions of NPDES regulations at 40 CFR 131.12 and with State Water Board Resolution No. 68-16. See V.F.2., below.

6. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits; i.e., effluent limitations in a reissued permit must be at least as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. This Order/General Permit is consistent with applicable anti-backsliding requirements. The limitations in this Order are not less stringent than those in the prior Orders/General Permits.

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

Section 303(d) of the CWA requires states to identify water bodies where water quality standards are not expected to be met after technology-based effluent limitations have been implemented for point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board has developed and/or plans to develop total maximum daily loads (TMDLs) that specify waste load allocations (WLA) for point sources and load allocations (LA) for non-point sources. These allocations form the basis, in part, for limitations in waste discharge requirements. No surface waters within the Santa Ana Region are known to be impaired as the result of the pollutants addressed in this Order.

E. Other Plans, Polices and Regulations

In most areas of the watershed, there is no significant amount of receiving water at the point of discharge. Therefore, no mixing zone allowance is included in the calculation of effluent limits. Consequently, compliance with the effluent limits is required to be determined at the end of the discharge pipe or at a location prior to where the discharge enters the receiving water.

V. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source Dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs may be established: (1) using USEPA criteria guidance under CWA section 304 (a), supplemented where necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

A. Discharge Prohibitions

The discharge prohibitions are based on the Federal Clean Water Act, Basin Plan, State Water Resources Control Board's plans and policies, U.S. Environmental Protection Agency guidance and regulations, and previous permits Order No. R8-2003-0002. provisions, and are consistent with the requirements set for other discharges regulated by NPDES permits adopted by the Regional Water Board.

B. Technology-Based Effluent Limitations

1. Scope and Authority

CWA Section 301(b) and NPDES regulations at 40 CFR 122.44 require permits to, at a minimum, meet applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. The CWA requires the USEPA to develop effluent limitations, guidelines and standards (Effluent Limitations Guidelines - ELGs) representing application of best practicable treatment control technology (BPT), best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and best available demonstrated control technology for new sources (NSPS), for specific industrial categories. Where USEPA has not yet developed ELGs for a particular industry or a particular pollutant, Section 402(a)(1) of the CWA and USEPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

2. Applicable Technology-Based Effluent Limitations

Effluent limitations guidelines for petroleum and chlorinated hydrocarbons have not been developed for the category of Dischargers authorized to discharge by this Order. However, since authorized Dischargers are discharging treated wastewaters, it is appropriate to establish technology-based effluent limitations using Best Professional Judgment (BPJ). This Order establishes technology-based effluent limitations based on BPJ. The current ion exchange treatment for perchlorate is capable of reducing perchlorate to 2 ug/L (the current laboratory reporting limit).

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of 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 any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Order authorizes certain discharges to surface waters within the Santa Ana Region. Beneficial uses of these receiving waters, as designated by the Basin Plan are described in Section IV.C.1., above. The water quality criteria applicable to these receiving waters are established by the NTR, CTR, and Basin Plan.

a. The Basin Plan specifies narrative and numeric water quality objectives applicable to surface water as follows.

TDS and TIN: TDS and TIN limitations are specified in the Order for discharges to surface waters. The proposed TDS/TIN limits for direct discharges into surface waters within the Santa Ana Region are based on the objectives specified in Table 4-1 of the Basin Plan, as amended.

In accordance with 40 CFR Section 122.45(d), there may be instances in which the basis for a limit for a particular continuous discharge may be impracticable to be stated as a maximum daily, average weekly, or average monthly effluent limitation . The Regional Water Board has determined that it is not practicable to express TDS and TIN effluent limitations as average weekly and average monthly effluent limitations because the TDS and TIN objectives in the Basin Plan were established to protect the underlying groundwater. Consequently, a 12-month average period is more appropriate.

b. CTR and SIP

The California Toxics Rule (CTR) and State Implementation Policy (The Policy) specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis to determine the need for effluent limitations for priority and non-priority pollutants.

The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to inland surface waters within the Santa Ana Region and are the basis for effluent limitations applicable to discharges into receiving waters designated for municipal and domestic supply (MUN) uses.

c. Maximum Contarninant Levels

The California Department of Public Health Maximum Contaminant Levels (MCLs) for TCE and PCE are used as basis for the effluent limitations for discharges to receiving waters not designated for municipal and domestic supply (MUN).

3. Determining the Need for WQBELs

NPDES regulations at 40 CFR 122.44(d)(1)(i) require permits to include WQBELs for all pollutants (non-priority or priority) "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any narrative or numeric criteria within a State water quality standard" (have Reasonable Potential). Thus, assessing whether a pollutant has Reasonable Potential is the fundamental step in determining whether or not a WQBEL is required.

Pollutants commonly encountered at the wellhead treatment system sites are perchlorate and volatile organics, such as Tetrachloroethene (PCE) and Trichloroethylene (TCE). Consequently, there is reasonable potential for TCE, PCE and perchlorate to be discharged from WTS sites. As in previous Order No. R8-2003-0002, this Order establishes effluent limitations for TCE, PCE and perchlorate.

4. WQBEL Calculations

No mixing zone allowance is included in the calculation of effluent limits in this Order and, consequently, compliance with the effluent limits is required to be determined at the end of the discharge pipe for freshwater discharge. If a Discharger requests that a mixing zone allowance be included in the determination of appropriate effluent limits, a dilution model must be provided for approval.

The Policy specifies calculation procedures for deriving effluent limitations in waste discharge requirements. Step 6 of the procedure stipulates that the average monthly effluent limitation is set equal to the effluent concentration allowance[3]. Where there is no mixing zone allowance and there is no freshwater aquatic life water quality objective in the California Toxics Rule, the effluent concentration allowance (ECA) is equal to the applicable human health objective. Therefore, in these circumstances the AML is equal to the human health objective. The Policy also stipulates that where receiving waters are designated with the municipal water supply beneficial use (MUN), the human health objective for the consumption of water and organisms applies in calculating the effluent limitation; otherwise, the human health objective for the consumption of organisms only applies. This Order includes effluent limits for discharges to receiving waters that are designated MUN and for those that are not designated MUN. For discharges to receiving waters designated MUN, the AMLs for TCE and PCE were taken from the California Toxics Rule (CTR) human health objectives for the consumption of water and organisms. For receiving waters not designated MUN, the AMLs for TCE and PCE are based on California Department of Public Health (CDPH) maximum contaminant levels (MCL's), rather than the CTR human health objectives for consumption of water and organisms. The MCL approach was used to derive effluent limitations in the general groundwater permit Order R8-2007-0008, under which these discharges were previously regulated. This MCL approach is employed in this Order to assure conformance with federal antibacksliding regulations. Each AML effluent limitation was multiplied by a 2.01 factor to determine the maximum daily concentration effluent limits for TCE and PCE. This factor is the average monthly effluent limit multiplier taken from Table 2 of the Policy. The multiplier corresponds to a coefficient of variation of 0.6 and an estimated monthly sampling frequency of the

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3 *The EFFLUENT CONCENTRATION ALLOWANCE (ECA) is a value derived from the water quality objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).*

effluent equal to 4.[4] In conformance with antibacksliding requirements, the AML discharge limitation for perchlorate was based on current effluent limitations in Order No. R8-2003-0002, rather than the MCL for perchlorate that was recently established by CDPH. The same multiplier factor (2.01) was used to derive the maximum daily effluent lirnit. (There is no CTR objective for perchlorate).

These effluent limitations apply to discharges to flowing surface waters, but not to discharges that percolate to the same underlying groundwater management zone from which the contaminated groundwater is extracted before the discharges reach a flowing surface water.

5. Whole Effluent Toxicity (WET)

This Order does not specify numeric WET limits. However, this Order requires that the discharge shall not result in acute toxicity in ambient receiving waters. The effluent is deemed to cause acute toxicity when the toxicity test of 100% effluent as required in monitoring and reporting program, results in failure of the test as determined using the pass or fail test protocol specified in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA/821-R-02-012, October 2002). This Order requires the Dischargers to conduct acute toxicity testing of the effluent when the discharge reaches a flowing stream.

D. Best Professional Judgment-Based Effluent Limitations – Not Applicable

E. Discharge Specifications

Discharge limitations are included in this Order for those other chemicals of concern that have been determined to be present at existing potable well sites within the Santa Ana Region. In addition, the monitoring program includes analyses for additional constituents to determine the overall impact of individual discharges and to screen for unexpected chemicals.

Discharge Limitations established by this Order require authorized Dischargers to compare effluent data, generated through routine monitoring, to effluent limitations. Exceedance of any of the specified effluent limitations may trigger mandatory minimum penalties, accelerated monitoring for certain constituents and may lead to discontinuance of coverage under this General Permit. The Discharge Specifications impose specific effluent limitations, assuring that authorized discharges are not creating adverse impacts on receiving water quality. When adverse impacts are highlighted following exceedance of an effluent limitation(s), Dischargers are directed to confirm the findings, to mitigate impacts, to sewer or stop the discharge and/or to seek coverage under an individual NPDES permit.

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4 *This multiplier approach, specified in the Policy, was also utilized to calculate maximum daily effluent limitations for TCE and PCE in Order No. R8-2007-0008.the general groundwater cleanup permit for discharges to surface waters of extracted and treated groundwater resulting from the cleanup of groundwater polluted by petroleum hydrocarbons, solvents, metals and/or salts*

F. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

   All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order No. R8-2003-0002.

2. Satisfaction of Antidegradation Policy

   The quality characteristics of the discharges and the impacts of the discharges on the affected receiving waters have been carefully considered. If conducted in accordance with the terms and conditions of this Order, the discharges will not result in adverse impacts to the beneficial uses of the affected receiving waters. Discharges that result in volatilization of pollutants or that percolate into the same groundwater management zone from which the groundwater treated at the WTS was extracted will not adversely affect that groundwater or result in the lowering of water quality. Discharges from WTS sites that enter flowing surface waters may result in the lowering of water quality in those surface waters and/or groundwater management zone(s) recharged by those surface waters. However, given the limited magnitude and duration of these discharges, and requisite compliance with the limitations specified in this Order, this lowering of water quality is not considered significant. The limited lowering of water quality will not adversely affect the beneficial uses of affected receiving waters. Operation of the WTS is intended to protect and restore beneficial uses by limiting the spread of contaminant plumes and augmenting potable water supplies. For this reason, the limited lowering of water quality associated with process wastewater discharges from the WTS is consistent with maximum benefit to the people of the state. Therefore, these waste discharge requirements are consistent with federal and state antidegradation policies (40 CFR 131.12 and State Board Resolution No. 68-16).

3. Stringency of Requirements for Individual Pollutants

   Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR Section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Apart from certain standards changes resulting from the N/TDS Basin Plan amendment, all beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. Summary of Final Effluent Limitations for PCE, TCE and Perchlorate.

Table 1. Limitations Applicable to Discharges into Receiving Waters Designated MUN

Constituent	Effluent Limitations		Basis of Limitations		
	Maximum Daily Concentration Limit (µg/L)	Average Monthly Concentration Limit, (µg/L)	MCL (µg/L)	CTR, (µg/L)	
				Human Health - Water and Organisms	Human Health Organisms only
Tetrachloroethylene (PCE)	1.6	0.8	5	**0.8**	8.9
Trichloroethylene (TCE)	5.4	2.7	5	**2.7**	81
Perchlorate	8	4	6		

Bolded number is the basis for the effluent limitation

Table 2. Limitations Applicable to Discharges into Receiving Waters Not Designated MUN

Constituent	Effluent Limitations		Basis of Limitations		
	Maximum Daily Concentration Limit (µg/L)	Average Monthly Concentration Limit, (µg/L)	MCL (µg/L)	CTR, (µg/L)	
				Human Health - Water and Organisms	Human Health Organisms only
Tetrachloroethylene (PCE)	10	5	**5**	0.8	8.9
Trichloroethylene (TCE)	10	5	**5**	2.7	81
Perchlorate	8	4	6	--	--

Bolded number is the basis for the effluent limitation

F. Interim Effluent Limitations – Not Applicable

G. Land Discharge Specifications – Not Applicable

H. Reclamation Specifications – Not Applicable

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan and are a required part of this Order.

B. Groundwater

The receiving groundwater limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Water Boards to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

The principal purposes of a monitoring program by a Discharger are to:

1. Document compliance with waste discharge requirements and prohibitions established by the Regional Water Board,
2. Facilitate self-policing by the Discharger in the prevention and abatement of pollution arising from waste discharge,
3. Develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and to
4. Prepare water and wastewater quality inventories.

The MRP is a standard requirement in almost all NPDES permits issued by the Regional Water Board, including this Order. It contains definitions of terms, specifies general sampling and analytical protocols, and sets out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations and the California Water Code.

Monitoring is the primary means of ensuring that waste discharge requirements are met. It is also the basis for enforcement actions against Dischargers who are in violation of the waste discharge requirements issued by the Regional Water Board. All Dischargers enrolled under this general permit will be required to conduct monitoring in accordance with a monitoring program issued by the Executive Officer. Each monitoring and reporting program will be customized for each enrollee based on the characteristics of the groundwater being treated and discharged. The typical required constituents and frequency of analyses are tabulated in the self-monitoring program attached to this general permit as "Attachment E." This monitoring and reporting program will be revised as

appropriate to tailor it to the specific WTS. An increase of the parameters or frequency of monitoring will be required when monitoring data show the presence of other constituents not previously determined to be present or detected at the site and are not limited in this Order, or toxicity testing failed. A reduction of the parameters or frequency of monitoring may be implemented with prior approval of the Executive Officer when monitoring data demonstrate that such reduction is warranted. In accordance with the State Policy, for new Dischargers, this Order requires Dischargers applying for coverage under this general permit to monitor for the 17 congeners specified in the Policy, once during dry weather and once during wet weather for a one-year period. Existing Dischargers will not be required to monitor for the 17 congeners if monitoring for these substances have been conducted and nothing have been detected.

A. Influent Monitoring

Influent monitoring is required to determine the effectiveness of the treatment program and assess treatment plant performance.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions and to allow ongoing characterization of discharges to determine potential adverse impacts and to determine continued suitability for coverage under the General Permit. Monitoring requirements are given in the proposed monitoring and reporting program (Attachment E). This provision requires compliance with the monitoring and reporting program, and is based on 40 CFR 122.44(i), 122.62, 122.63 and 124.5. The self monitoring program (SMP) is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. In addition to containing definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's policies. Pollutants to be monitored include all pollutants for which effluent limitations are specified.

In addition to discharge rate, effluent is monitored for hardness, pH, total suspended and total dissolved solids. Monitoring is also required for certain metals and other priority, toxic pollutants which have water quality criteria established by the NTR and CTR and are determined to be present in the groundwater at a specific site location. If any of these constituent(s) is determined to be present and persistent at the site, such discharges will be regulated under the general groundwater cleanup permit Order No. R8-2007-0008.

C. Whole Effluent Toxicity Testing Requirements

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 shorter time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances 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.

This Order requires the Discharger to conduct acute toxicity testing of the effluent annually. This Order also requires the Discharger to conduct an Initial Investigation Toxicity Reduction Evaluation (IITRE) program when the acute toxicity test fails. Based on a review of monitoring data, there have been instances in which acute test failures can be attributed to salinity additions required to conduct the test. When this situation occurs, the Discharger normally performs additional acute testing of the effluent coupled with testing for all the priority pollutants. If the additional acute testing still fails and the priority pollutant scan shows no pollutants at levels of concern, acute testing is stopped and the acute test failure is presumed to be caused by ionic imbalance in the waste effluent (as described in relevant literature).

The WET specifications apply to discharges to flowing surface waters, but not to discharges that percolate to groundwater before the discharges reach a flowing surface water.

D. Receiving Water Monitoring - Not Applicable

The MRP does not require characterization of receiving waters because most oftentimes treated discharges are to storm drains which are distant to receiving waters.

E. Other Monitoring Requirements - Not Applicable

VIII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

40 CFR 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in this Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR Part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, or adoption of new regulations by the State Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements – Not Applicable

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Construction, Operation, and Maintenance Specifications

The provisions are based on requirements already specified in general Order No. R8-2003-0002, as a result of installing/constructing the necessary treatment systems required to comply with the general permit waste discharge requirements.

5. Special Provisions for Municipal Facilities - Not Applicable

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

IX. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Santa Ana Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) general permit for discharges to surface waters of extracted and treated groundwater resulting from wellhead treatment systems within the Santa Ana Region. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements in this General Permit and provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the posting of Notice of Public at the Regional Water Board website: http://www.waterboards.ca.gov/santaana , on May 7, 2008 and publication in the Orange County Register, The Sun, and The Press Enterprise for one day.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on May 19, 2008 to:

Jane Qiu
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

C. Public Hearing

The Regional Water 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:	June 6, 2008
Time:	9:00 A.M.
Location:	City Council Chambers of Santa Ana 22 Civic Center Plaza Santa Ana, CA

Interested persons are invited to attend. At the public hearing, the Regional Water 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 http://www.waterboards.ca.gov/santaana where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 9:00 a.m. and 3:00 p.m. Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (951) 782-41308.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Jane Qiu at (951) 320-2008.

ATTACHMENT G - EPA PRIORITY POLLUTANT LIST

EPA PRIORITY POLLUTANT LIST					
Metals		**Acid Extractibles**		**Base/Neutral Extractibles (continuation)**	
1.	Antimony	45.	2-Chlorophenol	91.	Hexachloroethane
2.	Arsenic	46.	2,4-Dichlorophenol	92.	Indeno (1,2,3-cd) Pyrene
3.	Beryllium	47.	2,4-Dimethylphenol	93.	Isophorone
4.	Cadmium	48.	2-Methyl-4,6-Dinitrophenol	94.	Naphthalene
5a.	Chromium (III)	49.	2,4-Dinitrophenol	95.	Nitrobenzene
5b.	Chromium (VI)	50.	2-Nitrophenol	96.	N-Nitrosodimethylamine
6.	Copper	51.	4-Nitrophenol	97.	N-Nitrosodi-N-Propylamine
7.	Lead	52.	3-Methyl-4-Chlorophenol	98.	N-Nitrosodiphenylamine
8.	Mercury	53.	Pentachlorophenol	99.	Phenanthrene
9.	Nickel	54.	Phenol	100.	Pyrene
10.	Selenium	55.	2, 4, 6 – Trichlorophenol	101.	1,2,4-Trichlorobenzene
11.	Silver	**Base/Neutral Extractibles**		**Pesticides**	
12.	Thallium	56.	Acenaphthene	102.	Aldrin
13.	Zinc	57.	Acenaphthylene	103.	Alpha BHC
Miscellaneous		58.	Anthracene	104.	Beta BHC
14.	Cyanide	59.	Benzidine	105.	Delta BHC
15.	Asbestos (not required unless requested)	60.	Benzo (a) Anthracene	106.	Gamma BHC
16.	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61.	Benzo (a) Pyrene	107.	Chlordane
Volatile Organics		62.	Benzo (b) Fluoranthene	108.	4, 4' - DDT
17.	Acrolein	63.	Benzo (g,h,i) Perylene	109.	4, 4' - DDE
18.	Acrylonitrile	64.	Benzo (k) Fluoranthene	110.	4, 4' - DDD
19.	Benzene	65.	Bis (2-Chloroethoxy) Methane	111.	Dieldrin
20.	Bromoform	66.	Bis (2-Chloroethyl) Ether	112.	Alpha Endosulfan
21.	Carbon Tetrachloride	67.	Bis (2-Chloroisopropyl) Ether	113.	Beta Endosulfan
22.	Chlorobenzene	68.	Bis (2-Ethylhexyl) Phthalate	114.	Endosulfan Sulfate
23.	Chlorodibromomethane	69.	4-Bromophenyl Phenyl Ether	115.	Endrin
24.	Chloroethane	70.	Butylbenzyl Phthalate	116.	Endrin Aldehyde
25.	2-Chloroethyl Vinyl Ether	71.	2-Chloronaphthalene	117.	Heptachlor
26.	Chloroform	72.	4-Chlorophenyl Phenyl Ether	118.	Heptachlor Epoxide
27.	Dichlorobromomethane	73.	Chrysene	119.	PCB 1016
28.	1,1-Dichloroethane	74.	Dibenzo (a,h) Anthracene	120.	PCB 1221
29.	1,2-Dichloroethane	75.	1,2-Dichlorobenzene	121.	PCB 1232
30.	1,1-Dichloroethylene	76.	1,3-Dichlorobenzene	122.	PCB 1242
31.	1,2-Dichloropropane	77.	1,4-Dichlorobenzene	123.	PCB 1248
32.	1,3-Dichloropropylene	78.	3,3'-Dichlorobenzidine	124.	PCB 1254
33.	Ethylbenzene	79.	Diethyl Phthalate	125.	PCB 1260
34.	Methyl Bromide	80.	Dimethyl Phthalate	126.	Toxaphene
35.	Methyl Chloride	81.	Di-n-Butyl Phthalate		
36.	Methylene Chloride	82.	2,4-Dinitrotoluene		
37.	1,1,2,2-Tetrachloroethane	83.	2-6-Dinitrotoluene		
38.	Tetrachloroethylene	84.	Di-n-Octyl Phthalate		
39.	Toluene	85.	1,2-Dipenylhydrazine		
40.	1,2-Trans-Dichloroethylene	86.	Fluoranthene		
41.	1,1,1-Trichloroethane	87.	Fluorene		
42.	1,1,2-Trichloroethane	88.	Hexachlorobenzene		
43.	Trichloroethylene	89.	Hexachlorobutadiene		
44.	Vinyl Chloride	90.	Hexachlorocyclopentadiene		

ATTACHMENT H – MINIMUM LEVELS

MINIMUM LEVELS IN PPB (µg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in this Attachment that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in the PQL Table.

ML Usage: The ML value in this Attachment represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.
Note: chemical names in parenthesis and italicized is another name for the constituent.

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

MINIMUM LEVELS IN PPB (µg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

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

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

2 *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

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

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

MINIMUM LEVELS IN PPB (µg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

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

ATTACHMENT I – TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

	CONSTITUENT	µg/L
1	Antimony	7
2	Arsenic	75
3	Beryllium	--
4	Cadmium	1.9
5a	Chromium III	65
5b	Chromium VI	5.7
6	Copper	7.2
7	Lead	4.1
8	Mercury	0.026
9	Nickel	16
10	Selenium	2.5
11	Silver	0.8
12	Thallium	3.2
13	Zinc	37
14	Cyanide	2.6
15	Asbestos	--
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	160
18	Acrylonitrile	0.03
19	Benzene	0.6
20	Bromoform	2.2
21	Carbon Tetrachloride	0.13
22	Chlorobenzene	340
23	Chlorodibromomethane	0.22
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	--
27	Dichlorobromomethane	0.28
28	***1,1-Dichloroethane***	***5***
29	1,2-Dichloroethane	0.19
30	1,1-Dichloroethylene	0.029
31	1,2-Dichloropropane	0.26
32	1,3-Dichloropropylene	5
33	***Ethylbenzene***	***300***
34	Methyl Bromide	24
35	Methyl Chloride	--
36	Methylene Chloride	2.4
37	1,1,2,2-Tetratchloroethane	0.085

	CONSTITUENT	µg/L
38	Tetratchloroethylene	0.4
39	***Toluene***	***150***
40	***1,2,-Trans-dichloroethylene***	***10***
41	***1,1,1-Trichloroethane***	***200***
42	1,1,2-Trichloroethane	0.3
43	Trichloroethylene	1.35
44	***Vinyl Chloride***	***0.5***
45	2-Chlorophenol	60
46	2,4-Dichlorophenol	46.5
47	2,4-Dimethylphenol	270
48	2-Methy-4,6-Dinitrophenol	6.7
49	2,4-Dinitrophenol	35
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	Pentachlorophenol	0.14
54	Phenol	10500
55	2,4,6-Trichlorophenol	1.05
56	Acenapthene	600
57	Acenapthylene	--
58	Anthracene	4800
59	Benzidine	0.00006
60	Benzo (a) anthracene	0.0022
61	Benzo (a) pyrene	0.0022
62	Benzo (b) fluoranthene	0.0022
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.0022
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.016
67	Bis (2-Chloroisopropyl) ether	700
68	Bis (2-ethyhexyl) phthalate	0.9
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	1500
71	2- Chloronapthalene	850
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.0022
74	Dibenzo (a,h) anthracene	0.0022
75	***1,2-Dichlorobenzene***	***600***

See notes below for italicized constituents.

ATTACHMENT I. -Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	200
77	***1,4-Dichlorobenzene***	***5***
78	3,3-Dichlorobenzidine	0.02
79	Diethyl phthalate	11,500
80	Dimethyl phthalate	156,500
81	Di-N-butyl phthalate	1,350
82	2,4-Dinitrotoluene	0.055
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.02
86	Fluoranthene	150
87	Fluorene	650
88	Hexachlorobenzene	0.00038
89	Hexachlorobutadiene	0.22
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	0.95
92	Indeno (1,2,3-cd) pyrene	0.0022
93	Isophorone	4.2
94	***Naphthalene***	***17***
95	Nitrobenzene	8.5
96	N-Nitrosodimethylamine	0.00035
97	N-Nitrosodi-N-propylamine	0.0025
98	N-Nitrosodiphenylamine	2.5
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	480
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0020
104	BHC Beta	0.007
105	BHC Gamma	0.010
106	BHC Delta	--
107	Chlordane	0.00029
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	55
115	Endrin	0.018
116	Endrin Aldehyde	0.38
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.00005
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.00037

Notes:

1. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of water and organisms) as specified for that pollutant in 40 CFR 131.38[6]).
2. For constituents shown bold and italicized, the values shown in the Table are based on the California Department of Health Services maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
3. For hardness dependent metals, the 5th percentile value of hardness, 57.1 mg/L, in receiving water--Santa Ana River is used and for pentachlorophenol, the pH value used is 7.5 standard units.

6 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*