# California Regional Water Quality Control Board

## Santa Ana Region

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**Alan C. Lloyd, Ph.D.**
*Agency Secretary*

**Arnold Schwarzenegger**
*Governor*


**ORDER NO. R8-2005-0079**
**NPDES NO. CA8000406**

The following Discharger is authorized to discharge in accordance with the Waste Discharge Requirements set forth in this Order:

| | |
|---|---|
| **Discharger** | **City of Irvine** |
| **Name of Facility** | **Groundwater Dewatering Facilities, Irvine** |
| **Facility Address** | • **Grade Crossing at Culver Drive and BNSF railroad;**<br>• **Grade Crossing at Jamboree Road and I-5 Freeway; and,**<br>• **Proposed undercrossing at Jeffrey Road and BNSF railroad tracks** |
| | **City of Irvine, CA 92623** |
| | **Orange County** |

The Discharger is authorized to discharge from the following discharge points for dewatered groundwater discharges as set forth below:

| Discharge Point | Effluent Description | Discharge Point Latitude | Discharge Point Longitude | Receiving Water |
|---|---|---|---|---|
| 001 | Groundwater dewatering at-Culver Drive & BNSF Railroad | 33° 41'75" N | 117° 47'31" W | Peters Canyon Wash, San Diego Creek |
| 002 | Groundwater dewatering at-Jamboree Road & I-5 | 33° 43'7" N | 117° 47'37" W | Peters Canyon Wash, San Diego Creek |
| 003 | Groundwater dewatering at-Jeffrey Road & BNSF Railroad | 33° 41'6" N | 117° 46'20" W | Peters Canyon Wash, San Diego Creek |

| | |
|---|---|
| This Order was adopted by the Regional Water Board on: | **November 18, 2005** |
| This Order shall become effective on: | **November 18, 2005** |
| This Order shall expire on: | **November 1, 2010** |
| The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified this discharge as a **minor** discharge. | |
| The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, **not later than 180 days in advance of the Order expiration date.** | |

**IT IS HEREBY ORDERED**, that general Order No. 98-67-017 is superseded upon the effective date of this individual Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted therein, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted therein, the Discharger shall comply with the requirements in this Order.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that Order No. R8-2005-0079 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 November 18, 2005.

Gerard J. Thibeault, Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**
**REGION 8, SANTA ANA REGION**

ORDER NO. R8-2005-0079
NPDES NO. CA8000406

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## I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the Waste Discharge Requirements set forth in this Order:

| | |
|---|---|
| **Discharger** | **City of Irvine** |
| **Name of Facility** | **Groundwater Dewatering Facilities, City of Irvine** |
| **Facility Address** | ❖ **Grade Crossing at Culver Drive and BNSF railroad;**<br>❖ **Grade Crossing at Jamboree Road and I-5 Freeway; and,**<br>❖ **Proposed undercrossing at Jeffrey Road and BNSF railroad tracks** |
| | **City of Irvine, CA 92623** |
| | **Orange County** |
| **Facility Contact, Title, and Phone** | **Mike Loving, Water Quality Administrator, (949) 724-6315** |
| **Mailing Address** | **One Civic Center Plaza, P. O. Box 19575, Irvine, CA 92623** |
| **Type of Facility** | **Groundwater Dewatering Facility** |
| **Facility Design Flow** | **Discharge Point No. 001-Culvert Drive Crossing 0.202 mgd**<br>**Discharge Point No. 002-Jamboree Road Crossing 0.072 mgd**<br>**Discharge Point No. 003-Jeffery Road Undercrossing 0.072 mgd** |

## II. FINDINGS

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

A. **Background.** The City of Irvine, CA (hereinafter Discharger) is currently discharging pursuant to general waste discharge requirements for discharges to surface waters that pose an insignificant (de minimus) threat to water quality, Order No. 98-67 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG998001. The Discharger submitted a Report of Waste Discharge, dated September 23, 2004, and applied for an individual NPDES permit to discharge extracted/dewatered groundwater wastewater of up to 0.202 mgd at the Culver Drive Crossing, up to 0.072 mgd at Jamboree Road Crossing, and up to 0.072 mgd at the proposed undercrossing at Jeffrey Road to San Diego Creek.

The application was deemed complete on May 30, 2005.

B. **Facility Description.** The Discharger owns and operates several groundwater-dewatering facilities. The City pumps/extracts groundwater to lower the groundwater level at two roadway crossings and proposes to conduct these activities at an undercrossing site. All of these sites are within the City of Irvine. Extracted/dewatered groundwater from Discharge Points 001, 002, and 003 is or will be discharged to storm drains that are tributary to Peters Canyon Wash. Peters Canyon wash is a tributary of San Diego Creek and thence Newport Bay, all waters of the United States within the San Diego Creek/Newport Bay watershed. Attachment B is a map of the area showing the locations of the dewatering facilities.

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). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

D. **Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachment E, 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 D and F through H are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC. In accordance with Public Resources Code Section 21080.13, the City of Irvine has determined that the proposed Jeffrey Road Under-crossing Project is a statutorily exempted project.

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This order includes technology-based effluent limitations for dischargers other than POTWs to protect the beneficial uses of the receiving waters. The Regional Water Board has considered the factors listed in the CWC §13241 in establishing these requirements and Best Professional Judgment in accordance with 40 CFR §125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment E).

G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality objectives to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State objectives or a State policy interpreting narrative objectives supplemented with other relevant information, or an indicator parameter.

H. **Water Quality Control Plans.** The Water Quality Control Plan, Santa Ana Basin, (the Basin Plan) was adopted by the Regional Water Board on March 11, 1994. The Basin Plan 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 Board Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to San Diego Creek/Newport Bay are as follows:

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|---|---|---|
| 001, 002, 003 | Peters Canyon Wash, a tributary to San Diego Creek/Newport Bay | Intermittent:<br>a. Groundwater Recharge,<br>b. Water Contact Recreation,<br>c. Non-contact Water Recreation,<br>d. Warm Freshwater Habitat, and<br>e. Wildlife Habitat.<br>Excepted from MUN |
| | San Diego Creek Reach 1 | Existing or Potential:<br>a. Water Contact Recreation,<br>b. Non-contact Water Recreation,<br>c. Warm Freshwater Habitat, and<br>d. Wildlife Habitat<br>Excepted from MUN |

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|---|---|---|
| 001, 002, 003 | Upper and Lower Newport Bay | Existing or Potential:<br>a. Navigation,<br>b. Water Contact Recreation,<br>c. Non-contact Water Recreation,<br>d. Commercial and Sportfishing,<br>e. Preservation of Biological Habitats of Special Significance,<br>f. Wildlife Habitat,<br>g. Rare, Threatened or Endangered Species,<br>h. Spawning, Reproduction, and Development,<br>i. Marine Habitat,<br>j. Shellfish Harvesting, and<br>k. Estuarine Habitat<br>Excepted from MUN |
| | Irvine Groundwater Management Zone | Existing or Potential:<br>a. Municipal and Domestic Supply,<br>b. Agricultural Supply,<br>c. Industrial Service Supply, and<br>d. Industrial Process Supply. |

Requirements of this Order implement the applicable Water Quality Control Plans.

I. **Stormwater.** Pursuant to Section 402(p) of the Clean Water Act and Title 40 of the Code of Federal Regulations (CFR) Part 122, 123, and 124, the Santa Ana Regional Water Board adopted an Areawide Urban Storm Water Runoff permit, Order No. R8-2002-0010, NPDES No. CAS618030for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County within the Santa Ana Region. The stormwater permit regulates stormwater discharges from municipal separate storm sewer systems (MS4). The City of Irvine is one of the co-permittees. Therefore, Order No R8-2002-0010 regulates stormwater runoff from these groundwater-dewatering sites.

J. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

K. **State Implementation Policy.** On March 2, 2000, 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, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires Dischargers to submit data sufficient to do so. On February 24, 2005, the State Water Board amended the SIP. The Office of Administrative Law (OAL) approved the amendments on May 31, 2005. On July 13, 2005, the United States Environmental Protection Agency (USEPA) approved the amendments.

L. **Nutrient TMDL**. On April 17, 1998, the Regional Water Board adopted Resolution No. 98-9, amending the Basin Plan for the Santa Ana River Basin to incorporate a Nutrient Total Maximum Daily Load (TMDL) for the Newport Bay/San Diego Creek Watershed. The TMDL was amended by Resolution No. 98-100 on October 9, 1998 and thereafter approved by the State Water Resources Control Board, Office of Administrative Law and the US EPA. The nutrient TMDL was developed to address the aesthetic and recreational nuisances created by algal blooms in Newport Bay, as well as the concern that these blooms may adversely affect wildlife. The TMDL establishes final targets that are based on a 50% reduction in nitrogen loading to Newport Bay[1]. The TMDL requires that the 50% reduction be achieved no later than December 31, 2007 for summer loading (between April 1 and September 30); the 50% reduction in winter inputs (between October 1 and March 31) is to be achieved no later than December 31, 2012. While the TMDL requires reductions in nutrient loadings, it is recognized that too few nutrients in a waterbody can potentially adversely affect wildlife. See Fact Sheet, Attachment E.

M. **Selenium TMDL**. On June 14, 2002, the U.S. EPA Region 9 established total maximum daily loads (TMDLs) for selenium and other toxic pollutants for San Diego Creek and Newport Bay. The EPA TMDLs for selenium identified loading targets for specific groups of discharges, but recognized that quantification of the baseline loading from Dischargers of groundwater was infeasible due to the lack of selenium data. See Fact Sheet, Attachment E.

The EPA TMDLs do not include specific implementation requirements, such as compliance timeframes, interim numeric targets, etc, since implementation plans are the responsibility of the Regional Water Board. However, pursuant to federal regulations, the Regional Water Board is required to ensure that NPDES permits for discharges in this watershed contain effluent limitations necessary to be consistent with the wasteload allocations specified in the TMDLs. In the absence of an adopted implementation plan, the Regional Water Board can and must employ its legally authorized discretion in determining the appropriate permit provisions to implement these allocations.

N. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule to comply with CTR criterion-based effluent limitations may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010). Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim limitations for that constituent or parameter.

Apart from the SIP requirements pertaining to CTR pollutants, compliance schedules and interim limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective where allowed by the Water Quality Control Plan (Basin Plan).

This Order includes compliance schedules and interim limitations and/or discharge specifications. A detailed discussion of the basis for the compliance schedule(s) and interim limitation(s) and/or discharge specifications is included in the Fact Sheet (Attachment E).

O. **Antidegradation Policy.** Section 131.12 of 40 CFR 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, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in the Fact Sheet (Attachment E) the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

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1 *The TMDL also establishes targets for phosphorus.*

P. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 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. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous order that regulated discharges from the dewatering facilities.

Q. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC 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 D.

R. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment C. 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 (Attachment E).

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 E) 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 E) of this Order.

## III. DISCHARGE PROHIBITIONS

A. Wastes discharged from 001-Culver Drive Crossing, 002-Jamboree Road Crossing, and 003-Jeffrey Road Crossing shall be limited to extracted/dewatered groundwater.

B. Discharge of wastewater at a location or in a manner different from that described in the Findings is prohibited.

C. The discharge of any substances in concentrations toxic to animal or plant life in the affected receiving water is prohibited.

D. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

E. 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.

F. Odors, vectors, and other nuisances of waste origin are prohibited beyond the limits of the Discharger's facilities.

G. Unless approved by the Executive Officer, the addition of chemicals to the discharge is prohibited.

## IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

### A. Effluent Limitations - DPs 001, 002, and 003

#### 1. Final Effluent Limitations

a. The discharge shall maintain compliance with the following effluent limitations at monitoring locations M-001, M-002, and M-003 with compliance measured at all monitoring locations described in the attached Monitoring and Reporting Program (Attachment D):

| Parameter | Units | Effluent Limitations | | | | |
|---|---|---|---|---|---|---|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| pH | standard units | -- | -- | -- | 6.5 | 8.5 |
| Oil and Grease | mg/L | -- | -- | 15 | -- | -- |
| Total Suspended Solids | mg/L | -- | -- | 75 | -- | -- |
| Total Petroleum Hydrocarbon | µg/l | -- | -- | 100 | -- | -- |
| Total Nitrogen - discharges to Reach 1 of San Diego Creek and tributaries thereto | µg/l | -- | -- | 13 mg/l (see also A.1.d., below) | -- | -- |
| Total Recoverable Selenium – see IV.A.1.b. and IV.A.1.c., and Compliance Determinations VII.J.) | µg/l | 4.0 (µg/l) | -- | 8.4 (µg/l) | -- | -- |

b. Compliance with the Total Recoverable Selenium limit specified in A.1.a, above, shall be achieved as soon as possible but no later than December 21, 2009, provided that:

   i. The Discharger is and remains a member of the Nitrogen and Selenium Management Program Working Group (NSMP Working Group, or Working Group), including the discharger's satisfaction of financial and participatory commitments established by the Working Group; and

   ii. The Discharger implements one or more reasonable BMPs for volume-reduction and/or treatment identified as part of the Work Plan developed and implemented by the Working Group; and

   iii. The Discharger, as a member of the Working Group, is implementing the Work Plan in accordance with the schedule approved by the Regional Board (see Provision VI. C.6. Other Special Provision D.), or acceptable alternative dates approved by the Executive Officer.

c. If the conditions specified in A.1.b., above are not satisfied, then compliance with the Total Recoverable Selenium limit in A.1.a., above shall be achieved immediately, unless the discharger implements a program or programs approved by the Executive Officer to offset discharges in excess of the effluent limits. (See Provision VI.C.6.b.)

d. When the quality of extracted/dewatered groundwater discharges exceeds 1 mg/L Total Inorganic Nitrogen (TIN), as demonstrated by monitoring at locations M-001, M-002, and M-003, the ambient total nitrogen (TN) mass in the discharges shall be reduced by 50% as soon as possible but no later than December 31, 2007. That is, the average monthly mass of total nitrogen (TN) discharges shall not be greater than 50% of the mass of TN in the extracted groundwater. Whichever is more stringent of either the reduction in TN mass or TN concentration limit shown in the above table will be the limit. This limit applies unless the discharger develops, as soon as possible but no later than December 31, 2007, and thereafter implements an approved offset program (See Provisions VI.C.6.a.). The total nitrogen monthly mass emission rate for the

extracted groundwater and discharged wastewater shall be determined by using the following formula:

*Mass (lbs/month) of extracted or discharged wastewater = 8.34xQxC*

Where:

Q= total flow of extracted or discharged within the month in million gallons
C= the sum of all measurements for the parameter within the month (in milligrams per liter) for the extracted or discharged wastewater divided by the total number of samples.

**2. Interim Limitations**

a. With regard to the selenium contained in the discharges subject to this Order by the discharger as a NSMP Working Group member, the requirements specified in IV.A.1.b constitute interim, performance-based limitations and compliance schedules for these discharges. Compliance with these requirements also satisfies the requirements contained in Discharge Prohibitions III.C., Receiving Water Limitations V.A.1.h. and V.A.2.; and Provisions VI.A.2.a.

b. If the discharger does not remain a Working Group member and elects to implement a selenium offset program as provided in Provision VI.C.6.b., the discharger's efforts to reduce/eliminate selenium discharges coupled with interim steps necessary to implement an acceptable offset constitute interim performance-based limitations.

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

1. Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in San Diego Creek/Newport Bay:

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. 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. (See Compliance Determinations VII.K.)

2. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or State Board, as required by the Clean Water Act and regulations adopted thereunder. (See Compliance Determinations VII.K.)

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

### 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.

## VI. PROVISIONS

### A. Standard Provisions

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

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:

   a. 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.

   b. The Discharger shall conduct a Pollutant Minimization Program (PMP) when there is evidence that the priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified (DNQ) when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods included in the permit, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) and either: (i) A sample result is reported as DNQ and the effluent limitation is less than the reporting level; or (ii) A sample result is reported as ND and the effluent limitation is less than the MDL. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

      i. 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;

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

      iii. Monthly reporting of discharge volumes for each discharge point;

      iii. 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;

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

v. An annual status report that shall be sent to the Regional Water Board including:

(1). All PMP monitoring results for the previous year;
(2). A list of potential sources of the reportable priority pollutant(s);
(3). A summary of all actions undertaken pursuant to the control strategy; and
(4) A description of actions to be taken in the following year.

c. The Discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

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

e. 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.

**B. Monitoring and Reporting Program Requirements**

1. The Discharger shall comply with the monitoring and reporting program, and future revisions thereto, in Attachment D of this Order. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

**C. Special Provisions**

1. **Reopener Provisions**

a. 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.
b. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality objectives.
c. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.

2. **Special Studies, Technical Reports and Additional Monitoring Requirements**

a. When immediate compliance with the Total Recoverable Selenium limit specified in IV. Effluent Limitations and Discharge Specifications, A.1.a. is infeasible, the Discharger shall submit annual progress reports to describe the progress of studies and/or actions undertaken to reduce selenium in the effluent, and to achieve compliance with the requirements of this Order. This includes actions taken pursuant to any approved selenium offset program. The Discharger shall submit this report together with the Annual Report required in Attachment D. Provided that the Discharger remains a member of the Nitrogen and Selenium Management Program (NSMP) Working Group, which is implementing a Work Plan that includes investigations of nitrogen and selenium sources and controls in the San Diego Creek Watershed, reports prepared and submitted pursuant to the NSMP shall constitute compliance with this requirement.

b. The Discharger shall implement the nitrogen or selenium offset programs upon approval by the Executive Officer.

3. **Best Management Practices and Pollution Prevention**

As part of the Working Group commitments, the Discharger shall identify and assess selenium BMPs (including volume-reduction techniques)(task includes a "Quick Start" program for certain BMP assessment.

The Discharger shall implement selenium reduction through reasonable treatment, source control, or pollution prevention measures when it becomes available during the five-year permit period. In addition, the Discharger shall reduce or eliminate selenium concentrations and mass discharges by the implementation of low technology best management practices (BMPs). Volume-reduction and other BMPs shall be investigated in an aggressive manner, including an evaluation of other potential positive and negative impacts that may result from the BMPs.

4. **Compliance Schedules**

a. Provided that the discharger complies with the requirements specified in IV. Effluent Limitations and Discharge Specifications, A.1.b, compliance with final effluent limitations for selenium shall be achieved as soon as possible but no later than December 21, 2009. Should a practicable selenium treatment technology become available, the discharger shall comply with the final selenium effluent limitations within one year from the date of notification by the Regional Board of the availability of said selenium treatment technology, but in no case later than December 21, 2009.

b. Nitrogen or selenium offset programs implemented by the discharger to comply with the requirements of this Order shall be completed by December 31, 2007 and December 21, 2009, respectively.

5. **Construction, Operation and Maintenance Specifications**

a. The Discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the Discharger will comply with the requirements of this Order.

b. The Discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment facilities to conform to latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

i. Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

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

iii. Description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

v. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.

vi. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

6. **Other Special Provisions**

a. The Discharger may achieve compliance with the nitrogen limitations of this Order by the development and implementation of an offset program approved by the Regional Board's Executive Officer. Any such offset program shall (1) assure the loading of total nitrogen to Peters Canyon Wash and San Diego Creek as the result of groundwater dewatering discharges does not exceed that allowed pursuant to the effluent limits in this Order, i.e., the 50% total nitrogen mass reduction requirements specified in IV.A.1.d., or the total nitrogen limitations specified in IV.A.1.a, whichever is more stringent, and (2) shall be implemented as soon as possible but no later than December 31, 2007.

b. If the discharger does not remain a member of the NSMP Working Group and all other conditions specified in IV. Effluent Limitation and Discharge Specifications A.1.b., above, are not satisfied, and if the discharger demonstrates that immediate compliance with the Total Recoverable Selenium limits in IV.A.1.a. is infeasible, the discharger shall:

(1) Within 30 days of notification by the Regional Board of the need to do so, submit for approval a plan and schedule to offset selenium discharges in excess of those allowed pursuant to the effluent limitations of this Order. The plan/schedule is to reflect the shortest practicable time necessary to provide the offset. In no case shall the schedule for completion of the offset exceed December 21, 2009. The plan shall address offset of selenium discharges that take place while the offset plan is developed and approved.
(2) Collect data on flow and selenium quality to assure that ongoing selenium discharges are properly accounted for and offset pending development, approval and implementation of the offset plan; and
(3) Implement the offset plan/schedule upon approval by the Executive Officer.

c. Revisions to an approved selenium offset program that is approved by the Executive Officer but is not fully implemented may be made at the discretion of the Executive Officer in response to revisions to this Order to address revised selenium criteria and/or approved revisions to the selenium TMDL for the San Diego Creek/Newport Bay watershed.

d. The following constitute elements of the Work Plan administered by the NSMP Working Group, along with target completion dates. In each case, the element of the Work Plan shall be completed by the Working Group as soon as possible but no later than the target completion date shown. The Executive Officer is authorized to revise these target completion dates if demonstrated to be necessary and appropriate:
(1) Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public (through completion of al elements of the Work Plan);
(2) Perform complementary monitoring and assessment of selenium and nutrient sources in the watershed, utilizing, in part, ongoing selenium and nutrient studies performed by others (12/20/2008);
(3) Identify and assess selenium treatment technologies, including potential future technologies (3/31/2006);
(4) Identify and assess selenium BMPs (including volume-reduction techniques) (2/28/2006);
(5) Facilitate demonstration testing of identified selenium treatment technologies and BMPs (3/31/2007);

(6) Develop a draft selenium offset, trading or mitigation program based upon the outcome of complementary monitoring, treatment technology and BMP-related Work Plan elements and submit to Executive Officer for review (6/20/2009);

(7) Implement the final selenium offset, trading or mitigation program upon the Executive Officer's approval, but no later than 12/20/2009;

(8) Evaluate nutrient TMDL, including load/wasteload allocations and reduction targets (focusing particularly on groundwater-related sources, loadings and reductions)(11/7/2006);

(9) Develop a draft nutrient offset, trading or mitigation program based upon the outcome of complementary monitoring and TMDL assessment Work Plan elements (6/20/2009);

(10) Implement the final nutrient offset, trading or mitigation program upon the Executive Officer's approval but no later than 12/20/2009; and,

(11) Develop a recommended selenium site-specific objective for the Newport Bay/San Diego Creek watershed if appropriate based upon outcome of other Work Plan elements (commencement date, if necessary, of 12/20/2006, with completion date of 6/17/2009.

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

## VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. Average Monthly Effluent Limitation (AMEL).
If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and 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). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. 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. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Average Weekly Effluent Limitation (AWEL). – Not Applicable

C. Maximum Daily Effluent Limitation (MDEL).
If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and 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.

D. Instantaneous Minimum Effluent Limitation.
If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

E. Instantaneous Maximum Effluent Limitation.
If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

F. 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.

G. 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 or PQL) for that chemical.

H. 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.

1. Compliance determination shall be based on the reporting level selected from minimum levels (ML)[2] specified in Attachment "E" of this Order, unless an alternative minimum 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 select the ML value that is below the calculated effluent limitation, and use its associated analytical method, listed in Attachment "E" of the Order. If no ML value is below the effluent limitation, then the Regional Water Board will select the lowest ML value and its associated analytical method.

2. When determining compliance with an average monthly limit and more than one sample result is available in a month, 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:

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

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2 *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.*

b. 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. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a pollutant minimization program (PMP)[3] (as described in Section VI.A.2.b., above.), the Discharger shall not be deemed out of compliance.

I. For non-priority pollutants, the discharge shall be considered to be in compliance with an effluent limitation, which is less than or equal to the PQL specified in Attachment "I" of this Order 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 specified PQL shall be assigned a value of zero.

J. Provided that the Work Plan commitments and the requirements of Discharge Specifications IV.A.1.b. are satisfied, completion of the approved Work Plan and implementation of the offset/trading/mitigation program identified by the Working Group and approved by the Executive Officer shall constitute compliance with the numeric limitations specified in Discharge Specification IV.A.1.a. However, should a practicable selenium treatment technology become available, the Discharger shall comply with the numeric selenium limitations specified in Discharge Specifications IV.A.1.a. as soon as reasonably possible, as determined by the Executive Officer, but in no case later than one year from the date of notification by the Regional Board of the availability of said selenium treatment technology.

K. The discharger will also be deemed in compliance with the requirements of Receiving Water Limitations V.A.1.h. and V.A.2., when the discharger is either in compliance with the nitrogen limit specified in Discharge Specifications IV.A.1.a. and IV.A.1.d. or when discharger implements an acceptable offset program for nitrogen discharges.

L. With regard to the selenium contained in the discharges subject to this Order by the discharger as a NSMP Working Group member, compliance with the requirements specified in IV.A.1.b. also satisfies the requirements contained in Discharge Prohibitions III.C., Receiving Water Limitations V.A.1.h. and V.A.2.; and Provision VI.A.2.a.

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3 *The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation.*

## ATTACHMENT A – DEFINITIONS

**Average Monthly Effluent Limitation (AMEL):** the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**Daily Discharge:** Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

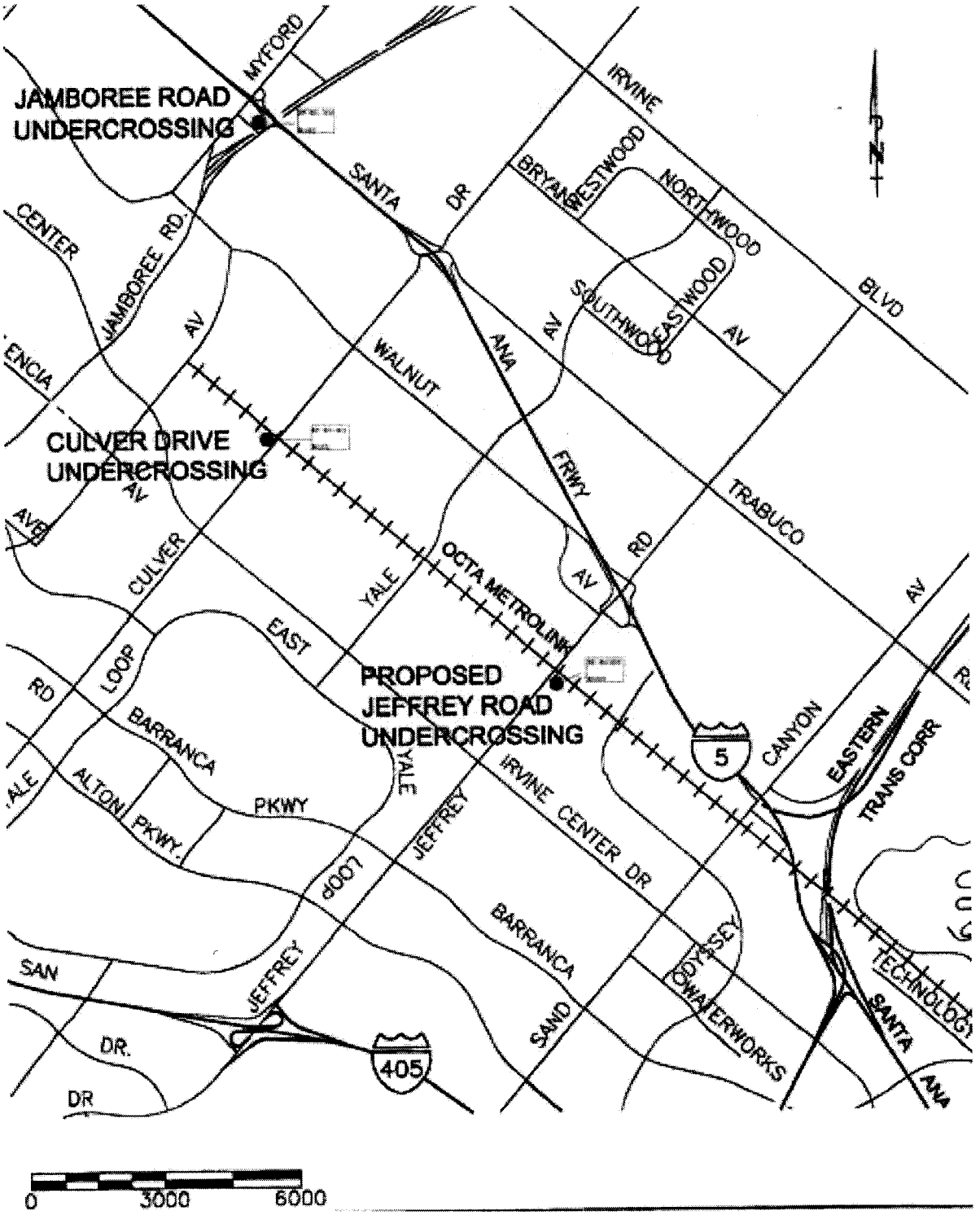
**Instantaneous Maximum Effluent Limitation:** the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation:** the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

**Maximum Daily Effluent Limitation (MDEL):** the highest allowable daily discharge of a pollutant.

**ATTACHMENT B – VICINITY MAP**

## LOCATIONS OF ROAD UNDERCROSSINGS



# ATTACHMENT C – FEDERAL 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 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 Clean Water Act 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 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 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 Provision – 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 [*40 CFR §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 paragraph H.2 of this section 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 §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 [*40 CFR §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, SWRCB, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [*40 CFR §122.41(k)*].

2. All permit applications shall be signed as follows:

   a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [*40 CFR §122.22(a)(1)*];

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [*40 CFR §122.22(a)(2)*]; or

   c. For a municipality, State, federal, or other public agency: 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 §122.22(a)(3)*].

3. All reports required by this Order and other information requested by the Regional Water Board, SWRCB, or USEPA shall be signed by a person described in paragraph (b) of this provision, 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 paragraph (2.) of this provision [*40 CFR §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 §122.22(b)(2)*]; and

   c. The written authorization is submitted to the Regional Water Board, SWRCB, or USEPA [*40 CFR §122.22(b)(3)*].

4. If an authorization under paragraph (3.) of this provision 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 paragraph (3.) of this provision must be submitted to the Regional Water Board, SWRCB or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].

5. Any person signing a document under paragraph (2.) or (3.) of this provision 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 §122.22(d)*].

## C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program 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)*].

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)(C)*].

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 E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [*40 CFR §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 CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Clean

Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*40 CFR §122.41(a)(2)*] [*CWC 13385 and 13387*].

**B.** Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*40 CFR §122.41(a)(3)*].

**C.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [*40 CFR §122.41(j)(5)*].

**D.** The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*40 CFR §122.41(k)(2)*].

## VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

### A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [*40 CFR §122.42(a)*]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(1)*]:

    a. 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

    b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(1)(ii)*];

    c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(1)(iii)*]; or

    d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(1)(iv)*].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(2)*]:

    a. 500 micrograms per liter (µg/L) [*40 CFR §122.42(a)(2)(i)*];

    b. 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(2)(ii)*];

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(2)(iii)*]; or

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(2)(iv)*].

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 §122.42(b)(3)*].

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## ATTACHMENT D – 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 (RWQCB) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

### I. GENERAL MONITORING PROVISIONS

#### A. General Monitoring Provision

Monitoring shall be in accordance with the following:

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 May 14, 1999) *"Guidelines Establishing Test Procedures for the Analysis of Pollutants,"* promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this MRP. For priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment E of this Order, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. 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. Unless otherwise specified herein, organic pollutants shall be analyzed using EPA method 8260, as appropriate.

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or EPA or at laboratories approved by the Executive Officer of the Regional Water Board.

4. All analytical data shall be reported with method detection limits (MDLs) and with identification of either minimum levels, practical quantitation levels (PQLs) or limits of quantitation (LOQs).

5. 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.

6. The Discharger shall deliver a copy of each monitoring report in the appropriate format to:

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

7. The Discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years 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 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 modification(s) to analytical techniques or methods used;

   d. All sampling and analytical results, including

      1) Units of measurement used;
      2) Minimum reporting limit for the analysis (minimum level, practical quantitation level (PQL));

3) Results less than the reporting limit 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.

e. All monitoring equipment calibration and maintenance records;

f. All original strip charts from continuous monitoring devices;

g. All data used to complete the application for this Order; and,

h. Copies of all reports required by this Order.

i. Electronic data and information generated by the Supervisory Control and Data Acquisition (SCADA) System.

8. "Grab" sample is defined as any individual sample collected in less than 15 minutes.

9. Weekly samples shall be collected on any representative day of each week.

10. Monthly samples shall be collected on a representative day of the month.

11. Quarterly samples shall be collected in January, April, July, and October.

12. Semi-Annual samples shall be collected at the initiation of the project for the first sample and during January and July thereafter.

13. Annual samples shall be collected on the month the discharge authorization letter was issued.

## II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the dewatered groundwater effluent limitations, discharge specifications, and other requirements in this Order:

| Discharge Point Name | Monitoring Location Name | Monitoring Location Description | Discharge Point Latitude | Discharge Point Longitude |
|---|---|---|---|---|
| 001 | M-001 | **Culvert Drive and BNSF railroad** | 33° 41'75" N | 117° 47'31" W |
| 002 | M-002 | **Jamboree Road and I-5 Freeway** | 33° 43'7" N | 117° 47'37" W |
| 003 | M-003 | **Jeffery Road and BNSF railroad** | 33° 41'6" N | 117° 46'20" W |

## III. EXTRACTED GROUNDWATER MONITORING REQUIREMENTS

A. A sampling station shall be established at the groundwater extraction point. This station shall be located where representative samples can be obtained before the extracted groundwater is treated and discharged. The volume of daily extracted groundwater shall be recorded daily on a permanent log. Simultaneous with sampling and analysis for total nitrogen and selenium in the discharged effluent (See C. Effluent Monitoring, below), a grab sample of the extracted groundwater shall be taken and analyzed for total nitrogen and total recoverable selenium.

## IV. EFFLUENT MONITORING REQUIREMENTS

### A. Monitoring Locations M-001, M-002, and M-003

1. The Discharger shall monitor for the following constituents as follows:

| Constitute | Units | Type of Sample | Minimum Frequency of Sampling & Analysis | Required Analytical Test Method |
|---|---|---|---|---|
| Flow | GPD | Flowmeter | Daily | --- |
| Total Suspended Solids[1] | mg/l | Grab | Monthly | See Section I.A.2., above of this MRP |
| Sulfide | " | " | " | " |
| Oil and Grease | " | " | " | " |
| Coliform Organisms[2] | MPN | " | " | " |
| Methylene Blue Activated Substances (MBAS) [3] | mg/l | " | " | " |
| Total Hardness | " | " | " | " |
| Total Inorganic Nitrogen | " | " | " | " |
| Total Nitrogen | " | " | " | " |
| Total Petroleum Hydrocarbons[3] | µg/l | " | " | See footnote #3 below |
| Total Arsenic | µg/l | " | Monthly | See Section I.A.2., above of this MRP |
| Total Recoverable Selenium | " | " | " | " |
| Total Recoverable Cadmium[4] | " | " | See Section B, below | " |
| Total Recoverable & Dissolved Copper[4] | µg/l | Grab | See Section B., below | See Section I.A.2., above of this MRP |
| Total Recoverable & Dissolved Lead[4] | " | " | " | " |
| Total Recoverable & Dissolved Nickel[4] | µg/l | " | " | " |
| Total Recoverable & Dissolved Zinc[4] | µg/l | " | " | " |
| pH | Unit | " | Monthly | " |
| Temperature | °C | " | " | " |
| Dissolved Oxygen | mg/l | " | " | " |
| Total Alkalinity | mg $CaCO_3$/l | " | " | " |

1 *Not applicable if all wastewater will percolate prior to reaching receiving waters.*

2 *Only for groundwater dewatering projects in the vicinity of active sewer lines.*

3 *Only groundwater dewatering projects in an area where gasoline leaks, spills, or contamination has occurred, or where active groundwater remediation projects are occurring (e.g. gasoline service station leaking underground storage tank), or when gasoline/diesel powered engines are used in the dewatering operation. Total Petroleum Hydrocarbons with gasoline distinction. TPH-G (Modified 8015) must include analysis for carbon range C4 through C12.*

4 *This constituent shall be monitored for four sampling events. If all four sample test results pursuant to Section C., whichever is applicable, result in non-detection, no further monitoring for this constituent is required.*

| Constitute | Units | Type of Sample | Minimum Frequency of Sampling & Analysis | Required Analytical Test Method |
|---|---|---|---|---|
| Electrical Conductance | µmhos/cm | Grab | Monthly | See Section I.A.2., above of this MRP |
| Chloride | mg/l | " | " | " |
| Sulfate | " | " | " | " |
| Total Organic Carbon | " | " | " | " |
| Total Dissolved Solids | " | Grab | " | See Section I.A.2., above of this MRP |

**B. Minimum Frequency of Sampling & Analysis:**

1. Weekly sampling and analyses shall be conducted for the first month. Subsequent sampling and analyses shall be conducted once quarterly, unless directed otherwise by the Regional Water Board Executive Officer.

**C Total Nitrogen and Total Recoverable Selenium Offset Monitoring and Reporting**

1. If and when the Discharger implements a nitrogen and/or selenium offset approved by the Executive Officer, the Discharger shall assure sufficient monitoring of influent and effluent flow, total nitrogen including particulate organic nitrogen, and/or total selenium concentrations, as appropriate, from the facility(ies) providing the offset is conducted to demonstrate that the requisite offset(s) of the Discharger's nitrogen and/or selenium load is achieved.

2. Provide documentation necessary to demonstrate that implementation of the offset(s) results in requisite reduction of total nitrogen and selenium as applicable.

3. If no requisite offset occurs during the monitoring period, a letter to that effect shall be submitted in lieu of a monitoring report. The letter shall include a justification for the failure to provide the offset.

## V. RECEIVING WATER MONITORING REQUIREMENTS – NOT APPLICABLE

## VI. REPORTING REQUIREMENTS

**A. General Monitoring and Reporting Requirements**

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

2. By March 1 of each year, the discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements. The annual report shall include a summary of the quality assurance (QA) activities for the previous year.

**B. Self Monitoring Reports (SMRs)**

1. At any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit self-monitoring reports in accordance with the requirements described below.

2. The Discharger shall submit quarterly, and annually Self Monitoring Reports including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Monthly reports shall be due on the 1st day of the second month following the end of each calendar month; Quarterly reports shall be due on May 1, August 1, November 1, and February 1 following each calendar quarter; Semi-annual reports shall be due on August 1 and February 1 following each semi-annual period; Annual reports shall be due on March 1st following each calendar year.

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

| Sampling Frequency | Monitoring Period Begins On December 1, 2005 | Monitoring Period | SMR Due Date |
|---|---|---|---|
| Continuous | Day after permit effective date | All | First day of second calendar month following month of sampling |
| 1 / week | Sunday following permit effective date or on permit effective date if on a Sunday | Sunday through Saturday | First day of second calendar month following month of sampling |
| 1 / month | 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 | First day of second calendar month following month of sampling |
| 1 / quarter | Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date | January 1 through March 31<br>April 1 through June 30<br>July 1 through September 30<br>October 1 through December 31 | May 1<br>August 1<br>November 1<br>February 1 |
| 1 / year | January 1 following (or on) permit effective date | January 1 through December 31 | March 1 |

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final limitations.

6. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment C), to the address listed below:

**California Regional Water Quality Control Board**
**Santa Ana Region**
**3737 Main Street**
**Riverside, California 92501-3348**

**C. Discharge Monitoring Reports (DMRs)**

1. As described in Section IX.B.1 above, at any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit discharge monitoring reports (DMRs) in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment C). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

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## ATTACHMENT E – FACT SHEET

As described in Section II of the Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

## I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

| | |
|---|---|
| **WDID** | **8 303489001** |
| **Discharger** | **City of Irvine** |
| **Name of Facility** | **Groundwater Dewatering Facilities** |
| **Facility Address** | ❖ **Grade Crossing at Culver Drive and BNSF railroad;**<br>❖ **Grade Crossing at Jamboree Road and I-5 Freeway; and,**<br>❖ **Proposed undercrossing at Jeffrey Road and BNSF railroad tracks** |
| | **City of Irvine, CA 92623** |
| | **Orange County** |
| **Facility Contact, Title and Phone** | **Mike Loving, Water Quality Administrator, (949) 724-6315** |
| **Authorized Person to Sign and Submit Reports** | **Mike Loving, Water Quality Administrator, (949) 724-6315** |
| **Mailing Address** | **One Civic Center Plaza, P. O. Box 19575, Irvine, CA 92623** |
| **Billing Address** | **SAME** |
| **Type of Facility** | **Groundwater dewatering** |
| **Major or Minor Facility** | **Minor** |
| **Threat to Water Quality** | **1** |
| **Complexity** | **C** |
| **Pretreatment Program** | **N** |
| **Reclamation Requirements** | **N** |
| **Facility Permitted Flow** | **001-Culvert Drive Crossing 0.202 mgd**<br>**002-Jamboree Road Crossing 0.072 mgd**<br>**003-Jeffery Road Undercrossing 0.072 mgd** |
| **Facility Design Flow** | **Same as above** |
| **Watershed** | **San Diego Creek/Newport Bay** |
| **Receiving Water** | **Peters Canyon Wash, San Diego Creek** |
| **Receiving Water Type** | **Surface water – creek, enclosed bay** |

A. The City of Irvine (hereinafter Discharger) is the owner and operator of several groundwater dewatering projects in the City of Irvine.

B. The Discharger discharges groundwater dewatering wastewater to Peters Canyon Wash, a tributary of San Diego Creek and Newport Bay, all waters of the United States. The discharges are currently regulated by a general waste discharge requirements for discharges to surface waters which pose an insignificant (de minimus) threat to water quality, Order No. 98-67, NPDES No. CAG998001.

Order No. 98-67, NPDES No. CAG998001 is a general NPDES permit adopted by the Regional Water Board on July 10, 1998, prescribing general waste discharge requirements for discharges to surface waters that pose an insignificant (*de minimus*) threat to water quality within the Santa Ana Region, including the San Diego Creek/Newport Bay watershed. The discharges regulated under this Order include those resulting from hydrostatic testing of vessels, pipelines, and tanks, from the maintenance of potable water supply pipelines, tanks, and reservoirs, from fire hydrant testing or flushing, non-contact cooling water, air conditioning condensate, and the like. Order No. 98-67 also regulated discharges of groundwater resulting from construction dewatering, well installation, development, test pumping and purging, aquifer testing wastes, and dewatering wastes from subterranean seepage.

Order No. 98-67 expired on July 1, 2003 and was renewed by Order No. R8-2003-0061. Order No. R8-2003-0061 specifically excludes from coverage under its terms and conditions the groundwater-related discharges noted above that occur in the San Diego Creek/Newport Bay watershed. Instead, the Order finds that these groundwater-related discharges within the San Diego Creek/Newport Bay watershed will continue to be covered under Order No. 98-67 until such time as appropriate, separate waste discharge requirements are approved. The groundwater-related discharges in the San Diego Creek/Newport Bay watershed have the potential to adversely affect surface waters within the watershed and would likely not comply with established TMDLs for the watershed. On December 20, 2004, the Regional Water Board adopted general waste discharge requirements for short-term groundwater-related discharges and *de minimus* wastewater discharges to surface waters within the San Diego Creek/Newport Bay watershed, Order No. R8-2004-0021, NPDES No. CAG998002. The Discharger owns and operates several groundwater-dewatering facilities. The City pumps/extracts groundwater to lower the groundwater level at two roadway crossings and proposes to conduct these activities at an undercrossing site. The dewatered groundwater is or will be discharged into storm drains that lead to Peter Canyon Wash. These facilities will be discharging extracted groundwater over many years, even if intermittently during this extended period. Because of the long-term nature of the discharges, it is not appropriate to regulate them under the General Permit Order No. Order No. R8-2004-0021, NPDES No. CAG998002. Consequently, individual waste discharge requirements are necessary to regulate such long-term groundwater related discharges within the San Diego Creek/Newport Bay watershed.

C. The Discharger filed a report of waste discharge (ROWD) and submitted an application for issuance of individual Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on September 23, 2004. Supplemental Information was requested on May 4, 2005 and received on May 27, 2005. A site visit was conducted on August 17, 2005, to observe operations and collect additional data to develop permit limitations and conditions.

## II. FACILITY DESCRIPTION

### A. Description of Wastewater and Treatment or Controls

The City of Irvine currently operates two dewatering pump stations at two roadway crossings. These crossings are located at Culver Drive and at Jamboree Road and Interstate 5. At both locations, the city streets (Culver and Jamboree) drop to a grade that is lower than the groundwater level in the area. Therefore, dewatering is required to prevent flooding of the roadways. In order to prevent flooding of the depressed roadway crossings, and other deep structures, the City is constantly operating two dewatering pump stations at these locations. At the Culver Drive crossing, the maximum flow is 0.202

mgd and average flow is 0.165 mgd. At the Jamboree Road crossing, the max flow is 0.072 mgd and the average flow is 0.0126 mgd.

A third undercrossing at Jeffrey Road and the OCTA railroad crossing is currently in the final design stages. Current investigations indicate that the proposed roadway will be above the current groundwater level. However, a dewatering pump station is being proposed in case the groundwater table rises in the future. The volume of discharge at this location is estimated at a maximum flow of 0.072 mgd and an average flow of 0.0079 mgd.

Based on reported monitoring data, dewatered groundwater from dewatering facilities contains elevated selenium and total nitrogen levels. Selenium concentrations in the dewatered wastewater were in the range of <5 *µg/L* to 77 *µg/L*, while total nitrogen concentrations ranged from 9 *mg/L* to 39 *mg/L*.

Currently, dewatered wastewater is discharged without treatment.

## B. Discharge Points and Receiving Waters

| Discharge Point | Effluent Description | Discharge Point Latitude | Discharge Point Longitude | Receiving Water |
|---|---|---|---|---|
| 001 | Groundwater dewatering at-Culver Drive & BNSF Railroad | 33° 41'75" N | 117° 47'31" W | Peters Canyon Wash, San Diego Creek |
| 002 | Groundwater dewatering at-Jamboree Road & I-5 | 33° 43'7" N | 117° 47'37" W | Peters Canyon Wash, San Diego Creek |
| 003 | Groundwater dewatering at-Jeffrey Road & BNSF Railroad | 33° 41'6" N | 117° 46'20" W | Peters Canyon Wash, San Diego Creek |

Dewatered groundwater is discharged into Peters Canyon Wash, a tributary of Reach 1 of San Diego Creek and thence Newport Bay.

## C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Order No. 98-67, which regulated the discharges from the two existing dewatering facilities, does not include effluent limits for selenium and total nitrogen. However, the discharger has monitored for selenium and total nitrogen and representative monitoring data from monitoring location designated M-001 and M-002 are as follows:

| Parameter | Monitoring Data (From May 1, 2003 To February 27, 2004) | | |
|---|---|---|---|
| | Unit | Highest Average Monthly Discharge | Highest Daily Discharge |
| Selenium | µg/L | 42 | 77 |
| Total Nitrogen | mg/L | 19 | 39 |

## D. Compliance Summary

The Discharger was in compliance with effluent limitations specified in the general permit Order No. 98-67-017. Order No. R8-2005-0079 is a new individual permit that includes effluent limitations for Nitrogen and Selenium, therefore, there is no facility compliance history for Nitrogen and Selenium yet.

## III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

### A. 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). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC.

### B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

### C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans**. This Order includes requirements that implement the Water Quality Control Plan (Basin Plan), which was adopted by the Regional Water Board on March 11, 1994. The Basin Plan became effective on January 24, 1995. This 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 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to San Diego Creek/Newport Bay are as follows:

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|---|---|---|
| 001, 002, 003 | Peters Canyon Wash, a tributary to San Diego Creek/Newport Bay | Intermittent:<br>a. Groundwater Recharge,<br>b. Water Contact Recreation,<br>c. Non-contact Water Recreation,<br>d. Warm Freshwater Habitat, and<br>e. Wildlife Habitat.<br>Excepted from MUN |
| | San Diego Creek, Reach 1 | Existing or Potential:<br>a. Water Contact Recreation,<br>b. Non-contact Water Recreation,<br>c. Wildlife Habitat,<br>d. Warm Freshwater Habitat.<br>Excepted from MUN |
| | Upper and Lower Newport Bay | Existing or Potential:<br>a. Water Contact Recreation,<br>b. Non-contact Water Recreation,<br>c. Commercial and Sportfishing,<br>d. Preservation of Biological Habitats of Special Significance,<br>e. Wildlife Habitat,<br>f. Rare, Threatened or Endangered Species,<br>g. Spawning, Reproduction, and Development,<br>h. Marine Habitat,<br>i. Shellfish Harvesting,<br>j. Estuarine Habitat, and<br>Excepted from MUN |
| | Irvine Groundwater Management Zone | Existing or Potential:<br>a. Municipal and Domestic Supply,<br>b. Agricultural Supply,<br>c. Industrial Service Supply, and<br>d. Industrial Process Supply. |

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

3. **State Implementation Policy.** On March 2, 2000, 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, with the exception of the provision on alternate test procedures for individual discharges that have

been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs), and requires Dischargers to submit data sufficient to do so. On February 24, 2005, the State Water Board amended the SIP. The Office of Administrative Law (OAL) approved the amendments on May 31, 2005. On July 13, 2005, the United States Environmental Protection Agency (USEPA) approved the amendments.

4. **Antidegradation Policy.** Section 131.12 of 40 CFR 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, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order that regulated discharges from the dewatering facilities.

7. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment D.

## 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.

In July 2003, the U. S. EPA approved the State's 2002-303(d) list of impaired water bodies. This list included Reaches 1 and 2 of San Diego Creek and Upper and Lower Newport Bay. One or more of these water bodies were determined to be impaired by one or more of the following: fecal coliform, nutrients, metals and pesticides.

TMDLs have been developed to address these impairments as follows:

### 1. Nutrient TMDL.

On April 17, 1998, the Regional Water Board adopted Resolution No. 98-9, amending the Basin Plan to incorporate a Nutrient Total Maximum Daily Load (TMDL) for the Newport Bay/San Diego Creek Watershed. The TMDL was amended by Resolution No. 98-100 on October 9, 1998 and thereafter approved by the State Water Resources Control Board, Office of Administrative Law and the US EPA. The nutrient TMDL was developed to address aesthetic and recreational nuisances created by algal blooms in Newport Bay, as well as the concern that these blooms may adversely affect wildlife. The TMDL establishes final targets that are based on a 50% reduction in nitrogen loading[5]. The TMDL requires that the 50% reduction be achieved no later than December 31, 2007 for summer loading (between April 1 and September 30); the 50% reduction in winter inputs (between October 1 and March

5 *The TMDL also establishes targets for phosphorus.*

31) is to be achieved no later than December 31, 2012. While the TMDL requires reductions in nutrient loadings, it is recognized that too few nutrients in a waterbody can potentially adversely affect wildlife.

Consistent with the TMDL targets, the nutrient TMDL specifies wasteload and load allocations for total nitrogen mass inputs to the San Diego Creek/Newport Bay watershed from identified sources[6]. Nitrogen load allocations are specified for "undefined sources", which include rising groundwater, discharges associated with groundwater cleanup and dewatering, atmospheric deposition, open space inputs and in-bay sediment nitrogen. Again consistent with the TMDL targets, the load allocations for undefined sources require a 50% reduction in summer inputs by 2007, and a 50% reduction in winter inputs by 2012.

At their meeting on August 13, 2004, the Regional Water Board reviewed as an informational item a report prepared by Regional Water Board staff entitled "Newport Bay/San Diego Creek Watershed Total Maximum Daily Load (TMDL) Triennial Review" (Triennial Review Report). Among the conclusions presented in the Report was the finding that the overall TMDL nitrogen reduction targets for summer season 2007 have been achieved. Achievement of these targets was due largely to three factors: low rainfall; denitrification of diverted San Diego Creek flows in the Irvine Ranch Water District (IRWD) wetland ponds in the San Joaquin Marsh; and, nitrogen runoff control efforts in the watershed, particularly by the nurseries and Caltrans, which operates a denitrification facility for groundwater intercepted by a subdrain system[7]. Other than the IRWD pond treatment system and Caltrans, no significant measures have yet been implemented to reduce dewatering/other groundwater-related nutrient discharges. Some such measures are in the process of being implemented in the watershed.

The Triennial Review Report also finds that algal biomass in Newport Bay has significantly declined since the nutrient TMDL was adopted in 1998; blooms are now largely restricted to the Upper Bay and are less extensive than in prior years. The occurrence of early winter algal blooms in the Upper Bay suggests that more restrictive nitrogen water quality objectives for San Diego Creek may be necessary. The Regional Water Board is conducting studies to identify appropriate objectives. Given the complexity of defining these objectives, these studies are not expected to be complete before 2007. Any consideration of such revised objectives is outside the scope of this Order.

Insufficient data were available during the development of the nutrient TMDL to identify specific load allocations for each of the components of the "undefined sources" category of nutrient inputs, including groundwater-related inflows to surface waters in the Newport Bay watershed. Because of insufficient data, baseline loading from the discharges regulated under this Order (and most other groundwater-related discharges) has not yet been established in the TMDL. Summer 2002 data presented in the Triennial Review Report indicate that the total nitrogen load resulting from undefined sources, including groundwater-related inflows, was approximately 27,000 lbs. This figure does not include loads resulting from in-bay sediment nitrogen, which could not be quantified. Rising groundwater contributed an estimated 18,700 lbs and groundwater cleanup discharges accounted for approximately 1600 lbs. The load from groundwater dewatering discharges was approximately 5300 lbs; long-term dewatering discharges by the City of Irvine accounted for 87% of that load. The summer 2002 data likely underestimate the nitrogen loading that can be expected to result over the long-term from groundwater-related discharges, since 2002 was a dry year, resulting in decreased groundwater table elevations and, likely, reduced groundwater-related inflows to surface waters and decreased need for dewatering.

The Nutrient TMDL implementation plan supports the trading of pollutant allocations, where appropriate, as a potential cost-effective method to achieve pollutant reduction. There is an ongoing effort by watershed stakeholders, including the City of Irvine, to design and implement a regional program to achieve the nitrogen reductions required by the TMDL (natural treatment systems).

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6 *The TMDL assigns phosphorus load allocations to open space and agricultural areas. No phosphorus load allocations are specified for groundwater-related discharges since these discharges are not expected to include phosphorus.*

7 *Discharges from the Caltrans facility are regulated under Order No. R8-2002-0093, NPDES No. CA8000390. These discharges are currently being discharged to the sewer system under temporary authorization from the Orange County Sanitation District.*

Implementation of this program, with participation by the other groundwater Dischargers within the Newport Bay/San Diego Creek Watershed, will likely enable the groundwater Dischargers, including the City of Irvine, to achieve the requisite nitrogen mass reductions to Newport Bay.

The City of Irvine and other long-term and short-term Dischargers of groundwater-related wastewaters within the watershed have agreed to form the Nitrogen and Selenium Management Program Working Group (NSMP Working Group, or Working Group) and have committed to fund and participate in a Work Plan. The tasks include the development of a nutrient offset, trading or mitigation program that is to be based on a comprehensive understanding of the groundwater-related nutrient inputs to surface waters in the Newport Bay watershed.

Completion of the approved Work Plan is expected to result in the development of a comprehensive understanding of and management plan for nitrogen and selenium (see discussion below) in groundwater-related inflows to surface waters in the Newport Bay watershed and as such, goes beyond issues specific to the discharges regulated under this Order. The management plans are expected to provide recommendations for specific load and wasteload allocations for the groundwater-related components of the "undefined source" category identified in the TMDL, in addition to offset, trading or mitigation program recommendations. Revisions to the TMDL and/or to the nutrient-related requirements in this Order may be necessary based on the results of the Work Plan assessments and resultant management plans.

This Order requires compliance with limitations for total nitrogen that are based on the nutrient TMDL. The Order allows implementation of an approved nitrogen offset program if the discharger demonstrates that immediate compliance with the nitrogen limitations is infeasible. In accordance with the schedule identified in the nutrient TMDL, the Order requires that any such offset be completed no later than January 1, 2007. As noted, revisions to this Order may be necessary to address the findings and recommendations of the Work Group effort and/or other investigations.

**2. Selenium TMDL**

On June 14, 2002, the U.S. EPA Region 9 established a total maximum daily load (TMDL) for selenium for San Diego Creek and Newport Bay. EPA also established TMDLs for other toxic pollutants in the watershed. The selenium TMDL is based on the selenium criterion specified in the CTR. The EPA TMDL for selenium identified loading targets for specific groups of discharges but recognized that quantification of the baseline loading from Dischargers of groundwater was infeasible due to the lack of selenium data. The EPA TMDLs do not include specific implementation requirements, such as compliance timeframes, interim numeric targets, etc, since implementation plans are the responsibility of the Regional Water Board. However, pursuant to federal regulations, the Regional Water Board is required to ensure that NPDES permits for discharges in this watershed contain effluent limitations necessary to be consistent with the wasteload allocations specified in the selenium TMDL (and other TMDLs). In the absence of an adopted implementation plan, the Regional Water Board can and must employ its legally authorized discretion in determining the appropriate permit provisions to implement these allocations. Regional Water Board staff is now working on an implementation plan for the selenium TMDL, which will be considered for future adoption as a Basin Plan amendment. Staff may also recommend revisions to the selenium TMDL established by EPA based on ongoing and forthcoming studies by EPA, Board staff and others. In its documents establishing the toxic TMDLs, EPA recognizes the substantial uncertainties that remain concerning selenium sources, biological effects, and the appropriate numeric objective that should apply to the protection of beneficial uses. EPA is now engaged in a review of the selenium objective in the CTR. Resolution of these uncertainties, and possible revision of the numeric selenium objective by EPA or through a site-specific objective process, is likely to require future refinement of the selenium TMDL. Any such refinement would necessitate review and revision, as appropriate, of this Order. Absent identification of effective and reasonable treatment technologies, source controls or pollution reduction measures for selenium, development of a site-specific objective for selenium in the Newport Bay watershed will be appropriate.

Both the CTR and the State Policy include provisions for compliance schedules for effluent limitations for selenium and other priority pollutants. Up to five years from the date of adoption of these waste

discharge requirements may be allowed to complete actions necessary to comply with CTR-criterion–based effluent limitations. These actions include the development and adoption of a site-specific objective, if appropriate, as provided in the Policy (Section 5.2). If the compliance schedule exceeds one year, interim limitations must be specified in NPDES permits and interim requirements to control the pollutant for which the compliance schedule is included may be imposed. These interim requirements may include pollutant minimization and source control measures. This Order requires that the Discharger meet the selenium final limit by December 21, 2009. This date is the same compliance date required of those dischargers regulated under the General Permit Order No. R8-2004-0021. As discussed below, the City of Irvine is a participating agency in the Newport Bay Watershed Working Group, the efforts of which are explicitly addressed and incorporated in Order No. R8-2004-0021.

This Order implements relevant provisions of the CTR, the EPA selenium TMDL for San Diego Creek and Newport Bay, and the State Board Policy by specifying interim performance-based and final effluent limitations for selenium for groundwater-related discharges. The Discharger must implement selenium reduction through reasonable treatment, source control, or pollution prevention measures when it becomes available during the five-year permit period. In addition, the Discharger may be able to reduce or eliminate selenium concentrations and mass discharges by the implementation of low technology best management practices (BMPs). Such volume-reduction and other BMPs will be investigated in an aggressive manner by the Working Group, including an evaluation of other potential positive and negative impacts that may result from the BMPs.

The Discharger has agreed to participate with the Working Group, which has committed to fund and implement the approved Work Plan. The approved Work Plan is intended to develop a comprehensive understanding of and management plan for selenium, as well as nitrogen, discharges to surface waters within the Newport Bay watershed that result from groundwater-related inflows. This work is expected to assist the Regional Water Board in refining the TMDL and in developing a TMDL implementation plan by identifying appropriate selenium load and wasteload allocations for the several categories of groundwater-related inflows, and by developing a recommended offset, trading or mitigation program.

### E. Other Plans, Polices and Regulations

No-mixing zone: 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.

## IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR §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 numeric water quality objectives have not been established, three options exist to protect water quality: 1) 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

### A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, California Water Code, and previous permit Order No. 98-67 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

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

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

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

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

### 2. Applicable Technology-Based Effluent Limitations

The Working Group Work Plan tasks include the following:

a. Perform complementary monitoring and assessment of selenium and nutrient sources in the watershed, utilizing, in part, ongoing selenium and nutrient studies performed by others;
b. Identify and assess selenium treatment technologies, including potential future technologies;
c. Identify and assess selenium BMPs (including volume-reduction techniques)(task includes a "Quick Start" program for certain BMP assessment; and
d. Facilitate demonstration testing of identified selenium treatment technologies and BMPs.

Once the Working Group has identified the selenium treatment technology appropriate for this type of discharge, this Order may be reopened to include applicable technology-based effluent limitations, as appropriate.

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses 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 water quality criteria contained in the CTR and NTR.

**2. Applicable Beneficial Uses and Water Quality Criteria and Objectives**

The Water Quality Control Plan, Santa Ana Region, (the Basin Plan) was adopted by the Regional Water Board on March 11, 1994. The Basin Plan became effective on January 24, 1995. The Basin Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the inland surface waters and enclosed bays and estuaries, quality requirements for wastes discharges (effluent quality requirements), discharge prohibitions, and general provisions, to protect beneficial uses.

The dewatered groundwater from the City's three sites is discharged to Peters Canyon Creek, San Diego Creek, then to Newport Bay. The beneficial uses of these receiving waters include:

a. Navigation,
b. Water Contact Recreation,
c. Non-contact Water Recreation,
d. Commercial and Sportfishing,
e. Preservation of Biological Habitats of Special Significance,
f. Wildlife Habitat,
g. Rare, Threatened or Endangered Species,
h. Spawning, Reproduction, and Development,
i. Marine Habitat,
j. Shellfish Harvesting,
k. Estuarine Habitat,
l. Warm Freshwater Habitat, and
m. Groundwater Recharge (intermittent beneficial use).

Many surface waters within the region recharge underlying groundwater management zones. The existing and potential beneficial uses of groundwater within the Newport Bay/San Diego Creek Watershed include:

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

The Basin Plan establishes narrative and numeric water quality objectives for pH, oil and grease, total suspended solids, and total residual chlorine.

<u>pH</u>: the pH of inland surface waters shall not be raised above 8.5 or depressed below 6.5 as a result of controllable water quality factors.

<u>Oil and Grease</u>: the Basin Plan established narrative water quality objectives for oil and grease. The Basin Plan states that waste discharges shall not result in deposition of oil, grease, wax, or other materials in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance of adversely affect beneficial uses. In 1993, the Regional Board adopted general permit Order No. 93-49, the first general permit issued to regulate de minimus discharges. This Order included a maximum concentration limit for oil and grease at 15 mg/L and suspended solids at 75 mg/L based on best professional judgment. Ever since, this oil and grease and suspended solids limits have

been used consistently region wide. To protect beneficial uses, this Order continues to include a maximum concentration limit of 15 mg/l for oil and grease.

Total Suspended Solids: The Basin Plan established narrative water quality objectives for total suspended solids and settleable solids. The Basin Plan states that inland surface waters and enclosed bays shall not contain suspended or settleable solids in amounts, which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors. To protect beneficial uses and as previously discussed above, this Order includes a maximum concentration suspended solids limit at 75 mg/L.

Total Petroleum Hydrocarbons: Spills of petroleum-derived chemicals can pose serious threats to the public and environment. General Permit Order No. 93-49 (see "Oil and Grease", above) also included a maximum concentration limit for total petroleum hydrocarbon (TPH) at 100 ug/L, also based on best professional judgment. This TPH limit has since been used in several general permits issued by the Regional Board. This Order also includes a maximum concentration limit of 100 μg/l (ppb) for TPH. A TPH limit is included in this Order to address discharges that may contain TPH as a result of using portable generators or pumps at the construction site or any activity that may result to a discharge of TPH.

No mixing zone is provided.

**3. Determining the Need for WQBELs**

a. As discussed in Section III.D.1. Nutrient TMDL - Consistent with the TMDL targets, the nutrient TMDL specifies wasteload and load allocations for total nitrogen mass inputs to the San Diego Creek/Newport Bay watershed from identified sources[8]. Nitrogen load allocations are specified for "undefined sources", which include rising groundwater, discharges associated with groundwater cleanup and dewatering, atmospheric deposition, open space inputs and in-bay sediment nitrogen. Again consistent with the TMDL targets, the load allocations for undefined sources require a 50% reduction in summer inputs by 2007, and a 50% reduction in winter inputs by 2012.

b. As discussed in Section III.D.2., Selenium TMDL, above, U.S, EPA Region 9 established a total maximum daily load (TMDL) for selenium for San Diego Creek and Newport Bay on July 14, 2002. The selenium TMDL is based on the selenium criterion specified in the CTR.

The U.S. EPA has identified 126 priority pollutants, including metals and organic chemicals, and has promulgated water quality objectives for many of these substances in the California Toxics Rule and National Toxics Rule. The State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP) specifies the procedures that are to be used in implementing these objectives in waste discharge requirements. Numeric effluent limitations must be specified for those priority pollutants that are determined to have the reasonable potential to cause or contribute to a violation of the applicable objectives.

To determine reasonable potential for pollutants to exceed water quality objectives, Board staff used the procedures outlined in the Section 1.3 of the SIP. A reasonable potential analysis (RPA) is conducted for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The Regional Water Board analyzed effluent and receiving water data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above water standard, numeric WQBEL are required. To conduct the RPA, this Regional Water Board identified the

8 *The TMDL assigns phosphorus load allocations to open space and agricultural areas. No phosphorus load allocations are specified for groundwater-related discharges since these discharges are not expected to include phosphorus.*

maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent, based on data provided by the Discharger in its NPDES permit application and monitoring data.

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

a. Process Analysis 1 - If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
b. Process Analysis 2 – If the MEC <C, and background water quality (B) >C, limit is needed.
c. Process Analysis 3 – If other related information determines the need for WQBEL.

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

The RPA was performed for Selenium. Selenium data are available for outfalls 001 and 002.

### 4. WQBEL Calculations

Calculation of selenium effluent limits is summarized in Attachment F.

## D. Final Effluent Limitations: Summary of Final Effluent Limitations

**For Discharge Points 001, 002 and 003**
**At Monitoring Locations M-001, M-002, and M-003**

| Parameter | Units | Effluent Limitations | | | | |
|---|---|---|---|---|---|---|
| | | Average Monthly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | Basis |
| pH | Std units | -- | -- | 6.5 | 8.5 | CO, BP |
| Oil and Grease | mg/l | -- | 15 | -- | -- | CO |
| Total Suspended Solids | mg/l | -- | 75 | -- | -- | CO |
| Total Residual Chlorine | mg/l | -- | 0.1 | -- | -- | CO, BP |
| Total Petroleum Hydrocarbons | µg/l | -- | 100 | -- | -- | CO |
| Total Nitrogen - discharges to Reach 1 of San Diego Creek and tributaries thereto | µg/l | -- | 13 mg/l | -- | -- | TMDL |
| Total Recoverable Selenium | µg/l | 4.0 | 8.4 | -- | -- | SIP, TMDL |

Notes: CO= Current Order; BP= Basin Plan; SIP= State Implementation Policy; TMDL= EPA and Regional Water Board TMDLs.

### E. Interim Limitations

This Order implements relevant provisions of the CTR, the EPA selenium TMDL for San Diego Creek and Newport Bay, and the State Board Policy by specifying final numeric effluent limitations for selenium from the city's dewatering sites, where selenium concentrations in the groundwater are elevated. At the present time, the Discharger cannot achieve compliance with selenium numeric effluent limitations through reasonable treatment, source control, or pollution prevention measures as such measures are not currently available. Moreover, if and when selenium treatment technology becomes available, it may take the City time to meet the final Selenium limit, due to requisite funding availability, purchasing and necessary construction/installation periods. Both the CTR and the State Policy include provisions for compliance schedules for effluent limitations for selenium and other priority pollutants. Up to five years from the date of adoption of this waste discharge requirements may be allowed to complete actions necessary to comply with CTR-criterion–based effluent limitations. These actions include the development and adoption of a site-specific objective, if appropriate, as provided in the Policy (Section 5.2).

## V. RATIONALE FOR RECEIVING WATER LIMITATIONS

### A. Surface Water

Narrative and numeric receiving water limitations have been established in this Order based on water quality objectives specified in Chapter 4 of the Basin Plan to ensure the reasonable protection of beneficial uses and the prevention of nuisance.

## VI. 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 California Water Code authorize the Water Board to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment D 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 Monitoring and Reporting Program for this facility.

### A. Influent Monitoring

Influent monitoring for selenium is required only when treatment facility is installed on site.

### B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the 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 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. The monitoring and reporting program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which

no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

This Order includes effluent monitoring requirements that are similar to the effluent monitoring program that was adopted for the general waste discharge requirements for short-term groundwater-related discharges to surface waters within the San Diego Creek/Newport Bay watershed, Order No. R8-2004-0021, NPDES No. CAG998002.

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed monitoring and reporting program (Attachment D).

The monitoring requirements for Cadmium, Copper, Lead, Nickel, and Zinc are based on the need to address metals TMDL requirements and the development of an appropriate implementation plan.

### C. Receiving Water Monitoring – Not Applicable

## VII. RATIONALE FOR PROVISIONS

### A. Standard Provisions

#### 1. Federal Standard Provisions

Federal Standard Provisions which in accordance with 40 CFR sections 122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment C to the Order.

#### 2. Regional Water Board Standard Provisions

Regional Water Board Standard Provisions are based on the Clean Water Act, U.S. EPA regulations, and the California Water Code.

Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment C to the Order.

### B. Special Provisions

#### 1. Reopener Provisions

To facilitate addressing changes in regulations, policies including revisions to the Basin Plan, newly determined presence of pollutants in the discharge and or demonstrated toxicity in the effluent, reopener provisions that specify the conditions for which this Order may be reopened are included in the Order.

#### 2. Special Studies and Additional Monitoring Requirements

The City of Irvine is a participant in the Working Group. As such, the Order requires the Discharger to continue to participate in the Working Group activities to conduct and implement its commitment under the General Permit Order No. R8-2004-0021.

#### 3. Best Management Practices and Pollution Prevention

As a participant in the Working Group, the City of Irvine has committed to implementing best management practices to reduce if not eliminate the discharges of nutrients and selenium into

surface waters. The Order includes a BMP provision implementing what has been committed by Working Group Participants.

**4. Compliance Schedules**

This Order establishes final effluent limitations for selenium that are new limits for the discharges. This Order also contains a compliance schedule that provides the Discharger time to bring their discharges into compliance with the newly established final limits. In accordance with Section 2.1 of the SIP, compliance schedules can only be provided by the Board after the Discharger has submitted a report that demonstrates and justifies that it is infeasible for the Discharger to achieve immediate compliance with newly established final effluent limitations.

The provision for the compliance schedule is based on Section 2.1 (Compliance Schedules) of the SIP. The proposed permit allows the Discharger up to December 21, 2009[9] to achieve compliance with the final Se limitation. The Discharger is required to develop a compliance and a pollution minimization plan to ensure that the Discharger achieves compliance with the final limitations. Annual reporting is required to inform the Regional Board about the progress made by the Discharger to achieve compliance with the final limitations within the specified time.

**5. Other Special Provisions**

Provided that the Discharger continues its participation in the Working Group and implementation of Work Plan commitments by the Working Group continues to be achieved, the Discharger will be deemed in compliance with Effluent Limitations and Discharge Specifications IV.A.1.

## VIII. 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) permit for the Groundwater Dewatering Facilities in the City of Irvine. As a step in the WDR adoption process, the Regional Water Board staff has developed this WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

### A. 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. Notification was provided through sending letters to interested agencies and parties, posting of the Notice of Public Hearing at Irvine City Hall and publication at the local newspaper, and posting the Tentative Order at the Regional Water Board website http://www.waterboards.ca.gov/santaana on November 7, 2005.

### B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to 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 October 31, 2005,

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[9] *This date is the date when permittees under the General Permit Order NO. R8-2004-0021 are required to comply with the final effluent limitation for selenium in the Order.*

### 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: | November 18, 2005 |
| Time: | 9:00 A.M. |
| Location: | City Council Chambers of Loma Linda<br>25541 Barton Road<br>City of Loma Linda, 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) 782-4130.

### 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 F-EFFLUENT LIMIT CALCULATION SPREADSHEET

***PERMIT LIMIT CALCULATION***

unit in ug/l

| | | | | | CV = .66 | | | Aquatic | | Human | | **Permit Limit** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Caltoxics** | | | | Acute M | Chronic M | LTA | Objective/limits | | Health Limits | | **Concentration Limit** | |
| | Freshwater | | Human Health | | 0.297 | 0.499 | | 3.38 | 1.61 | 2.10 | | | |
| Constituent | CMC | CCC | $H_2O$+Org | Org only | Acute LTA | Chronic LTA | | MDEL | AMEL | MDEL | AMEL | **MDEL** | **AMEL** |
| Selenium | 0.00 | 5.00 | | | 0.00 | 2.50 | ***2.50*** | 8.43 | 4.02 | | | **8.4** | **4.0** |

# ATTACHMENT G – MINIMUM LEVELS

**MINIMUM LEVELS IN PPB (µg/l)**

| Table 1- VOLATILE SUBSTANCES[10] | 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 herein 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 herein .

ML Usage: The ML value listed herein 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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10 *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[11] | GC | GCMS | LC | COLOR |
|---|---|---|---|---|
| Pentachlorophenol | 1 | 5 | | |
| Phenol [12] | 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[13] | 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 | |

11 *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.*

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

13 *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[14] | 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

14 *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 H - EPA PRIORITY POLLUTANT LISTS

| 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 I – PRACTICAL QUANTITATION LEVELS FOR COMPLIANCE

| PRACTICAL QUANTITATION LEVELS | | | |
|---|---|---|---|
| | Constituent | RL, µg/l | Analysis Method |
| 1 | Arsenic | 7.5 | GF/AA |
| 2 | Barium | 20 | ICP/GFAA |
| 3 | Cadmium | 15 | ICP |
| 4 | Chromium (VI) | 15.0 | ICP |
| 5 | Cobalt | 10.0 | GF/AA |
| 6 | Copper | 19.0 | GF/ICP |
| 7 | Cyanide | 50.0 | 335.2/335.3 |
| 8 | Iron | 100.0 | ICP |
| 9 | Lead | 26.0 | GF/AA |
| 10 | Manganese | 20.0 | ICP |
| 11 | Mercury | 0.5 | CV/AA |
| 12 | Nickel | 50.0 | ICP |
| 13 | Selenium | 14.0 | GF/HYDRIDE GENERATION |
| 14 | Silver | 16.0 | ICP |
| 15 | Zinc | 20 | ICP |
| 16 | 1,2 - Dichlorobenzene | 5.0 | 601/602/624 |
| 17 | 1,3 - Dichlorobenzene | 5.0 | 601 |
| 18 | 1,4 - Dichlorobenzene | 5.0 | 601 |
| 18 | 2,4 - Dichlorophenol | 10.0 | 625/604 |
| 20 | 4 - Chloro -3- methylphenol | 10.0 | 625/604 |
| 21 | Aldrin | 0.04 | 608 |
| 22 | Benzene | 1.0 | 602/624 |
| 23 | Chlordane | 0.30 | 608 |
| 24 | Chloroform | 5.0 | 601/624 |
| 25 | DDT | 0.10 | 608 |
| 26 | Dichloromethane | 5.0 | 601/624 |
| 27 | Dieldrin | 0.10 | 608 |
| 28 | Fluorantene | 10.0 | 625/610 |
| 29 | Endosulfan | 0.50 | 608 |
| 30 | Endrin | 0.10 | 608 |
| 31 | Halomethanes | 5.0 | 601/624 |
| 32 | Heptachlor | 0.03 | 608 |
| 33 | Hepthachlor Epoxide | 0.05 | 608 |
| 34 | Hexachlorobenzene | 10.0 | 625 |
| 35 | Hexachlorocyclohexane | | |
| | Alpha | 0.03 | 608 |
| | Beta | 0.03 | 608 |
| | Gamma | 0.03 | 608 |
| 36 | PAH's | 10.0 | 625/610 |
| 37 | PCB | 1.0 | 608 |
| 38 | Pentachlorophenol | 10.0 | 625/604 |
| 39 | Phenol | 10.0 | 625/604 |
| 40 | TCDD Equivalent | 0.05 | 8280 |
| 41 | Toluene | 1.0 | 602/625 |
| 42 | Toxaphene | 2.0 | 608 |
| 43 | Tributyltin | 0.02 | GC |
| 44 | 2,4,6-Trichlorophenol | 10.0 | 625/604 |