Santa Ana California Regional Water Quality Control Board
Santa Ana Region

December 20, 2004

STAFF REPORT

ITEM NO: 15

SUBJECT: 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

DISCUSSION:

See Attached Fact Sheet

RECOMMENDATION:

Adopt Order No. R8-2004-0021, NPDES No. CAG998002 as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) – Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel - Jorge Leon
State Water Resources Control Board, Division of Water Quality - James Maughan
State Department of Water Resources, Glendale
State Department of Fish and Game, Long Beach
California Department of Health Services, Santa Ana – Cor Shaeffer
Orange County Health Care Agency - Seth Daugherty
Orange County Resources and Development Management Department - Chris Crompton
Orange County Planning & Development Services Department – Tim Neely
Orange County Water District - Nira Yamachika
South Coast Air Quality Management District – Dr. Barry R. Wallerstein, Executive Officer
Orange County Coastkeeper - Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
Natural Resource Defense Council – David Beckman
Defend the Bay- Robert Caustin
Dr. Jack Skinner
Surfrider Foundation- Don Schulz
Additional mailing list (see attached list)

Additional Mailing List - Interested Agencies and Persons
Tentative Order No. R8-2004-0021

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Electronic copy of the draft Order No. R8-2004-0021 was also sent to the following:

Caltrans District 12
Building Industry Association Orange County
Larry Walker and Associates
Latham & Watkins LLP
City of Santa Ana
City of Costa Mesa
City of Irvine

Additional Mailing List - Interested Agencies and Persons
Tentative Order No. R8-2004-0021

City of Laguna Hills
City of Lake Forest
City of Newport Beach
City of Orange
City of Tustin
Irvine Company
Irvine Ranch Water District
Natural Resources Defense Council
Orange County Resources and Development Department
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FACT SHEET

December 20, 2004

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

I. BACKGROUND SUMMARY:

Order No. 98-67, NPDES No. CAG998001 is a general NPDES permit adopted by the Regional 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. This revised regulatory approach was taken in light of the concern that 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. Due principally to the presence of nitrates and selenium, and potentially other pollutants of TMDL concern, the Board found that it would be inappropriate to regulate these groundwater-related wastewater discharges within the San Diego Creek/Newport Bay watershed (i.e., those associated with well installation, development, test pumping and purging, aquifer testing wastes, construction dewatering and wastes from subterranean seepage) as *de minimus* discharges.

The groundwater basin in the San Diego Creek/Newport Bay Watershed consists of a deep regional aquifer overlain by a shallow perched aquifer. The deep aquifer, an important component of the water supply for Orange County, is recharged naturally through infiltration along the flanks of the Santa Ana Mountains, and artificially through actively managed spreading basins along the Santa Ana River. The shallow aquifer is poorly transmissive, restricted in extent, and found largely in the central portion of the watershed in the Tustin Plain. Historically,

this aquifer recharged through local vertical infiltration. Surface runoff in the watershed ponded seasonally in the area known as the Swamp of the Frogs, where shallow groundwater seeped to the surface.

The quality and hydrology of the shallow groundwater has been altered by anthropogenic activities, beginning in the early part of the 20th century. Irrigated agriculture resulted in leaching of nitrates and other salts to the shallow groundwater. The Swamp of the Frogs was drained and a network of channels was created to convey wastewater to Upper Newport Bay. A large portion of this wastewater consists of "baseflow" (seepage from shallow groundwater). Although seleniferous bedrock and soils occur naturally in parts of the watershed, the drainage modifications in the watershed have resulted in increased selenium mobility. The concentration of selenium in the groundwater of the watershed is not homogeneous and can vary widely depending on specific location within the watershed. Accordingly, the concentration of selenium in groundwater-related discharges in the watershed also varies widely.

Recent investigations into the sources of selenium and nutrients in the watershed have found that approximately 62-87 percent (%) of the base flows in San Diego Creek result from groundwater inflows to the creek, either naturally through subsurface flow, springs, and weepholes, or through groundwater dewatering and remediation operations. Approximately 96% of the selenium and 85% of the nitrate concentrations found in San Diego Creek and its tributaries result from these groundwater inputs[1].

In most cases, the groundwater-related discharges within the San Diego Creek/Newport Bay watershed are short-term in nature, i.e., the discharges occur for one year or (frequently) less. In some instances, however, these discharges are expected to occur over many years, even if intermittently during this extended period. For example, long-term dewatering is or may be necessary in some cases to prevent flooding of railroad or road crossings. This Order specifies waste discharge requirements for short-term (i.e., one year or less) groundwater-related discharges and for *de minimus* discharges within the San Diego Creek/Newport Bay watershed. Individual discharge requirements will be developed for Regional Board consideration for the long-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed.

This Order specifies limitations necessary to implement the Basin Plan and TMDLs established by the Regional Board and the U.S. Environmental Protection Agency.

II. NEED FOR ISSUANCE OF GENERAL WASTE DISCHARGE REQUIREMENTS:

It is appropriate to adopt a separate general discharge permit that will cover the following types of discharges in the Newport Bay Watershed:

1. Short term (one year or less duration) discharges from activities involving groundwater extraction and discharge:

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1 *Meixner et al., 2004. Sources of Selenium, Arsenic and Nutrients in the Newport Bay Watershed. (Contract Report to the Santa Ana Regional Board)*

a. Wastes associated with well installation, development, test pumping and purging;
b. Aquifer testing wastes;
c. Dewatering wastes from subterranean seepage; and
d. Groundwater dewatering wastes at construction sites.

2. Discharges that pose an insignificant threat to water quality:

a. Construction dewatering wastes not involving groundwater (except storm water dewatering at construction sites)[2];
b. Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.;
c. Discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.;
d. Discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.;
e. Discharges from potable water supply systems resulting from system failures, pressure releases, etc.;
f. Discharges from fire hydrant testing or flushing;
g. Non-contact cooling water;
h. Air conditioning condensate;
i. Swimming pool drainage;
j. Discharges resulting from diverted stream flows;
k. Discharges from residential sump pumps; and
l. Other similar types of wastes, which pose a *de minimus* threat to water quality, yet technically must be regulated under waste discharge requirements.

It is anticipated that the current enrolled dischargers (approximately 12) within the San Diego Creek/Newport Bay Watershed will submit renewal applications for continued discharges. Given the rapid pace of development in the watershed, it is likely that additional discharges will be proposed, requiring regulatory coverage. The issuance of a general permit will facilitate the processing of permit applications and make the most efficient use of Regional Board staff resources.

III. GENERAL NPDES PERMIT:

The issuance of general permits is authorized at 40 CFR[3] 122.28. This section of the regulations provides for the issuance of general permits to regulate discharges of wastes that result from similar operations, are the same types of wastes, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit than under individual permits. The discharges listed above meet the requirements of 40 CFR 122.28.

The United States Environmental Protection Agency, Region IX, granted authority to the State of California to issue general permits pursuant to 40 CFR 122.28 on September 22, 1989.

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2 *Storm water discharges are covered under separate permit.*

3 *Code of Federal regulations*

IV. REGULATORY BASIS FOR WASTE DISCHARGE REQUIREMENTS:

This Order includes requirements that implement the Water Quality Control Plan (Basin Plan), which was adopted by the Regional Board on March 11, 1994. The Basin Plan became effective on January 24, 1995. This Plan specifies water quality objectives and beneficial uses for the waters of the Santa Ana Region.

On April 17, 1998, the Regional 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 based upon the aesthetic and recreational nuisance 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[4]. 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.

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[5]. 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 Board reviewed as an informational item a report prepared by Regional 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[6]. Other than the IRWD pond treatment system and Caltrans, no significant measures have yet been implemented to

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4 *The TMDL also establishes targets for phosphorus.*

5 *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.*

6 *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.*

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 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 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. An estimate of the nitrogen load contributed by the groundwater-related discharges that would be regulated under this Order is 690 lbs for 2002. The summer 2002 data likely underestimate the nitrogen loading that can be expected to result over the long-term from groundwater-related discharges authorized under this Order, 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 to design and implement a regional program to achieve the nitrogen reductions required by the TMDL (natural treatment systems). Implementation of this program, with participation by the groundwater dischargers, will likely enable the dischargers to achieve the requisite nitrogen mass reductions to Newport Bay. However, there are no identified available nitrogen offset or trading programs currently available to dischargers.

The Irvine Ranch Water District (IRWD) has operated the San Joaquin Marsh wetlands ponds treatment system for several years. Flows diverted from San Diego Creek are treated in the ponds and then re-enter the Creek. The pond treatment has resulted in significant reductions in nitrogen entering Newport Bay via the Creek, the Bay's major tributary. A report submitted by IRWD demonstrates that about 66,000 pounds of nitrogen were removed from San Diego Creek by the pond system in 2002, when approximately one-half of San Diego Creek flows were diverted through the Marsh. As part of efforts outside the scope of this Order, IRWD has committed to continued operation of the San Joaquin Marsh during the term of this Order.

Available data indicate that the nitrogen removal accomplished by IRWD's operation of the San Joaquin Marsh pond treatment system significantly more than offsets discharges of nitrogen resulting from the groundwater-related discharges regulated under this Order.

Certain of the dischargers subject to this Order (and/or to Orders that will be considered for other groundwater-related discharges) have agreed to form a Working Group and have committed to fund and participate in a Work Plan during the course of the term of this Order. Participating members of the Working Group as of the date of this Order are provided in Attachment "C" to this Order. Other dischargers may become participating members of the Working Group through procedures established by the Group. The nutrient-related components of the Work Plan committed to by the Working Group are listed below. As shown, these 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:

a. Prepare a detailed Work Plan based upon the commitments and concepts presented in this Order and implement that Work Plan upon approval by the Executive Officer;
b. Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public;
c. Perform complementary monitoring and assessment of nutrient sources in the watershed, utilizing, in part, ongoing nutrient studies performed by others;
d. Evaluate nutrient TMDL nutrient load reduction targets, focusing especially on groundwater-related sources, loadings and reductions; and
e. Develop a nutrient offset, trading or mitigation program based upon the outcome of other Work Plan elements.

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.

The nitrogen regulatory approach employed in this Order recognizes the salient facts concerning the status of compliance with the nitrogen reduction targets established in the Nutrient TMDL, as described above, the commitments by the Working Group to develop a recommended comprehensive groundwater management plan, including specific wasteload and load allocations for groundwater-related inflows, and the nitrogen removal accomplished by the IRWD San Joaquin natural treatment system ponds. This Order finds that removal of nitrogen accomplished by IRWD's operation of the San Joaquin Marsh natural treatment system ponds constitutes an offset for the total nitrogen loads resulting from the groundwater-related discharges regulated under this Order. No additional nitrogen reductions are required at this time, provided that on an annual basis, monitoring of nitrogen contributions by these dischargers and of nitrogen removal

in the pond treatment system by IRWD demonstrates that there is no net loading of nitrogen to the Newport Bay watershed. In the event that IRWD ceases to operate the pond treatment system or that there is not a demonstration of no net loading, then the dischargers are required to implement additional offset program(s) acceptable to the Executive Officer. Any such additional programs must assure the offset of nitrogen discharges that occur subsequent to the termination of IRWD's operation of the pond treatment system. The Order also specifies that this use of nitrogen removal by IRWD's pond treatment system to offset nitrogen discharges resulting from the short-term groundwater-related discharges regulated under this Order does not establish a right or precedent for other dischargers of nitrogen to the Newport Bay watershed. The nitrogen requirements, including offset requirements, for other dischargers will be considered on a case-by-case basis. Finally, this Order includes a provision to enable the Regional Board to reopen the Order to revise the nitrogen-related requirements based on the results of the Working Group efforts and/or other relevant studies and information.

The proposed Order specifies numeric and narrative limits for the control of toxic substances. These limits implement relevant Basin Plan objectives, including objectives specified in the California Toxics Rule, and other state and federal requirements. These limits are based on the following:

1. 1995 Basin Plan;
2. Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted on March 2, 2000 by the State Water Resources Control Board (hereinafter, "Policy");
3. Code of Federal Regulations (40 CFR Parts 122-124, 129, 131, 136, 141 and 142);
4. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, promulgated on May 18, 2000 by the U.S. EPA ("California Toxics Rule");
5. Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991);
6. US Environmental Protection Agency, Region IX, Total Maximum Daily Loads (TMDL) for Toxic Pollutants for San Diego Creek and Newport Bay, promulgated on June 14, 2002.

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 Board. However, pursuant to federal regulations, the Regional 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 Board can and must employ its legally authorized discretion in determining the appropriate permit provisions to implement these allocations.

Regional 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 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 numeric effluent limitations for selenium for short-term groundwater-related discharges. In some cases, where selenium concentrations in groundwater are low, immediate compliance with the selenium effluent limitations for groundwater-related discharges can be achieved. However, where selenium concentrations in the groundwater are elevated, dischargers cannot be assured, at the present time, of achieving numeric effluent limitations through reasonable treatment, source control, or pollution prevention measures as such measures are not currently available for short-term groundwater discharges containing selenium. Moreover, it may not be practical to implement such technology, if and when it becomes available, for the short-term groundwater discharges. Dischargers may be able to reduce or even eliminate selenium discharges by the implementation of short-term volume-reduction measures, including possibly sewering all or part of the groundwater discharges, subject to approval and acceptance by the sewering agency; re-injection; and other potential volume-reduction measures. In addition, dischargers 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, including an evaluation of other potential positive and negative impacts that may result from the BMPs. This Order requires all dischargers who wish to be authorized to discharge under the terms and conditions of this Order to submit with the Notice of Intent a demonstration that it is not reasonably feasible to avoid, reduce or eliminate the discharge to surface waters. Issuance of discharge authorization is contingent on this demonstration.

As discussed above, certain of the dischargers subject to this Order have agreed to form a Working Group and have committed to fund and participate in a Work Plan. The 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 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. As such, the Work Plan goes beyond issues related to the short-term groundwater-related discharges regulated by this Order. In addition, the Working Group has committed to perform studies necessary to develop a selenium site-specific objective, if appropriate, based on the outcome of other Work Plan elements. The selenium-related components of the Work Plan committed to by the Working Group are:

a. Prepare a detailed Work Plan based upon the commitments and concepts presented in this Order and implement that Work Plan upon approval by the Executive Officer;

b. Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public;

c. Perform complementary monitoring and assessment of selenium sources in the watershed, utilizing, in part, ongoing selenium studies performed by others;

d. Identify and assess selenium treatment technologies, including potential future technologies;

e. Identify and assess selenium Best Management Practices (BMPs) (including volume-reduction techniques)(task includes a "Quick Start" program for certain BMP assessments);

f. Facilitate demonstration testing of identified selenium treatment technologies and BMPs;

g. Develop and implement upon Executive Officer approval a selenium offset, trading or mitigation program based upon the outcome of complementary monitoring, treatment technology and BMP-related Work Plan elements; and

h. Develop a selenium site-specific objective for the Newport Bay/San Diego Creek watershed if appropriate based upon outcome of other Work Plan elements.

This Order includes requirements for selenium for dischargers who are participating in the Working Group and for those dischargers who choose not to participate in the Working Group. The regulatory approach is as follows.

New dischargers: First, all new groundwater-related dischargers are required to evaluate the selenium concentration in their potential discharges to determine whether immediate compliance with the effluent limitations specified in this Order can be achieved. If compliance is feasible, the discharge can proceed in accordance with the remaining terms and conditions of this Order. If compliance with the selenium limitations is infeasible, then the discharger must demonstrate that it is not reasonably possible to reduce or eliminate the discharge to surface waters. *For dischargers not participating in the Working Group*, if it is demonstrated that it is not reasonably feasible to reduce or eliminate the discharge, then the discharger must either (a) not commence

the discharge, or (b) the discharger must identify and participate in a program that assures that selenium discharges in excess of those allowed pursuant to the effluent limitations are offset on at least a one-to-one basis. The offset would assure that there is no net loading of selenium to surface waters within the San Diego Creek/Newport Bay watershed. The discharger is required to identify a plan and schedule for implementation of the offset prior to commencing any new discharge. The plan/schedule is to reflect the shortest practicable time necessary to provide the offset. In no case shall the schedule exceed five years from the date of adoption of this Order. The discharger is required to implement that plan and schedule upon approval by the Executive Officer. It is recognized that the offset may not be completed within the time frame of the actual discharge. In filing a Notice of Intent to obtain authorization to discharge under this Order, the discharger will be required to acknowledge explicitly that no notice of termination will be issued and that compliance with this Order will continue to be required and enforced until such time as the offset is satisfactorily completed. Where immediate compliance with the selenium limitations is not feasible and implementation of an offset is necessary, the discharger's efforts to reduce/eliminate selenium discharges, coupled with interim steps necessary to implement an acceptable offset, will be considered interim-performance-based limits. *Dischargers who are participating in the Working Group* and who demonstrate that it is not reasonably feasible to reduce or eliminate their discharge can discharge in accordance with the interim performance-based effluent limitations and the schedule for compliance with the final numeric selenium limitations in the Order. The interim performance-based limits are comprised of the timely implementation of the components of the approved Work Plan, which includes BMP evaluation and implementation. Application of the interim, performance-based limitations and compliance schedule is contingent on the discharger's fulfillment of the financial and participatory requirements established by the Working Group and implementation of reasonable BMPs as identified in the Work Plan. Contractors and licensees of Working Group participants may also be authorized to discharge in accordance with these interim performance-based limitations and final compliance schedule, provided that such contractors and licensees are adhering to BMP and monitoring provisions. This Order specifies that for Working Group participants and their contractors/licensees, completion of the Work Plan and implementation of the offset/trading/mitigation program identified by the Working Group and approved by the Executive Officer constitutes compliance with the final numeric limitations for selenium. However, should a practicable selenium treatment technology become available for individual discharges, dischargers are required to comply with the final numeric selenium limitations specified in the Order 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. In no case is compliance with the final effluent limitations to be achieved later than five years from the date of adoption of this Order. In filing a Notice of Intent to obtain authorization to discharge under this Order, dischargers who are participating in the Working Group will be required to acknowledge explicitly that no notice of termination will be issued and that compliance with this Order will continue to be required and enforced until such time as the approved Work Plan is satisfactorily completed, or an appropriate selenium treatment technology has been implemented.

Existing dischargers: In the case of discharges that have already commenced, pursuant to the terms and conditions of Order No. 98-67, that do not comply with the selenium limitations in this Order and that cannot reasonably be reduced or terminated, the regulatory approach is as follows: Dischargers who are not participating in the Working Group must submit a plan and schedule for implementation of an offset within 120 days of the effective date of this Order. The

plan/schedule is to reflect the shortest practicable time necessary to provide the offset. In no case shall the schedule exceed five years from the date of adoption of this Order. The discharger must implement that plan upon approval by the Executive Officer. Pending development, approval and implementation of the offset plan, the discharger must collect data on flow and selenium quality to assure that ongoing selenium discharges are properly accounted for and offset. Again, it is recognized that the offset may not be completed within the time frame of the actual discharge. No notice of termination will be issued until such time as the offset is satisfactorily completed. The discharger's efforts to reduce/eliminate selenium discharges, coupled with interim steps necessary to implement an acceptable offset, are considered interim performance-based limitations. *Existing dischargers who are participating in the Working Group* can discharge in accordance with the interim performance-based effluent limitations and the schedule for compliance with the final numeric selenium limitations in the Order, provided that the discharger is fulfilling the financial and participatory requirements established by the Working Group and implementing reasonable BMPs as identified in the Work Plan. Contractors and licensees of Working Group participants may also be authorized to discharge in accordance with these interim performance-based limitations and final compliance schedule, provided that such contractors and licensees are adhering to BMP and monitoring provisions. As stated above, this Order specifies that for Working Group participants and their contractors/licensees, completion of the Work Plan and implementation of the offset/trading/mitigation program identified by the Working Group and approved by the Executive Officer constitutes compliance with the final numeric limitations for selenium. However, should a practicable selenium treatment technology become available for individual discharges, dischargers are required to comply with the final numeric selenium limitations specified in the Order 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. In no case is compliance with the final effluent limitations to be achieved later than five years from the date of adoption of this Order. Again, no notice of termination will be issued to dischargers who are participating in the Working Group until the approved Work Plan is satisfactorily completed, or an appropriate selenium treatment technology has been implemented.

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. If the discharger requests that a mixing zone allowance be included in the determination of appropriate effluent limits, consideration of an individual permit will be required.

Monitoring is the primary means of ensuring that waste discharge requirements are met. It is also the basis for enforcement actions against dischargers who are in violation of the waste discharge requirements issued by the Regional Board. All dischargers enrolled under this general permit will be required to conduct monitoring in accordance with a monitoring program issued by the Executive Officer. Each monitoring and reporting program will be customized for each enrollee based on the characteristics of the wastewater discharged. The typical required constituents and frequency of analyses are tabulated in the self-monitoring program attached to this general permit as "Typical Monitoring and Reporting Program (MR&P) No. R8-2004-0021." This monitoring and reporting program will be revised as appropriate. An increase of the parameters or frequency of monitoring will be required when monitoring data show the presence of other pollutants of concern that are not limited in this Order.

V. APPLICATION FOR COVERAGE UNDER THE GENERAL PERMIT:

This Order requires those dischargers already covered under the General Permit Order No. 98-67 and those dischargers currently regulated under individual permits who wish to be and believe they can and should be covered under this general permit to submit a completed Notice of Intent Form (see Attachment B of Order No. R8-2004-0021). The Executive Officer may require the discharger to submit additional information about any recent change in ownership of the facility, changes in the character and treatment of the discharges and any other relevant information that will update the facility information that is in the Regional Board's files. Where requisite characterization of short-term groundwater-related discharges demonstrates that compliance with the selenium limitations of this Order cannot be achieved, the discharger is required to (a) cease the discharge to surface waters or (b) demonstrate that termination/reduction of the discharge to surface waters is not reasonably feasible. If a discharger who is not a Working Group participant demonstrates to the Executive Officer's satisfaction that the discharge to surface waters cannot reasonably be reduced or terminated, then, within 120 days of submittal of the NOI, the discharger shall submit for approval by the Executive Officer a proposed plan and schedule to provide an offset of selenium discharges in excess of those allowed by the effluent limitations specified in this Order. Dischargers who elect to participate in the Working Group must provide proof of such participation.

This Order requires each new discharger[7] to submit an application for the proposed discharge to the Executive Officer. The application for the proposed discharge will require the first annual fee and, at the minimum, the following information:

1. Notice of Intent Form (see Attachment B of Order No. R8-2004-0021) for coverage under this general permit.

2. A report which shall include the following:

    a. Characterization of the proposed wastewater discharge;
    b. The estimated average and maximum daily flow rates;
    c. The frequency and duration of the discharge;
    d. A description of the proposed treatment system (if appropriate); and
    e. A map showing the path from the point of initial discharge to the receiving water.

3. Any other information deemed necessary by the Executive Officer. Where requisite characterization of the potential discharge demonstrates that compliance with the selenium limitations of this Order is infeasible, dischargers must submit a demonstration that elimination/reduction of the discharge to surface waters is not reasonably feasible. Dischargers who are not participating in the Working Group must also submit prior to the initiation of any discharge a proposed plan and schedule for approval by the Executive Officer to offset selenium discharges in excess of those allowed by the numeric effluent

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7 *A new discharger is an entity/individual who is not currently authorized to discharge waste under Order No. 98-67 and who is seeking coverage under this general permit for proposed de minimus and/or groundwater-related discharges within the San Diego Creek/Newport Bay Watershed.*

limitations specified in this Order. Dischargers who elect to participate in the Working Group must provide proof of such participation.

For both existing and new short-term groundwater-related dischargers who are not participating in the Working Group, the NOI will include explicit acknowledgement by the discharger that satisfactory completion of requisite selenium offsets is necessary to obtain a notice of termination. For such dischargers who are participating in the Working Group, the NOI will include explicit acknowledgement by the discharger that satisfactory completion of the approved Work Plan or implementation of an appropriate selenium treatment technology is necessary to obtain a notice of termination.

VI. DISCHARGE AUTHORIZATION:

A. Dischargers currently regulated under the General Permit Order No. 98-67 or Individual Waste Discharge Requirements

For dischargers currently regulated under the General Permit or Individual Waste Discharge Requirements within the San Diego Creek/Newport Bay Watershed, submittal of a completed Notice of Intent form and requisite supplemental information, as defined above, will assure coverage under this General Permit, except where the review of additional information/individual permits indicates that coverage under this Permit is not appropriate. In such cases, the discharge proponent will be required to obtain/maintain an individual NPDES permit prior to any discharge to surface waters.

B. For New Dischargers

Upon receipt of a complete application for a proposed discharge, the Executive Officer will review the application to determine whether the proposed discharger has demonstrated that it will comply with the following criteria and is eligible to discharge wastes under this Order:

1. The proposed discharge results from those discharges identified in Section II;

2. The proposed discharge is to surface waters within the San Diego Creek/Newport Bay Watershed;

3. The proposed treatment system and associated operation, maintenance, and monitoring plans, including any requisite selenium offset plans, are capable of ensuring that the discharge will meet the waste discharge requirements of this Order;

4. The discharger has submitted proof of participation in the Working Group, if the discharger has elected to participate; and

5. The proposed discharge will not have any adverse impact on waters of the State.

Upon determination by the Executive Officer that the proposed discharge satisfies the requirements of this general permit, the Executive Officer may either:

(1) Authorize the proposed discharge by transmitting a discharge authorization letter to the discharge proponent (thereupon an "authorized discharger" or "enrollee"), authorizing the initiation of the discharge subject to the conditions of this general permit and any other conditions necessary to protect the beneficial uses of waters within the Santa Ana Region. The discharge authorization letter will also transmit a self-monitoring program. The discharge authorization letter may be terminated or revised by the Executive Officer at any time. The Executive Officer will submit a copy of the discharge authorization letter to the State Water Resources Control Board and the EPA. A list of the discharge authorization letters that have been issued will be reported in the Board's meeting agenda; or

(2) Require the discharge proponent to obtain an individual NPDES permit prior to any discharge to surface waters in the Santa Ana Region.

If an individual NPDES permit has not been issued and the Executive Officer does not provide written authorization for the initiation of the discharge under the terms and conditions of this general permit, no discharge of waste to surface waters within the Santa Ana Region (San Diego Creek/Newport Bay Watershed) is permitted.

VII. EXPIRATION DATE:

The proposed Order expires on December 20, 2009.

VIII. ANTIDEGRADATION ANALYSIS:

The Board has considered the effects on the receiving waters, including Peters Canyon Wash, San Diego Creek and Newport Bay, of the discharges regulated under this Order with respect to conformance with State and federal antidegradation policies. The de minimus discharges are not expected to have any impact on surface water quality. Certain of the groundwater-related discharges may affect surface water quality with respect to nitrogen and selenium, depending on the location of the discharges in the watershed and the concentrations of these constituents in the groundwater discharged. However, nitrogen loading resulting from these discharges is expected to be offset by nitrogen removal accomplished by the IRWD San Joaquin Marsh wetlands treatment system such that there will be no net loading of nitrogen to Newport Bay. Certain groundwater discharges regulated by this Order may result in additional or accelerated loading of selenium to surface waters. This Order requires that where immediate compliance with the specified selenium limitations is infeasible, Non-Working Group members must implement an approved offset, as soon as possible but no later than December 20, 2009. For Working Group participants who cannot immediately comply with the selenium limitations, a comprehensive management plan and offset program must be developed and implemented that addresses all groundwater-related inflows in the Newport Bay watershed, including those addressed by this Order and other types of groundwater inflows considered more significant sources of selenium loading to the watershed. The management plan/offset program are intended to assure conformance with the selenium limitations of this Order and with the selenium TMDL. This offset program must be approved and implemented as soon as possible but no later than December 20, 2009. The December 20, 2009 compliance schedule for both Non-Working Group

and Working Group participants is in conformance with the State Policy. Until these offsets are implemented, there may be some increased and/or accelerated loading of selenium to surface waters in the watershed. However, the implementation of requisite offset programs is expected to assure conformance with the selenium limitations in this Order and the selenium TMDL. In particular, the implementation of the management plan/offset program developed by the Working Group and approved by the Regional Board's Executive Officer is expected to result in net improvement of water quality with respect to selenium, since the plan/program will address groundwater-related inflows of selenium in a comprehensive manner, beyond the scope of this Order.

IX. WRITTEN COMMENTS:

Interested persons are invited to submit written comments on the proposed discharge limits and the Fact Sheet. Comments should be submitted by November 29, 2004, either in person or by mail to:

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

X. INFORMATION AND COPYING:

Persons wishing further information may write to the above address or call Jun Martirez of the Regional Board at (909) 782-3258. Copies of the application, proposed waste discharge requirements, Fact Sheet, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday (excluding holidays).

XI. REGISTER OF INTERESTED PERSONS:

Any person interested in a particular application or group of applications may leave his/her name, address, and phone number as part of the file for an application.

XII. PUBLIC HEARING:

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements as follows:

DATE:	December 20, 2004
TIME:	9:00 a.m.
PLACE:	City Council Chambers of Loma Linda 25541 Barton Road Loma Linda, California

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2004-0021
NPDES NO. CAG998002

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

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

1. On July 10, 1998, the Regional Board adopted Order No. 98-67, National Pollutant Discharge Elimination System (NPDES) Permit No. CAG998001. Order No. 98-67 specified waste discharge requirements for discharges into surface waters of various types of waste that pose an insignificant threat to water quality. The types of discharges regulated under Order No. 98-67 include:

   a. Construction dewatering wastes;
   b. Wastes associated with well installation, development, test pumping and purging;
   c. Aquifer testing wastes;
   d. Dewatering wastes from subterranean seepage, except for discharges from utility company vaults;
   e. Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.;
   f. Discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.;
   g. Discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.;
   h. Discharges from potable water supply systems resulting from system failures, pressure releases, etc.;
   i. Discharges from fire hydrant testing or flushing;
   j. Non-contact cooling water;
   k. Air conditioning condensate;
   l. Swimming pool drainage;
   m. Discharges resulting from diverted stream flows; and
   n. Other similar types of wastes, which pose a de minimus threat to water quality, yet technically must be regulated under waste discharge requirements.

2. On June 14, 2002, the US Environmental Protection Agency (hereinafter EPA) Region IX, promulgated Total Maximum Daily Loads (TMDLs) for Toxic Pollutants for San Diego Creek and Newport Bay (see Attachment "A" for San Diego Creek/Newport Bay Watershed Map). These include a TMDL for selenium. In 1998, the Regional Board adopted a Basin Plan amendment, Resolution No. 98-9 (amended by Resolution No. 98-100), incorporating nutrient TMDLs for the San Diego Creek/Newport Bay Watershed. These TMDLs specify certain load and wasteload allocations for discharges of nutrients and toxic pollutants into San Diego Creek and Newport Bay.

3. Recent investigations into the sources of selenium and nutrients in the watershed have found that approximately 62-87 percent (%) of the base flows in San Diego Creek result from groundwater inflows to the creek, either naturally through subsurface flow, springs, and weepholes, or through groundwater dewatering and remediation operations. Approximately 96% of the selenium and 85% of the nitrate concentrations found in San Diego Creek and its tributaries result from these groundwater inputs[1].

4. Order No. 98-67 expired on July 1, 2003 and was renewed by Order No. R8-2003-0061 on August 22, 2003. Order No. R8-2003-0061 specifically excludes groundwater-related discharges (1.a.-1.d., above) in the San Diego Creek/Newport Bay watershed from coverage under its terms and conditions. Instead, Order No. R8-2003-0061 finds that these groundwater-related discharges within the San Diego Creek/Newport Bay watershed will continue to be regulated under Order No. 98-67 until such time as appropriate, separate waste discharge requirements are approved. This revised regulatory approach was taken in light of the concern that 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 (see Finding No. 3). Due principally to the presence of nitrates and selenium, and potentially other pollutants of TMDL concern, the Board found that it would be inappropriate to regulate these groundwater-related wastewater discharges within the San Diego Creek/Newport Bay watershed (i.e., those associated with well installation, development, test pumping and purging, aquifer testing wastes, construction dewatering and wastes from subterranean seepage) as *de minimus* discharges.

5. In some cases, the groundwater-related discharges within the San Diego Creek/Newport Bay watershed are short-term in nature, i.e., the discharges occur for one year or (frequently) less. In other instances, however, these discharges are expected to occur over many years, even if intermittently during this extended period. For example, long-term dewatering is or may be necessary in some cases to prevent flooding of railroad or road crossings. This Order specifies waste discharge requirements for short-term (i.e., one year or less) groundwater-related discharges within the San Diego Creek/Newport Bay watershed. Individual waste discharge requirements will be developed for Regional Board consideration for the long-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed.

6. Adoption of this general permit is necessary to assure proper regulatory oversight of short-term, groundwater-related discharges within the San Diego Creek/Newport Bay watershed. As a matter of regulatory streamlining, this permit will also regulate *de minimus* discharges within the San Diego Creek/Newport Bay watershed in lieu of coverage of these discharges under Order No. R8-2003-0061. In summary, this general permit will cover the following types of discharges in the watershed:

   a. Short-term (one year or less duration) discharges from activities involving groundwater extraction and discharge:

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1 *Meixner et al., 2004. Sources of Selenium, Arsenic and Nutrients in the Newport Bay Watershed. (Contract Report to the Santa Ana Regional Board)*

(1) Wastes associated with well installation, development, test pumping and purging;
(2) Aquifer testing wastes;
(3) Dewatering wastes from subterranean seepage; and
(4) Groundwater dewatering wastes at construction sites.

b. Discharges that pose an insignificant threat to water quality:

(1) Construction dewatering wastes not involving groundwater (except storm water dewatering at construction sites)[2];
(2) Discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.;
(3) Discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.;
(4) Discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.;
(5) Discharges from potable water supply systems resulting from system failures, pressure releases, etc.;
(6) Discharges from fire hydrant testing or flushing;
(7) Non-contact cooling water;
(8) Air conditioning condensate;
(9) Swimming pool drainage;
(10) Discharges resulting from diverted stream flows;
(11) Discharges from residential sump pumps; and
(12) Other similar types of wastes, which pose a *de minimus* threat to water quality, yet technically must be regulated under waste discharge requirements.

7. This Order complies with all the criteria cited in 40 CFR[3] 122.28 and as such, is classified as a General NPDES Permit. 40 CFR 122.28 pertains to the issuance of general permits to regulate discharges of waste that meet the following criteria:

a. Involve the same or substantially similar types of operations;
b. Are of the same types;
c. Require the same effluent limitations or operating conditions;
d. Require the same or similar monitoring; and
e. Are more appropriately regulated under a general permit rather than individual permits.

8. This Order will expedite the processing of applications for waste discharge requirements. The general NPDES permit approach has allowed the Regional Board to better utilize limited staff resources.

9. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region.

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2 *Storm water discharges are covered under separate permit.*

3 *CFR is the Code of Federal Regulations.*

10. The existing and potential beneficial uses of Newport Bay and San Diego Creek 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).

11. Many surface waters within the region recharge underlying groundwater basins. 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.

12. Effluent limitations and national standards of performance established pursuant to Section 301, 302, 303(d), 304, 306, and 307 of the Federal Clean Water Act and amendments thereto are applicable to this type of discharges.

13. On June 8, 1989, pursuant to 40 CFR 122.28, the State Water Resources Control Board (hereinafter State Board), applied to the EPA for revisions of its NPDES program in accordance with 40 CFR 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, Region IX EPA approved the State Board's request and granted authorization for the State's issuance of general NPDES permits.

14. On April 17, 1998, the Regional 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 based upon the aesthetic and recreational nuisance 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[4]. 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.

15. 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[5]. 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. See also Finding 18.

16. At their meeting on August 13, 2004, the Regional Board reviewed as an informational item a report prepared by Regional 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[6]. 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.

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4 *The TMDL also establishes targets for phosphorus.*

5 *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.*

6 *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.*

17. 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 nutrient water quality objectives for San Diego Creek may be necessary. Studies to identify appropriate objectives are now in progress; given their complexity, these studies are not expected to be complete prior to 2007. Any consideration of revised objectives is outside the scope of this Order.

18. 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. An estimate of the nitrogen load contributed by the groundwater-related discharges regulated under this Order is 690 lbs for 2002. The summer 2002 data likely underestimate the nitrogen loading that can be expected to result over the long-term from groundwater-related discharges authorized under this Order, since 2002 was a dry year, resulting in decreased groundwater table elevations and, likely, reduced groundwater-related inflows/need for dewatering.

19. 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 to design and implement a regional program to achieve the nitrogen reductions required by the TMDL (natural treatment systems). Implementation of this program, with participation by the groundwater dischargers, will likely enable the dischargers to achieve the requisite nitrogen mass reductions to Newport Bay. However, there are no identified available nitrogen offset or trading programs currently available to dischargers.

20. The Irvine Ranch Water District (IRWD) has operated the San Joaquin Marsh wetlands ponds treatment system for several years. Flows diverted from San Diego Creek are treated in the ponds and then re-enter the Creek. The pond treatment has resulted in significant reductions in nitrogen entering Newport Bay via the Creek, the Bay's major tributary. A report submitted by IRWD demonstrates that about 66,000 pounds of nitrogen were removed from San Diego Creek by the pond system in 2002, when approximately one-half of San Diego Creek flows were diverted through the Marsh. As part of efforts outside the scope of this Order, IRWD has committed to continued operation of the San Joaquin Marsh during the term of this Order.

21. Available data indicate that the nitrogen removal accomplished by IRWD's operation of the San Joaquin Marsh pond treatment system significantly more than offsets discharges of nitrogen resulting from the groundwater-related discharges regulated under this Order.

22. Certain of the dischargers subject to this Order (and/or to Orders that will be considered for other groundwater-related discharges) have agreed to form a Working Group and have committed to fund and participate in a Work Plan during the course of the term of this Order. Participating members of the Working Group as of the date of this Order are provided in Attachment "C". Other dischargers may become participating members of the Working Group through procedures established by the Group. The nutrient-related components of the Work Plan committed to by the Working Group are listed below. As shown, these 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:

    a. Prepare a detailed Work Plan based upon the commitments and concepts presented in this Order and implement that Work Plan upon the Executive Officer's approval;
    b. Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public;
    c. Perform complementary monitoring and assessment of nutrient sources in the watershed, utilizing, in part, ongoing nutrient studies performed by others;
    d. Evaluate nutrient TMDL nutrient load reduction targets, focusing especially on groundwater-related sources, loadings and reductions; and
    e. Develop a nutrient offset, trading or mitigation program based upon the outcome of other Work Plan elements.

    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 Finding 32, 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.

23. Removal of nitrogen accomplished by IRWD's operation of the San Joaquin Marsh natural treatment system ponds is considered an offset for the total nitrogen loads resulting from the groundwater-related discharges regulated under this Order, and no additional nitrogen reductions will be required at this time, provided that on an annual basis, monitoring of nitrogen contributions by these dischargers and of nitrogen removal in the pond treatment system by IRWD demonstrates that there is no net loading of nitrogen to the Newport Bay watershed. In the event that IRWD ceases to operate the pond treatment system, or that there is not a demonstration of no net loading, then the dischargers shall implement additional offset program(s) acceptable to the Executive Officer. Any such additional programs shall assure the offset of nitrogen discharges that occur subsequent to the termination of IRWD's operation of the pond treatment system.

24. The use of nitrogen removal accomplished via IRWD's San Joaquin Marsh treatment system ponds to offset nitrogen discharges from the short-term groundwater-related discharges regulated under this Order does not establish a right or precedent for other groundwater-related discharges that will or may be regulated pursuant to other waste discharge requirements established by the Regional Board. The nitrogen requirements, including offset requirements, for these other groundwater-related discharges will be considered on a case-specific basis.

25. This Order will be reopened if and as necessary to revise the requirements pertaining to nitrogen and selenium discharges by the groundwater-related discharges regulated under this Order, based on the results of the implementation of the Work Plan and/or additional relevant studies or information.

26. On May 18, 2000, the EPA issued a final rule for the establishment of Numeric Criteria for Priority Toxic Pollutants necessary to fulfill the requirements of Section 303(c)(2)(B) of the Clean Water Act for the State of California. This rule is commonly referred to as the California Toxics Rule (CTR).

27. On March 2, 2000, the State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (the Policy). This Policy includes implementation provisions for the CTR. The Policy specifies a methodology to determine if pollutants in the discharge are at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard. Effluent limitations must be specified for those pollutants determined to have such reasonable potential. There are places within the watershed where concentrations of selenium in groundwater are greater than the standards for selenium established by the CTR. Inflows of groundwater from such areas, including those that may result from the discharges regulated under this Order, have the reasonable potential to cause excursions of water quality standards. This Order addresses these potential excursions by establishing numeric effluent limitations and interim performance-based limits for selenium. The selenium limitations were derived in accordance with the procedures specified in the Policy for calculating appropriate limits. This Policy also includes compliance schedule provisions for effluent limitations that implement the CTR.

28. 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.

29. 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 Board. However, pursuant to federal regulations, the Regional 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 Board can and must employ its legally authorized discretion in determining the appropriate permit provisions to implement these allocations.

30. Regional Board staff is now working on an implementation plan for the selenium TMDL (and for the other toxic substance TMDLs), which will be considered for future adoption by the Regional Board 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 of this Order and revision, as appropriate. 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.

31. 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 numeric effluent limitations for selenium for short-term groundwater-related discharges. In some cases, where selenium concentrations in groundwater are low, immediate compliance with the numeric selenium effluent limitations for groundwater-related discharges can be achieved. However, where selenium concentrations in the groundwater are elevated, dischargers cannot be assured, at the present time, of achieving numeric effluent limitations through reasonable treatment, source control, or pollution prevention measures as such measures are not currently available for short-term groundwater discharges containing selenium. Moreover, it may not be practical to implement such technology, if and when it becomes available, for the short-term groundwater discharges.

Dischargers may be able to reduce or even eliminate selenium discharges by the implementation of short-term volume-reduction measures, including possibly sewering all or part of the groundwater discharges, subject to approval and acceptance by the sewering agency; re-injection; and other potential volume-reduction measures. In addition, dischargers may be able to reduce or eliminate selenium concentrations and mass discharges by the implementation of low technology best management practices. Such volume-reduction and other BMPs will be investigated in an aggressive manner, including an evaluation of other potential positive and negative impacts resulting from the BMPs. When selenium concentrations in groundwater are elevated, groundwater-related dischargers subject to this Order may elect to participate in the Working Group (see Findings 22 and 32) and adhere to the interim limits and schedules for compliance with final selenium limits established by this Order. For the purposes of this Order, final compliance may be achieved through the completion of the approved Work Plan and implementation of an offset/trading or mitigation program to be developed as part of the Work Plan and approved by the Executive Officer. For those dischargers who choose not to participate in the Working Group, this Order requires immediate compliance with the numeric selenium limits in this Order or, if immediate compliance is infeasible, with requirements for the implementation of an acceptable offset program; for these dischargers, implementation of volume-reduction/other BMPs by these dischargers, coupled with interim steps necessary to implement the offset, constitutes interim performance-based limits.

32. Given uncertainties with regard to the availability and efficacy of selenium treatment technologies, the need to investigate those technologies and to assess discharge volume reduction measures, and the lack of available data necessary to identify baseline selenium loading resulting from groundwater inflows in the watershed, including the loading from the discharges regulated under this Order, certain of the dischargers subject to this Order (and/or to Orders that will be considered for other groundwater-related discharges) have agreed to form a Working Group and have committed to fund and participate in a Work Plan. Participating members in the Working Group as of the date of this Order are identified in Attachment "C". Other dischargers may become participating members of the Working Group through procedures established by the Group. The purpose of the Work Plan is, in part, to develop a comprehensive understanding of and management plan for selenium discharges to surface waters within the Newport Bay watershed that result from groundwater-related inflows (see also Finding 22). As such, the Work Plan goes beyond compliance issues related to the short-term groundwater-related discharges regulated under this Order. Completion of the Work Plan is expected to assist in ongoing work by Regional Board staff to develop an implementation plan for the selenium TMDL, which will be incorporated in the Basin Plan. The selenium-related components of the Work Plan committed to by the Working Group are:

a. Prepare a detailed Work Plan based upon the commitments and concepts presented in this Order and implement that Work Plan upon approval by the Executive Officer;

b. Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public;

c. Perform complementary monitoring and assessment of selenium sources in the watershed, utilizing, in part, ongoing selenium studies performed by others;

d. Identify and assess selenium treatment technologies, including potential future technologies;

e. Identify and assess selenium Best Management Practices (BMPs) (including volume-reduction techniques)(task includes a "Quick Start" program for certain BMP assessment);

f. Facilitate demonstration testing of identified selenium treatment technologies and BMPs;

g. Develop a selenium offset, trading or mitigation program based upon the outcome of complementary monitoring, treatment technology and BMP-related Work Plan elements; and

h. Develop a selenium site-specific objective for the Newport Bay/San Diego Creek watershed if appropriate based upon outcome of other Work Plan elements.

The target dates presented for the Work Plan elements (see Provision D. 15) represent a realistic assessment of the shortest practicable time frame for completion of the Work Plan elements.

33. 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 State 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.

34. For those new short-term groundwater-related dischargers subject to this Order who choose not to participate in the Working Group, this Order adopts the following regulatory approach. First, these dischargers are required to evaluate the selenium concentration in their potential discharges to determine whether immediate compliance with the numeric effluent limitations specified in this Order is feasible and either: (1) discharge in accordance with the numeric effluent limitations (if feasible) and with the remaining terms and conditions of this Order; or (2) if compliance with the numeric selenium limitations is infeasible, then the discharger must demonstrate that it is not reasonably possible to reduce or eliminate the discharge to surface waters, and if it is demonstrated that it is not reasonably feasible to reduce or eliminate the discharge, then the discharger must either (a) not commence the discharge, or (b) the discharger must identify and participate in a program that assures that selenium discharges in excess of those allowed pursuant to the effluent limitations will be offset on at least a one-to-one basis, or as determined by the Regional Board's Executive Officer.

The offset would assure that there is no net loading of selenium to surface waters within the San Diego Creek/Newport Bay watershed. These dischargers are required to identify a plan and schedule for implementation of the offset prior to commencing any new discharge, and are required to implement that plan and schedule upon approval by the Executive Officer. This plan/schedule is to reflect the shortest practicable time necessary to provide the offset. In no case shall this schedule exceed five years from the date of adoption of this Order. It is recognized that the offset may not be completed within the time frame of the actual discharge; therefore, in filing a Notice of Intent to obtain authorization to discharge under this Order, these dischargers will be required to acknowledge explicitly that no notice of termination will be issued and that compliance with this Order will continue to be required and enforced until such time as the offset is satisfactorily completed. Where immediate compliance with the numeric selenium limitations is infeasible and implementation of an offset is necessary, the discharger's efforts to reduce/eliminate selenium discharges coupled with interim steps necessary to implement an acceptable offset shall be considered interim performance-based limitations.

35. New short-term groundwater-related dischargers who choose to participate in the Working Group are required to evaluate the selenium concentration in their potential discharges to determine whether immediate compliance with the numeric effluent limitations specified in this Order is feasible. If compliance is feasible then the discharge can proceed in accordance with numeric effluent limitations and the remaining terms and conditions of this Order. If compliance with the numeric selenium limitations is infeasible, then the discharger must demonstrate that it is not reasonably possible to reduce or eliminate the discharge to surface waters. If it is demonstrated that it is not reasonably feasible to reduce or eliminate the discharge, then the discharge can proceed in accordance with the interim performance-based effluent limitations and compliance schedules established by this Order (Discharge Specification A. 3 and Provision D. 15 of the Order), provided that the dischargers are upholding their financial and participatory requirements established by the Working Group and implementing reasonable BMPs as identified in the Work Plan. In filing a Notice of Intent to obtain authorization to discharge under this Order, these dischargers will be required to acknowledge explicitly that no notice of termination will be issued and that compliance with this Order will continue to be required and enforced until such time as the approved Work Plan is satisfactorily completed or an appropriate selenium treatment technology has been implemented.

36. In the case of dischargers that have already commenced discharge, pursuant to the terms and conditions of Order No. 98-67, such dischargers must determine whether or not to participate in the Working Group. For dischargers who choose not to participate in the Working Group and whose discharge does not comply with the selenium limitations in this Order, and cannot reasonably be reduced or terminated, the discharger must submit a plan and schedule for implementation of an offset within 120 days of the effective date of this Order. This plan/schedule is to reflect the shortest practicable time necessary to provide the offset. In no case shall this schedule exceed five years from the date of adoption of this Order. These dischargers must implement that plan upon approval by the Executive Officer.

Pending development, approval and implementation of the offset plan, the discharger must collect data on flow and selenium quality to assure that ongoing selenium discharges are properly accounted for and offset. Again, it is recognized that the offset may not be completed within the time frame of the actual discharge; therefore, no notice of termination will be issued until such time as the offset is satisfactorily completed. For dischargers that have already commenced discharge under the terms and conditions of Order No. 98-67 whose discharge does not comply with the selenium limitation in this Order and cannot be reasonably reduced or terminated and that choose to participate in the Working Group, such dischargers must comply with the interim performance-based effluent limitations and compliance schedules established by this Order (Discharge Specification A.3. and Provision D.15. of this Order), including upholding financial and participatory obligations related to the Working Group. These dischargers will also be required to acknowledge explicitly in the Notice of Intent that no notice of termination will be issued until an approved offset plan (in the case of non-Working Group dischargers) or the approved Work Plan (in the case of Working Group participants) is satisfactorily completed or appropriate selenium treatment technology has been implemented.

37. Establishment of the performance-based interim limitations and compliance schedules contained within this Order is consistent with the Policy, which permits use of interim limits and compliance schedules in situations, such as those pertaining to selenium in the Newport Bay watershed, where achievement of numeric effluent limitations cannot be assured through reasonable treatment, source control, or pollution prevention measures currently available. This finding is based upon review of information related to selenium source and concentrations within the Newport Bay watershed; the efficacy and technological and economic feasibility of currently available selenium treatment technology, source control and pollution prevention measures for the groundwater-related discharges regulated by this Order; and the commitments contained in the conceptual Work Plan, including: a "Quick Start" investigation of selenium reduction BMPs; complementary monitoring; the development of a comprehensive groundwater management plan for selenium (and nitrogen) that will address all sources of groundwater inflows to surface waters within the watershed, not just those discharges subject to this Order; and, the commitment to fund a selenium site-specific objective study, if necessary.

38. Recognizing the uncertainties that pertain to selenium (Finding 30), it may be appropriate to revise approved selenium offset plans (that have not been implemented and completed) based on revised selenium criteria and/or refinement of the selenium TMDL.

39. The Board has considered the effects on the receiving waters, including Peters Canyon Wash, San Diego Creek and Newport Bay, of the discharges regulated under this Order with respect to conformance with State and federal antidegradation policies. The de minimus discharges are not expected to have any impact on surface water quality. Certain of the groundwater-related discharges may affect surface water quality with respect to nitrogen and selenium, depending on the location of the discharges in the watershed and the concentrations of these constituents in the groundwater discharged. However, nitrogen loading resulting from these discharges is expected to be offset by nitrogen removal accomplished by the IRWD San Joaquin Marsh wetlands treatment system such that there will be no net loading of nitrogen to Newport Bay. Certain groundwater discharges regulated by this Order may result in discharges of selenium to

surface waters. This Order requires that where immediate compliance with the specified numeric selenium limitations is infeasible, Non-Working Group members must implement an approved offset, as soon as possible but no later than December 20, 2009. For Working Group participants who cannot immediately comply with the numeric selenium limitations, must develop and implement a comprehensive management plan, including an offset and trading program, that addresses all groundwater-related inflows in the Newport Bay watershed, including those addressed by this Order and other types of groundwater inflows considered more significant sources of selenium loading to the watershed. The management plan/offset programs are intended to assure conformance with the selenium limitations of this Order and with the selenium TMDL. This offset program must be approved and implemented as soon as possible but no later than December 20, 2009. The December 20, 2009 compliance schedule for both Non-Working Group and Working Group participants is in conformance with the State Policy. Until these offsets are implemented, there may (or may not) be some additional loading of selenium to surface waters in the watershed. However, the implementation of requisite offset programs is expected to assure conformance with the selenium numeric limitations in this Order and the selenium TMDL. In particular, the implementation of the management plan/offset program developed by the Working Group and approved by the Regional Board's Executive Officer is expected to result in net improvement of water quality with respect to selenium, since the plan/program will address groundwater-related inflows of selenium in a comprehensive manner, beyond the scope of this Order.

40. The requirements contained in this Order are necessary to implement the Basin Plan.

41. This general permit regulates discharges (as listed in Finding No. 6., above) to surface waters. Entity(ies)/individual(s) proposing groundwater discharges are hereinafter referred to as "*discharger*" and are subject to the terms and conditions of this Order.

42. This Order regulates the discharge into surface waters of wastewater that meets the requirements of this Order. It does not preempt or supersede the authority of municipalities, flood control agencies, or other local agencies to prohibit, restrict, or control discharges of waste to storm drain systems or other watercourses subject to their jurisdiction.

43. For coverage under this general permit, a discharger is required to submit a completed Notice of Intent Form (see Attachment "B" of this Order) together with other information required in Section H. "APPLICATION REQUIREMENTS," and to receive approval from the Executive Officer. If the proposed discharge meets the requirements of this general permit, the Executive Officer will provide the discharger with a written authorization to initiate the discharge. If not, an individual NPDES permit will be developed for consideration by the Regional Board.

44. Any discharger proposing groundwater-related discharges and/or de minimus discharges at multiple locations within the San Diego Creek/Newport Bay Watershed may be covered under one discharge authorization letter on a case by case basis, subject to the approval of the Executive Officer.

45. The Executive Officer of the Regional Board or the Regional Administrator of the EPA may require any person authorized to discharge waste by this general permit to subsequently apply for and obtain an individual NPDES permit. Any interested person may petition the Executive Officer or the Regional Administrator to take action in accordance with this finding. Cases where an individual NPDES permit may be required include the following:

    a. The discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;

    b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

    c. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

    d. Changes to water quality control plan containing requirements applicable to such point sources are approved;

    e. The requirements of 40 CFR 122.28 (a) are not met; or

    f. The discharge may adversely affect the water quality objectives of the receiving water.

46. The Regional Board recognizes the need to consider any unique factors relating to a discharger. In order to consider any unique factors applicable to a particular discharger or discharge, it may be necessary for the discharger to apply for an individual NPDES permit in accordance with Section 13376 of the California Water Code.

47. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for groundwater discharges and *de minimus* discharges identified in Finding 6. is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (Commencing with Section 21100), Division 13 of the Public Resources Code.

48. The Regional Board has notified interested agencies and persons of its intent to issue general waste discharge requirements for short-term groundwater-related discharges and *de minimus* discharges in the San Diego Creek/Newport Bay watershed, and has provided them with an opportunity to submit their written views and recommendations.

49. The Regional Board, in a public meeting, heard and considered all comments pertaining to general waste discharge requirements for groundwater discharges within the San Diego Creek/Newport Bay Watershed.

IT IS HEREBY ORDERED that dischargers, their agents, successors, and assigns, who are discharging the types of wastes listed in Findings No. 6, above, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS

1. For all wastewater discharges resulting from activities described in Finding 6., the wastewater shall not contain constituent concentrations in excess of the following limits:

Constituents	Maximum Concentration
Oil and Grease	15 mg/l
Sulfides	0.4 mg/l
Total Suspended Solids[7]	75 mg/l
Total Residual Chlorine [7, 8]	0.1 mg/l
Total Petroleum Hydrocarbons	100 µg/l (ppb)

2. Wastewater discharges resulting from activities described in Finding 6.a. that are not eliminated through volume-reduction measures and/or other BMPs shall not contain constituent concentrations in excess of the limits specified in the following tables. These limits apply to:

   a. Dischargers not participating in the Working Group and the discharger does not implement a program or programs approved by the Executive Officer to offset discharges in excess of the effluent limits (see Provisions D. 10 and 11, below).

   b. Dischargers participating in the Working Group if the Working Group does not fulfill the Work Plan commitments in a timely manner, as determined by the Executive Officer and/or if the requirements of Discharge Specification A.3 are not being met.

   c. Dischargers removed from and/or who elect to leave the Working Group (Provision D. 15.e.) and the discharger does not implement a program or programs approved by the Executive Officer to offset discharges in excess of the effluent limits (see Provisions D. 10 and 11, below).

   d. Dischargers participating in the Working Group in accordance with the following schedule: as soon as possible but no later than 5 years from the date of adoption of this Order. (See also Provision D. 12.)

DISCHARGES TO SAN DIEGO CREEK AND TRIBUTARIES THERETO		
Constituent	Maximum Daily Concentration Limit	Average Monthly Concentration Limit
Total Recoverable Selenium (see Provisions D.10. & 11.)	8 (µg/l)	4 (µg/l)

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7 *Not applicable if all wastewater will percolate prior to reaching any receiving water.*

8 *Compliance shall be determined at a point before wastewater mixes with any receiving water.*

DIRECT DISCHARGES TO UPPER AND LOWER NEWPORT BAY		
Constituents	Maximum daily Concentration Limit	Average Monthly Concentration Limit
Total Recoverable Selenium (see Provisions D.10. & 11.)	116 (µg/l)	58 (µg/l)

3. The following requirements pertain to dischargers who are participating in the Working Group.

   a. Dischargers must abide by their financial and participatory commitments established by the Working Group.
   b. Dischargers must implement one or more reasonable BMPs for volume-reduction and/or treatment identified as part of the Work Plan.
   c. Dischargers must abide by all monitoring requirements established by this Order. Dischargers must be implementing the approved Work Plan (see Provision D. 15., below).
   d. Components of the Work Plan administered by the Working Group must be completed in accordance with the target dates established in Provision D. 15., below, or acceptable alternative dates approved by the Executive Officer.
   e. With regard to the selenium contained in the discharges subject to this Order by Working Group participants, the requirements contained in this Discharge Specification constitute interim performance-based effluent limitations and compliance schedules for these discharges, and also satisfy requirements contained in Receiving Water Limitations B. 1 and B.2.h, Prohibition C.2, and Provision D.2. The provisions of this Discharge Specification also constitute interim performance-based effluent limitations and compliance schedules and satisfy the requirements of Receiving Water Limitations B. 1 and B.2.h, Prohibition C.2, and Provision D.2 for contractors and licensees of participating Working Group members, provided that such contractors and licensees are adhering to BMP and monitoring provisions as described in this Discharge Specification.

4. For dischargers who are not participating in the Working Group and who elect to implement an offset program as provided in Provision D.10. or D.11., the discharger's efforts to reduce/eliminate selenium discharges coupled with interim steps necessary to implement an acceptable offset constitute interim performance-based limitations.

5. The pH of the discharge shall be within 6.5 and 8.5 pH units.

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

B. RECEIVING WATER LIMITATIONS

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

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

   a. The undesirable discoloration of the receiving waters.

   b. The presence of objectionable odor in the receiving water.

   c. The presence of visible oil, grease scum, floating or suspended material or foam in the receiving waters.

   d. The deposition of objectionable deposits along the banks or the bottom of the stream channel.

   e. The depletion of the dissolved oxygen concentration below 5.0 mg/l in the receiving water. If the ambient dissolved oxygen concentration is less than 5.0 mg/l, the discharge shall not cause a further depression.

   f. An increase in the temperature of the receiving waters above 90°F (32°C), which normally occurs during the period of June through October, nor above 78°F (26°C) during the rest of the year.

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

   h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving waters.

   i. The bioaccumulation of chemicals in aquatic resources to levels which are harmful to human health.

C. PROHIBITIONS

1. 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.

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

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

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

D. PROVISIONS

1. This Order shall become effective on the date of adoption. This Order shall also serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of adoption, provided the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.

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

3. This Order expires on December 20, 2009. However, coverage under the permit shall continue in force and effect until a new Order is issued for those dischargers who submit a renewal application more than 180 days before the December 20, 2009 expiration date. For those dischargers who do not submit a renewal application more than 180 days before the December 20, 2009 expiration date, discharges of wastewater under this Order shall be terminated by December 20, 2009.

4. Upon adoption of this Order, dischargers within the Newport Bay Watershed that are currently covered under Order No. 98-67 shall cease all discharges unless a notice of intent to discharge under the renewed Order is submitted within 30 days of the effective date of the new Order.

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

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

    b. Require the discharge proponent to obtain an individual NPDES permit prior to any discharge to surface waters within the San Diego Creek/Newport Bay Watershed.

6. The discharge authorization letter from the Executive Officer shall specify any conditions necessary to protect the beneficial uses of the receiving waters and shall specify the Self-Monitoring Program for the proposed discharge in accordance with this Order. The discharge authorization letter may be terminated or revised by the Executive Officer at any time. The template Monitoring and Reporting Program No. R8-2004-0021 will be modified as appropriate based on data available concerning the characteristics of the discharge, site conditions and other relevant information.

7. The discharger shall comply with M&RP No. R8-2004-0021. Revision of this monitoring and reporting program by the Executive Officer may be necessary to confirm that the discharger is in compliance with the requirements and provisions contained in this Order. Revisions may be made by the Executive Officer at any time during the term of this Order, and may include an increase in the number of constituents to be monitored, the frequency of monitoring or the number and size of samples collected.

8. The Executive Officer is authorized to issue a single discharge authorization letter to:

   a. A discharger proposing unknown future short-term discharges from activities involving groundwater extraction and discharge (described in Finding 6.a.) at multiple locations within the San Diego Creek/Newport Bay Watershed, provided that the discharger shall submit for each new location not previously reported, the information required in Section H.2.b. through H.2.d at least 10 days before the start of a new discharge from each location. In the case of new short-term groundwater-related discharges for which selenium offsets are required pursuant to Discharge Specification A.2. and Provision D. 10, no discharge shall commence until requisite selenium offset plans are approved by the Executive Officer.

   b. A discharger proposing unknown future de minimus discharges (described in Finding 6.b.) at multiple locations within the San Diego Creek/Newport Bay Watershed, provided that the general nature of the discharges and the general locations are reported and included in the application to discharge wastes under this general permit and that at least five days prior to each discharge, more detailed information regarding each discharge is reported.

9. The discharger shall comply with all requirements of this Order and the terms, conditions and limitations of the discharge authorization letter. The discharge authorization letter shall identify the discharge location(s). The authorization letter is incorporated by reference into this Order.

10. For existing dischargers who have coverage under Order No. 98-67 for short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed and who do not participate in the Working Group, and for existing individual dischargers who wish to obtain coverage under this general permit and who do not participate in the Working Group, when the results of selenium analysis required to be submitted as part of the Notice of Intent (see Application Requirements H.1., below) demonstrate non-compliance with the effluent limitations for selenium specified in this Order (Discharge Specification A.2.), the discharger(s) shall:

    a. Also submit with the Notice of Intent a demonstration that it is not reasonably feasible to reduce or eliminate the discharge;

b. Within 120 days of discharge authorization by the Executive Officer[9], 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 exceed five years from the date of adoption of this Order. This plan shall address offset of selenium discharges that take place while the offset plan is developed and approved;

c. 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;

d. Implement the offset plan upon approval by the Executive Officer; and

e. Acknowledge explicitly, as part of the Notice of Intent, that no notice of termination will be issued until such time as any requisite selenium offset is satisfactorily completed.

11. For new short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed who do not participate in the Working Group, if the results of selenium analysis required to be submitted as part of the Notice of Intent (see Application Requirements H.2., below) demonstrate that compliance with the effluent limitations for selenium specified in this Order (Discharge Specification A.2., above) cannot be achieved, the discharger shall:

a. Also submit with the Notice of Intent a demonstration that the discharge to surface waters cannot reasonably be avoided or minimized;

b. Also submit a proposed 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 exceed five years from the date of adoption of this Order;

c. Implement the plan/schedule upon approval by the Executive Officer. No discharge shall commence until the offset plan is approved by the Executive Officer;

d. Acknowledge explicitly, as part of the Notice of Intent, that no notice of termination will be issued and that compliance with this Order will continue to be required and enforced until such time as the offset is satisfactorily completed.

12. Revisions to approved selenium offset programs approved pursuant to Provisions D.10. and D.11. that have not been 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.

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9 *The issuance by the Executive Officer of authorization to discharge under the terms and conditions of this Order is contingent on the satisfactory demonstration that termination/reduction of the discharge is not reasonably feasible.*

13. Provided that the Work Plan commitments and the requirements of Discharge Specifications A.3. 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 A.2. for Working Group members and their consultants/licensees for the purposes of this Order. However, should a practicable selenium treatment technology for individual discharges become available, dischargers shall comply with the numeric selenium limitations specified in Discharge Specifications A.2. 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.

14. In conformance with Provisions D.10. and 11., as applicable, the Executive Officer shall prescribe an appropriate monitoring and reporting program to demonstrate that implementation of the approved offset results in no net selenium loading to surface waters.

15. For existing dischargers who have coverage under Order No. 98-67 for short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed, for existing individual dischargers that wish to obtain coverage under this general permit, and for new short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed, the following provisions apply to those dischargers participating in the Working Group and contractors and licensees of participating Working Group members.

    a. Submit with the Notice of Intent a demonstration that the discharge to surface waters cannot reasonably be avoided, reduced or eliminated.

    b. The participating members of the Working Group as of the date of this Order are listed in Attachment "C". Other dischargers may become participating members of the Working Group through procedures established by the Working Group.

    c. Participating members of the Working Group must participate in the approved Work Plan administered by the Working Group, which may include participation in meetings, contribution of in-kind services, or other obligations as mutually agreed upon by the Working Group; and must contribute financially toward the completion of the Work Plan based on the formula mutually agreed to by all other participating members of the Working Group.

    d. The Regional Board Executive Officer or designee shall be considered a "participating" member of the Working Group and shall take part in all decisions made by the participating members of the Working Group, but shall not be required to contribute financially to the Working Group.

    e. The Working Group shall develop public participation procedures, and shall include participation by representatives from resource agencies (such as the U.S. Fish and Wildlife Service and the California Department of Fish and Game), as well as representatives of the environmental and scientific communities, none of whom are obligated to contribute financially to the Working Group.

f. Participating members of the Working Group not fulfilling their financial or participatory obligations will be removed from the Working Group by mutual consent of other participating members of the Working Group, and notice of such removal shall be provided to the Regional Board Executive Officer. Participating members removed pursuant to this paragraph or participating members opting to leave the Working Group shall not be permitted to rejoin the Working Group for the term of this Order. For the purposes of compliance with this Order, dischargers removed as Working Group participants or who opt to discontinue participation shall comply with the requirements in Discharge Specification A. 2. that apply to dischargers not participating in the Working Group.

g. Conditions regarding financial and participatory obligations of the Working Group will be included in the final Work Plan submitted to the Regional Board Executive Officer.

h. At the completion of the individual elements in the Work Plan, the Working Group shall report to the Regional Board Executive Officer regarding the outcome of the work constituting that Work Plan element.

i. The following constitute elements of the Work Plan administered by the Working Group along with target completion dates. In each case, the element of the Work Plan shall be completed 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) Prepare a draft Work Plan based upon the commitments and concepts presented in this Order and submit to Executive Officer (5/16/05);

(2) Prepare a detailed final Work Plan based upon the commitments and concepts presented in this Order and submit to Executive Officer; (6/30/05);

(3) Manage the Work Plan with input from identified technical experts, relevant regulatory agencies and the public (through completion of all elements of the Work Plan);

(4) 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);

(5) Identify and assess selenium treatment technologies, including potential future technologies (3/31/2006);

(6) Identify and assess selenium BMPs (including volume-reduction techniques)(task includes a "Quick Start" program for certain BMP assessment (2/28/2006);

(7) Facilitate demonstration testing of identified selenium treatment technologies and BMPs (3/31/2007);

(8) 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);

(9) Implement the final selenium offset, trading or mitigation program upon approval, but no later than 12/20/2009;

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

(11) 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);

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

(13) 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).

j. Participating members of the Working Group shall acknowledge as part of the Notice of Intent that no Notice of Termination will be issued, and compliance with the terms and conditions of this general permit will continue to be required and enforced, until the approved Work Plan is satisfactorily completed or an appropriate selenium treatment technology has been implemented.

16. Removal of nitrogen accomplished by IRWD's operation of the San Joaquin Marsh natural treatment system ponds shall constitute an offset for the total nitrogen loads resulting from the groundwater-related discharges regulated under this Order, and no additional nitrogen reductions will be required at this time, provided that on an annual basis, monitoring of nitrogen contributions by these dischargers and of nitrogen removal in the pond treatment system by IRWD demonstrates that there is no net loading of nitrogen to the Newport Bay watershed. Such dischargers will also be deemed in compliance with the requirements of Receiving Water Limitations B.1 and B.2.h and Provision D. 2 with respect to nutrients contained in their discharges. In the event that IRWD ceases to operate the pond treatment system, or that there is not a demonstration of no net loading, then the dischargers shall implement additional offset program(s) acceptable to the Executive Officer. Any such additional programs shall assure the offset of nitrogen discharges that occur subsequent to the termination of IRWD's operation of the pond treatment system. No Notice of Termination will be issued and compliance with this Order will continue to be required and enforced until such time as the approved offset is satisfactorily completed.

17. The use of nitrogen removal by IRWD's San Joaquin Marsh natural treatment system ponds to offset the nitrogen inputs to surface waters resulting from the short-term, groundwater-related discharges regulated under this Order does not establish a right or precedent for such use by other groundwater-related discharges (or other types of nutrient discharges) to surface waters in the Newport Bay watershed. Nitrogen requirements, including offset requirements, for these other dischargers will be considered on a case-by-case basis.

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

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

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

21. For discharges of diverted stream flows that are returned to the same stream from which the diversion occurred, dischargers are responsible for the change in effluent quality of such flows attributable to their actions, are not responsible for the influent quality of the flow, and need not treat flows to remove constituents in the diverted stream flow influent.

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

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

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

25. 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.

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

27. The discharger shall, at all times, properly operate and maintain[10] all facilities and systems of treatment (and related appurtenances) and control which are installed or used by the discharger to achieve compliance with this Order and the conditions of the authorization letter(s) from the Executive Officer. Proper operation and maintenance shall include the following:

    a. Effective performance, adequate funding, adequate operator staffing and training and adequate laboratory and process controls and appropriate quality assurance procedures.

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

b. Regular maintenance and inspection of all systems.

c. Maintenance of records of the inspection results that shall be made available to the Regional Board whenever required and demanded.

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

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

b. Process and equipment inspection and maintenance schedules.

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

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

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

30. The Regional Board, EPA, and other authorized representatives shall be allowed:

a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

b. Access to copy any records that are kept under the conditions of the order;

c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. To photograph, sample and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA.

31. Where discharges to surface waters from residential sump pumps may occur, the City in which these discharges are located shall apply for coverage under this general permit. The application may include other types of discharges described in Finding 6 of this Order. The City shall conduct the following as part of the monitoring program issued by the Executive Officer:

a. Record on a permanent log: the addresses at which residential sump pump discharges occur; the approximate volume and frequency of discharge; and a description of where sump discharges are directed (e.g., to Newport Bay, surface water tributary to Newport Bay).

b. A one-time characterization of each residential sump pump discharge for pH and the presence of total nitrogen, total recoverable selenium and total organic carbon.

c. The information collected in 8.a. and b., above shall be reported annually to the Regional Board. The annual reporting requirement for 8.b., above, pertains to new residential sump pump discharges for which characterization data has not been provided previously.

E. PERMIT REOPENING, REVISION, REVOCATION, AND RE-ISSUANCE

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

2. 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.

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

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

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

6. This Order may be reopened to address new information or other outcomes resulting from completion of the Work Plan elements as discussed in Finding Nos. 22 and 32.

F. PENALTIES

1. The CWA provides that any person who violates a provision implementing sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates provisions implementing these sections of the CWA is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

2. 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 permit, 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 6 months per violation, or by both.

3. 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 per violation, or by imprisonment for not more than six months per violation, or by both.

4. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day, or $20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

G. REQUIRED REPORTS AND NOTICES

1. Reporting Provisions:

   a. All applications, reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22.

   b. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

   c. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board and the Regional Administrator of EPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Section 13387 of the California Water Code.

2. Within thirty (30) days of issuance of discharge authorization under this Order, discharger(s) within the San Diego Creek/Newport Bay watershed who are not participating in the Working Group shall submit a plan for approval by the Regional Board's Executive Officer that identifies the method(s) and schedule by which the discharger(s) proposes to offset selenium discharges in excess of the numeric effluent limitations specified in Discharge Specification A.2. The schedule is to reflect the shortest practicable time necessary to implement the offset but in no case extend beyond 5 years from the date of the adoption of this Order.

3. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, volume, treatment or disposal methods of the discharge.

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

5. In the event of any change in control or ownership of land or waste discharge facilities currently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of their authorization to discharge wastewater under this general permit by letter, a copy of which together with the signed agreement between previous owner and the new owner accepting responsibility and liability for complying with this general permit shall be forwarded to the Executive Officer.

6. Upon completion of the project, the discharger shall notify the Executive Officer of the Regional Board in writing about cessation of the discharge and shall request for termination of coverage under this general permit.

H. APPLICATION REQUIREMENTS

1. Dischargers already covered under Order No. 98-67 and those dischargers under individual permits who wish to be and believe they can and should be covered under this renewed general permit shall submit a completed Notice of Intent (see Attachment "B" of Order No. R8-2004-0021) within 30 days of adoption of this Order. The Notice of Intent shall indicate if the discharger is opting to participate in the Working Group and provide proof of such participation, as applicable. The Notice of Intent shall be accompanied by analysis of the wastewater for selenium at analytical detection levels sufficient to assess compliance with the numeric selenium effluent limitations in Discharge Specification A.2 of this Order. If the results of the analysis demonstrate that compliance with the selenium limitations cannot be achieved, dischargers who are not participating in the Working Group shall comply with the requirements specified in Provision D.10., above; dischargers who are participating in the Working Group shall comply with Provision D. 15, above. The Notice of Intent shall also be accompanied by analysis of the wastewater for total nitrogen.

   Those dischargers who want to request a modification to the Template Monitoring and Reporting Program shall specifically state the modification being requested and shall submit information/justification supporting their request. The Executive Officer may also require the discharger to submit additional information about any recent change in ownership of facility, changes in the character and treatment of the discharges and any other relevant information that will update facility information that are on the Regional Board files.

2. **FOR A NEW DISCHARGER**[11]: At least 60 days before the start of a new discharge, the discharger shall submit an application and obtain the authorization letter from the Executive Officer. The application shall consist of the first annual fee and following information:

   a. Notice of Intent to be covered under this general permit. The Notice of Intent shall indicate if the discharger is opting to participate in the Working Group and provide proof of such participation, as applicable.

   b. For projects involving well development, well purging and groundwater extraction, a site characterization study report defining the proximity of the extraction well to known contaminated sites, the presence of contaminated groundwater onsite, contaminants and their properties, and a three dimensional assessment of the extent and concentration of contaminants in the subsurface. The study report shall include a description of the geologic and hydrologic factors that control the migration of the contaminants. It shall also include a list of known or suspected leaking underground tanks and other facilities or operations that have or may have impacted the quality of the underlying groundwater within 200 feet of the site.

   c. A report that shall include the following:

      (1) Characterization of the proposed wastewater discharge (for discharges identified in Finding 6.a., the characterization of the groundwater shall include total arsenic, total recoverable cadmium, total chromium, total recoverable copper, total recoverable lead, total recoverable mercury, total recoverable nickel, total recoverable selenium, total recoverable zinc, organochlorines (DDT, Toxaphene, Dieldrin, Chlordane, PCBs), dissolved oxygen (DO), hardness, sulfate, chloride, total nitrogen, electrical conductivity and total dissolved solids. The selenium analysis used shall assure analytical detection levels sufficient to assess compliance with the effluent limitations of this Order.) If the results of this analysis demonstrate that compliance with the selenium limitations in this Order cannot be achieved, dischargers who are not participating in the Working Group shall comply with the requirements specified in Provision D.10., above; dischargers who are participating in the Working Group shall comply with the requirements of Provision D. 15.

      (2) The name of the receiving water;

      (3) The estimated average and maximum daily flow rates;

      (4) The frequency and duration of the discharge;

      (5) A description of the proposed treatment system (if appropriate); and

      (6) A map showing the path from the point of initial discharge to the ultimate location of discharge.

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11 *New discharger is an entity/individual who is not currently authorized to discharge waste under this general permit or Order No. 98-67 and who is proposing groundwater discharges identified in Finding 6., to be covered under this general permit.*

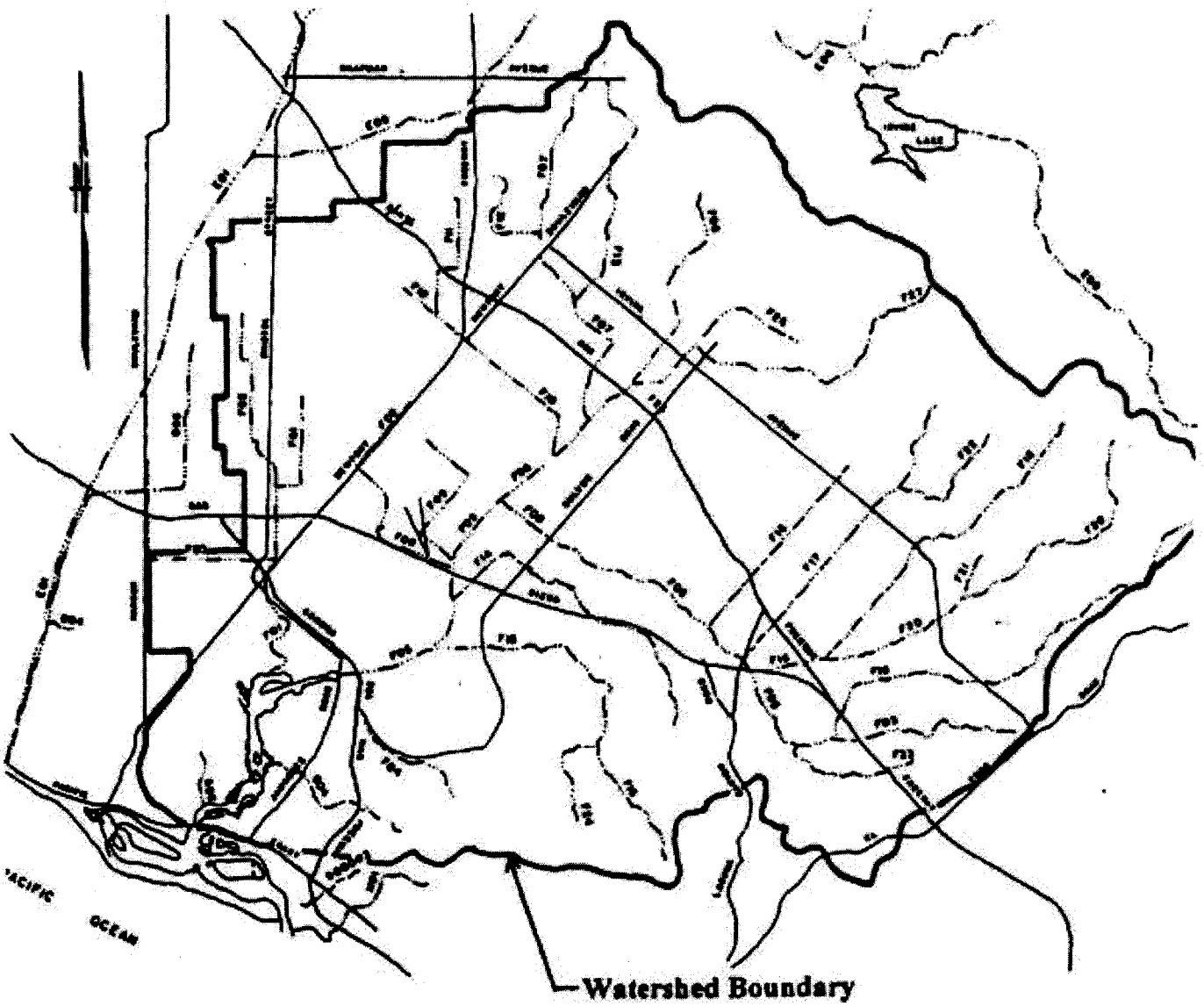
d. Any other information deemed necessary by the Executive Officer.

3. For both existing and new short-term groundwater-related dischargers who are not participating in the Working Group and for whom immediate compliance with the selenium limitations specified in Discharge Specification A.2 is not reasonably feasible, the NOI shall include explicit acknowledgement by the discharger that satisfactory completion of requisite selenium offsets is necessary to obtain a notice of termination. For such dischargers who are participating in the Working Group and for whom compliance with these selenium limitations is not reasonably feasible, the NOI shall include explicit acknowledgement by the discharger that satisfactory completion of the approved Work Plan or implementation of an appropriate selenium treatment technology is necessary to obtain a notice of termination.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on December 20, 2004.

Gerard J. Thibeault
Executive Officer

Attachment "A"
San Diego Creek/Newport Bay
Watershed Map



LEGEND:

D03 - GREENVILLE BANNING CHANNEL
D04 - FAIRVIEW CHANNEL
S01 - SANTA ANA RIVER
S05 - SANTIAGO CREEK
F01 - SANTA ANA DELHI CHANNEL
F02 - SANTA ANA GARDENS CHANNEL
F03 - FAULKNER CHANNEL
F04 - BONITA CHANNEL
F05 - SAN DIEGO CREEK CHANNEL
F06 - PETERS CANYON CHANNEL
F07 - EL MODENA-IRVINE CHANNEL
F08 - LANE CHANNEL
F09 - BARRANCA CHANNEL
F10 - SANTA ANA-SANTA FE CHANNEL
F11 - SOUTHWEST TUSTIN CHANNEL
F12 - NORTH TUSTIN CHANNEL
F13 - REDHILL CHANNEL
F14 - SAN JOAQUIN CHANNEL
F15 - SAND CANYON CHANNEL
F17 - BEE CANYON CHANNEL
F18 - AQUA CHINON CHANNEL
F19 - SERRANO CREEK CHANNEL
F20 - BORREGO CANYON CHANNEL
F23 - CANADA CHANNEL
F25 - CENTRAL IRVINE CHANNEL
F26 - RATTLESNAKE CANYON CHANNEL
F27 - HICKS CANYON CHANNEL
G00D03 - HARBOR VIEW DAM
G02 - EAST COSTA MESA CHANNEL
G03 - SANTA ISABELA CHANNEL
G04 - BIRD CANYON WASH

Attachment "B"

California Regional Water Quality Control Board
Santa Ana Region

NOTICE OF INTENT

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE 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)

I. PERMITTEE (*Person/Agency Responsible for the Discharge*)
Agency/Company Name:_____

Address:_____

Street *City* *State* *ZIP*
Contact Person:_____ Phone:_(_____)_____

II. FACILITY
Name:_____

Location:_____

Street *City* *State* *ZIP*
Contact Person:_____ Phone:_(_____)_____

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

III. BILLING INFORMATION (*Where annual fee invoices should be sent*)
Agency/Company Name:_____

Address:_____

Street *City* *State* *ZIP*

Contact Person:_____; Phone:_(_____)_____

IV. INDICATE EXISTING PERMIT NUMBER: (*if applicable*)
a. Individual permit Order No. _____ NPDES No. _____
b. General Permit Order No. 98-67_____
c. Others (specify) _____

V. NOTICE OF TERMINATION:

I acknowledge that no notice of Termination will be filed and that compliance with the terms and conditions of this Order if and as amended, will be required and enforced until such time as requisite total nitrogen and selenium offsets that pertain to the discharge are satisfactorily completed.

VI. CERTIFICATION:

I certify under penalty of law that I am an authorized representative of the permittee and that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the permittee will comply with the terms and conditions stipulated in ***Order No. R8-2004-0021*** *including the monitoring and reporting program issued by the Executive Officer of the Regional Board.*

Name and Official Title:_____
(type or print)
Signature: _____ Date: _____

Remarks: *If changes to facility ownership and/or treatment processes were made after the issuance of the existing permit, please provide a description of such changes on another sheet and submit it with this Notice of Intent. The person who signs Section VI-Certification shall meet the requirements of 40 CFR 122.22.*

Attachment "C"

DE MINIMUS PERMIT WORKING GROUP
(as of November 16, 2004)

The following are the current participants of the De Minimus Permit Working Group:

1. California Department of Transportation
2. County of Orange
3. Orange County Flood Control District
4. City of Costa Mesa
5. City of Irvine
6. City of Laguna Hills
7. City of Laguna Woods
8. City of Lake Forest
9. City of Newport Beach
10. City of Orange
11. City of Santa Ana
12. City of Tustin
13. Irvine Ranch Water District
14. The Irvine Company
15. Southern California Water Company
16. Tustin Legacy Community Partners

In addition, there are other potential members who have not yet confirmed participation in the Working Group, but who have expressed an interest to potentially join in the future. To date, the possible future members are:

1. MCAS Tustin

California Regional Water Quality Control Board
Santa Ana Region

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

Template Monitoring and Reporting Program No. R8-2004-0021
NPDES No. CAG998002

A. MONITORING GUIDELINES

1. Monitoring shall be in accordance with the following: 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 monitoring and reporting program (M&RP). In addition, the Regional 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 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 date, exact place, and time of sampling or measurements;
    b. The individual(s) who performed the sampling, and/or measurements;
    c. The date(s) analyses were performed;
    d. The individual(s) who performed the analyses;
    e. The analytical techniques or methods used;
    f. All sampling and analytical results;
    g. All monitoring equipment calibration and maintenance records;
    h. All original strip charts from continuous monitoring devices;
    i. All data used to complete the application for this Order; and
    j. Copies of all reports required by this Order.

8. A "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.

B. EXTRACTED GROUNDWATER MONITORING

For groundwater discharges that are treated prior to discharge, 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.

C. EFFLUENT MONITORING

1. The discharger shall visually monitor and record all flows and the duration of all waste discharges.

2. A sampling station shall be established at the discharge point. This station shall be located where representative samples can be obtained before the discharge mixes with the receiving waters. The following shall constitute the effluent monitoring program:

   a. For all groundwater-related wastewater discharges resulting from activities described in Finding 6.a., of the Order:

Constituent	Type of Sample	Units	Minimum Frequency of Sampling & Analysis
Flow	Flowmeter	GPD	Daily
Total Suspended Solids[1]	Grab	mg/l	Once daily during the first 30 minutes of each discharge and as directed by the Executive Officer, thereafter
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	"
Total Arsenic	"	µg/l	See C.3., below
Total Recoverable Selenium	"	"	"
Total Recoverable Cadmium[4]	"	"	"
Total Recoverable & Dissolved Copper[4]	"	"	"
Total Recoverable & Dissolved Lead[4]	"	"	"
Total Recoverable Nickel[4]	Grab	µg/l	See C.3., below

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.*

4 *This constituent shall be monitored for four sampling events. If all four sample test results pursuant to Provision C. 3.a. or C.3.b, whichever is applicable, result in non-detection, no further monitoring for this constituent is required.*

Constituent	Type of Sample	Units	Minimum Frequency of Sampling & Analysis
Total Recoverable & Dissolved Zinc[4]	Grab	µg/l	See C.3., below
pH	"	Unit	"
Temperature	"	^{0}C	"
Dissolved Oxygen	Grab	mg/l	"
Total Alkalinity	"	mg $CaCO_3$/l	Annually
Electrical Conductance	"	µmhos/cm	"
Chloride	Grab	mg/l	Annually
Sulfate	"	"	"
Total Organic Carbon	"	"	"
Total Dissolved Solids	"	"	"

b. For wastewater discharges resulting from activities described in Finding 6.b. of the Order:

Constituent	Type of Sample	Units	Minimum Frequency of Sampling & Analysis
Flow	Flowmeter	GPD	Daily
Total Suspended Solids[1]	Grab	mg/l	Once daily during the first 30 minutes of each discharge and as directed by the Executive Officer, thereafter
Total Residual Chlorine[1, 5]	"	"	"
Total Petroleum Hydrocarbons[3]	"	"	"
Oil and Grease	"	"	"

3. Minimum frequency of sampling & analysis:

a. For projects that result in discharges of wastewater of 1 million gallons per day (mgd) or more, daily grab samples for four consecutive days shall be taken and analyzed individually for the constituent required to be monitored. Subsequent samples shall be taken and analyzed once quarterly, unless directed otherwise by the Regional Board Executive Officer. If the discharge does not last for more than a day, one composite sample taken for the duration of the discharge shall be analyzed;

b. For all other projects that result in discharges of wastewater of less than 1 mgd, 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 Board Executive Officer.

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5 *Unless it is known, that chlorine is not in the discharge.*

4. Total nitrogen and total recoverable selenium offset monitoring and reporting:

   a. Dischargers responsible for providing a nitrogen and/or selenium offset shall assure that sufficient monitoring of influent and effluent flow, total nitrogen including particulate organic nitrogen (specifically for San Joaquin Marsh wetlands ponds treatment system effluent discharges), 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.

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

   c. If no 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.

D. REPORTING REQUIREMENTS

1. Five days prior to any discharge from locations already reported, the discharger shall notify the Regional Board staff by phone or by a fax letter indicating the date and time of the proposed discharge.

2. Five days prior to any planned discharge[6] from locations not yet reported, the discharger shall notify the Regional Board staff by phone or by a fax letter indicating the following:

   a. Specific type of the proposed wastewater discharge (see listing on Finding 6. of the Order);

   b. The estimated average and maximum daily flow rates;

   c. The frequency and duration of the discharge;

   d. The affected receiving water(s);

   e. A description of the proposed treatment system (if appropriate); and

   f. A description of the path from the point of initial discharge to the ultimate location of discharge (fax a map if possible).

3. For monitoring under Section C.2.a., above: Monitoring reports shall be submitted by the 30th day of each month. The monitoring reports shall cover the previous month's monitoring activities and shall include:

   a. The daily flow data;

   b. The depth from which groundwater is extracted as measured from ground surface elevation, including Global Positioning System coordinates for discharge point(s);

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6 *For those unplanned discharges, as much prior notification as possible is required before any discharge is initiated*

c. A brief description of the type of dewatering activity (e.g. well construction, well purging, dewatering for foundation, etc.);

d. The results of all laboratory analyses for constituents required to be monitored in Section C.2.a., above;

e. Calculations of removal rate for total nitrogen, and total suspended solids;

f. A summary of the discharge activities (when and where the discharge occurred, description of type of discharge, etc.) including a report detailing the discharger's compliance or noncompliance with the requirements of the general permit and discharge authorization letter;

g. Total nitrogen and total recoverable selenium offset monitoring report described in C.4., above, as appropriate; and

h. For every item where the requirements of the general permit and discharge authorization letter are not met:

1) A statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time; and

2) A timetable for implementing the proposed actions.

4. For monitoring under Section C.2.b., above: Monitoring reports shall be submitted by the 30th day of each month. The monitoring reports shall cover the previous month's monitoring activities and shall include:

a. The daily flow data;

b. Global Positioning System coordinates for discharge point(s);

c. A brief description of the type of dewatering activity;

d. The results of all laboratory analyses for constituents required to be monitored in Section C.2.b., above;

e. A summary of the discharge activities (when and where the dischargedoccurred, description of type of discharge, etc.) including a report detailing the discharger's compliance or noncompliance with the requirements of the general permit and discharge authorization letter;

f. For every item where the requirements of the general permit and discharge authorization letter are not met:

1) A statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time; and

2) A timetable for implementing the proposed actions.

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

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

7. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted under penalty of perjury.

Ordered by_____
Gerard J. Thibeault
Executive Officer

December 20, 2004

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		

Note: All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (latest edition) and shall meet the minimum levels specified in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Revised: 7/7/2000