



California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

320 W. 4th Street, Suite 200, Los Angeles, California 90013

Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.swrcb.ca.gov/rwqcb4>



Gray Davis
Governor

Winston H. Hickox
Secretary for
Environmental
Protection

November 27, 2002

TO: ALL INTERESTED PARTIES

TENTATIVE WASTE DISCHARGE REQUIREMENTS – GENERAL NPDES PERMIT FOR DISCHARGES OF GROUNDWATER FROM CONSTRUCTION AND PROJECT DEWATERING TO SURFACE WATERS IN COASTAL WATERSHEDS OF LOS ANGELES AND VENTURA COUNTIES (GENERAL NPDES PERMIT NO. CAG994004)

Enclosed are copies of the revised tentative Waste Discharge Requirement and General National Pollutant Discharge Elimination System Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties. The first tentative was circulated on October 11, 2002. The tentative permit combines into one, Order No. 97-045, CAG994001, that regulates discharge of untreated groundwater and Order No. 97-043, CAG994002, that regulates discharge of treated groundwater to surface waters in this region.

The enclosed tentative requirements consist of:

- a. Fact Sheet;
- b. Board Order;
- c. Attachment A - Screening Levels for General NPDES Permits;
- d. Attachment B - Watershed/Stream Reach Limitation;
- e. Attachment C - Standard Provisions;
- f. Sample Monitoring and Reporting Program;
- g. Appendix I – SWRCB Minimum Levels

Notice of the tentative Waste Discharge Requirements (WDR) has been published in newspapers of general circulation in the areas to be covered by the WDR. Proof of posting notice can be reviewed in this Regional Board office or a copy can be mailed upon request. In accordance with administrative procedures, this Board at a public hearing to be held on February 20, 2003, will consider the enclosed tentative requirements and comments submitted in writing regarding any and all portions thereof. The Board will hear any testimony pertinent to this discharge and the tentative requirements. It is expected that the Board will take action at the hearing; however, as testimony indicates, the Board at its discretion may order further investigation.

Written comments or testimony regarding this tentative Order must be received at the Regional Board's office by the close of business on January 3, 2003, in order to be evaluated by Board staff and included in the Board's agenda folder. Comments received after that date will be provided, ex agenda, to the Board for their consideration. Timely submittal of written comments is encouraged to ensure that all comments are accurately and fully included in the administrative record, that Board staff are able to provide timely review, and that Regional Board members have sufficient time to give full consideration to the comments and issues

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption
For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Discharges of Groundwater from Construction
and Project Dewatering to Surface Waters in
Coastal Watersheds of Los Angeles and Ventura Counties

November 27, 2002

raised. Comments received after the requested date may result in delay in consideration of the tentative Order.

If you have any questions, please contact LB Nye at (213) 576-6752.

Sincerely,

Augustine Anijielo, Chief
General Permitting and Special Projects Unit

Enclosures:

Fact Sheet
Tentative General NPDES No. CAG994004, Order No. R4-2003-xxxx
Attachment A – Screening Levels for General NPDES Permits
Attachment B – Watershed/Stream Reach Limitation
Attachment C – Standard Provisions
Sample Monitoring and Reporting Program
Attachment D – Priority Pollutants List
Appendix I – SWRCB Minimum Levels

cc: Environmental Protection Agency, Region 9
Clean Water Act Standards and Permits (WTR-5)
U.S. Army Corps of Engineers
NOAA, National Marine Fisheries Service
Department of Interior, U.S. Fish and Wildlife Service
Mr. Michael Lauffer, State Water Resources Control Board, Office of the Chief Counsel
Mr. James Maughan, Division of Water Quality, State Water Resources Control Board
Department of Fish and Game, Region 5
Los Angeles County Department of Public Works, Flood Control and Drainage
Los Angeles County Department of Health Services
Los Angeles County Department of Environmental Health
California Department of Health Services, Drinking Water and Field Operations Branch
Heal the Bay
Environment Now
Santa Monica Bay Keeper
Natural Resources Defense Council
Western States Petroleum Association
Ventura Coastkeeper
Rufus C. Young, Burke, Williams and Sorensen LLP
Donald R. Kendall, Calleguas Municipal Water District
Susan M. Dameron, Los Angeles Department of Water and Power
Dan Duncan, Newhall Land

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Coastal Watersheds of Los Angeles and Ventura Counties

November 27, 2002

Demonsthenes "Dean" Morales, City of Thousand Oaks
Michael Alvord, Assistant Operations Manager, Valencia Water Company
Sally Coleman, , County of Ventura
Robert Newman, City of Santa Clarita
Hoover H. Ng, Water Replenishment District of Southern California
Kevin L. Wattier, Long Beach Water Department
John D. Ballas , City of Industry
James F. Stahl, County Sanitation Districts of Los Angeles County
Dan Smith, Association of California Water Agencies
Kent Adney, California Water Service Company
Joeseoph P. Marcinko, California-American Water Company
Christine Montan, City of Alhambra
Thomas W. Tait, City of Arcadia
Leighton Fong, City of Burbank
Jason Wen, City of Downey
Daniel W. Keesly, City of LaVerne
David Fike, City of Monrovia
Jim Taylor, City of Pomona
Shan Kwan, Water Services Division
Michael S. Drake, City of San Fernando
Gil Borboa, City of Santa Monica
Michael G. Sovich, Crescenta Valley Water District
Dale A. Heuerman, East Orange County Water District
Lawrence M Libeu, Eastern Municipal Water District
James D. Ciampa, Laerlof, Senical, Bradley, Gosney and Kruse, LLP (for Public Water Agencies Group),
Robert J. Hayward, Lincoln Avenue Water Company
William O. Straub, Main San Gabriel Basin Watermaster
Ted D. May, Park Water Company
Anthony C. Zampielo, Raymond Basin Management Board,
Dan Arrighi, San Gabriel Valley Water Company
Dana Johnson, Santa Fe Irrigation District
Robert Jordan, Santa Margarita Water District
Chales L. "Chuck" Sihler, Sihler and Associates (CA-NV AWWA) William C. Gedney,
Southern California Water Company
Anita Kuhman, City of Camrillo
Daniel A. Ballin, City of El Monte
Diem Vuong, Central Basin Water Association
Melvin L Blevins, Upper Los Angeles River Area Watermaster
Brandon Steets, Integrated Water Resources

Mailing list - dischargers enrolled under Board Orders 97-043 or 97-045

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State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF GROUNDWATER FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS
IN
COASTAL WATERSHEDS OF LOS ANGELES AND VENTURA COUNTIES**

NPDES NO. CAG994004
Public Notice No.: R4-2003-xxxx

I. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a general National Pollutant Discharge Elimination System (NPDES) permit for the discharge of untreated or treated ground water from project dewatering. As an initial step in the WDR process, Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

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

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

To be fully responded to by staff and considered by the Board, written comments should be received at the above address by 5:00 p.m. on January 3, 2003.

B. Public Hearing

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

Date: February 20, 2003
Time: 9:00 a.m.
Location: tbd

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C. Waste Discharge Requirement Appeals

Any person may petition the State Board to review the decision of the Regional Board regarding the final general Waste Discharge Requirements. A petition must be submitted within 30 days of the Regional Board's public hearing to the following address:

State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

D. Information and Copying

The tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, CA 90013, at any time between 8:00 AM and 5:00 PM, Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. Register of Interested Persons

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

II. PURPOSE OF ORDER

The purpose of this Order is to renew and update waste discharge requirements for two existing General Permits: Order No. 97-043 (General NPDES Permit No. CAG994002) to regulate discharges of treated groundwater from construction and other projects to surface waters in the Region and Order No. 97-045 (General NPDES Permit No. CAG994001) to regulate discharges of (untreated) groundwater from construction and other projects to surface waters, which expired on April 10, 2002. These two General Permits are being combined into one and to include provisions for creekside construction dewatering discharges.

III. BACKGROUND

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is in compliance with an NPDES Permit.

On September 22, 1989, the United States Environmental Protection Agency (USEPA) granted the State of California, through the State Water Resources Control Board and the

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Regional Boards, the authority to issue general NPDES permits pursuant to 40 Code of Federal Regulations (40 CFR) parts 122 and 123.

40 CFR section 122.28 provides for issuance of general permits to regulate a category of point sources if the sources involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under a general permit rather than individual permits.

On May 12, 1997, this Regional Board adopted the *General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges of Treated Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (NPDES No. CAG994002, Order No. 97-043) and *General National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Groundwater Discharges from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (NPDES No. CAG994001, Order No. 97-045). The existing General Permits covered discharges of ground water from construction dewatering, subterranean seepage dewatering, well development and test pumping, aquifer testing, monitoring well construction and similar discharges. Currently, there are approximately 70 dischargers who are enrolled under the existing General Permit for discharge of treated groundwater and approximately 270 who are enrolled under the existing General Permit for discharge of untreated groundwater.

IV. DISCHARGE DESCRIPTION

Groundwater is extracted and discharged to surface water at hundreds of sites throughout the region. These discharges cause, or threaten to cause adverse impacts to existing and potential beneficial uses of the surface water. Many of these discharges are small and/or temporary and waste discharges from these sites will be more efficiently regulated with general permits rather than individual permits. The accompanying Order establishes requirements to regulate discharges of wastewaters generated from dewatering operations to surface waters of the United States under the jurisdiction of this Regional Board.

1. Wastewater discharge from permanent or temporary dewatering activities include, but are not limited to the following:
 - a. Treated or untreated wastewater from permanent or temporary construction dewatering operations
 - b. Groundwater pumped as a aid in the containment of contaminated groundwater plume
 - c. Groundwater extracted during short-term and long-term pumping /aquifer tests
 - d. Groundwater generated from well drilling, construction or development and purging of wells
 - e. Equipment decontamination water

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- f. Subterranean seepage dewatering
- g. Incidental collected stormwater from basements

These waste streams may contain only uncontaminated waters or may be contaminated with petroleum products, VOC, metals or other regulated chemical constituents. In the case of groundwater which is contaminated treatment before discharge will be required.

V. DISCHARGE COVERAGE

Existing and new dischargers enrolling under this permit are required to collect representative ground water sample(s) and analyze these samples for all the constituents listed on Attachment A. Existing dischargers shall conduct this analysis and submit the result with a Notice of Intent Form, otherwise the existing authorization will be terminated.

If the analytical test results show exceedance of the water quality screening criteria listed on Attachment A for petroleum products or VOCs only, then the discharger will be enrolled in either Order No. R4-2002-0125 (Waste Discharge Requirements for Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Petroleum Fuel-Contaminated Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties) or Order No. R4-2002-0107 (Waste Discharge Requirements for Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Volatile Organic Compounds Contaminated-Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties).

If the analytical test results show exceedance of the water quality screening criteria listed on Attachment A for petroleum products and/or VOCs in addition to other compounds (e.g. metals) or if the discharge is does not exceed any of the water quality screening criteria, then the discharge will be eligible for coverage under this permit.

The screening criteria in Attachment A are based on the most restrictive of the California Toxic Rule numbers or the existing permit limitations. Attachment A has two columns of Screening Levels. The first column will be used to screen discharges to receiving waters designated as Municipal and Domestic Supply (MUN), identified in the Basin Plan with and "E" or "I" designation. The second column will be used to screen discharges to all other receiving water bodies. The most restrictive numbers are necessary because this Order is intended as a general NPDES permit and covers discharges to all surface waters in the Los Angeles Region.

Pursuant to section 2, Article X, California Constitution, and section 275, of the California Water Code on preventing waste and unreasonable use of waters of the state, the Regional Board encourages, wherever practicable, water conservation and/or re-use of wastewater. To obtain coverage under this Order, the discharger shall first investigate and report the feasibility of conservation, land disposal and/or reuse of the wastewater.

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VI. BASIS FOR THE PROPOSED WASTE DISCHARGE REQUIREMENTS

A. General Rationale

The following documents are the bases for the proposed requirements:

1. On June 13, 1994, this Regional Board adopted a revised basin plan, *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives for, and lists the beneficial uses of, specific water bodies (receiving waters) in the Los Angeles Region. Typical beneficial uses include the following:
 - a. Inland surface waters above an estuary - municipal and domestic supply, industrial service and process supply, agricultural supply, ground water recharge, freshwater replenishment, aquaculture, warm and cold freshwater habitats, inland saline water and wildlife habitats, water contact and noncontact recreation, fish migration, and fish spawning.
 - b. Inland surface waters within and below an estuary - industrial service supply, marine and wetland habitats, estuarine and wildlife habitats, water contact and noncontact recreation, commercial and sport fishing, aquaculture, migration of aquatic organisms, fish migration, fish spawning, preservation of rare and endangered species, preservation of biological habitats, and shellfish harvesting.
 - c. Coastal Zones (both nearshore and offshore) - industrial service supply, navigation, water contact and noncontact recreation, commercial and sport fishing, marine habitat, wildlife habitat, fish migration and spawning, shellfish harvesting, and rare, threatened, or endangered species habitat.
2. *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Policy), adopted by State Water Resources Control Board in May 1974. The Policy provides that discharges of industrial process wasters to enclosed bays and estuaries shall be phased out at the earliest practicable date.
3. Technical Support Document (TSD) for Water Quality-Based Toxics Control, USEPA/502/2-90-001, March 1991.
4. The California Toxics Rule (CTR) promulgated by the USEPA on May 18, 2000 and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) adopted by the State Board on March 2, 2000. The CTR establishes numerical

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criteria for priority pollutants for inland surface water as well as water in the enclosed bays and estuaries.

5. Effluent limitations, and toxic effluent standards established pursuant to Section 301, 302, 304, 306, and 307 of the Clean Water Act, and amendments thereto, are applicable to the dischargers herein.
6. The Clean Water Act section 402 and 40 CFR Parts 122, 123, and 124 regulations, and State Board Order No. 96-03-DWQ, for storm water discharges.
7. 40 CFR Part 304 regulations for implementation of USEPA's water quality-based limitations for toxic pollutants.
8. Division 7 of the California Water Code is applicable to discharges to all waters of the State.
9. California Drinking Water Standards (California Domestic Water Quality and Monitoring Regulations, Title 22, California Code of Regulations).
10. State Water Resources Control Board (SWRCB) Resolution No. 68-16, (adopted on October 28, 1968), and USEPA 40 CFR 131.2, which establish the state and federal "Antidegradation Policies".

B. Water Quality in Los Angeles and Ventura County Watershed

The 1998 SWRCB Water Quality Assessment (WQA) identified the water quality conditions of water bodies in the state. Certain receiving waters in the Los Angeles and Ventura County watersheds are classified as impaired on the 1998 303(d) List and Total Maximum Daily Loads (TMDL) Schedule. Impaired waters do not fully support beneficial uses. This general permit is not meant to regulate the discharge of 303(d)-listed parameters.

C. Water Quality-Based Effluent Limitations

The SWRCB adopted *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the *State Implementation Plan* or *SIP*) on March 2, 2000. The SIP was amended by Resolution No. 2000-30, on April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California which are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Federal Clean Water Act. This policy also establishes the following: implementation provisions for priority pollutant criteria promulgated by USEPA through the CTR and for priority pollutant objectives established by Regional Water Quality Control Boards in

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their water quality control plans (Basin Plans) and chronic toxicity control provisions.

On May 18, 2000, the U.S. EPA promulgated the numeric criteria for priority pollutants for the State of California, known as the CTR and as codified as 40 CFR section 131.38. Toxic pollutant limits are prescribed in the accompanying Order to implement the CTR. 40 CFR section 122.44(d)(1)(ii) requires each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality objective. This is done by performing a reasonable potential analysis (RPA) for each pollutant. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity).

The effluent limitations in this permit, for constituents which were also included in the existing permits, are generally consistent with the limitations in the existing permits with the exception of specific changes made for certain constituents to implement more stringent CTR criteria. In addition, new effluent limitations have been incorporated to provide fuller coverage for priority toxic pollutants.

D. Technology-Based Effluent Limitations

Best professional judgment (BPJ) was used in developing technology-based effluent limits in this tentative order. BPJ is defined as the highest quality technical opinion developed by the permit writer after consideration of all reasonably available and pertinent data or information that forms the basis for the terms and conditions of a NPDES permit. The authority for BPJ is contained in Section 402(a)(1) of the Clean Water Act.

Various biological, chemical, physical, thermal treatment systems could be employed to remove these toxic or conventional pollutants to applicable permit limits. For example, air stripping, carbonic absorption, biological reactions, chemical oxidation technologies could be used to remove volatile organic compounds in groundwater. Reverse osmosis, ion exchange, or pH adjustment could be used as technologies to remove conventional pollutants and metals. Biological systems could be used to degrade or remove semi-volatile organic compounds.

This permit does not provide specific treatment technologies for the universe of toxic compounds that could be found in groundwater. When treatment is required prior to discharge, dischargers will be required to submit schematics or treatment flow diagrams with descriptions of the treatment system including statements on the effectiveness of the system to achieve the applicable permit limits during the permit process.

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E. Anti-degradation Policy

The Basin Plan also implements the State Board's adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Water in California". This policy which is also referred to as the "Anti-degradation Policy", protects surface and ground waters from degradation. In particular, this policy protects waterbodies where existing quality is higher than that necessary for the protection of beneficial uses.

This permit complies with State and Federal "Anti-degradation" policies. The conditions and effluent limitations established in this Order for discharges of treated ground water to surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in this Region will be maintained and protected. Discharges regulated by this Order should not adversely impact water quality if the terms and conditions of this Order are met.

F. Impact to Water Quality

Groundwater discharges from dewatering operations could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance. Discharges covered by the accompanying order may involve a treatment system, which may include physical, chemical, and/or biological treatment.

G. Creekside Construction Dewatering Operations

This permit establishes the category of creekside construction dewatering operations hereby defined as dewatering of groundwater (1) where the dewatering is necessary during construction operations and (2) where the groundwater has a direct hydrologic connection with, and mineral chemistry for TDS, chloride, and sulfate is similar to, the surface waterbody to which it will be discharged. Water that can be categorized as in "direct hydrologic connection" is water that is the underflow or subflow of the surface waterbody. This consists of water in the soil, sand and gravel immediately below or adjacent to the bed of the open stream or waterbody, which supports the surface water in its natural state or feeds it directly. To constitute "hydrologic connection", it is essential that the surface and subsurface flows be in contact and that the subsurface flow shall have a definite direction corresponding to the surface flow.

Creekside discharge should be considered a last resort option and is only allowed under certain conditions subject to approval of the Executive Officer, and may be modified by a TMDL. Discharges determined by the Executive Officer to be creekside construction dewatering discharges will not be required to comply with

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the waterbody-specific mineral limitations for TDS, chloride, and sulfate identified in Attachment B. Instead, the effluent limitations for TDS, chloride, and sulfate shall be the level for each constituent in the receiving water as established in the ROWD. This approach ensures there is no degradation and recognizes that the receiving water and the ground water are not only hydrologically connected, but are essentially one in the same. Further this approach ensures that there is no degradation by addition of TDS, chloride, or sulfates to the surface water by the discharger. Regulation under this approach is consistent with the federal Clean Water Act, and the Regional Board staff proposes establishing the limitations and the control mechanisms under the authority of the Porter-Cologne Water Quality Control Act.

The purpose of this approach to regulating creekside discharges is to avoid requiring a discharger to treat a surface waterbody to lower than naturally occurring, background, mineral content. In such circumstance, cycling the extracted creekside water back into the surface waterbody, would not cause any decrease in the quality of the waterbody or degradation. However, to utilize the creekside construction dewatering approach, the discharger must demonstrate in the ROWD that discharging the dewatered groundwater to the sanitary sewer, reusing the dewatered groundwater, and that other lawful discharge options are infeasible.

H. Specific Rationales for Each of the Numerical Effluent Limitations

The effluent limitations and the specific rationales for pollutants that are expected to be present in discharges covered by the general permit are listed in the tables at the end of this section. The specific rationales include: the previous General Permits, Order No. 97-043 (General NPDES Permit No. CAG994002) and Order No. 97-045 (General NPDES Permit No. CAG994001); the General Permit Order No. R4-2002-0107 (General NPDES Permit No. CAG914001); the CTR; the Basin Plan; and Title 22 California Code of Regulations (California Domestic Water Quality and Monitoring Regulations). It is intended that all the General Permits issued by this Regional Board for similar activities have the same effluent limits for the constituents of concern.

This Order establishes limits for many more constituents than in the General Permits it replaces, so that this permit will be able to cover many discharges which might otherwise not be eligible for coverage under a general permit. The many established effluent limitations increase the likelihood that a given discharge can be covered so that the advantages of a general permit in comparison to an individual permit, relatively lower cost, speed of enrollment, can be availed by many dischargers.

Because this Order is intended to serve as a general NPDES permit and covers discharges to all surface waters in the Los Angeles Region, the effluent

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limitations established pursuant to this general order are established to protect the most protective water quality objective for the surface water beneficial uses in the Los Angeles Region.

The effluent limitations from ground water dewatering projects are calculated assuming no dilution. For most practical purposes, discharges from dewatering operations do not flow directly into receiving water with significant volume to consider dilution credit or to allocate a mixing zone. Most discharges of ground water regulated under this general permit are to storm drain systems that discharge to creeks and streams. Many of these creeks and streams are dry during the summer months. Therefore, for many months of the year, these discharges may represent all or nearly all of the flow in some portions of the receiving creeks or streams. These discharges, therefore, have the potential to recharge ground waters protected as drinking waters.

An exception to this policy may be applied based on approved mixing zone study and based on demonstration of compliance with water quality objectives in the receiving water as prescribed in the Basin Plan. This exception process is more appropriate for an individual permit, and would not be appropriate for a general permit, that should be protective of most stringent water quality objectives and beneficial uses. If discharger requests that a dilution credit be included in the computation of effluent limit or that a mixing zone be allowed, an individual permit will be required. However, if no mixing zone is proposed, this general permit provides coverage for all discharges to receiving water bodies in Coastal Watersheds of Los Angeles and Ventura Counties.

The discharges regulated under this permit have the potential to recharge ground waters protected as drinking waters. The Basin Plan requires these ground waters to be protected to both the primary and secondary Maximum Contaminant Levels (MCL), and it implements both the Federal and State anti-degradation policies. Primary standards are standards that protect public health by limiting the levels of contaminants in drinking water. Secondary standards are guidelines regulating contaminants that may cause aesthetic effects (such as taste, odor, or color) in drinking water. Therefore, it is appropriate to limit discharges that may recharge these ground waters to both primary and secondary MCL levels. For surface waters with the beneficial use of municipal and domestic supply, it is also appropriate to limit discharges into these sources of drinking water to the primary and secondary MCL. For surface waters with the beneficial use of municipal and domestic supply, it is also appropriate to limit discharges into these sources of drinking water to the primary and secondary MCL.

This permits includes effluent limitations for metals and some organic compounds which are specific based on whether the discharge is to a freshwater or saltwater receiving water. The previous General Permits, Order No. 97-043 (General NPDES Permit No. CAG994002) and Order No. 97-045 (General NPDES Permit No. CAG994001), included many of these limitations but with no differentiation

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between discharges to freshwater or saltwater. The CTR establishes the criteria for inland surface waters (freshwater) as well as water in the enclosed bays and estuaries (saltwater) and these criteria were used to set the appropriate metal limits. For purposes of this permit, saltwater is defined as waterbodies with saline, estuarine or marine beneficial use designations. All other inland surface waters are considered freshwater.

In freshwater, the toxicity of certain metals including cadmium, chromium III, copper, lead, nickel, silver and zinc is dependent on water hardness. The CTR expresses the objectives for these metals through equations where the hardness of the receiving water is a variable. To simplify the permitting process, it was necessary that fixed hardness values be used in these equations. For limits in waters with hardness below 200 mg/L, a hardness value of 150 mg/L was used to calculate the limits. For limits in waters with hardness between 200 and 300 mg/L, a hardness value of 250 mg/L was used and for limits in waters with hardness 300 mg/L and above, a hardness value of 350 mg/L was used. The Order requires the discharger to propose appropriate receiving water hardness or effluent hardness based on analytical results of receiving water or effluent samples. Upon approval of the Executive Officer, this hardness value will be used to determine the appropriate metal limitation from the table of limits (E. 2. b. i.) in the Order.

A comparison of the existing permit limits to the new discharge limits and the specific rationale for any change is shown in the tables below

1. Freshwater; lower limits for MUN designated waters are shown in parentheses

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
General Constituents						
Total Suspended solids	mg/L	150	50	150	50	No change
Turbidity	NTU	150	50	150	50	No change
BOD ₅ 20°C	mg/L	30	20	30	20	No change
Oil and Grease	mg/L	15	10	15	10	No change
Settleable Solids	ml/L	0.3	0.1	0.3	0.1	No change
Sulfides	mg/L	1.0	no limit	1.0	no limit	No change
Phenols	mg/L	1.0	no limit	1.0	no limit	No change
Residual Chlorine	mg/L	0.1	no limit	0.1	no limit	No change from 97-043, Basin Plan
Methylene Blue Active Substances (MBAS)	mg/L	0.5	no limit	0.5	no limit	No change

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Volatile Organic Compounds						
1,1 dichloroethane	µg/L	5	no limit	5	no limit	No change
1,1 dichloroethylene	µg/L	6	no limit	6.0 (0.11 MUN)	3.2 (0.057 MUN)	CTR, Basin Plan
1,1,1 trichloroethane	µg/L	200 VOC permit	no limit	200	no limit	No change
1,1,2 trichloroethane	µg/L	no limit	no limit	5 (0.12 MUN)	no limit (0.6 MUN)	Basin Plan, CTR
1,1,2,2 tetrachloroethane	µg/L	1.0	no limit	1.0 (0.34 MUN)	(0.17 MUN)	No change, CTR
1,2 dichloroethane	µg/L	0.5	no limit	0.5 (0.5 MUN)	no limit (0.38 MUN)	No change, CTR
1,2 dichloropropane	µg/L	no limit	no limit	5 (1.1 MUN)	no limit (0.52)	Basin Plan, CTR
1,2-trans-dichloroethylene	µg/L	10 VOC permit	no limit	10	no limit	No change
1,3 dichloropropylene	µg/L	0.5 VOC permit	no limit	0.5	no limit	No change
Acetone	µg/L	700 in VOC permit	no limit	700	no limit	No change
Acrolein	µg/L	100 VOC permit	no limit	100	no limit	No change
Acrylonitrile	µg/L	no limit	no limit	1.7 (0.12 MUN)	0.66 (0.059 MUN)	CTR
Benzene	µg/L	1.0	no limit	1.0	no limit	No change
Bromoform	µg/L	no limit	no limit	720 (8.6 MUN)	360 (4.3)	CTR
Carbon tetrachloride	µg/L	0.5	no limit	0.5 (0.5 MUN)	0.5 (0.25 MUN)	no change (CTR MUN)
Chlorobenzene	µg/L	30 VOC permit	no limit	30	no limit	No change
Chlorodibromo methane	µg/L	no limit	no limit	68 (0.81 MUN)	34 (0.40)	CTR
Chloroethane	µg/L	100 VOC permit	no limit	100	no limit	No change
Chloroform	µg/L	100 VOC permit	no limit	100	no limit	No change
Dichlorobromomethane	µg/L	100	no limit	92 (1.1 MUN)	46 (0.56)	CTR
Ethylbenzene	µg/L	700	no limit	700		No change
Ethylene dibromide	µg/L	0.05	no limit	0.05	no limit	No change

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Methyl ethyl ketone	µg/L	700 VOC permit	no limit	700	no limit	No change
Methyl tertiary butyl ether (MTBE)	µg/L	35	no limit	5	no limit	SMCL ¹
Methylbromide	µg/L	10	no limit	10		No change
Methylchloride	µg/L	3	no limit	3	no limit	No change
Methylene chloride	µg/L	No limit	no limit	3200 (9.5 MUN)	1600 (4.7)	CTR
Tetrachloroethylene	µg/L	5.0	no limit	5.0 (1.6 MUN)	(0.80 MUN)	No change, CTR
Toluene	µg/L	150	no limit	150	no limit	No change
Trichloroethylene	µg/L	5	no limit	5.0 (5.0) MUN)	(2.7 MUN)	No change, CTR
Vinyl chloride	µg/L	0.5	no limit	0.5	no limit	No change
Xylenes	µg/L	1750	no limit	1750	no limit	No change
Metals						
Antimony	µg/L	no limit	no limit	6	no limit	Basin Plan
Arsenic	µg/L	50	no limit	50	no limit	No Change
Beryllium	µg/L	no limit	no limit	4	no limit	Basin Plan
Cadmium	µg/L	10	no limit	6-5 ²	3-5 ²	CTR, Basin Plan
Chromium III	µg/L	50	no limit	50	no limit	No change
Chromium VI	µg/L	no limit	no limit	16	8	CTR
Copper	µg/L	1000	no limit	21-44 ²	10-22 ²	CTR
Cyanide	µg/L	no limit	no limit	8.5	4.2	CTR
Lead	µg/L	50	no limit	9-26 ²	4-13 ²	CTR
Mercury	µg/L	2	no limit	0.05 (0.050 MUN)	no limit	CTR
Nickel	µg/L	no limit	no limit	100 ²	60-100 ²	CTR, Basin Plan
Selenium	µg/L	10	no limit	8	4	CTR
Silver	µg/L	50	no limit	8-40 ²	4-20 ²	CTR
Thallium	µg/L	no limit	no limit	13 (3.4 MUN)	6.3 (1.7 MUN)	CTR
Zinc	µg/L	no limit	no limit	170-350 ²	90-170 ²	CTR

T E N T A T I V E

¹ Secondary Maximum Contaminant Level, Department of Health Service, Title 22 California Code of Regulations

² Depending on hardness

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Pesticides and PCBs						
4,4'-DDD	µg/L	no limit	no limit	0.0017 (0.0017 MUN)	0.00084 (0.00083 MUN)	CTR
4,4'-DDE	µg/L	no limit	no limit	0.0012	0.00059	CTR
4,4'-DDT	µg/L	no limit	no limit	0.0012	0.00059	CTR
alpha-Endosulfan	µg/L	no limit	no limit	0.092	0.046	CTR
alpha-BHC	µg/L	no limit	no limit	0.026 (0.0079 MUN)	0.013 (0.0039 MUN)	CTR
Aldrin	µg/L	no limit	no limit	0.000028 (0.00027 MUN)	0.00014 (0.00013 MUN)	CTR
beta-BHC	µg/L	no limit	no limit	0.092 (0.028 MUN)	0.046 (0.014 MUN)	CTR
beta-Endosulfan	µg/L	no limit	no limit	0.092	0.046	CTR
Chlordane	µg/L	no limit	no limit	0.0012 (0.0012 MUN)	0.00059 (0.00057 MUN)	CTR
Dieldrin	µg/L	no limit	no limit	0.00028 (0.00026 MUN)	0.00014 (0.00013 MUN)	CTR
Endosulfan Sulfate	µg/L	no limit	no limit	480 (220 MUN)	240 (110 MUN)	CTR
Endrin	µg/L	no limit	no limit	0.0059	0.0029	CTR
Endrin Aldehyde	µg/L	no limit	no limit	1.6 (1.5 MUN)	0.81 (0.76 MUN)	CTR
Heptachlor	µg/L	no limit	no limit	0.00042	0.00021	CTR
Heptachlor Epoxide	µg/L	no limit	no limit	0.00022 (0.00020 MUN)	0.00011 (0.00010 MUN)	CTR
gamma-BHC	µg/L	no limit	no limit	0.12 (0.039 MUN)	0.063 (0.019 MUN)	CTR
Toxaphene	µg/L	no limit	no limit	0.00033	0.00016	CTR
PCBs	µg/L	no limit	no limit	0.00034	0.00017	CTR

**T
E
N
T
A
T
I
V
E**

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Semi-Volatile Organic Compounds						
1,2 Dichlorobenzene	µg/L	no limit	no limit	600	no limit	Basin Plan
1,2-Diphenylhydrazine	µg/L	no limit	no limit	1.1 (0.081 MUN)	0.54 (0.040 MUN)	CTR
1,3 Dichlorobenzene	µg/L	no limit	no limit	5,200 (800 MUN)	2,600 (400 MUN)	CTR
1,4 Dichlorobenzene	µg/L	no limit	no limit	5.0	no limit	No change
2,4-Dichlorophenol	µg/L	no limit	no limit	1600 (190 MUN)	790 (93 MUN)	CTR
2,4-Dimethylphenol	µg/L	no limit	no limit	4,600 (1100 MUN)	2,300 (540 MUN)	CTR
2,4-Dinitrophenol	µg/L	no limit	no limit	28000 (140 MUN)	14,000 (70 MUN)	CTR
2,4-Dinitrotoluene	µg/L	no limit	no limit	18 (0.23 MUN)	9.1 (0.11 MUN)	CTR
2,4,6-Trichlorophenol	µg/L	no limit	no limit	13 (4.3 MUN)	6.5 (2.1 MUN)	CTR
2-Chloronaphthalene	µg/L	no limit	no limit	8,600 (3400 MUN)	4,300 (1,700 MUN)	CTR
2-Chlorophenol	µg/L	no limit	no limit	800 (400 MUN)	400 (200 MUN)	CTR
3,3-Dichlorobenzidine	µg/L	no limit	no limit	0.16 (0.088 MUN)	0.077 (0.04 MUN)	CTR
2-Methyl-4,6-Dinitrophenol	µg/L	no limit	no limit	1540 (26.9 MUN)	765 (13.4)	CTR
Acenaphthene	µg/L	no limit	no limit	5,400 (2,400 MUN)	2,700 (1,200 MUN)	CTR
Anthracene	µg/L	no limit	no limit	220,000 (19,000 MUN)	110,000 (9,600 MUN)	CTR
Benzidine	µg/L	no limit	no limit	0.0011 (0.0025 MUN)	0.00054 (0.00012 MUN)	CTR
Benzo(a)Anthracene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Benzo(a)Pyrene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR
Benzo(b)Fluoranthene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR
Benzo(k)Fluoranthene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR
Bis(2-Chloroethyl)Ether	µg/L	no limit	no limit	2.8 (0.063 MUN)	1.4 (0.031 MUN)	CTR
Bis(2-Chloroisopropyl)Ether	µg/L	no limit	no limit	340,000 (2,800 MUN)	170,000 (1,400 MUN)	CTR
Bis(2-Ethylhexyl)Phthalate	µg/L	no limit	no limit	11 (3.7 MUN)	5.9 (1.8 MUN)	CTR
Butylbenzyl Phthalate	µg/L	no limit	no limit	10,000 (6,000 MUN)	5,200 (3,000 MUN)	CTR
Chrysene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR
Dibenzo(a,h)Anthracene	µg/L	no limit	no limit	0.098 (0.0089 MUN)	0.049 (0.0044 MUN)	CTR
Diethyl Phthalate	µg/L	no limit	no limit	240,000 (46,000 MUN)	120,000 (23,000 MUN)	CTR
Dimethyl Phthalate	µg/L	no limit	no limit	5,800,000 (629,000 MUN)	2,900,000 (313,000 MUN)	CTR
Di-n-Butyl Phthalate	µg/L	no limit	no limit	24,000 (5,400 MUN)	12,000 (2,700 MUN)	CTR
Fluoranthene	µg/L	no limit	no limit	740 (600 MUN)	370 (300 MUN)	CTR
Fluorene	µg/L	no limit	no limit	28,000 (2,600 MUN)	14,000 (1,300 MUN)	CTR
Hexachlorobenzene	µg/L	no limit	no limit	0.0016 (0.0015 MUN)	0.00077 (0.00075 MUN)	CTR
Hexachlorobutadiene	µg/L	no limit	no limit	100 (0.89 MUN)	50 (0.44 MUN)	CTR

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Hexachlorocyclopentadiene	µg/L	no limit	no limit	34,000 (480 MUN)	17,000 (240 MUN)	CTR
Hexachloroethane	µg/L	no limit	no limit	18 (3.8 MUN)	8.9 (1.9 MUN)	CTR
Indeno(1,2,3-cd) Pyrene	µg/L	no limit	no limit	0.098 (0.0088 MUN)	0.049 (0.0044 MUN)	CTR
Isophorone	µg/L	no limit	no limit	1200 (17 MUN)	600 (8.4 MUN)	CTR
N-Nitrosodimethyl amine (NDMA)	µg/L	no limit	no limit	16 (0.0014 MUN)	8.1 (0.00069 MUN)	CTR
N-Nitrosodi-n-Propylamine	µg/L	no limit	no limit	2.8 (0.011 MUN)	1.4 (0.005 MUN)	CTR
N-Nitrosodiphenylamine	µg/L	no limit	no limit	32 (10 MUN)	16 (5.0 MUN)	CTR
Naphthalene	µg/L	no limit	no limit	21	no limit	Taste and Odor
Nitrobenzene	µg/L	no limit	no limit	3800 (34 MUN)	1,900 (17 MUN)	CTR
Pentachlorophenol	µg/L	no limit	no limit	1.5 (0.56 MUN)	0.73 (0.28 MUN)	CTR
Phenol	µg/L	no limit	no limit	9,200,000 (42,000 MUN)	4,600,000 (21,000 MUN)	CTR
Pyrene	µg/L	no limit	no limit	22,000 (1800 MUN)	11,000 (900 MUN)	CTR
Miscellaneous						
Asbestos	fib/L	no limit	no limit	(14,000,000 MUN)	7,000,000	CTR
Di-isopropyl ether (DIPE)	µg/L	No limit	no limit	0.8	no limit	Taste and Odor
1,4-Dioxane	µg/L	No limit	no limit	3	no limit	Action Level ³
Perchlorate	µg/L	No limit	no limit	4	no limit	Action Level
2,3,7,8-TCDD (Dioxin)	µg/L	no limit	no limit	0.00000011 (0.0000000 26 MUN)	0.0000000 14 (0.000000 013 MUN)	CTR
Tertiary butyl alcohol (TBA)	µg/L	No limit	no limit	12	no limit	Action Level

**T
E
N
T
A
T
I
V
E**

³ Department of Health Service, Title 22 California Code of Regulations

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Total petroleum hydrocarbons	µg/L	100	no limit	100	no limit	No change

Notes:

If the existing permit limit (either the current 97-043 or 97-045 or the new VOC permit) was lower than CTR limit, then the existing permit limit was applied.

2. Saltwater

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
General Constituents						
Total Suspended solids	mg/L	150	50	150	50	No change
Turbidity	NTU	150	50	150	50	No change
BOD5 20oC	mg/L	30	20	30	20	No change
Oil and Grease	mg/L	15	10	15	10	No change
Settleable Solids	ml/L	0.3	0.1	0.3	0.1	No change
Sulfides	mg/L	1.0	no limit	1.0	no limit	No change
Phenols	mg/L	1.0	no limit	1.0	no limit	No change
Residual Chlorine	mg/L	0.1	no limit	0.1	no limit	No change from 97-043, Basin Plan
Methylene Blue Active Substances (MBAS)	mg/L	0.5	no limit	0.5	no limit	No change
Volatile Organic Compounds						
1,1-dichloroethane	µg/L	5	no limit	5	no limit	No change
1,1-dichloroethylene	µg/L	6	no limit	6	3.2	CTR
1,1,1-trichloroethane	µg/L	200 VOC permit	no limit	no limit	no limit	No change
1,1,2-trichloroethane	µg/L	no limit	no limit	5	no limit	Basin Plan
1,1,2,2-tetrachloroethane	µg/L	1.0	no limit	1.0	no limit	No change
1,2-dichloroethane	µg/L	0.5	no limit	0.5	no limit	No change
1,2-dichloropropane	µg/L	no limit	no limit	5	no limit	Basin Plan
1,2-trans-dichloroethylene	µg/L	10 VOC permit	no limit	10	no limit	No change
1,3-dichloropropylene	µg/L	0.5 VOC permit	no limit	0.5	no limit	No change

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Acetone	µg/L	700 VOC permit	no limit	700	no limit	No change
Acrolein	µg/L	100 VOC permit	no limit	100	no limit	No Change
Acrylonitrile	µg/L	no limit	no limit	1.7	0.66	CTR
Benzene	µg/L	1.0	no limit	1.0	no limit	No change
Bromoform	µg/L	no limit	no limit	720	360	CTR
Carbon tetrachloride	µg/L	0.5	no limit	0.5	no limit	no change
Chlorobenzene	µg/L	30 VOC permit	no limit	30	no limit	No change
Chlorodibromomethane	µg/L	no limit	no limit	68	34	CTR
Chloroethane	µg/L	100 VOC permit	no limit	100	no limit	No change
Chloroform	µg/L	100 VOC permit	no limit	100	no limit	No change
Dichlorobromomethane	µg/L	100	no limit	92	46	CTR
Ethylbenzene	µg/L	700	no limit	700		No change
Ethylene dibromide	µg/L	0.05	no limit	0.05	no limit	No change
Methyl ethyl ketone	µg/L	700 VOC permit	no limit	700	no limit	No change
Methyl tertiary butyl ether (MTBE)	µg/L	35	no limit	5	no limit	SMCL4
Methylbromide	µg/L	10	no limit	10		No change
Methylchloride	µg/L	3	no limit	3	no limit	No change
Methylene chloride	µg/L	No limit	no limit	3,200	1600	CTR
Tetrachloroethylene	µg/L	5	no limit	5.0	no limit	No change
Toluene	µg/L	150	no limit	150	no limit	No change
Trichloroethylene	µg/L	5	no limit	5	2.7	CTR
Vinyl chloride	µg/L	0.5	no limit	0.5	no limit	No change
Xylenes	µg/L	1750	no limit	1750	no limit	No change
Metals						
Antimony	µg/L	no limit	no limit	6	no limit	Basin Plan
Arsenic	µg/L	50	no limit	50	29	No Change for daily, CTR monthly
Beryllium	µg/L	no limit	no limit	no limit	no limit	
Cadmium	µg/L	10	no limit	5	no limit	No change
Chromium III	µg/L	50	no limit	50	no limit	No change
Chromium IV	µg/L	no limit	no limit	82	41	CTR
Copper	µg/L	1000	no limit	5.8	2.9	CTR

T
E
N
T
A
T
I
V
E

⁴ Secondary Maximum Contaminant Level, Department of Health Service, Title 22 California Code of Regulations

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Cyanide	µg/L	no limit	no limit	1.0	0.50	CTR
Lead	µg/L	50	no limit	14	7	CTR
Mercury	µg/L	2	no limit	0.050	no limit	CTR
Nickel	µg/L	no limit	no limit	14	6.7	CTR
Selenium	µg/L	10	no limit	120	58	CTR
Silver	µg/L	50	no limit	2.2	1.1	CTR
Thallium	µg/L	no limit	no limit	13	6	CTR
Zinc	µg/L	no limit	no limit	95	47	CTR
Pesticides and PCBs						
4,4'-DDD	µg/L	no limit	no limit	0.00017	0.00084	CTR
4,4'-DDE	µg/L	no limit	no limit	0.0012	0.00059	CTR
4,4'-DDT	µg/L	no limit	no limit	0.0012	0.00059	CTR
alpha-Endosulfan	µg/L	no limit	no limit	0.014	0.0071	CTR
alpha-BHC	µg/L	no limit	no limit	0.026	0.013	CTR
Aldrin	µg/L	no limit	no limit	0.00028	0.00014	CTR
beta-Endosulfan	µg/L	no limit	no limit	0.014	0.0071	CTR
beta-BHC	µg/L	no limit	no limit	0.092	0.046	CTR
Chlordane	µg/L	no limit	no limit	0.0012	0.00059	CTR
Dieldrin	µg/L	no limit	no limit	0.00028	0.00014	CTR
Endosulfan Sulfate	µg/L	no limit	no limit	480	240	CTR
Endrin	µg/L	no limit	no limit	0.0038	0.0019	CTR
Endrin Aldehyde	µg/L	no limit	no limit	1.6	0.81	CTR
Heptachlor	µg/L	no limit	no limit	0.00042	0.00021	CTR
Heptachlor Epoxide	µg/L	no limit	no limit	0.00022	0.00011	CTR
gamma-BHC	µg/L	no limit	no limit	0.12	0.063	CTR
Polychlorinated biphenyls (PCBs)	µg/L	no limit	no limit	0.00034	0.00017	CTR
Toxaphene	µg/L	no limit	no limit	0.00033	0.00016	CTR
Semi-Volatile Organic Compounds						
1,2 Dichlorobenzene	µg/L	no limit	no limit	600	no limit	Basin Plan
1,2-Diphenylhydrazine	µg/L	no limit	no limit	1.1	0.54	CTR
1,3 Dichlorobenzene	µg/L	no limit	no limit	5,200	2,600	CTR
1,4 Dichlorobenzene	µg/L	no limit	no limit	5	no limit	No change
2-Chlorophenol	µg/L	no limit	no limit	800	400	CTR
2,4-Dichlorophenol	µg/L	no limit	no limit	1600	790	CTR
2,4-Dimethylphenol	µg/L	no limit	no limit	4,600	2,300	CTR
2,4-Dinitrophenol	µg/L	no limit	no limit	28,000	14,000	CTR
2,4-Dinitrotoluene	µg/L	no limit	no limit	18	9.1	CTR
2,4,6-Trichlorophenol	µg/L	no limit	no limit	13	6.5	CTR
2-Chloronaphthalene	µg/L	no limit	no limit	8,600	4,300	CTR
3,3-Dichlorobenzidine	µg/L	no limit	no limit	0.16	0.077	CTR

T
E
N
T
A
T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
2-Methyl-4,6-Dinitrophenol	µg/L	no limit	no limit	1540	765	CTR
Acenaphthene	µg/L	no limit	no limit	5,400	2,700	CTR
Anthracene	µg/L	no limit	no limit	220,000	110,000	CTR
Benidine	µg/L	no limit	no limit	0.0011	0.00054	CTR
Benzo(a)Anthracene	µg/L	no limit	no limit	0.098	0.049	CTR
Benzo(a)Pyrene	µg/L	no limit	no limit	0.098	0.049	CTR
Benzo(b)Fluoranthene	µg/L	no limit	no limit	0.098	0.049	CTR
Benzo(k)Fluoranthene	µg/L	no limit	no limit	0.098	0.049	CTR
Bis(2-Chloroethyl)Ether	µg/L	no limit	no limit	2.8	1.4	CTR
Bis(2-Chloroisopropyl)Ether	µg/L	no limit	no limit	340,000	170,000	CTR
Bis(2-Ethylhexyl)Phthalate	µg/L	no limit	no limit	11	5.9	CTR
Butylbenzyl Phthalate	µg/L	no limit	no limit	10,000	5,200	CTR
Chrysene	µg/L	no limit	no limit	0.098	0.049	CTR
Dibenzo(a,h)Anthracene	µg/L	no limit	no limit	0.098	0.049	CTR
Diethyl Phthalate	µg/L	no limit	no limit	240,000	120,000	CTR
Dimethyl Phthalate	µg/L	no limit	no limit	5,800,000	2,900,000	CTR
Di-n-Butyl Phthalate	µg/L	no limit	no limit	24,000	12,000	CTR
Fluoranthene	µg/L	no limit	no limit	740	370	CTR
Fluorene	µg/L	no limit	no limit	28,000	14,000	CTR
Hexachlorobenzene	µg/L	no limit	no limit	0.016	0.00077	CTR
Hexachlorobutadiene	µg/L	no limit	no limit	100	50	CTR
Hexachlorocyclopentadiene	µg/L	no limit	no limit	34,000	17,000	CTR
Hexachloroethane	µg/L	no limit	no limit	18	8.9	CTR
Indeno(1,2,3-cvd)Pyrene	µg/L	no limit	no limit	0.098	0.049	CTR
Isophorone	µg/L	no limit	no limit	1200	600	CTR
N-Nitrosodimethyl amine (NDMA)	µg/L	no limit	no limit	16	8.1	CTR
N-Nitrosodi-n-Propylamine	µg/L	no limit	no limit	2.8	1.4	CTR
N-Nitrosodiphenylamine	µg/L	no limit	no limit	32	16	CTR
Naphthalene	µg/L	No limit	no limit	21	no limit	Taste and Odor
Nitrobenzene	µg/L	no limit	no limit	3,800	1,900	CTR
Pentachlorophenol	µg/L	no limit	no limit	13	6.4	CTR
Phenol	µg/L	no limit	no limit	9,200,000	4,600,000	CTR
Pyrene	µg/L	no limit	no limit	22,000	11,000	CTR
Miscellaneous						
Asbestos	fib/L	no limit	no limit	no limit	no limit	No change

T E N T A T I V E

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Di-isopropyl ether (DIPE)	µg/L	no limit	no limit	0.8	no limit	Taste and Odor
1,4-Dioxane	µg/L	no limit	no limit	3	no limit	Action Level ⁵
Perchlorate	µg/L	no limit	no limit	4	no limit	Action Level
2,3,7,8-TCDD (Dioxin)	µg/L	no limit	no limit	0.0000001 1	0.0000000 14	CTR
Tertiary butyl alcohol (TBA)	µg/L	no limit	no limit	12	no limit	Action Level
Total petroleum hydrocarbons	µg/L	100	no limit	100	no limit	No change

Notes:

If the existing permit limit (either the current 97-043 or 97-045 or the new VOC permit) was lower than CTR limit, then the existing permit limit was applied.

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V
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I. Sample Calculation of Effluent Limitations

Constituent: Lead, freshwater, under 200 mg/L hardness (a hardness value of 150 mg/L was used)

- SIP Section 1.3 – Lead requires Water Quality-Based Effluent Limitation
- SIP Section 1.4
Step 1. Applicable Water Quality Criteria - Freshwater

Criterion, $C_{acute} = 65 \mu\text{g/L}$
Criterion, $C_{chronic} = 2.5 \mu\text{g/L}$

- Calculate criteria (dissolved fraction limit) for acute and chronic in freshwater

Calculate conversion factors for chronic and acute:
The Conversion Factor for lead, CTR note to Table 2 of Paragraph (b) (2)
Conversion Factor acute = $1.46203 - [(\ln \{\text{hardness}\})(0.145712)] = 0.73192031$
Conversion Factor chronic = $1.46203 - [(\ln \{\text{hardness}\})(0.145712)] = 0.73192031$

Calculate C_{acute} and $C_{chronic}$:
CTR note to Table 1 of Paragraph (b) (2)

⁵ Department of Health Service, Title 22 California Code of Regulations

$$C_{acute} = WER \times (\text{Conversion Factor acute}) \times (\exp \{1.273[\ln \{\text{hardness}\}] - 1.460\}) = 100.13$$

$$C_{chronic} = WER \times (\text{Conversion Factor chronic}) \times (\exp \{1.273[\ln \{\text{hardness}\}] - 4.705\}) = 3.9$$

WER is the Water Effects ratio and is equal to 1.

Adjust criterion: Convert dissolved fraction to total recoverable

$$C_{acute} = 100.13 \mu\text{g/L (rounded to } 100 \mu\text{g/L)} \div 0.73192031 \text{ (conversion factor for freshwater criterion)} = 136.63 \mu\text{g/L.}$$

$$C_{chronic} = 3.90 \mu\text{g/L (rounded to } 3.9 \mu\text{g/L)} \div 0.73192031 \text{ (conversion factor for freshwater criterion)} = 5.328449 \mu\text{g/L.}$$

- Step 2. Effluent Concentration Allowance (ECA)
No dilution credit allowed; therefore, ECA = C
- Step 3. ECA Multipliers –Select default coefficient of variation (CV) = 0.6.
Long-Term Average, $LTA_{acute} = ECA_{acute} * ECA_{multiplier acute99}$ (from SIP, Table 1) = $(136.63) * (0.321) = 43.85723 \mu\text{g/L}$

$$LTA_{chronic} = ECA_{chronic} * ECA_{multiplier chronic99} \text{ (from SIP, Table 1)} = (5.328449) * (0.527) = 2.808093 \mu\text{g/L}$$

- Step 4. Select the lowest of the LTAs:
 $LTA = 2.808093 \mu\text{g/L}$
- Step 5. Average monthly effluent limitation (AMEL) and maximum daily effluent limitation (MDEL)
Select default, n = 4

$$AMEL_{aquatic life} = LTA * AMEL_{multiplier95} \text{ (from Table 2)} = (2.808093) * (1.55) = 4.35254 \mu\text{g/L}$$

$$MDEL_{aquatic life} = LTA * MDEL_{multiplier99} \text{ (from Table 2)} = (2.808093) * (3.11) = 8.733 \mu\text{g/L}$$

- Step 6. Human Health Criteria
No criteria set for human health.
- Step 7.
Since there is no human health criteria, the calculated AMEL and MDEL for aquatic life will be applied.
Therefore,
 $AMEL = 4.4 \mu\text{g/L}$
 $MDEL = 8.7 \mu\text{g/L.}$

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I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

**T
E
N
T
A
T
I
V
E**

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
General Constituents						
pH	pH units	6.0-9.0	-	6.0-9.0	-	No change
Temperature	°F	100	-	100	-	No change
Total Suspended solids	mg/L	150	50	150	50	No change
Turbidity	NTU	150	50	150	50	No change
BOD ₅ 20°C	mg/L	30	20	30	20	No change
Oil and Grease	mg/L	15	10	15	10	No change
Settleable Solids	ml/L	0.3	0.1	0.3	0.1	No change
Sulfides	mg/L	1.0	no limit	1.0	no limit	No change
Phenols	mg/L	1.0	no limit	1.0	no limit	No change
Residual Chlorine	mg/L	0.1	no limit	0.1	no limit	No change from 97-043, Basin Plan
Methylene Blue Active Substances (MBAS)	mg/L	0.5	no limit	0.5	no limit	No change
Volatile Organic Compounds						
1,1 dichloroethane	µg/L	5	no limit	5	no limit	No change
1,1 dichloroethylene	µg/L	6	no limit	3.2 (0.057 MUN)	no limit	CTR
1,1,1 trichloroethane	µg/L	<i>200 VOC permit</i>	no limit	200	no limit	No change
1,1,2 trichloroethane	µg/L	no limit	no limit	42 (0.6 MUN)	no limit	CTR
1,1,2,2 tetrachloroethane	µg/L	1.0	no limit	11 (0.17 MUN)	no limit	CTR
1,2 dichloroethane	µg/L	0.5	no limit	99 (0.38 MUN)	no limit	CTR
1,2 dichloropropane	µg/L	no limit	no limit	39 (0.52 MUN)	no limit	CTR
1,2-trans-dichloroethylene	µg/L	<i>10 VOC permit</i>	no limit	10	no limit	No change
1,3 dichloropropylene	µg/L	<i>0.5 VOC permit</i>	no limit	0.5	no limit	No change
Acetone	µg/L	<i>700 in VOC permit</i>	no limit	700	no limit	No change

TENTATIVE

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Acrolein	µg/L	100 VOC permit	no limit	100	no limit	No change
Acrylonitrile	µg/L	no limit	no limit	0.066 (0.059 MUN)	no limit	CTR
Benzene	µg/L	1.0	no limit	1.0	no limit	No change
Bromoform	µg/L	no limit	no limit	360 (4.3 MUN)	no limit	CTR
Carbon tetrachloride	µg/L	0.5	no limit	0.5 (0.25 MUN)	no limit	no change (CTR MUN)
Chlorobenzene	µg/L	30 VOC permit	no limit	30	no limit	No change
Chlorodibromomethane	µg/L	no limit	no limit	34 (0.40 MUN)	no limit	CTR
Chloroethane	µg/L	100 VOC permit	no limit	100	no limit	No change
Chloroform	µg/L	100 VOC permit	no limit	100	no limit	No change
Dichlorobromomethane	µg/L	100	no limit	46 (0.56 MUN)	no limit	CTR
Ethylbenzene	µg/L	700	no limit	700		No change
Ethylene dibromide	µg/L	0.05	no limit	0.05	no limit	No change
Methyl ethyl ketone	µg/L	700 VOC permit	no limit	700	no limit	No change
Methyl tertiary butyl ether (MTBE)	µg/L	35	no limit	5	no limit	SMCL ⁶
Methylbromide	µg/L	10	no limit	10		No change
Methylchloride	µg/L	3	no limit	3	no limit	No change
Methylene chloride	µg/L	No limit	no limit	1,600 (4.7 MUN)	no limit	CTR
Tetrachloroethylene	µg/L	5	no limit	8.85 (0.8 MUN)	no limit	CTR
Toluene	µg/L	150	no limit	150	no limit	No change
Trichloroethylene	µg/L	5	no limit	81 (2.7 MUN)	no limit	CTR
Vinyl chloride	µg/L	0.5	no limit	0.5	no limit	No change

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V
E

⁶ Secondary Maximum Contaminant Level, Department of Health Service, Title 22 California Code of Regulations

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Xylenes	µg/L	1750	no limit	1750	no limit	No change
Metals						
Antimony	µg/L	no limit	no limit	8600 (6 MUN)	no limit	CTR (Basin Plan MUN)
Arsenic	µg/L	50	no limit	50	120 (25 MUN)	No Change for daily, CTR monthly (Basin Plan MUN)
Beryllium	µg/L	no limit	no limit	(4 MUN)	(2 MUN)	Basin Plan
Cadmium	µg/L	10	no limit	6-10 ⁷	3-5 ¹	CTR
Chromium III	µg/L	50	no limit	50	no limit	No change
Chromium IV	µg/L	no limit	no limit	16	8	CTR
Copper	µg/L	1000	no limit	21-44 ¹	10-22 ¹	CTR
Cyanide	µg/L	no limit	no limit	8.5	4.2	CTR
Lead	µg/L	50	no limit	9-26 ¹	4-13 ¹	CTR
Mercury	µg/L	2	no limit	0.051 (0.050MUN)	no limit	CTR
Nickel	µg/L	no limit	no limit	120-250 ¹	60-120 ¹	CTR
Selenium	µg/L	10	no limit	8	4	CTR
Silver	µg/L	50	no limit	8-40 ¹	4-20 ¹	CTR
Thallium	µg/L	no limit	no limit	13 (1 MUN)		CTR (Basin Plan MUN)
Zinc	µg/L	no limit	no limit	170-350 ¹	90-170 ¹	CTR
Pesticides and PCBs						
4,4'-DDD	µg/L	no limit	no limit	0.00083 (0.00084 MUN)	no limit	CTR
4,4'-DDE	µg/L	no limit	no limit	0.00059	no limit	CTR
4,4'-DDT	µg/L	no limit	no limit	0.0012	0.00059	CTR
alpha-Endosulfan	µg/L	no limit	no limit	0.092	0.046	CTR
alpha-BHC	µg/L	no limit	no limit	0.013 (0.0039 MUN)	no limit	CTR
Aldrin	µg/L	no limit	no limit	0.00014 (0.000013 MUN)	no limit	CTR

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V
E

⁷ Depending on hardness

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
beta-BHC	µg/L	no limit	no limit	0.046 (0.014 MUN)	no limit	CTR
beta-Endosulfan	µg/L	no limit	no limit	0.092	0.046	CTR
Chlordane	µg/L	no limit	no limit	0.0012 (0.0012 MUN)	0.00059 (0.00057 MUN)	CTR
Dieldrin	µg/L	no limit	no limit	0.00028	0.00014	CTR
Endosulfan Sulfate	µg/L	no limit	no limit	240 (110 MUN)	no limit	CTR
Endrin	µg/L	no limit	no limit	0.059	0.029	CTR
Endrin Aldehyde	µg/L	no limit	no limit	0.81 (0.76 MUN)	no limit	CTR
Heptachlor	µg/L	no limit	no limit	0.00042	0.00021	CTR
Heptachlor Epoxide	µg/L	no limit	no limit	0.00022 (0.00020 MUN)	0.00011 (0.00010 MUN)	CTR
gamma-BHC	µg/L	no limit	no limit	0.063 (0.019 MUN)	no limit	CTR
Toxaphene	µg/L	no limit	no limit	0.00033	0.00016	CTR
Semi-Volatile Organic Compounds						
1,2 Dichlorobenzene	µg/L	no limit	no limit	17,000 (2,700 MUN)	no limit	CTR
1,2-Diphenylhydrazine	µg/L	no limit	no limit	0.54 (0.040 MUN)	no limit	CTR
1,3 Dichlorobenzene	µg/L	no limit	no limit	2,600 (400 MUN)	no limit	CTR
1,4 Dichlorobenzene	µg/L	no limit	no limit	2,600 (400 MUN)	no limit	CTR
2,4-Dichlorophenol	µg/L	no limit	no limit	790 (93 MUN)	no limit	CTR

T
E
N
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N
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Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
2,4-Dimethylphenol	µg/L	no limit	no limit	2,300 (540 MUN)	no limit	CTR
2,4-Dinitrophenol	µg/L	no limit	no limit	14,000 (70 MUN)	no limit	CTR
2,4-Dinitrotoluene	µg/L	no limit	no limit	9.1 (0.11 MUN)	no limit	CTR
2,4,6-Trichlorophenol	µg/L	no limit	no limit	6.5 (2.1 MUN)	no limit	CTR
2-Chloronaphthalene	µg/L	no limit	no limit	4,300 (1,700 MUN)	no limit	CTR
2-Chlorophenol	µg/L	no limit	no limit	400 (200 MUN)	no limit	CTR
3,3-Dichlorobenzidine	µg/L	no limit	no limit	0.077 (0.04 MUN)	no limit	CTR
2-Methyl-4,6-Dinitrophenol	µg/L	no limit	no limit	765 (13.4 MUN)	no limit	CTR
Acenaphthene	µg/L	no limit	no limit	2,700 (1,200 MUN)	no limit	CTR
Anthracene	µg/L	no limit	no limit	110,000 (9,600 MUN)	no limit	CTR
Benzidine	µg/L	no limit	no limit	0.00054 (0.00012 MUN)	no limit	CTR
Benzo(a)Anthracene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Benzo(a)Pyrene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Benzo(b)Fluoranthene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Benzo(k)Fluoranthene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR

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V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Bis(2-Chloroethyl)Ether	µg/L	no limit	no limit	1.4 (0.031 MUN)	no limit	CTR
Bis(2-Chloroisopropyl)Ether	µg/L	no limit	no limit	170,000 (1,400 MUN)	no limit	CTR
Bis(2-Ethylhexyl)Phthalate	µg/L	no limit	no limit	5.9 (1.8 MUN)	no limit	CTR
Butylbenzyl Phthalate	µg/L	no limit	no limit	5,200 (3,000 MUN)	no limit	CTR
Chrysene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Dibenzo(a,h)Anthracene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Diethyl Phthalate	µg/L	no limit	no limit	120,000 (23,000 MUN)	no limit	CTR
Dimethyl Phthalate	µg/L	no limit	no limit	2,900,00 0 (313,000 MUN)	no limit	CTR
Di-n-Butyl Phthalate	µg/L	no limit	no limit	12,000 (2,700 MUN)	no limit	CTR
Fluoranthene	µg/L	no limit	no limit	370 (300 MUN)	no limit	CTR
Fluorene	µg/L	no limit	no limit	14,000 (1,300 MUN)	no limit	CTR
Hexachlorobenzene	µg/L	no limit	no limit	0.00077 (0.00075 MUN)	no limit	CTR
Hexachlorobutadiene	µg/L	no limit	no limit	50 (0.44 MUN)	no limit	CTR
Hexachlorocyclopentadiene	µg/L	no limit	no limit	17,000 (240 MUN)	no limit	CTR

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T
I
V
E

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Hexachloroethane	µg/L	no limit	no limit	8.9 (1.9 MUN)	no limit	CTR
Indeno(1,2,3-cvd) Pyrene	µg/L	no limit	no limit	0.049 (0.0044 MUN)	no limit	CTR
Isophorone	µg/L	no limit	no limit	600 (8.4 MUN)	no limit	CTR
N-Nitrosodimethyl amine (NDMA)	µg/L	No limit	no limit	8.1 (0.00069 MUN)	no limit	CTR
N-Nitrosodimethylamine	µg/L	no limit	no limit	8.1 (0.00069 MUN)	no limit	CTR
N-Nitrosodi-n-Propylamine	µg/L	no limit	no limit	1.4 (0.005 MUN)	no limit	CTR
N-Nitrosodiphenylamine	µg/L	no limit	no limit	16 (5.0 MUN)	no limit	CTR
Naphthalene	µg/L	No limit	no limit	21	no limit	Taste and Odor
Nitrobenzene	µg/L	no limit	no limit	1,900 (17 MUN)	no limit	CTR
Pentachlorophenol	µg/L	no limit	no limit	1.5 (0.56 MUN)	0.73 (0.28 MUN)	CTR
Phenol	µg/L	no limit	no limit	4,600,000 (21,000 MUN)	no limit	CTR
Pyrene	µg/L	no limit	no limit	11,000 (900 MUN)	no limit	CTR
Miscellaneous						
Asbestos	fib/L	no limit	no limit	(7,000,000 MUN)	no limit	CTR
Di-isopropyl ether (DIPE)	µg/L	No limit	no limit	0.8	no limit	Taste and Odor
1,4-Dioxane	µg/L	No limit	no limit	3	no limit	Action Level ⁸
Perchlorate	µg/L	No limit	no limit	4	no limit	Action Level

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V
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⁸ Department of Health Service, Title 22 California Code of Regulations

Discharges of Groundwater From
Construction and Project
Dewatering to Surface Waters
Fact Sheet

Order No. R4-2003-xxxx

Constituent	Units	Existing Discharge Limit		New Discharge Limit		Reason for Change
		Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
2,3,7,8-TCDD (Dioxin)	µg/L	no limit	no limit	0.000000 014 (0.00000 0013 MUN)	no limit	CTR
Tertiary butyl alcohol (TBA)	µg/L	No limit	no limit	12	no limit	Action Level
Total petroleum hydrocarbons	µg/L	100	no limit	100	no limit	No change

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State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2003-xxxx

**WASTE DISCHARGE REQUIREMENTS
for
DISCHARGES OF GROUNDWATER FROM CONSTRUCTION AND PROJECT
DEWATERING TO SURFACE WATERS
IN
COASTAL WATERSHEDS OF LOS ANGELES AND VENTURA COUNTIES**

(GENERAL NPDES PERMIT NO. CAG994004)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

General Permit Background

1. On September 22, 1989, the United States Environmental Protection Agency (USEPA) granted the State of California, through the State Water Resources Control Board (State Board) and the Regional Boards, the authority to issue general National Pollutant Discharge Elimination System (NPDES) permits pursuant to 40 Code of Federal Regulations (40 CFR) parts 122 and 123.
2. 40 CFR section 122.28 provides for issuance of general permits to regulate a category of point sources if the sources:
 - a. Involve the same or substantially similar types of operations;
 - b. Discharge the same type of waste;
 - c. Require the same type of effluent limitations or operating conditions;
 - d. Require similar monitoring; and
 - e. Are more appropriately regulated under a general permit rather than individual permits.
3. General waste discharge requirements and NPDES permits enable Regional Board staff to expedite the processing of requirements, simplify the application process for dischargers, better utilize limited staff resources, and avoid the expense and time involved in repetitive public noticing, hearings, and permit adoptions.
4. On May 12, 1997, this Regional Board adopted Order No. 97-043 (General NPDES Permit No. CAG994002) to regulate discharges of treated groundwater from construction and other projects to surface waters in the Region and Order No. 97-045 (General NPDES Permit No. CAG994001) to regulate discharges of (untreated) groundwater from construction and other projects to surface waters. Currently, there are approximately 70 dischargers who are enrolled under the existing General Permit for discharge of treated groundwater and approximately 270 who are enrolled under the existing General Permit for discharge of untreated groundwater. These two General Permits are being combined and include provisions for creekside construction dewatering discharge.

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December 10, 2002

Discharge Description

5. Discharges covered by this permit include but are not limited to, treated or untreated groundwater generated from permanent or temporary dewatering operations. In addition, this permit covers discharge from cleanup of contaminated sites where other project specific General Permits may not be appropriate, such as groundwater impacted by metals and/or other toxic compounds. This permit also covers discharges from dewatering operations in the vicinity of creeks where surface waters and groundwaters are hydrologically connected and have similar water chemistry. Creekside discharges will not be required to comply with the waterbody specific limitations for total dissolved solids (TDS), sulfate or chloride. The purpose of this approach to regulating creekside discharges is to avoid requiring a discharger to treat a surface waterbody to lower than naturally occurring, background, mineral content. In such circumstance, cycling the extracted creekside water back into the waterbody would not cause any decrease in the quality of the waterbody or degradation.
6. Wastewater discharge from permanent or temporary dewatering activities include, but are not limited to the following:
 - a. Treated or untreated wastewater from permanent or temporary construction dewatering operations
 - b. Groundwater pumped as a aid in the containment and/or cleanup of contaminant plume
 - c. Groundwater extracted during short-term and long-term pumping /aquifer tests
 - d. Groundwater generated from well drilling, construction or development and purging of wells
 - e. Equipment decontamination water
 - f. Subterranean seepage dewatering
 - g. Incidental collected stormwater from basements
7. Existing dischargers enrolled under Order No. 97-045 or Order No. 97-043 and new dischargers enrolling under this permit are required to collect a representative groundwater sample(s) and analyze these samples for all the constituents listed on Attachment A. Existing dischargers shall conduct this analysis and submit the result with a Notice of Intent Form; otherwise the existing authorization will be terminated. Dischargers will be required to provide treatment for toxic compounds detected above the applicable screening levels in Attachment A.
8. Pursuant to section 2, Article X, California Constitution, and section 275 of the California Water Code on preventing waste and unreasonable use of waters of the state, this Regional Board encourages, wherever practicable, water conservation and/or re-use of wastewater. To obtain coverage under this Order, the discharger shall first investigate the feasibility of conservation, land disposal and/or reuse of the wastewater.

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Storm Water Regulations and Permits

9. This Regional Board adopted *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* contained in Order No. 01-182 [NPDES No. CAS614001] and *Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within Ventura County Flood Control District, County of Ventura, and the Cities of Ventura County* contained in Order No. 00-108 [NPDES No. CAS004002] on July 15, 1996, and July 27, 2000, respectively. These Orders prohibit non-stormwater discharges to storm drain systems unless they are covered by separate NPDES permits. This prohibition, in general, does not apply to rising groundwater, uncontaminated groundwater infiltration discharges, discharges from potable water distribution system releases¹, foundation and footing drains discharges, and water from crawl space pumps. The municipality may allow discharge of these types of discharges into the storm drain system. However, the municipality or the Regional Board may prohibit these discharges if they are determined to cause, or threaten to cause, degradation of water quality, violation of water quality objectives, cause nuisance and/or impair beneficial uses of receiving waters.

Basis for Fee

10. Title 23 of the California Code of Regulations (CCR), Division 3, Chapter 9, Article 1, section 2200, *Annual Fee Schedule*, requires that all discharges subject to a specific general permit shall pay the same annual fee.

Applicable Plans, Policies, and Regulations

11. On June 13, 1994, this Regional Board adopted a revised basin plan, *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan incorporates, by reference, State Water Resources Control Board's Water Quality Control Plans and policies on ocean waters [*Water Quality Control Plan for Ocean Waters in California*, March 22, 1990], temperature [*Water Quality Control Plan for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, Amended September 18, 1975] and anti-degradation [*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968].
12. The Basin Plan contains water quality objectives for, and lists the beneficial uses of, specific water bodies (receiving waters) in the Los Angeles Region. Typical beneficial uses covered by this Order include the following:
- a. Inland surface waters above an estuary - municipal and domestic supply, industrial service and process supply, agricultural supply, groundwater recharge, freshwater

¹ "Potable Water Distribution Systems Releases" means sources of flows from drinking water storage, supply and distribution systems including flows from system failures, pressure releases, system maintenance, distribution line testing, fire hydrant flow testing; and flushing and dewatering of pipes, reservoirs, vaults, and minor non-invasive well maintenance activities not involving chemical addition(s). It does not include wastewater discharges from activities that occur at wellheads, such as well construction, well development (i.e., aquifer pumping tests, well purging, etc.), or major well maintenance.

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replenishment, aquaculture, warm and cold freshwater habitats, inland saline water and wildlife habitats, water contact and noncontact recreation, fish migration, and fish spawning.

- b. Inland surface waters within and below an estuary - industrial service supply, marine and wetland habitats, estuarine and wildlife habitats, water contact and noncontact recreation, commercial and sport fishing, aquaculture, migration of aquatic organisms, fish migration, fish spawning, preservation of rare and endangered species, preservation of biological habitats, and shellfish harvesting.
 - c. Coastal Zones (both nearshore and offshore) - industrial service supply, navigation, water contact and noncontact recreation, commercial and sport fishing, marine habitat, wildlife habitat, fish migration and spawning, shellfish harvesting, and rare, threatened, or endangered species habitat.
13. The State Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975.
14. The State Board adopted a *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* in May 1974 (Policy). The Policy contains narrative and numerical water quality objectives that are designed to prevent water quality degradation and protect beneficial uses in enclosed bays and estuaries.
- The Policy also lists principles of management that include the State Board's goal to phase out all discharges (excluding cooling waters), particularly industrial process water, to enclosed bays and estuaries as soon as practicable. The waste described above is not considered an industrial process wastewater.
15. Under 40 CFR section 122.44(d), *Water Quality Standards and State Requirements*, "Limitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that water quality-based effluent limitations (WQBELs) may be set based on USEPA criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses.
16. On May 18, 2000, the U.S. EPA promulgated the numeric criteria for priority pollutants for the State of California, known as the California Toxics Rule (CTR) and as codified as 40 CFR section 131.38. Toxic pollutant limits are prescribed in this Order to implement the CTR. 40 CFR section 122.44(d)(1)(ii) requires each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality objective. Performing a reasonable potential analysis (RPA) for

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each pollutant does this. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity).

17. Effluent limitation guidelines requiring the application of best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT), were promulgated by the USEPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the USEPA effluent limitation guidelines are based on one of the following: best professional judgment (BPJ) of BPT, BCT or BAT; current plant performance; or WQBELs. The WQBELs are based on the Basin Plan, other State plans and policies, or USEPA water quality criteria which are taken from the CTR. These requirements, as they are met, will protect and maintain existing beneficial uses of the receiving water. The attached fact sheet for this Order includes specific bases for the effluent limitations.
18. Best professional judgment (BPJ) was used in developing technology-based effluent limits in this tentative order. BPJ is defined as the highest quality technical opinion developed by the permit writer after consideration of all reasonably available and pertinent data or information that forms the basis for the terms and conditions of a NPDES permit. The authority for BPJ is contained in Section 402(a)(1) of the Clean Water Act.
19. This order regulates the discharge of groundwater that may or may not be impacted by toxic compounds and/or conventional pollutants.

Various biological, chemical, physical, thermal treatment systems could be employed to remove these toxic or conventional pollutants in groundwater to applicable permit limits. For example, air stripping, carbon absorption, chemical oxidation treatment systems could be used to remove volatile organic compounds in groundwater. Reverse osmosis, ion exchange, or pH adjustment could be used as treatment technologies to remove conventional pollutants and metals. Biological systems could be used to degrade or remove semi-volatile organic compounds.

This permit does not provide specific treatment technologies for the universe of toxic compounds that could be found in groundwater. When treatment is required prior to discharge, dischargers will be required to submit schematics of treatment flow diagrams with descriptions of the treatment system including statements on the effectiveness of the system to achieve the applicable permit limits during the permit process.

20. The Basin Plan also implements the State Board's adopted Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Water in California". This policy which is also referred to as the "Anti-degradation Policy", protects surface and ground waters from degradation. In particular, this policy protects waterbodies where existing quality is higher than that necessary for the protection of beneficial uses.

This permit complies with State and Federal "Anti-degradation" policies. The conditions and effluent limitations established in this Order for discharges of treated groundwater to

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surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in this Region will be maintained and protected. Discharges regulated by this Order should not adversely impact water quality if the terms and conditions of this Order are met.

21. Water Quality Objectives and Effluent Limits in this General Permit are based on:
- The plans, policies and water quality objectives and criteria contained in the 1994 Basin Plan, as amended including the Antidegradation Policy;
 - California Toxic Rule (CTR) (40 CFR § 131.38);
 - CCR section 64431 of Title 22 (Drinking Water Standards);
 - Applicable Federal Regulations (including 40 CFR Parts 122 and 131);
 - Department of Health Services (DHS);
 - Office of Environmental Health Hazard Assessment (OEHHA); and
 - Best Professional Judgement.
22. Because this Order is intended to serve as a general NPDES permit and covers discharges to all surface waters in the Los Angeles Region, the effluent limitations established pursuant to this general order are established to protect the most protective water quality objective for the surface water beneficial uses in the Los Angeles Region.
23. USEPA regulations, policies, and guidance documents upon which BPJ was developed may include in part, the following:
- Technical Support Document for Water Quality Based Toxics Control, March 1991 (EPA-505/2-90-001);
 - Whole Effluent Toxicity (WET) Control Policy, July 1994; and
 - USEPA NPDES Permit Writer's Manual, December 1996 (EPA-833-B-96-003).
24. The SWRCB adopted *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the *State Implementation Plan* or *SIP*) on March 2, 2000. The SIP was amended by Resolution No. 2000-30, on April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants in the inland surface waters, enclosed bays and estuaries of California which are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Federal Clean Water Act. This policy also establishes the following: implementation provisions for priority pollutant criteria promulgated by USEPA through the CTR and for priority pollutant objectives established by Regional Water Quality Control Boards in their water quality control plans (Basin Plans) and chronic toxicity control provisions.
25. The effluent limitations from groundwater projects regulated under this permit are calculated assuming no dilution. For most practical purposes, discharges from groundwater do not flow directly into receiving waters with enough volume to consider dilution credit or to allocate a mixing zone. Most discharges of groundwater regulated under this general permit are to storm drain systems that discharge to creeks and streams. Many of these creeks and streams are dry during the summer months. Therefore, for

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many months of the year, these discharges may represent all or nearly all of the flow in some portions of the receiving creeks or streams. These discharges, therefore, have the potential to recharge ground waters protected as drinking waters.

An exception to this policy may be applied based on approved mixing zone study and based on demonstration of compliance with water quality objectives in the receiving water as prescribed in the Basin Plan. This exception process is more appropriate for an individual permit, and would not be appropriate for a general permit, that should be protective of most stringent water quality objectives and beneficial uses. If a discharger requests that a dilution credit be included in the computation of effluent limit or that a mixing zone be allowed, an individual permit will be required. However, if no mixing zone is proposed, this general permit provides coverage for all discharges to receiving water bodies in Coastal Watersheds of Los Angeles and Ventura Counties.

26. This permit includes effluent limitations for metals in discharges from dewatering operations to both freshwater and saltwater. For purposes of this limit, saltwater is defined as waterbodies with saline, estuarine or marine beneficial use designations. Additional clarification for applying saltwater objectives is contained in the CTR. All other inland surface waters are considered freshwater. The toxicity of certain metals in freshwater including cadmium, chromium III, copper, lead, nickel, silver and zinc is dependent on water hardness. The CTR expresses the objectives for these metals through equations where the hardness of the receiving water is a variable. To simplify the permitting process, it is necessary that fixed hardness values be used in these equations. This order requires the discharger to propose appropriate receiving water hardness or effluent hardness based on analytical results of receiving water or effluent samples. Upon approval of the Executive Officer, this hardness value will be used to determine the appropriate metal limitation from the appropriate table of limits (E. 2. b. i.) in the Order.
27. Section 301(b)(2) of the Federal Clean Water Act (Clean Water Act) requires that all NPDES permits prescribe the application of Best Available Technology (BAT) in the determination of technology-based effluent limitations.
28. Effluent limitations and toxic effluent standards established pursuant to Sections 301, 302, 304, 306, and 307 of the Clean Water Act, and amendments thereto, are applicable to the dischargers herein.
29. The requirements contained in this Order were derived using Best Professional Judgement (BPJ) and are based on the Basin Plan, CTR, Federal and State Plans, policies, guidelines, and as they are met, will be in conformance with the goals and objectives of the aforementioned water quality control plans, water quality criteria, and will protect and maintain existing and potential beneficial uses of the receiving waters.

Watershed Management Approach

30. The SWRCB 1998 Water Quality Assessment (WQA) identified the water quality conditions of water bodies in the state. Impaired water bodies are listed on the 1998 California 303(d) List.

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31. This Regional Board has implemented a Watershed Management Approach (WMA) to address water quality protection in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, enhance, and restore water quality and beneficial uses. To achieve this goal, the watershed management approach integrates the Regional Board's many diverse programs, particularly Total Maximum Daily Loads (TMDLs), to better assess cumulative impacts of pollutants from all point and nonpoint sources to more efficiently develop watershed-specific solutions that balance the environmental and economic impacts within a watershed. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAS) for point and nonpoint sources, and will result in achieving water quality standards for the waterbody.

Notification

32. The Regional Board has notified interested agencies, parties, and persons of its intent to issue general waste discharge requirements for discharges of treated and untreated groundwater to surface waters and has provided them with an opportunity to submit their written views and recommendations.
33. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharges to be regulated under this Order and to the tentative requirements.
34. This Order shall serve as a general NPDES permit pursuant to section 402 of the Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, USEPA, has no objections.
35. The issuance of general waste discharge requirements that serve as an NPDES permit is exempt from the provisions of Chapter 3 (commencing with section 21100, et. seq.), Division 13, Public Resources Code, pursuant to Water Code section 13389.
36. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California 95812, within 30 days of adoption of the Order.

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IT IS HEREBY ORDERED that dischargers authorized under this Order and General Permit, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Federal Clean Water Act, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Eligibility

1. This order covers discharges to surface waters of treated or untreated groundwater from dewatering operations and other wastewaters.
2. To be covered under this Order, a discharger must demonstrate that:

- a. Pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
 - b. The discharge shall not exceed the water quality criteria for toxic pollutants (Attachment B and Part E of this Order), and there shall be no reasonable potential to cause or contribute to an excursion above the criteria.
 - c. A representative sample of the groundwater to be discharged shall be analyzed and compared to the water quality screening criteria for the constituents listed on Attachment A to determine the most appropriate permit. If the analytical test results exceeds the water quality screening criteria listed on Attachment A then a reasonable potential for discharge of toxics shall be considered to exist.
 - i. If the analytical test results of the discharge show that only petroleum products or only VOCs exceed the water quality screening criteria listed on Attachment A, then the discharger may not be enrolled under this Order, but may pursue enrollment under Regional Board Order Nos. R4-2002-0107 or R4-2002-0125, as appropriate.
 - ii. If the analytical test results of the discharge show that petroleum products, VOCs and/or other toxics exceed the water quality screening criteria listed on Attachment A, then the discharger will be enrolled under this permit and treatment of the groundwater will be required for discharge.
 - iii. If the analytical test results of the discharge show that toxics are below the screening levels in Attachment A then the discharger will be enrolled under this permit and treatment of the groundwater for toxics will not be required for discharge.
 - d. The discharge shall not cause acute nor chronic toxicity in receiving waters;
 - e. If necessary, the discharge shall pass through a treatment system designed and operated to reduce the concentration of contaminants to meet the effluent limitations of this Order; and
 - f. The discharger shall be able to comply with the terms or provisions of this General Permit.
3. New discharges and existing discharges regulated under existing general or individual permits, which meet the eligibility criteria, may be regulated under this Order.
 4. For the purpose of renewal of existing individual NPDES permits with this General Permit, provided that all the conditions of this General Permit are met, renewal is

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effective upon issuance of a notification by the Executive Officer and issuance of a new monitoring program.

5. When an individual NPDES permit with more specific requirements is issued to a discharger, the applicability of this Order to that discharger is automatically terminated on the effective date of the individual permit.

B. Authorization

To be authorized to discharge under this Order, the discharger must submit a Report of Waste Discharge (ROWD) and an application for an NPDES permit in accordance with the requirements of Part D of this Order. Upon receipt of the application, the Executive Officer shall determine the applicability of this Order to such a discharge. If the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this Order and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination of eligibility for coverage under this general permit or until an individual NPDES permit is issued by the Regional Board.

C. Report Of Waste Discharge

1. Deadline for Submission
 - a. Renewal of permits for existing dischargers covered under individual permits that meet the eligibility criteria in Part A and have submitted a ROWD will consist of a letter of determination from the Executive Officer of coverage under this Order.
 - b. Existing dischargers covered under Order No. 97-045 or Order No. 97-043 will be sent a Notice of Intent (NOI) form that must be completed and returned to the Regional Board within 45 days of receipt; otherwise, permit coverage will be revoked. Existing dischargers enrolling under this Order are required to collect representative groundwater sample(s) and analyze the samples for all the constituents listed on Attachment A. Dischargers shall conduct this analysis and submit the result with a NOI; otherwise, the existing authorization will be terminated. However, instead of an NOI, the Executive Officer may require an existing discharger to submit a new ROWD, may revise an existing discharger's monitoring and reporting programs, may require an existing discharger to participate in a regional monitoring program, or any combination of the foregoing.
 - c. New dischargers shall file a complete application at least 45 days before commencement of the discharge.

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2. Report of Waste Discharge Forms

- a. Dischargers shall use the appropriate USEPA Forms or equivalent forms approved by the Regional Board or the Executive Officer.
- b. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the discharge meets the criteria for coverage under this Order, or to prescribe an appropriate monitoring and reporting program, or both.
- c. The discharger must obtain and analyze (using appropriate sampling and laboratory methods) a representative sample(s) of the groundwater to be treated and discharged under this Order. The analytical method(s) used shall be capable of achieving a detection limit at or below the minimum level (ML²), otherwise, a written explanation shall be provided. The analytical result shall be submitted with the NPDES application. The data shall be tabulated and shall include the results for every constituent listed on Attachment A.
- d. The ROWD shall include, but is not limited to, the following information:
 - i. A feasibility study on reuse and/or alternative disposal methods of the treated groundwater;
 - ii. Description of the groundwater treatment collection and discharge system;
 - iii. The type of chemicals that will be used (if any) during the operation and maintenance of the treatment system;
 - iv. Flow diagram of influent, treatment, and discharge system; and
 - v. Preventive maintenance procedures and schedule for the treatment system.
- e. The ROWD shall be accompanied by the first annual fee (if appropriate) in accordance with the *Annual Fee Schedule*. The check or money order shall be made payable to the "State Water Resources Control Board".
- f. **Creekside construction dewatering operations.** Creekside construction dewatering operations for the purposes of this permit are defined as the dewatering of groundwater (1) where the dewatering is necessary during construction operations and (2) where the groundwater has a direct hydrologic connection with, and similar mineral chemistry for TDS, chloride and sulfate to, the surface waterbody to which it will be discharged. For creekside construction dewatering operations the following additional information shall be submitted with the ROWD.

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² The minimum levels are those published by the State Water Quality Control Board in the Policy for the Implementation of Toxic Standards for Inland Surface Water, Enclosed Bays, and Estuaries of California, March 2, 2000. See attached Appendix I.

- i. Best Management Practices (BMPs) for preventing degradation of water quality or impairment of receiving water beneficial uses,
- ii. Demonstration of direct hydrologic connection and similar water chemistry between the groundwater and the surface water body must be substantiated with hydrogeological and analytical data, and certified by registered hydrogeologist. Water isotope tracing and other geophysical techniques may be used to demonstrate hydrologic connectivity. In addition, when feasible evidence of the physical connection between the groundwater and the surface water body could be demonstrated by stream depletion or drawdown by test well dewatering operation,
- iii. The treatment system to be used for removing toxic compounds from dewatering waste (if applicable)
- iv. A demonstration that the discharger has considered sewerage, re-use, or other discharge options and that it is infeasible to discharge to the sanitary sewer system, to re-use the dewatered groundwater, or to otherwise lawfully discharge the dewatered groundwater.

D. Discharge Prohibitions

1. The discharge of wastes other than those which meet eligibility requirements in Part A of this Order is prohibited unless the discharger obtains coverage under another general permit or an individual permit that regulates the discharge of such wastes.
2. Bypass or overflow of untreated or partially treated contaminated groundwater to waters of the State either at the treatment system or from any of the collection or transport systems or pump stations tributary to the treatment system is prohibited.
3. The purposeful or knowing discharge of polychlorinated biphenyls (PCBs) is prohibited.
4. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

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E. Effluent Limitations

1. Discharge of an effluent in excess of the following limitations is prohibited. (In the authorization letter, when a discharger is enrolled under this permit, the Executive Officer shall indicate applicable effluent limitation tables.)

a. Limits applicable to discharges to freshwater or saltwater bodies

i. General Constituents

Constituents	Units	Discharge Limitations	
		Daily Maximum	Monthly Average
Total Suspended Solids	mg/L	150	50
Turbidity	NTU	150	50
BOD ₅ 20°C	mg/L	30	20
Oil and Grease	mg/L	15	10
Settleable Solids	ml/L	0.3	0.1
Sulfides	mg/L	1.0	
Phenols	mg/L	1.0	
Residual Chlorine	mg/L	0.1	
Methylene Blue Active Substances (MBAS)	mg/L	0.5	

ii. Organic compounds.

Constituent	Units	Discharge Limitations			
		Other Waters		MUN ³	
		Daily Max	Monthly Avg.	Daily Max	Monthly Avg.
Volatile Organic Compounds					
1,1,2,2-tetrachloroethane	µg/L	1		0.34	0.17 ⁴
1,1,2-trichloroethane	µg/L	5		1.2	0.6
1,1,1-trichloroethane	µg/L	200		200	
1,1-dichloroethane	µg/L	5		5	
1,1-dichloroethylene	µg/L	6	3.2	0.11	0.057 ⁴
1,2-dichloroethane	µg/L	0.50		0.50	0.38 ⁴
1,2-dichloropropane	µg/L	5		1.1	0.52 ⁴
1,2-trans-dichloroethylene	µg/L	10		10	

³ MUN refers to discharges to those waterbodies designated MUN (Municipal and Domestic Supply) identified in the Basin Plan with an "E" or and "I" designation.

⁴ If the reported detection level is greater than the effluent limit, then a non-detect using ML detection is deemed to be in compliance.

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Constituent	Units	Discharge Limitations			
		Other Waters		MUN ³	
		Daily Max	Monthly Avg.	Daily Max	Monthly Avg.
1,3-dichloropropylene	µg/L	0.5		0.5	
Acrolein	µg/L	100		100	
Acrylonitrile	µg/L	1.7	0.66	0.12	0.059 ⁴
Acetone	µg/L	700		700	
Benzene	µg/L	1.0		1.0	
Bromoform	µg/L	720	360	8.6	4.3
Carbon tetrachloride	µg/L	0.5		0.5	0.25
Chlorobenzene	µg/L	30		30	
Chlorodibromomethane	µg/L	68	34	0.81	0.40 ⁴
Dichlorobromomethane	µg/L	92	46	1.1	0.56
Chloroethane	µg/L	100		100	
Chloroform	µg/L	100		100	
Methyl ethyl ketone	µg/L	700		700	
Ethylbenzene	µg/L	700		700	
Ethylene dibromide	µg/L	0.05		0.05	
Methyl tertiary butyl ether (MTBE)	µg/L	5		5	
Methylbromide	µg/L	10		10	
Methylchloride	µg/L	3		3	
Methylene chloride	µg/L	3,200	1,600	9.5	4.7
Tetrachloroethylene	µg/L	5.0		1.6	0.8
Toluene	µg/L	150		150	
Trichloroethylene	µg/L	5.0		5.0	2.7
Vinyl chloride	µg/L	0.5		0.5	
Xylenes	µg/L	1750		1750	
Pesticides and PCBs					
4,4'-DDD	µg/L	0.0017	0.00084	0.0017	0.00083 ⁴
4,4'-DDE	µg/L	0.0012	0.00059	0.0012	0.00059 ⁴
Aldrin	µg/L	0.00028	0.00014	0.00027	0.00013 ⁴
alpha-BHC	µg/L	0.026	0.013	0.0079	0.0039 ⁴
beta-BHC	µg/L	0.092	0.046	0.028	0.014
Endosulfan Sulfate	µg/L	480	240	220	110
Endrin Aldehyde	µg/L	1.6	0.81	1.5	0.76
gamma-BHC	µg/L	0.12	0.063	0.039	0.019 ⁴
PCBs	µg/L	0.00034	0.00017	0.00034	0.00017 ⁴
Semi-Volatile Organic Compounds					
1,2 Dichlorobenzene	µg/L	600		600	
1,2-Diphenylhydrazine	µg/L	1.1	0.54	0.081	0.040 ⁴
1,3 Dichlorobenzene	µg/L	5,200	2,600	800	400
1,4 Dichlorobenzene	µg/L	5		5	
2,4,6-Trichlorophenol	µg/L	13	6.5	4.3	2.1 ⁴
2,4-Dichlorophenol	µg/L	1600	790	190	93

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Constituent	Units	Discharge Limitations			
		Other Waters		MUN ³	
		Daily Max	Monthly Avg.	Daily Max	Monthly Avg.
2,4-Dimethylphenol	µg/L	4,600	2,300	1100	540
2,4-Dinitrophenol	µg/L	28,000	14,000	140	70
2,4-Dinitrotoluene	µg/L	18	9.1	0.23	0.11 ⁴
2-Chloronaphthalene	µg/L	8,600	4,300	3,400	1,700
2-Chlorophenol	µg/L	800	400	400	200
2-Methyl-4,6-Dinitrophenol	µg/L	1540	765	26.9	13.4
3,3-Dichlorobenzidine	µg/L	0.16	0.077	0.088	0.04 ⁴
Acenaphthene	µg/L	5,400	2,700	2,400	1,200
Anthracene	µg/L	220,000	110,000	19,000	9,600
Benzidine	µg/L	0.0011	0.00054	0.00025	0.00012 ⁴
Benzo(a)Anthracene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Benzo(a)Pyrene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Benzo(b)Fluoranthene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Benzo(k)Fluoranthene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Bis(2-Chloroethyl)Ether	µg/L	2.8	1.4	0.063	0.031 ⁴
Bis(2-Chloroisopropyl)Ether	µg/L	340,000	170,000	2,800	1,400
Bis(2-Ethylhexyl)Phthalate	µg/L	11	5.9	3.7	1.8 ⁴
Butylbenzyl Phthalate	µg/L	10,000	5,200	6,000	3,000
Chrysene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Dibenzo(a,h)Anthracene	µg/L	0.098	0.049	0.0089	0.0044 ⁴
Diethyl Phthalate	µg/L	240,000	120,000	46,000	23,000
Dimethyl Phthalate	µg/L	5,800,000	2,900,000	629,000	313,000
Di-n-Butyl Phthalate	µg/L	24,000	12,000	5,400	2,700
Fluoranthene	µg/L	740	370	600	300
Fluorene	µg/L	28,000	14,000	2,600	1,300
Hexachlorobenzene	µg/L	0.0016	0.00077	0.0015	0.00075 ⁴
Hexachlorobutadiene	µg/L	100	50	0.89	0.44 ⁴
Hexachlorocyclopentadiene	µg/L	34,000	17,000	480	240
Hexachloroethane	µg/L	18	8.9	3.8	1.9
Indeno(1,2,3-cd) Pyrene	µg/L	0.098	0.049	0.0088	0.0044
Isophorone	µg/L	1200	600	17	8.4
Naphthalene	µg/L	21		21	
Nitrobenzene	µg/L	3,800	1,900	34	17
N-Nitrosodimethyl amine (NDMA)	µg/L	16	8.1	0.0014	0.00069 ⁴
N-Nitrosodi-n-Propylamine	µg/L	2.8	1.4	0.011	0.005 ⁴
N-Nitrosodiphenylamine	µg/L	32	16	10	5.0
Phenol	µg/L	9,200,000	4,600,000	42,000	21,000
Pyrene	µg/L	22,000	11,000	1800	900
Miscellaneous					
Asbestos	fib/L	no limit	no limit	14,000,000	7,000,000
Di-isopropyl ether (DIPE)	µg/L	0.8	0	0.8 ⁴	
1,4-Dioxane	µg/L	3		3	

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Constituent	Units	Discharge Limitations			
		Other Waters		MUN ³	
		Daily Max	Monthly Avg.	Daily Max	Monthly Avg.
Perchlorate	µg/L	4		4	
2,3,7,8-TCDD (Dioxin)	µg/L	0.00000011	0.000000014	0.000000026	0.000000013
Tertiary butyl alcohol (TBA)	µg/L	12		12	
Total petroleum hydrocarbons	µg/L	100		100	

b. Limits applicable to discharges to freshwater waterbodies.

i. Hardness-dependent metals

Hardness (mg/L)	up to 200		200 - 300		300 and above	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
Cadmium	2.8	5	4.1	5	5	5
Copper	10.4	20.8	16.6	33.3	22.1	44.4
Lead	4.4	8.7	8.3	16.7	12.8	25.6
Nickle	60	100	90	100	100	100
Silver	4.0	8.1	10	20	20	41
Zinc	86	170	130	260	170	350

ii. Other compounds.

Constituents	Units	Discharge Limitations			
		Other Waters		MUN ³	
		Daily Max.	Monthly Avg.	Daily Max.	Monthly Avg.
Metals					
Antimony	µg/L	6		6	
Arsenic	µg/L	50		50	
Beryllium	µg/L	4		4	
Chromium III	µg/L	50		50	
Chromium VI	µg/L	16	8	16	8
Cyanide	µg/L	8.5	4.2	8.5	4.2
Mercury	µg/L	0.05		0.050	
Selenium	µg/L	8	4	8	4
Thallium	µg/L	13	6	3.4	1.7
Organic Compounds					
Pentachlorophenol	µg/L	1.5	0.73	0.56	0.28 ⁴
Chlordane	µg/L	0.0012	0.00059	0.0012	0.00057 ⁴
4,4'-DDT	µg/L	0.0012	0.00059	0.0012	0.00059 ⁴

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		Discharge Limitations			
		Other Waters		MUN ³	
Dieldrin	µg/L	0.00028	0.00014	0.00026	0.00013 ⁴
alpha-Endosulfan	µg/L	0.092	0.046	0.092	0.046 ⁴
beta-Endosulfan	µg/L	0.092	0.046	0.092	0.046 ⁴
Endrin	µg/L	0.059	0.029	0.059	0.029 ⁴
Heptachlor	µg/L	0.00042	0.00021	0.00042	0.00021 ⁴
Heptachlor Epoxide	µg/L	0.00022	0.00011	0.00020	0.00010 ⁴
Toxaphene	µg/L	0.00033	0.00016	0.00033	0.00016 ⁴

c. Limits for discharges to saltwater waterbodies.

Constituents	Units	Discharge Limitations	
		Daily Max.	Monthly Avg.
Metals			
Antimony	µg/L	6	
Arsenic	µg/L	50	29
Beryllium	µg/L		
Cadmium	µg/L	5	
Chromium III	µg/L	50	
Chromium IV	µg/L	82	41
Copper	µg/L	5.8	2.9
Cyanide	µg/L	1.0	0.50
Lead	µg/L	14	7
Mercury	µg/L	0.050	
Nickel	µg/L	14	6.7
Selenium	µg/L	120	58
Silver	µg/L	2.2	1.1
Thallium	µg/L	13	6
Zinc	µg/L	95	47
Organic Compounds			
Pentachlorophenol	µg/L	13	6.4
Chlordane	µg/L	0.0012	0.00059 ⁴
4,4'-DDT	µg/L	0.0012	0.00059 ⁴
Dieldrin	µg/L	0.00028	0.00014 ⁴
alpha-Endosulfan	µg/L	0.014	0.0071 ⁴
beta-Endosulfan	µg/L	0.014	0.0071 ⁴
Endrin	µg/L	0.0038	0.0019 ⁴
Heptachlor	µg/L	0.00042	0.00021 ⁴
Heptachlor Epoxide	µg/L	0.00022	0.00011 ⁴
Toxaphene	µg/L	0.00033	0.00016 ⁴

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2. The pH of the discharge shall at all times be within the range of 6.5 and 8.5.
3. The temperature of the discharge shall not exceed 100°F.
4. Attachment B establishes the applicable effluent limits for mineral and nitrogen constituents for discharges covered by this Order. The discharge of an effluent with mineral and nitrogen constituents in excess of applicable limits established in Attachment B is prohibited. In the letter of determination, the Executive Officer shall indicate the watershed/stream reach limitations in Attachment B applicable to the particular discharge. This permit recognizes a category of creekside construction dewatering discharges under Part C.2.f. Effluent limitations for TDS, chloride, and sulfate in Attachment B are not applicable to discharges designated by the Executive Officer as creekside construction dewatering operations. For TDS, chloride, and sulfate, the effluent limitation for the discharge shall be the receiving water level for TDS, chloride, and sulfate as established in the ROWD. The Executive Officer shall indicate the appropriate limitations from the receiving water data.
5. Pass-through or uncontrollable discharges of PCBs shall not exceed daily average concentrations of 14 ng/L into fresh waters or 30 ng/L into estuarine waters.
6. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test less than 70% survival.
7. The discharge shall meet effluent limitations and toxic and effluent standards established pursuant to sections 301, 302, 304, 306, and 307 of the Clean Water Act, and amendments thereto.

F. Receiving Water Limitations

1. The discharge shall not cause the following to be present in receiving waters:
 - a. Toxic pollutants at concentrations that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health;
 - b. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
 - c. Chemical substances in amounts that adversely affect any designated beneficial use;
 - d. Visible floating materials, including solids, liquids, foams, and scum;

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- e. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;
 - f. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
 - g. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;
 - h. Substances that result in increases of BOD₅20°C that adversely affect beneficial uses;
 - i. Fecal coliform concentrations which exceed a log mean of 200 per 100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10% of total samples during any 30-day period exceed 400 per 100 ml; or
 - j. Concentrations of toxic substances that are toxic to, or cause detrimental physiological responses in, human, animal, or aquatic life.
2. The discharge shall not cause the following to occur in the receiving waters:
- a. The dissolved oxygen to be depressed below:

WARM ⁵ designated waters	5 mg/L
COLD ⁵ designated waters	6 mg/L
COLD and SPWN ⁵ designated waters	7 mg/L
 - b. The pH to be depressed below 6.5 or raised above 8.5, and the ambient pH levels to be changed from natural conditions in inland waters more than 0.5 units or in estuaries more than 0.2 units;
 - c. The temperature at any time or place and within any given 24-hour period to be altered by more than 5°F above natural temperature; but at no time be raised above 80°F for waters with a beneficial use of WARM (Warm Freshwater Habitat);
 - d. The turbidity to increase to the extent that such an increase causes nuisance or adversely affects beneficial uses; such increase shall not exceed 20% when the natural turbidity is over 50 NTU or 10% when the natural turbidity is 50 NTU or less;

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⁵ Beneficial Uses WARM - Warm Freshwater Habitat; COLD -Cold Freshwater Habitat; SPWN - Spawning, Reproduction, and/or Early Development.

- e. Residual chlorine in concentrations that persist and impairs beneficial uses; or
 - f. Any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses or increase pesticide concentration in bottom sediments or aquatic life.
3. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
 4. The discharge shall not degrade surface water communities and populations, including vertebrate, invertebrate, and plant species.
 5. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
 6. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

G. Provisions

1. The Executive Officer may require any discharger authorized under this Order to apply for and obtain an individual NPDES permit with more specific requirements. The Executive Officer may require any discharger authorized to discharge under this permit to apply for an individual permit only if the discharger has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual permit, the authority to discharge under this General Permit is no longer applicable.
2. The discharger shall comply with all the applicable items of the *Standard Provisions and Reporting for Waste Discharge Requirements* (Standard Provisions), which are part of this General Permit (Attachment C). If there is any conflict between provisions stated herein and the Standard Provisions, those provisions stated herein prevail.
3. Prior to application, the discharger shall submit for Executive Officer's approval the list of chemicals and proprietary additives that may affect the discharge, including rates/quantities of application, compositions, characteristics, and material safety data sheets, if any.
4. Oil or oily materials, chemicals, refuse, or other materials that may cause pollution in storm water and/or urban runoff shall not be stored or deposited in areas where they may be picked up by rainfall/urban runoff and discharged to surface waters. Any spill of such materials shall be contained, removed and cleaned immediately.

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5. This Order neither exempt the discharger from compliance with any other laws, regulations, or ordinances that may be applicable, nor legalize the waste disposal facility.
6. The discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
7. Pursuant to 40 CFR section 122.61(b), coverage under this Order may be transferred in case of change of ownership of land or discharge facility provided the existing discharger notifies the Executive Officer at least 30 days before the proposed transfer date, and the notice includes a written agreement between the existing and new dischargers containing a specific date of transfer of coverage, responsibility for compliance with this Order, and liability between them.
8. Pursuant to 40 CFR sections 122.62 and 122.63, this Order may be modified, revoked and reissued, or terminated for cause. Reasons for modification may include new information on the impact of discharges regulated under this Order become available, promulgation of new effluent standards and/or regulations, adoption of new policies and/or water quality objectives, and/or new judicial decisions affecting requirements of this Order. In addition, if receiving water quality is threatened due to discharges covered under this permit, this permit will be reopened to incorporate more stringent effluent limitations for the constituents creating the threat. TMDLs have not been developed for all the parameters and receiving waters on the 303(d) list. When TMDLs are developed this permit may be reopened to incorporate appropriate limits. In addition, if TMDL identifies that a particular discharge covered under this permit is a of load that needs to be reduced; this permit will be reopened to incorporate appropriate TMDL based limit and/or to remove any applicable exemptions.
9. Any discharge authorized under this Order may request to be excluded from the coverage of this Order by applying for an individual permit.

H. Monitoring And Reporting Requirements

1. The Executive Officer is hereby authorized to prescribe a Monitoring and Reporting Program for each authorized discharger. This program may include participation of the discharger in a regional monitoring program.
2. The frequency of monitoring for constituents regulated under this permit will vary according to the quality of the groundwater prior to any necessary treatment and discharge. The groundwater quality shall be determined based on analytical results of constituents listed in the supplemental analysis, which shall be submitted with the NPDES application or the Notice of Intent form. Toxic constituents indicating reasonable potential to exceed established levels will be required to be monitored regularly. Routine monitoring will not be required for toxic compounds without reasonable potential of exceedance. Toxic constituent results must meet the detection level and minimum level requirements to be excluded from

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monitoring. Monitoring for general constituents will be required on a regular basis for all discharges under this permit.

3. The discharger shall comply with Monitoring and Reporting Requirements stated in Part B of the Standard Provisions (Attachment C).
4. The discharger shall retain records of all monitoring information and data used to complete the Report of Waste Discharge and application for coverage under this Order for at least five years from the date of sampling, measurement, report, or application. The retention period shall be extended during any unresolved litigation regarding the discharge or when requested by the Executive Officer.
5. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL) and the Minimum Level (ML)⁶ for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported with one of the following methods, as the case may be:
 - a. An actual numerical value for sample results greater than or equal to the ML; or
 - b. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated⁷ chemical concentration of the sample shall also be reported; or
 - c. "Not-Detected (ND)" for sample result less than the laboratory's MDL with the MDL indicated for the analytical method used.

The ML employed for an effluent analysis shall be lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Executive Officer. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory quality assurance and quality control procedures.

6. The discharger shall maintain all sampling, measurement and analytical results, including: the date, exact place, and time of sampling or measurement; individual(s) who did the sampling or measurement; the date(s) analyses were done; analysts' names; and analytical techniques or methods used.

⁶ The minimum levels are those published by the State Water Resources Control Board in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, March 2, 2000. (See Appendix I)

⁷ Estimated chemical concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

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7. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR part 136, unless other test procedures have been specified in this Order or by the Executive Officer.
8. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services or other state agency authorized to undertake such certification.
9. The discharger shall calibrate and maintain all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.
10. For parameters/constituents where both monthly average and daily maximum limits are prescribed, but where monitoring frequency is less than four times a month, the following procedure shall apply:

If analysis of a representative sample yields a result greater than the monthly average limit for a parameter/constituent, the sampling frequency for that parameter/constituent shall increase to weekly within one week of receiving the laboratory result until at least three consecutive weekly samples are obtained and compliance with the monthly average has been demonstrated, and the discharger has submitted for Executive Officer approval a program that will ensure future compliance with the monthly average limit.
11. The discharger shall file with the Regional Board (Attention: Information Technology Unit) technical reports on self-monitoring work conducted according to the Monitoring and Reporting Program specified by the Executive Officer and submit other reports as requested by the Regional Board.
12. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements.
13. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
14. The discharger shall file a report of any material change or proposed change in the character, location or volume of the discharge.
15. The discharger shall notify this Regional Board within 24 hours by telephone of any adverse condition resulting from the discharge, such notification shall be affirmed in writing within five working days.

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I. Compliance And Enforcement

1. The discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act and the Water Code and is subject to enforcement action and/or permit termination.
2. The Clean Water Act and the Water Code provide for civil and criminal penalties for violations of waste discharge requirements.

J. Expiration Date And Continuation Of This Order

This Order expires on February 20, 2008; however, for those dischargers authorized to discharge under this Order, it shall continue in full force and effect until a new order is adopted.

K. Reauthorization

Upon re-issuance of a new general permit order, dischargers authorized under this Order shall file a Notice of Intent or a new Report of Waste Discharge within 45 days of notification by the Executive Officer.

L. Rescission

Except for enforcement purposes, Orders No. 97-043 and 97-045, adopted by this Regional Board on May 12, 1997, are hereby rescinded, although dischargers presently enrolled under those orders may continue coverage in conformance with Part C.1.b of this Order until enrolled under this Order.

I, Dennis A. Dickerson, 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, Los Angeles Region, on February 20, 2003.

Dennis A. Dickerson
Executive Officer

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ATTACHMENT A
SCREENING LEVELS FOR GENERAL PERMITS
(screening to be conducted on untreated groundwater sample prior to issuance of permit)

Pollutant	MUN ^(a)	Others ^(b)	Minimum Levels (ML)	Pollutant	MUN ^(a)	Others ^(b)	Minimum Levels (ML)
	(µg/L)	(µg/L)	(µg/L)		(µg/L)	(µg/L)	(µg/L)
VOLATILE ORGANICS				METALS⁽¹⁾			
1,1 Dichloroethane	5	5	1	Antimony (Sb)	14	4300	5
1,1 Dichloroethylene	0.057	3.2	0.5	Arsenic (As)	50	36	10
1,1,1 Trichloroethane	200	200	2	Beryllium (Be)	4	--	0.5
1,1,2 Trichloroethane	0.60	42	0.5	Cadmium (Cd)	2.4	9.4	0.5
1,1,2,2 Tetrachloroethane	0.17	1	0.5	Chromium III (Cr ³⁺)	50	--	10
1,2 Dichlorobenzene	600	600	0.5	Chromium VI (Cr ⁶⁺)	11	50	5
1,2 Dichloroethane	0.38	99	0.5	Copper (Cu)	9.4	3.7	0.5
1,2 Dichloropropane	0.52	39	0.5	Cyanide (CN)	5.2	--	5
1,2-Trans Dichloroethylene	10	10	1	Lead (Pb)	3.2	8.5	0.5
1,3 Dichlorobenzene	400	2600	2	Mercury (Hg)	0.050	0.051	0.2
1,3 Dichloropropylene	0.5	0.5	0.5	Nickel (Ni)	52	8.3	1
1,4 Dichlorobenzene	5	0.5	0.5	Selenium (Se)	5.0	71	2
2-Chloroethyl vinyl ether	--	--	1	Silver (Ag)	4	2.2	0.25
Acetone	700	700	na	Thallium (Tl)	1.7	6.3	1
Acrolein	100	100	5	Zinc (Zn)	122	86	20
Acrylonitrile	0.059	0.66	2.0	PESTICIDES AND PCBs			
Benzene	1.0	1	0.5	4,4'-DDD	0.00083	0.00084	0.05
Bromoform	4.3	360	0.5	4,4'-DDE	0.00059	0.00059	0.05
Carbon Tetrachloride	0.25	0.5	0.5	4,4'-DDT	0.00059	0.00059	0.01
Chlorobenzene	30	21000	2	Alpha-Endosulfan	0.056	0.0087	0.02
Chlorodibromo-methane	0.401	34	0.5	Alpha-BHC	0.0039	0.013	0.01
Chloroethane	100	100	2	Aldrin	0.00013	0.00014	0.005
Chloroform	100	100	2	Beta-Endosulfan	0.056	0.0087	0.01
Dichlorobromo-methane	0.56	46	0.5	beta-BHC	0.014	0.046	0.005
Ethylbenzene	700	700	2	Chlordane	0.00057	0.00059	0.1
Ethylene Dibromide	0.05	0.05	na	delta-BHC	--	--	0.005
Methyl Bromide	10	4000	2.0	Dieldrin	0.00014	0.00014	0.01
Methyl Chloride	3	3	0.5	Endosulfan Sulfate	110	240	0.05
Methyl ethyl ketone	700	700	na	Endrin	0.036	0.0023	0.01
Methyl tertiary butyl ether (MTBE)	5	5	na	Endrin Aldehyde	0.76	0.81	0.01
Methylene Chloride	4.7	1600	0.5	Heptachlor	0.00021	0.00021	0.01
Tetrachloroethylene	0.8	8.85	0.5	Heptachlor Epoxide	0.0001	0.00011	0.01
Toluene	150	150	2	gamma-BHC	0.019	0.063	0.02
Trichloroethylene	2.7	5	0.5	PCB 1016	0.00017	0.00017	0.5
Vinyl Chloride	0.5	0.5	0.5	PCB 1221	0.00017	0.00017	0.5
Xylenes	1750	1750	na	PCB 1232	0.00017	0.00017	0.5
				PCB 1242	0.00017	0.00017	0.5
				PCB 1248	0.00017	0.00017	0.5
				PCB 1254	0.00017	0.00017	0.5
				PCB 1260	0.00017	0.00017	0.5
				Toxaphene	0.00073	0.00075	0.5

(a) = Applies to water with Municipal and Domestic Supply (MUN) (indicated with E and I in the Basin Plan) beneficial uses designations.

(b) = Applies to all other receiving waters.

(1) = Metals concentrations are expressed as total recoverable.

ATTACHMENT A
SCREENING LEVELS FOR GENERAL PERMITS
(screening to be conducted on untreated groundwater sample prior to issuance of permit)

Pollutant	MUN and/or GWR ^(a)	Others ^(b) (GWR)	Minimum Levels (ML)		Pollutant	MUN and/or GWR ^(a)	Others ^(b)	Minimum Levels (ML)	
	(µg/L)	(µg/L)	(µg/L)			(µg/L)	(µg/L)	(µg/L)	
SEMI – VOLATILE ORGANICS					SEMI – VOLATILE ORGANICS (continued)				
1,2 Diphenylhydrazine	0.040	0.54	1		Dibenzo(a,h)-anthracene	0.0044	0.049	0.1	
1,2,4 Trichlorobenzene	70	--	5		Diethyl phthalate	23000	120000	10	
2 Chlorophenol	120	400	5		Dimethyl phthalate	313000	2900000	10	
2,4 Dichlorophenol	93	790	5		di-n-Butyl phthalate	2700	12000	10	
2,4 Dimethylphenol	540	2300	2		di-n-Octyl phthalate	--	--	10	
2,4 Dinitrophenol	70	14000	5		Fluoranthene	300	370	10	
2,4 Dinitrotoluene	0.11	9.1	5		Fluorene	1300	14000	10	
2,4,6 Trichlorophenol	2.1	6.5	10		Hexachlorobenzene	0.00075	0.00077	1	
2,6 Dinitrotoluene	--	--	5		Hexachlorobutadiene	0.44	50	1	
2-Nitrophenol	--	--	10		Hexachloro-cyclopentadiene	50	17000	5	
2-Chloronaphthalene	1700	4300	10		Hexachloroethane	1.9	8.9	1	
3,3' Dichlorobenzidine	0.04	0.077	5		Indeno(1,2,3,cd)-pyrene	0.0044	0.049	0.05	
3-Methyl-4-Chlorophenol	--	--	1		Isophorone	8.4	600	1	
2-Methyl-4,6-Dinitrophenol	13	765	5		N-Nitrosodimethyl amine (NDMA)	0.00069	8.1	5	
4-Nitrophenol	--	--	5		N-Nitroso-di-n-propyl amine	0.005	1.4	5	
4-Bromophenyl phenyl ether	--	--	5		N-Nitrosodiphenyl amine	5.0	16	1	
4-Chlorophenyl phenyl ether	--	--	5		Naphthalene	21	--	10	
Acenaphthene	1200	2700	1		Nitrobenzene	17	1900	10	
Acenaphthylene	--	--	10		Pentachlorophenol	0.28	7.9	1	
Anthracene	9600	110000	5		Phenanthrene	--	--	5	
Benzidine	0.00012	0.00054	5		Phenol	21000	4600000	50	
Benzo (a) Anthracene	0.0044	0.049	5		Pyrene	960	11000	10	
Benzo (a) Pyrene	0.0044	0.049	2		MISCELLANEOUS				
Benzo (b) Fluoranthene	0.0044	0.049	10		Asbestos (in fibers/L k,s.)	7000000	7000000		
Benzo (g,h,i) Perylene	--	--	5		Di-isopropyl ether (DIPE)	0.8	0.8	2	
Benzo (k) Fluoranthene	0.0044	0.049	2		1,4-Dioxane	3	3		
Bis (2-Chloroethoxyl) methane	--	--	5		Ethanol	1000	1000	1000	
Bis(2-Chloroethyl) ether	0.031	1.4	1		Ethyl tertiary butyl ether (ETBE)	2	2	2	
Bis(2-Chloroisopropyl) ether	1400	170000	10		Methanol	1000	1000	1000	
Bis(2-Ethylhexyl) phthalate	1.8	5.9	5		Methyl tertiary butyl ether (MTBE)	5	5		
Butyl benzyl phthalate	3000	5200	10		Perchlorate	4	4		
Chrysene	0.0044	0.049	5		2,3,7,8-TCDD (Dioxin)	1.3E-08	1.3E-08		
					Tertiary amyl methyl ether (TAME)	2	2	2	
					Tertiary butyl alcohol (TBA)	12	12	10	
					Total petroleum hydrocarbons	100	100		

(a) = Applies to water with Municipal and Domestic Supply (MUN) (indicated with E and I in the Basin Plan) beneficial uses designations.

(b) = Applies to all other receiving waters.

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

**MONITORING AND REPORTING PROGRAM NO. CI-XXXX
(SAMPLE FACILITY)
(NPDES NO. CAG994004)**

This General Permit includes limits for many constituents; the authorization letter and the Monitoring and Reporting Program will spell out those constituents which must be included in the Monitoring and Reporting Program for a specific discharger at the time the discharger is enrolled and shall be based on the water quality data submitted with the application. Two sample Monitoring and Reporting Programs have been included: 1) Monitoring when treatment is not required and 2) monitoring when treatment is required for all limited constituents.

I. REPORTING REQUIREMENTS

- A. The discharger shall implement this monitoring program on the effective date of this permit. The discharger shall submit monitoring reports to the Regional Board by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January - March	April 15
April - June	July 15
July - September	October 15
October - December	January 15
Annual Summary Report	March 15

- B. The first monitoring report under this Program is due by Month, Day, 2003. The annual summary report, shall contain a discussion of the previous year's effluent monitoring data, as well as graphical and tabular summaries of the data. If there is no discharge during any reporting period, the report shall so state.
- C. All monitoring reports shall include the discharge limitations in the Order, tabulated analytical data, the chain of custody form, and the laboratory report (including but not limited to date and time of sampling, date of analyses, method of analysis and detection limits).
- D. Before commencing a new discharge, a representative sample of the effluent shall be collected and analyzed for all the constituents listed in Section III, Part E. of this monitoring program. The test results must meet all applicable discharge limitations in of Order No. R4-2003-XXXX.

II. SAMPLE COLLECTION REQUIREMENTS

- A. Daily samples shall be collected each day.
- B. Weekly samples shall be collected on a representative day of each week.

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- C. Monthly samples shall be collected on a representative day of each month.
- D. Quarterly samples shall be collected in February, May, August, and November.
- E. Semi-annual samples shall be collected in May and November.
- F. Annual samples shall be collected in November.

III. EFFLUENT MONITORING REQUIREMENTS

- A. Sampling station(s) shall be established at the discharge point and shall be located where representative samples of the effluent can be obtained. Provisions shall be made to enable visual inspections before discharge. In the event of presence of oil sheen, debris, and/or other objectionable materials or odors, discharge shall not commence until compliance with the requirements is demonstrated. All visual observations shall be included in the monitoring report.
- B. If monitoring results indicate an exceedance of a limit contained in Order No. R4 -2003-XXX, the discharge shall be terminated and shall only be resumed after remedial measures have been implemented and full compliance with the requirements has been ascertained.
- C. In addition, as applicable, following an effluent limit exceedance, the discharger shall implement the following accelerated monitoring program, as applicable:
 - 1. Monthly monitoring shall be increased to weekly monitoring,
 - 2. Quarterly monitoring shall be increased to monthly monitoring , and
 - 3. Semi-annually monitoring shall be increased to quarterly.

If three consecutive accelerated monitoring events demonstrate full compliance with effluent limits, then, the discharger may return to regular monitoring frequency, with the approval of the Executive Officer of the Regional Board.

- D. The following shall constitute the discharge monitoring program:

1) Monitoring when treatment is not required

Constituent	Unit	Type of Sample	Minimum Frequency of Analysis
Total Waste Flow	gal/day	totalizer	continuously
pH	pH unit	grab	monthly
Total Suspended Solids	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
BOD ₅ @ 20°C	mg/L	grab	monthly
Oil and Grease	mg/L	grab	monthly
Settleable Solids	ml/L	grab	monthly

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Constituent	Unit	Type of Sample	Minimum Frequency of Analysis
Sulfides	mg/L	grab	monthly
Phenols	mg/L	grab	monthly
Temperature	°F	grab	monthly
Total Dissolved Solids	mg/L	grab	monthly
Sulfate	mg/L	grab	monthly
Chloride	mg/L	grab	monthly
Boron	mg/L	grab	monthly
Nitrogen	mg/L	grab	monthly
Residual chlorine	mg/L	grab	monthly
Acute Toxicity	µg/L	grab	annually

2) Monitoring when treatment is required. *(Monitoring will be required only for those toxics that have been shown to have reasonable potential from analytical data supplied by the discharger.)*

Constituent	Unit	Type of Sample	Minimum Frequency of Analysis
Conventional Pollutants			
Total Waste Flow	gal/day	totalizer	continuously
pH	pH unit	grab	monthly
Temperature	°F	grab	monthly
Total Suspended Solids	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
BOD ₅ 20°C	mg/L	grab	monthly
Oil and Grease	mg/L	grab	monthly
Settleable Solids	ml/L	grab	monthly
Sulfides	mg/L	grab	monthly
Phenols	mg/L	grab	monthly
Residual Chlorine	mg/L	grab	monthly
Methylene Blue Active Substances (MBAS)	mg/L	grab	monthly
Metals			
Cadmium	µg/L	grab	tbd ¹
Copper	µg/L	grab	tbd
Lead	µg/L	grab	tbd
Nickel	µg/L	grab	tbd
Silver	µg/L	grab	tbd
Zinc	µg/L	grab	tbd
Antimony	µg/L	grab	tbd

¹ To be determined

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Discharges of Groundwater from
Construction and Project
Dewatering to Surface Waters
Monitoring and Reporting Program

Order No. R4-2003-xxxx
CAG994004

Arsenic	µg/L	grab	tbd
Beryllium	µg/L	grab	tbd
Chromium III	µg/L	grab	tbd
Chromium IV	µg/L	grab	tbd
Mercury	µg/L	grab	tbd
Volatile Organics			
1,1,2,2-tetrachloroethane	µg/L	grab	tbd
1,1,2-trichloroethane	µg/L	grab	tbd
1,1-dichloroethane	µg/L	grab	tbd
1,1-dichloroethylene	µg/L	grab	tbd
1,2-dichloroethane	µg/L	grab	tbd
1,2-dichloropropane	µg/L	grab	tbd
1,2-trans-dichloroethylene	µg/L	grab	tbd
1,3-dichloropropylene	µg/L	grab	tbd
Acrolein	µg/L	grab	tbd
Acrylonitrile	µg/L	grab	tbd
Benzene	µg/L	grab	tbd
Bromoform	µg/L	grab	tbd
Carbon tetrachloride	µg/L	grab	tbd
Chlorobenzene	µg/L	grab	tbd
Chlorodibromomethane	µg/L	grab	tbd
Dichlorobromomethane	µg/L	grab	tbd
Ethylbenzene	µg/L	grab	tbd
Ethylene dibromide	µg/L	grab	tbd
Methyl tertiary butyl ether (MTBE)	µg/L	grab	tbd
Methylbromide	µg/L	grab	tbd
Methylchloride	µg/L	grab	tbd
Methylene chloride	µg/L	grab	tbd
Tetrachloroethylene	µg/L	grab	tbd
Toluene	µg/L	grab	tbd
Trichloroethylene	µg/L	grab	tbd
Vinyl chloride	µg/L	grab	tbd
Xylenes	µg/L	grab	tbd
Pesticides and PCBs			
4,4'-DDD	µg/L	grab	tbd
4,4'-DDE	µg/L	grab	tbd
4,4'-DDT	µg/L	grab	tbd
Dieldrin	µg/L	grab	tbd
alpha-Endosulfan	µg/L	grab	tbd
beta-Endosulfan	µg/L	grab	tbd
Endrin	µg/L	grab	tbd
Heptachlor	µg/L	grab	tbd
Heptachlor Epoxide	µg/L	grab	tbd
Toxaphene	µg/L	grab	tbd

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Discharges of Groundwater from
Construction and Project
Dewatering to Surface Waters
Monitoring and Reporting Program

Order No. R4-2003-xxxx
CAG994004

Aldrin	µg/L	grab	tbd
alpha-BHC	µg/L	grab	tbd
beta-BHC	µg/L	grab	tbd
Chlordane	µg/L	grab	tbd
Endosulfan Sulfate	µg/L	grab	tbd
Endrin Aldehyde	µg/L	grab	tbd
gamma-BHC	µg/L	grab	tbd
Semi-Volatile Organics			
1,2 Dichlorobenzene	µg/L	grab	tbd
1,2-Diphenylhydrazine	µg/L	grab	tbd
1,3 Dichlorobenzene	µg/L	grab	tbd
1,4 Dichlorobenzene	µg/L	grab	tbd
2,4,6-Trichlorophenol	µg/L	grab	tbd
2,4-Dichlorophenol	µg/L	grab	tbd
2,4-Dimethylphenol	µg/L	grab	tbd
2,4-Dinitrophenol	µg/L	grab	tbd
2,4-Dinitrotoluene	µg/L	grab	tbd
2-Chloronaphthalene	µg/L	grab	tbd
2-Chlorophenol	µg/L	grab	tbd
2-Methyl-4,6-Dinitrophenol	µg/L	grab	tbd
3,3-Dichlorobenzidine	µg/L	grab	tbd
Acenaphthene	µg/L	grab	tbd
Anthracene	µg/L	grab	tbd
Benzidine	µg/L	grab	tbd
Benzo(a)Anthracene	µg/L	grab	tbd
Benzo(a)Pyrene	µg/L	grab	tbd
Benzo(b)Fluoranthene	µg/L	grab	tbd
Benzo(k)Fluoranthene	µg/L	grab	tbd
Bis(2-Chloroethyl)Ether	µg/L	grab	tbd
Bis(2-Chloroisopropyl)Ether	µg/L	grab	tbd
Bis(2-Ethylhexyl)Phthalate	µg/L	grab	tbd
Butylbenzyl Phthalate	µg/L	grab	tbd
Chrysene	µg/L	grab	tbd
Dibenzo(a,h)Anthracene	µg/L	grab	tbd
Diethyl Phthalate	µg/L	grab	tbd
Dimethyl Phthalate	µg/L	grab	tbd
Di-n-Butyl Phthalate	µg/L	grab	tbd
Fluoranthene	µg/L	grab	tbd
Fluorene	µg/L	grab	tbd
Hexachlorobenzene	µg/L	grab	tbd
Hexachlorobutadiene	µg/L	grab	tbd
Hexachlorocyclopentadiene	µg/L	grab	tbd
Hexachloroethane	µg/L	grab	tbd
Indeno(1,2,3-cvd) Pyrene	µg/L	grab	tbd

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Isophorone	µg/L	grab	tbd
Naphthalene	µg/L	grab	tbd
Nitrobenzene	µg/L	grab	tbd
Pentachlorophenol	µg/L	grab	tbd
N-Nitrosodimethyl amine (NDMA)	µg/L	grab	tbd
N-Nitrosodi-n-Propylamine	µg/L	grab	tbd
N-Nitrosodiphenylamine	µg/L	grab	tbd
Phenol	µg/L	grab	tbd
Pyrene	µg/L	grab	tbd
Miscellaneous			
Asbestos	fib/L	grab	tbd
Di-isopropyl ether (DIPE)	µg/L	grab	tbd
1,4-Dioxane	µg/L	grab	tbd
Perchlorate	µg/L	grab	tbd
2,3,7,8-TCDD (Dioxin)	µg/L	grab	tbd
Tertiary butyl alcohol (TBA)	µg/L	grab	tbd
Total petroleum hydrocarbons	µg/L	grab	tbd

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IV. EFFLUENT TOXICITY TESTING

- A. Acute Toxicity shall be conducted by the method specified in "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" September 1991, (EPA/600/4-90/027). Submission of bioassay results should include the information noted on pages 70-73 of the "Methods". The fathead minnow *Pimephales promelas* shall be used as the test species for freshwater discharges.
- B. The topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. The method for topsmelt is found in USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine to Freshwater Organisms*, First Edition, August 1995, (EPA/600/4-95/136).
- C. If the results of the toxicity test yields a survival of less than 90%, then the frequency of analyses shall increase to monthly until at least three test results have been obtained and full compliance with effluent limitations has been demonstrated, after which the frequency of analyses shall revert to annually. Results of toxicity tests shall be included in the first monitoring report following sampling
- D. The discharger shall notify this Regional Board immediately of any toxicity with less than 90% survival and in writing 14 days after the receipt of such test results. The notification will describe action the discharger has taken or will take to investigate and correct the cause(s) of toxicity. It must include a status report on any corrective actions required by the permit,

with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

- E. The discharger shall submit a full report of the toxicity test results. Test results shall be reported in percent survival with the discharge monitoring reports (DMR) for the month in which the test is conducted.
- F. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of the toxicity test; (3) the acute toxicity limit.
- G. Results for toxicity tests also shall be reported according to the appropriate method manual chapter on Report Preparation and shall be attached to the DMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - 1. sample date(s);
 - 2. test initiation dates;
 - 3. test species, and test method manual;
 - 4. percent survival;
 - 5. Mean percent mortality (\pm standard deviation) after 96 hours in 100% effluent (if applicable); and
 - 6. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, and ammonia).

V. GENERAL PROVISIONS FOR REPORTING

- A. The discharger shall inform this Regional Board 24 hours before the start of the discharge.
- B. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. A copy of the laboratory certification shall be provided with the first monitoring report and each time a new and/or renewal is obtained from ELAP.
- C. Samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. Proper chain of custody procedures must be followed and a copy shall be submitted with the report.
- D. As required in H.5. of Order No. R4-2003-XXXX, the monitoring report shall specify the USEPA analytical method used, the method detection limit, and the minimum level for each pollutant.

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VI. NOTIFICATION

- A. The discharger shall notify the Executive Officer in writing prior to discharge of any chemical which may be toxic to aquatic life. Such notification shall include:
1. Name and general composition of the chemical,
 2. Frequency of use,
 3. Quantities to be used,
 4. Proposed discharge concentrations and,
 5. EPA registration number, if applicable.

No discharge of such chemical shall be made prior to obtaining the Executive Officer's approval.

- B. The discharger shall notify the Regional Board via telephone and/or fax within 24 hours of noticing an exceedance above the effluent limits in Order No. R4-2003-XXXX. The discharger shall provide to the Regional Board within 14 days of observing the exceedance a detailed statement of the actions undertaken or proposed that will bring the discharge into full compliance with the requirements and submit a timetable for correction.

VII. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if the discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

Ordered by: _____
Dennis A. Dickerson
Executive Officer

Date: Month Day, Year

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