

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TENTATIVE ORDER
NPDES NO. CAG912003

GENERAL WASTE DISCHARGE REQUIREMENTS FOR:

Discharge or Reuse of Extracted and Treated Groundwater Resulting From the Cleanup of Groundwater Polluted by Volatile Organic Compounds

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Water Board) finds that:

1. General: This National Pollutant Discharge Elimination System (NPDES) general permit regulates discharge or reuse of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds (VOC). All dischargers eligible for this general permit must submit a Notice of Intent (NOI) described in the attachment and the appropriate annual fee to obtain coverage. Written authorization to initiate the discharge will be issued by the Executive Officer.
2. Authority: States may request authority to issue general NPDES permits pursuant to Code of Federal Regulations, Title 40, Chapter 1, Subchapter D, part 122.28 (40 CFR 122.28). On June 8, 1989, the State Water Resources Control Board (hereinafter State Board) submitted an application to the United States Environmental Protection Agency (hereinafter USEPA) requesting revisions to its NPDES program in accordance with 40 CFR 122.28, 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, the USEPA, Region IX, approved the State Board's request and granted authorization for the State to issue general NPDES permits.
3. Types of Discharges: 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same types of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.
4. Eligibility for General Permit: A general permit for existing and proposed discharges of extracted and treated groundwater to surface waters of the San Francisco Bay Region (except for direct discharges to the Pacific Ocean) from groundwater cleanup projects meets the requirements of 40 CFR 122.28. The discharges and proposed discharges:
 - a. result from similar operations (all involve extraction, treatment, and discharge of groundwater),
 - b. are the same types of waste (all are groundwater containing volatile organic compounds due to leaks and spills from businesses that have used VOC,
 - c. require similar effluent limitations for the protection of the beneficial uses of

- surface waters in the San Francisco Bay Region (this general permit does not cover direct discharges to the Pacific Ocean),
- d. require similar monitoring, and
 - e. are more appropriately regulated under a general permit rather than individual permits.

Therefore, this Order establishes a general permit regulating extracted and treated groundwater discharges resulting from the cleanup of groundwater polluted by VOC and other related wastes. Entities that fall into this category are hereinafter referred to as discharger(s) and may be regulated by this Order. The following VOC-cleanup discharges are normally not eligible for coverage: discharges from cleanups involving significant contamination by metals, pesticides, or other conservative pollutants; discharges from cleanups involving reinjection of treated groundwater; and discharges from sites with other NPDES discharges (e.g. process waste or stormwater).

5. Former Permit: On July 21, 1999, the Water Board adopted Order No. 99-051 reissuing NPDES No. CAG912003. The expiration date for Order 99-051 was July 21, 2004. During the period July 1999 to July 2004, 98 discharges were authorized under Order No. 99-051.
6. Benefits of General Permit: There are hundreds of VOC-contaminated sites within the San Francisco Bay Region. Within the next five years, approximately 100 of these sites will be conducting groundwater cleanups by extracting contaminated groundwater, treating, and discharging treated groundwater, particularly in Santa Clara County. Because some publicly owned treatment works (POTWs) do not accept new discharges from groundwater cleanups, many of these sites will require waste discharge requirements for discharge to surface water. These cleanups will exceed the capacity of available staff to develop and bring individual waste discharge requirements to the Board for adoption. These circumstances create the need for an expedited system to process the anticipated numerous requests. This general permit expedites the processing of requirements; enables the Board to better utilize limited staff resources; and permits cleanups to begin promptly.
7. Annual Fees: California Regulations, Title 23, Division 3, Chapter 9, Article 1, Section 2200 D, fee schedule dated October 17, 2003, requires the dischargers regulated under this general NPDES permit to pay an annual fee based on one of the three categories listed in subsection (b)(9) plus applicable surcharges: The discharges regulated under this general NPDES permit are categorized as Category 1. The discharges under this category require treatment systems to meet priority toxic pollutant limits and could impair beneficial uses if limits are violated. This fee schedule also requires an ambient water-monitoring surcharge of 18.5% of the calculated fee to be added the Category 1 fee.
8. Basin Plan: Water Board adopted a revised Water Quality Control Plan for the San

Francisco Bay Basin (hereinafter called Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Water Board's master water quality control planning document. The State Water Resources Control Board (State Board) and the Office of Administrative Law (OAL) approved the revised Basin Plan on July 20, 1995 and November 13, 1995, respectively. The OAL's action is published in Section 3912 of Title 23 of the California Code of Regulations. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. This Order implements the plans, policies, and provisions of the Water Board's Basin Plan.

9. Beneficial Uses: The Basin Plan defines beneficial uses and water quality objectives for surface waters and groundwaters within the San Francisco Bay Region. Groundwaters have the following potential and existing beneficial uses: Municipal and Domestic Supply, Industrial Service Supply, Industrial Process Supply, Agricultural Supply, and Freshwater Replenishment. Surface waters have the following potential and existing beneficial uses: Municipal and Domestic Supply, Fish Migration and Fish Spawning, Industrial Service Supply, Navigation, Industrial Process Supply, Marine Habitat, Agricultural Supply, Estuarine Habitat, Groundwater Recharge, Shellfish Harvesting, Water Contact and Non-Contact Recreation, Ocean, Commercial, and Sport Fishing, Wildlife Habitat, Areas of Special Biological Significance, Cold Freshwater and Warm Freshwater Habitat, and Preservation of Rare and Endangered Species.
10. State Implementation Policy (SIP) for California Toxics Rule (CTR): The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California was adopted by the State Board on March 2, 2000. The U.S. EPA published the CTR, the *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (Federal Register, Volume 65, Number 97, 31682-31719), adding Section 131.38 to Title 40 of the Code of Federal Regulations, on May 18, 2000. OAL approved the SIP with some modifications on May 22, 2000.
11. Reuse Policy: The Water Board adopted Resolution No. 88-160 on October 19, 1988. The Resolution urges dischargers of extracted groundwater from site cleanup projects to reclaim their effluent and that when reclamation is not technically and/or economically feasible, to discharge to a publicly owned treatment works (POTW). If neither reclamation nor discharge to a POTW is technically or economically feasible and if beneficial uses of the receiving water are not adversely affected, it is the intent of the Water Board to authorize the discharge of treated extracted groundwater in accordance with the requirements of this Order.
12. Reuse Allowed: This Order permits reuse or reclamation of extracted treated groundwater in conjunction with the discharge to surface water, except for purposes of recharge or reinjection. Reuse of extracted treated groundwater can take many forms, such as irrigation of landscaping or agriculture, dust control or soil compaction on construction sites, and

industrial water supply.

13. Basin Plan Prohibition and Exception: The Basin Plan prohibits discharge of "wastewater which has particular characteristics of concern to beneficial uses": (a) "at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any nontidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof" and (b) at any point in "San Francisco Bay south of the Dumbarton Bridge." The Basin Plan allows for exceptions to this prohibition if a discharge is approved as part of a groundwater clean-up project in accordance with Resolution No. 88-160, it has been demonstrated that neither reclamation nor discharge to a POTW is technically and economically feasible, and the discharger has provided certification of the adequacy and reliability of treatment facilities and a plan that describes procedures for proper operation and maintenance of all treatment facilities. The Basin Plan also prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to Water Board, to waters of the Basin". Prior to discharge under this permit, dischargers must demonstrate to the satisfaction of the Executive Officer that their groundwater extraction and treatment systems and associated operation, maintenance, and monitoring plans constitute acceptable programs for minimizing the discharge of toxic substances to waters of the State.
14. Anti-degradation Policies: Federal Regulations (40 CFR 131.12) and State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" requires that any increase in pollutant loading to a receiving water shall be consistent with the following:
 - a. Existing instream water uses and the level of water quality necessary to protect existing beneficial uses shall be maintained and protected; and
 - b. Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.
15. Anti-degradation Results: This permit complies with State and Federal "antidegradation" policies:
 - a. The conditions and effluent limitations established in this Order for discharges of treated groundwater 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; and

- b. Discharges regulated by this Order should not lower water quality if the terms and conditions of this Order are met.
16. No Preemption: This Order permits the discharge of treated groundwater to waters of the State subject to the prohibitions, effluent limitations, and provisions of this Order. It does not preempt or supersede the authority of municipalities, flood control agencies, or other local agencies to prohibit, restrict, or control discharges of waste to storm drain systems or other watercourses subject to their jurisdiction. The Discharges regulated by this Order are also responsible to obtain authorization to discharge from the agency having jurisdiction over the use of the storm drain system or watercourse.
 17. CEQA: This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.
 18. Notice: The Water Board has notified interested agencies and persons of its intent to issue general waste discharge requirements for groundwater dewatering discharges resulting from the cleanup of groundwater polluted by fuel leaks and other related wastes at service stations and similar sites, and has provided them with an opportunity to submit their written views and recommendations.
 19. Hearing: The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that dischargers of treated groundwater polluted by VOC, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under and the provisions of the Clean Water Act as amended and regulations and guidelines adopted there under, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of extracted and treated groundwater polluted by VOC and related wastes to surface waters is prohibited unless an NOI application for proposed discharge for the discharge has been submitted and the Executive Officer has provided the discharger with written authorization to initiate the discharge.
2. The discharge shall be limited to extracted and treated groundwater and those added treatment chemicals approved by the Executive Officer which do not adversely affect the environment and comply with the requirements of this Order.

3. The discharge of extracted and treated groundwater from a specific site in excess of the flow rate specified in each discharger's authorization letter from the Executive Officer is prohibited, unless an increase in the flow rate is approved by the Executive Officer.
4. The discharge of extracted and treated groundwater discharge shall not cause pollution, contamination, or nuisance.
5. The discharge shall cause no scouring or erosion at the point where the storm drain discharges into the receiving waters.
6. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code.
7. Bypass or overflow of untreated or partially treated polluted 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.

B. Effluent Limitations (Surface water discharges only)

1. The effluent (at a point after full treatment but before it joins or is diluted by any other waste stream, body of water, or substance) shall not contain constituents in excess of the following:

Table B.1 Effluent Limits

No.	Compound	CAS Number	Discharge to Drinking Water Areas**		Discharge to Other Surface Water Areas	
			Average Monthly Effluent Limitation*** (ug/L)	Maximum Daily Effluent Limitation (ug/L)	Average Monthly Effluent Limitation*** (ug/L)	Maximum Daily Effluent Limitation (ug/L)
1	Benzene	71432		1		5
2	Carbon Tetrachloride	56235	0.25*	0.50	4.4	5
3	Chloroform	67663		5		5
4	1,1-Dichloroethane	75343		5		5
5	1,2-Dichloroethane	107062	0.38*	0.5		5
6	1,1-Dichloroethylene	75354	0.057*	0.11*	3.2	5
7	Ethylbenzene	100414		5		5
8	Methylene Chloride (Dichloromethane)	75092	4.7	5		5
9	Tetrachloroethylene	127184	0.8	1.6		5
10	Toluene	108883		5		5

No.	Compound	CAS Number	Discharge to Drinking Water Areas**		Discharge to Other Surface Water Areas	
11	Cis 1,2-Dichloroethylene	156592		5		5
12	Trans 1,2-Dichloroethylene	156605		5		5
13	1,1,1-Trichloroethane	71556		5		5
14	1,1,2-Trichloroethane	79005	0.6	1.2		5
15	Trichloroethylene	79016	2.7	5		5
16	Vinyl Chloride	75014		0.5		5
17	Total Xylenes	1330207		5		5
18	Methyl Tertiary Butyl Ether (MtBE)	1634044		5		13
19	Total Petroleum Hydrocarbons			50		50
20	Ethylene Dibromide (1,2-Dibromoethane)	106934		0.05*		5
21	Trichloro-trifluoroethane	76131		5		5
<p>* If reported detection level is greater than effluent limit, then a non-detect result using a 0.5 ug/L detection level is deemed to be in compliance. ** Drinking water areas are defined as surface waters with the existing or potential beneficial uses of “municipal and domestic supply” and “groundwater recharge” (the latter includes recharge areas to maintain salt balance or to halt salt water intrusion into fresh water aquifers). *** Applicable when three or more days of effluent monitoring results are available</p>						

2. pH: The pH of the discharge shall not exceed 8.5 nor be less than 6.5.
3. Toxicity: The survival of rainbow trout test fish in 96-hour static renewal bioassays of the discharge shall be a three sample moving median of 90% survival and a minimum value of not less than 70% survival.

C. Receiving Water Limitations

1. Narrative Limits: The discharge shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, taste, odor, or apparent color beyond present natural background levels;

- d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and
 - e. Toxic or other deleterious substances to be present in concentrations or quantities that will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. Numerical Limits: The discharge shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
- a. Dissolved oxygen:
 - For all tidal waters:
 - In the Bay downstream of Carquinez Bridge - 5.0 mg/l minimum
 - Upstream of Carquinez Bridge - 7.0 mg/l minimum
 - For nontidal waters:
 - Waters designated as cold water habitat - 7.0 mg/l minimum
 - Waters designated as warm water habitat - 5.0 mg/l minimum
 - For all inland surface waters:
 - The median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. pH: Variation from natural ambient pH by more than 0.5 pH units.
3. More Stringent Standards May Apply: The discharge shall not cause or contribute to a violation of any applicable water quality standard for receiving waters adopted by the Water Board or the State Board as required by the Clean Water Act and regulations adopted there under. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Water Board will revise and modify this Order in accordance with such more stringent standards.

D. Water Reclamation Specifications (water reuse only)

1. Water reclaimed for beneficial reuse as applied shall meet the requirements in Section B-Effluent Limitations.

2. The water reclamation activities shall be described in the discharger's NOI, including method of any additional treatment and location and type of water reuse.
3. No reclaimed water shall be allowed to escape from the authorized use area by airborne spray, nor by surface flow except in minor amounts associated with good irrigation practice, nor from conveyance facilities.
4. Reclamation involving irrigation shall not occur when the ground is saturated.
5. The use of reclaimed water shall not impair the quality of waters of the State, nor shall it create a nuisance as defined by Section 13050(m) of the California Water Code.
6. Adequate measures shall be taken to minimize public contact with reclaimed water and to prevent the breeding of flies, mosquitoes, and other vectors of public health significance during the process of reuse.
7. Appropriate public warnings must be posted to advise the public that the water is not suitable for drinking. Signs must be posted in the area, and all reclaimed water valves and outlets appropriately labeled.
8. There shall be no cross-connection between the potable water supply and piping containing treated groundwater intended for reuse.
9. Water reclamation consisting of recharge or reinjection is not authorized under this Order.

E. Provisions

1. Notice of Intent (NOI) Application: The NOI application for each point of proposed discharge to a storm drain system shall contain the information required in the "Notice of Intent Contents" as attached to this Order and as may be amended by the Executive Officer.
2. NOI Review: Upon receipt of a complete NOI application package for proposed discharge, the Executive Officer will review the application to determine whether the proposed discharger is eligible to discharge waste under this general permit. The application package should document that:
 - a. The proposed discharge results from the cleanup of VOC-polluted groundwater;
 - b. The proposed discharger has met the provisions of Resolution No. 88-160; and

- c. The proposed treatment system and associated operation, maintenance, and monitoring plans are capable of ensuring that the discharge will meet the provisions, prohibitions, effluent limitations, and receiving water limitations of this Order.
3. Discharge Authorization: If the Executive Officer determines that the proposed discharger is eligible to discharge waste under this general permit, the Executive Officer will authorize the proposed discharge. If the Executive Officer authorizes the discharge, a "discharge authorization letter" will be transmitted to the discharger authorizing the initiation of the discharge subject to the conditions of this Order and any other conditions necessary to protect the beneficial uses of the receiving waters. The discharge authorization letter from the Executive Officer will specify the maximum allowed discharge flow rate. The discharge authorization letter may be terminated or revised by the Executive Officer at any time.
4. Non-Compliance As A Violation: Upon receipt of the Executive Officer's discharge authorization letter, the discharger(s) shall comply with all applicable conditions and limitations of this Order and the discharge authorization letter. Any permit noncompliance (violations of requirements in this Order or Self Monitoring Program) constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action, permit or authorization letter termination, revocation and reissuance, modification, the issuance of an individual permit, or denial of a renewal application.
5. Self-Monitoring Program: Dischargers shall comply with (1) the "Self-Monitoring Program" as attached to this Order (or as may be amended by the Executive Officer) or (2) an amended Self-Monitoring Program specified in the discharge authorization letter. The sampling and analysis schedule in the attached Self-Monitoring Program is the program expected to be followed for six months. After six months, the results will be reviewed, if requested by the dischargers, and the Executive Officer may modify the Self-Monitoring Program to cover constituents of concern. If the groundwater extraction and/or treatment system(s) described in the application for proposed discharge and certification report is modified, the schedule of monitoring specified in Table A of the Self-Monitoring Program will be reviewed for possible modification.
6. Triggers: The following triggers are not effluent limitations, and should not be construed as such. Instead, they are levels at which additional investigation is warranted to determine whether a numeric limit for a particular constituent is necessary. If any constituent in the effluent of a discharge exceeds the corresponding trigger as listed in the table E.6 below, then the discharger shall take three additional samples (three influent and three effluent) for each exceeded constituent during the following quarter and conduct activities as explained in the Provisions E.7, E.8, or E.9. If this monitoring

activity has already been completed in the past, then summarize the results including the design of any installed treatment unit.

Table E.6 Trigger Compounds

Compound	CAS Number	Trigger (ug/L)
Antimony	7440360	6
Arsenic	7440382	10
Beryllium	7440417	1
Cadmium	7440439	0.07
Chromium (total)	18540299	11*
Chromium (VI)	18540299	11
Copper	7440508	3.1
Lead	7439921	2.0
Mercury	7439976	0.025
Nickel	7440020	8.2
Selenium	7782492	5.0
Silver	7440224	1.9
Thallium	7440280	0.1
Zinc	7440666	35
Cyanide	57125	1.0
Asbestos	1332214	7 MFibers/L
2,3,7,8-TCDD (Dioxin)	1746016	0.000000013
Acrylonitrile	107131	2.0
Bromoform	75252	4.3
Chlorodibromomethane	124481	0.401
Dichlorobromomethane	75274	0.56
1,2-Dichloropropane	78875	0.50
1,3-Dichloropropylene	542756	0.2
1,1,1,2-Tetrachloroethane	79345	0.1
Pentachlorophenol	87865	0.28
2,4,6-Trichlorophenol	88062	2.1
Benzidine	92875	0.00012
Benzo(a)Anthracene	56553	0.0044
Benzo(a)Pyrene	50328	0.004
Benzo(b)Fluoranthene	205992	0.0044
Benzo(k)Fluoranthene	207089	0.0044
Bis(2-Chloroethyl)Ether	111444	0.031
Bis(2-Ethylhexyl)Phthalate	117817	1.8
Chrysene	218019	0.0044
Dibenzo(a,h)Anthracene	53703	0.0044
3,3'-Dichlorobenzidine	91941	0.04
2,4-Dinitrotoluene	121142	0.11
1,2-Diphenylhydrazine	122667	0.04
Hexachlorobenzene	118741	0.00075

Compound	CAS Number	Trigger (ug/L)
Hexachlorobutadiene	87683	0.44
Hexachloroethane	67721	1.9
Indeno(1,2,3-cd)Pyrene	193395	0.0044
N-Nitrosodimethylamine	62759	0.00069
N-Nitrosodi-n-Propylamine	621647	0.005
Aldrin	309002	0.00013
alpha-BHC	319846	0.0039
beta-BHC	319857	0.014
gamma-BHC	58899	0.019
Chlordane	57749	0.00057
4,4'-DDT	50293	0.00059
4,4'-DDE	72559	0.00059
4,4'-DDD	72548	0.00083
Dieldrin	60571	0.00014
alpha-Endosulfan	959988	0.0087
beta-Endosulfan	33213659	0.0087
Endrin	72208	0.0023
Endrin Aldehyde	7421934	0.76
Heptachlor	76448	0.00021
Heptachlor Epoxide	1024573	0.0001
Polychlorinated biphenyls (PCBs) total	1336363	0.00017
Toxaphene	8001352	0.0002
1,4-Dioxane	123911	3.0
Perchlorate	14797730	5.0
Freon 12 (Dichlorodifluoromethane)	75718	0.19
Other VOCs	-	5.0
Other SVOCs	-	5.0
Legend:		
CAS = Chemical Abstract System or Service		
* If total chromium concentration exceeds 11 then Chromium (VI) analysis shall also be done		

7. Triggers Case 1: If the results of the three additional samples for the effluent **do not** exceed the triggers the discharger shall report the results to the Executive Officer in the next Self-Monitoring Report, and shall return to the schedule of sampling and analysis in the Self-Monitoring Program.

8. Triggers Case 2: If the results of **any one of the three** additional samples exceed the triggers, the discharger has two options of submitting a rational for not doing the special studies explained below or performing the following:
 - a. Calculate the median and maximum concentration values for the constituent(s) of concern, using the three recent samples **and** all samples collected and analyzed for that constituent in the previous 12-month period.

- b. Estimate the mass load discharged in the previous 12 month period for the constituent(s) of concern. Report the results in grams per day and in pounds per year, using the average flow rate for the previous 12 month period.
 - c. Report the results to the Executive Officer in the next Self-Monitoring Report, and return to the schedule of sampling and analysis in the Self-Monitoring Program.
9. Triggers Case 3: If the results of **two or three** of the additional samples exceed the triggers, the discharger shall perform the following:
- a. Calculate median and maximum concentration values and mass load for the constituent(s) of concern, as described in Case 2 above.
 - b. Explain or identify source(s) of the compound and any other related chemicals of concern.
 - c. Define the properties of the compound and any other related chemicals of concern. Attach Material Safety Data Sheets, if available or applicable.
 - d. Document what standard or customized EPA approved test methods are used to detect this compound.
 - e. List and evaluate all available technologies for treatment or pre-treatment of this compound and any other related chemicals of concern. This evaluation may include the cost of increased treatment to reduce the constituent(s) of concern, and the amount of reduction in terms of concentration.
 - f. Discuss any proposed plan for pilot bench scale and field tests for treatment of this compound and any other related chemicals of concern and associated timetable.
 - g. Determine best available technology economically achievable for treatment of this compound and any other related chemicals of concern or propose the next step after obtaining the results of the pilot tests.
 - h. If the results of the evaluation indicates that treatment of the discharge does not appear to be a feasible option, then:
 - 1) Perform an evaluation of the potential adverse impacts to the beneficial uses of the receiving water. The evaluation should include, but need not be

limited to, description of the beneficial uses specific to the receiving water, physical and chemical characteristics of the water body and sediment, and the physical, chemical, or biological effects from the constituent(s) on the beneficial uses. For metals, include discussions regarding effects related to total or dissolved fraction and hardness with hardness-dependent objectives. If exceedances are only for metals with hardness-dependent objectives, then the discharger may conduct a hardness study prior to completing this task.

2) If the receiving water study finds that the discharge has potential to cause adverse impacts to beneficial uses of the receiving water, then evaluate control measures other than treatment to reduce the constituent(s) of concern in the discharge, such as re-evaluating options for re-use, discharge to POTW, or alternatives to groundwater extraction.

- i. Within 180 days of the discharger receiving results of the confirmation sampling, report the results of tasks (a) through (h) above to the Executive Officer, including a proposed method to eliminate or minimize future exceedances, or provide a rationale for why no change to the existing treatment program should take place. The discharger may be required to perform additional evaluations or take additional actions, as deemed necessary by the Executive Officer. The discharger may apply or may be required to apply for an individual NPDES permit. If the Executive Officer determines that additional numeric limits are necessary for a particular compound (including but not limited to a VOC), these limits will be calculated using the procedures specified in the SIP, Basin Plan, and applicable USEPA regulations.

As an alternative, the discharger may submit a specific technical rationale for not conducting the above special studies, subject to the Executive Officer's approval.

10. Exceedance of the same Triggers: If an exceedance of the same trigger in Table E.6 occurs less than 60 months after completion of the required tasks in Provisions E.7, E.8, or E.9, then the Executive Officer may waive the evaluation required above. This waiver will not apply if a different constituent exceeds the triggers set in Tables E.6. In that case, the discharger shall perform an evaluation for that constituent. During and after any additional monitoring, the discharger should continue the required schedule of sampling and analysis in the Self-Monitoring Program.
11. Individual NPDES Permit May Be Required: The U.S. EPA Administrator may request the Water Board Executive Officer to require any discharger authorized to discharge waste by the general permit to subsequently apply for and obtain an individual NPDES permit. The Executive Officer of the Water Board may require any discharger authorized to discharge waste by a general permit to subsequently apply for and obtain an individual

NPDES permit. An interested person may petition the Executive Officer or the Regional Administrator to take action under this provision. Cases where an individual NPDES permit may be required include the following:

- a. The discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;
 - b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
 - c. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;
 - d. A water quality control plan containing requirements applicable to such point sources is approved; or
 - e. The requirements of 40 CFR 122.28(a), as explained in Finding No. 4, are not met.
12. Duty to Comply: The filing of a request by the discharger for modification or termination of permit coverage, or a notification of planned changes or anticipated non-compliance does not stay any permit condition.
13. Duty to Mitigate: The discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order which has a reasonable likelihood of adversely affecting public health or the environment, including such accelerated or additional monitoring as requested by Water Board or Executive Officer to determine the nature and impact of the violation.
14. Inspection and Entry: The Water Board or its authorized representatives shall be allowed:
- a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of the Order;
 - b. Reasonable access to and duplication of any records that must be kept under the conditions of the Order;
 - c. To inspect at reasonable times any facility, equipment, practices, or operations regulated or required under the Order; and
 - d. To photograph, sample, and monitor at reasonable times for the purpose of assuring compliance with the Order or as otherwise authorized by the Clean Water Act any substances or parameters at any locations.
15. Treatment Reliability: The dischargers shall, at all times, retain a professional engineer certified in State of California to oversee the design, and operation and maintenance of

the treatment system to properly operate and maintain all facilities that are used by the dischargers to achieve compliance with this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. All of these procedures shall be described in an Operation and Maintenance manual. The discharger shall keep in a state of readiness all systems necessary to achieve compliance with the conditions of this Order. All systems, both those in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of the tests and made available to Water Board for at least five years. Additional requirements for compliance with this provision are explained in item number 6 of the attached "Notice of Intent Contents."

16. Transfers: Coverage by this permit is not transferable to any person except after notice to the Executive Officer. The Executive Officer may require modification of the discharge authorization letter to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
17. Planned Changes: The discharger shall file with the Executive Officer an amended Notice of Intent at least 60 days before making any material change in the character, location, or volume of the discharge. In case of proposing any change of treatment system or operation and maintenance procedures, a professional engineer certified in State of California shall certify the adequacy of the design and/or the procedures.
18. General NPDES Permit and Continuous Coverage: This Order shall serve as a general National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall be effective on the date of its adoption unless the Regional Administrator, USEPA, has an objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 99-051. Order No. 99-051 is hereby rescinded upon the effective date of this permit. Dischargers who (i) were previously subject to Order No. 99-051, (ii) filed a complete NOI before the effective date of this Order, and (iii) have not yet received an Executive Officer authorization letter pursuant to this Order will be subject to this Order pending receipt of a new authorization letter. This provision will assure no lapse in NPDES permit coverage for authorized discharges.
19. Expiration Date: This Order expires on July 21, 2009. Dischargers who need to discharge treated groundwater after July 21, 2009, must file an application for proposed discharge no later than January 21, 2009, as application for issuance of new waste discharge requirements.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true and correct

copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on .

Bruce H. Wolfe
Executive Officer

Attachments: Notice of Intent Contents
Self-Monitoring Program