From: "Goloubow, Ron" <Ron.Goloubow@lfr.com>
To: FAzimzadeh@waterboards.ca.gov
Date: 5/22/2009 12:04 PM
Subject: RE: Tentative Order, NPDES Permit No. CAG912003 for reissuance ofGeneral Waste Discharge Requirements for Discharge or Reuse of Extracted andTreated Groundwater Resulting from Cleanup of Groundwater Polluted byVolatile Organic Compounds

I am questioning the ability for analytical laboratories to achieve the detection limits for 2,3,7,8-TCDD "trigger level" of 1.3E-08 µg/L (Table 3 on page 14 of 91 of the document that was attached).
On the same table turbidity and foaming agents need units.
Ron.

From: Farhad Azimzadeh [FAzimzadeh@waterboards.ca.gov]

Sent: Wednesday, May 20, 2009 5:41 PM

To: Farhad Azimzadeh

Subject: Fwd: Tentative Order, NPDES Permit No. CAG912003 for reissuance of General Waste Discharge Requirements for Discharge or Reuse of Extracted and Treated Groundwater Resulting from Cleanup of Groundwater Polluted by Volatile Organic Compounds

To: Mailing Lists

NOTICE: The Regional Water Board intends to consider the reissuance of general NPDES Permit No. CAG912003 during a meeting that will commence at the time and place indicated below:

DATE/TIME: August 12, 2009, 9:00 a.m.

PLACE: Auditorium, Elihu Harris State Building, 1515 Clay Street

Oakland, California

The deadline for comments is 5:00 p.m. on June 17, 2009. If you have any comments, please submit them in writing to the attention of Farhad Azimzadeh no later than this deadline. Comments received after the deadline will not be considered or included in the preparation of the package presented to the Regional Water Board for its consideration. Our response to comments will be posted on our website one week prior to the hearing. A copy of the tentative permit is attached. If you have any questions regarding this letter, please contact Farhad Azimzadeh at (510) 622-2310 or e-mail at fazimzadeh@waterboards.ca.gov.

Thanks,

Farhad Azimzadeh

From: "Kukreti, Archana" <Archana_Kukreti@golder.com>
To: Farhad Azimzadeh <FAzimzadeh@waterboards.ca.gov>
CC: Gina Kathuria <GKathuria@waterboards.ca.gov>, Lourdes Gonzales <LGonzale...
Date: 6/16/2009 2:56 PM
Subject: Comments on the tentative Order, NPDES Permit No. CAG912003
Attachments: NPDES Permit Comments_IBM.pdf

Hi Farhad,
Attached are comments on the tentative order-NPDES permit No. CAG912003. Specific comments, including the ones presented below, are presented in the attached pdf file:

1. Permit, Page 2 - General Comment: Considering all of the acronyms used in the permit and attachments, it would assist dischargers if there was a single table with all of the acronyms used. Attachment A accomplishes that to some extent, but does not do a comprehensive job. Additionally, moving Attachment A to the beginning of the document would also help the reader to get familiar with the definitions and the acronyms.
2. Permit, Page 8, Table 2 - Suggest adding Footnote [2] from Table F-5 (Pg. F-23) to clarify here when AMELs are applicable.
3. Permit, Page 11 - Since IBM discharges to Canoas Creek only when it cannot recharge the water, what does it mean for Canoas Creek when we may only discharge for a short time period that is not even once a month let alone 3? Please clarify how this would apply and how do we determine this?
4. Permit, Page 12 - Since we already submitted our NOI, do the new NOI requirements result in our having to resubmit an NOI with the information now required that wasn't in our earlier NOI?
5. Permit, Page 14, Table 3 - Some of the Trigger limits are too low and cannot be easily achieved by labs. Examples include limits for SVOCs and PAHs, especially since the lowest achievable detection limit obtained by the recommended analytical method 8270c is 0.5 ug/L. Adding something similar to Footnote [1], from Table 2 will be helpful.
6. Attachment E, Page E-13 - There is no requirement for conducting start-up monitoring if the system is shut-down for more than 120 hrs. In our experience there is no benefit from requiring to do start-up after every system shut-down exceeding 120 hrs, since the effluent quality does not change significantly after the shut-down. Please confirm. Additionally, does the Board need notification of any planned shutdown?

Thank you for the opportunity to provide comments on the tentative order NPDES permit. If you need any clarifications on the comments please feel free to contact me.

Thanks,
Archana

Archana Kukreti (P.E.) | Senior Engineer | Golder Associates Inc.
425 Lakeside Drive Sunnyvale, California, USA 94085
T: +1 (408) 220-9223 | D: +1 (408) 220-9243 | F: +1 (408) 220-9224 | C: +1 (650) 243-1952 | E: Archana_Kukreti@golder.com | www.golder.com

Work Safe, Home Safe

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Secretary for
Environmental Protection

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

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 (VOC)

Table 1. Administrative Information

This Order was adopted by the Regional Water Board on:	**August 12, 2009 [Tentative]**
This Order shall become effective on:	**October 1, 2009 [Tentative]**
This Order shall expire on:	**September 30, 2014 [Tentative]**

The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified the discharges under this General National Pollutant Discharge Elimination System (NPDES) Permit as minor discharges based on the discharge's impacts to receiving water bodies.
To obtain coverage under this general permit, Dischargers must submit a Notice of Intent (NOI) Form as described in Attachments B and C and a filing fee equivalent to the first year's annual fee. If the NOI is complete, authorization to initiate discharge will be issued by the Regional Water Board Executive Officer.
Authorized Dischargers who need to continue discharging after the expiration date of this Order shall file a completed NOI form no later than 180 days in advance of this Order's expiration date. Such Dischargers for which coverage is extended will become subject to the new Order upon authorization by the Executive Officer.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on the date shown above.

_____
Bruce H. Wolfe, Executive Officer

General Comment: Considering
permit and attachments, it would
a single table with all of the acro
accomplishes that to some exte
comprehensive job. Additionally
beginning of the document woul
familiar with the definitions and t

I. Scope of General Permit

The facilities that may be covered under this Order are groundwate
facilities located at active or closed sites with solvent leaks. These
treatment facilities are in operation to extract and treat groundwate
by volatile organic compounds leaks. This Order covers discharges
facilities to all surface waters such as creeks, streams, rivers including flood control canals, lakes, or the Bay. Such discharges may occur directly to surface waters or through constructed storm drain systems.

II. Findings

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

A. ***Background.*** There are 60 permittees currently authorized to discharge pursuant to Order No. R2-2004-0055, NPDES Permit No. CAG912003. Of this group, 56 had submitted a Report of Waste Discharge and applied for an NPDES permit to continue their discharge of treated wastewater from their groundwater extraction and treatment facilities (hereinafter Facility or Facilities).

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

B. **Facility Description.** Dischargers authorized under this general permit typically use aeration and/or granular activated carbon (GAC) systems to treat their groundwater prior to discharge. Facilities that use other types of treatment systems that are effective at removal of volatile organic pollutants may be covered by this Order subject to the approval of the Executive Officer. Treated wastewaters are typically discharged through storm drain systems, rivers, and/or creeks to the Bay. This Order requires the Discharger to include a complete description of the treatment system installed at each facility, in the Notice of Intent (Attachments B and C).

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to

article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

States may request authority to issue general NPDES permits pursuant to 40 CFR Section 122.28. On June 8, 1989, the State Water Resources Control Board (State Water Board) submitted an application to the 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 9, approved the State Water Board's request and granted authorization for the State to issue general NPDES permits.

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the applications, through monitoring and reporting programs, and other available environmental information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

F. Technology-based Effluent Limitations. Title 40 of the Code of Federal Regulations (Hereinafter 40 CFR) at section 122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Best Professional Judgment (BPJ) in accordance with 40 CFR Section 125.3. A detailed discussion of the technology-based effluent limitations development and BPJ is included in the Fact Sheet (Attachment F).

G. Water Quality-based Effluent Limitations. Section 301(b) of the CWA and 40 CFR Section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements necessary to meet applicable water quality standards. The rationale for these requirements is discussed in the Fact Sheet. 40 CFR Section 122.44(d) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under CWA section 304(a), supplemented where

necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan at Page 2-5 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan may not specifically identify beneficial uses for every receiving water regulated under this permit, but may identify present and potential uses for the downstream water body, to which the receiving water, via an intermediate water body, is tributary. These potential and existing beneficial uses are 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 for surface waters and municipal and domestic supply, industrial service supply, industrial process supply, agricultural supply, and freshwater replenishment for groundwaters. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Requirements of this Order implement the Basin Plan.

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

J. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy

or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. Compliance Schedules and Interim Requirements. (Not applicable)

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

M. Antidegradation Policy. 40 CFR Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

N. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

O. Monitoring and Reporting. 40 CFR Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to

require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

P. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42 and as modified for this general permit, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Dischargers. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

Q. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B and VI.C of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

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

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

IT IS HEREBY ORDERED, that Order No. R2-2004-0055 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, the Dischargers shall comply with the requirements in this Order.

III. Discharge Prohibitions

A. The discharge of extracted and treated groundwater polluted by volatile organic compounds and related wastes to surface waters is prohibited unless an NOI

application for proposed discharge has been submitted and the Executive Officer has provided the Discharger with an authorization to initiate the discharge.

B. Discharges other than the following are prohibited: extracted and treated groundwater with treatment chemicals approved by the Executive Officer and added in a manner consistent with the proper operation and maintenance of the treatment facility.

C. The discharge of extracted and treated groundwater from a specific site in excess of the flow rate specified in the authorization to discharge by the Executive Officer is prohibited.

D. The discharge shall not cause scouring or erosion at the point where the storm drain discharges into the receiving waters, and shall not cause or contribute to flooding of the storm drain system or receiving waters downstream of the point of discharge.

E. 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.

F. Bypass or overflow of untreated or partially treated groundwater polluted by volatile organic compounds or other wastes 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.

IV. Effluent Limitations and Discharge Specifications

A. Effluent Limitations (Surface water discharges only)

1. **Organic Pollutants:** The discharge of effluent shall maintain compliance with the following effluent limitations at monitoring location EFF-001 as specified in the Notice of General Permit Coverage:

Table 2. Effluent Limitations for Toxics Pollutants

No.	Compound	CAS Number	Column A: Discharge to Drinking Water Areas (see Note 2)		Column B: 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 (see Note 1)	0.50	4.4	5

No.	Compound	CAS Number	Column A: Discharge to Drinking Water Areas (see Note 2)		Column B: 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)
3	Chloroform	67663		5		5
4	1,1-Dichloroethane	75343		5		5
5	1,2-Dichloroethane	107062	0.38 (see Note 1)	0.5		5
6	1,1-Dichloroethylene	75354	0.057 (see Note 1)	0.11 (see Note 1)	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
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		1
17	Total Xylenes	1330207		5		5
18	Methyl Tertiary Butyl Ether (MTBE)	1634044		5		5
19	Total Petroleum Hydrocarbons (as Gasoline or as Diesel)			50		50
20	Ethylene Dibromide (1,2-Dibromoethane)	106934		0.05 (see Note 1)		5
21	Trichloro-trifluoroethane	76131		5		5
22	Total Chlorine Residual			0.0 (see Note 3)		0.0 (see Note 3)

Suggest adding Footnote [2] from Table F-5 (Pg. F-23) to clarify here when AMELs are applicable.

Notes:
1) If reported detection level is greater than effluent limit, then a non-detect result using a 0.5 ug/L detection level will not be deemed to be out of compliance.
2) 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).
3) There shall be no detectable levels of residual chlorine in the effluent (a non-detect result using a detection level equal or less than 0.08 milligram per liter will not be deemed to be out of compliance). This limit only applies to Dischargers that chlorinate their extracted groundwater.

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 (EPA-821-R-02-012 Test method 2019.0) of the discharge shall be not less than a three sample moving median of 90% survival and a single test value of not less than 70% survival.

B. Land Discharge Specifications. (Not applicable)

C. Reclamation Specifications – Water Reuse

1. Reuse Policy: The Regional 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 Regional Water Board to authorize the discharge of treated extracted groundwater in accordance with the requirements of this Order.

2. Reuse Allowed: This Order permits reuse or reclamation of extracted treated groundwater in conjunction with the discharge to surface water. 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.

Should this reference be "Section A - Effluent Limitations"?

3. Water Reclamation Specifications (water reuse only)
   a. Water reclaimed for beneficial reuse as applied shall meet the requirements in Section B- Effluent Limitations.
   b. 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.
   c. 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.
   d. Reclamation involving irrigation shall not occur when the ground is saturated.
   e. 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.
   f. 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.

g. 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.
h. There shall be no cross-connection between the potable water supply and piping containing treated groundwater intended for reuse.
i. Water reclamation consisting of recharge or reinjection is not authorized under this Order.

4. Reinjection Allowed: This Order permits reinjection if approved as part of a cleanup plan and documented in a cleanup order or equivalent document.

V. Receiving Water Limitations

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in surface receiving waters:

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;
   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

Since IBM discharges to Canoas Creek only when it cannot recharge the water, what does it mean for Canoas Creek when we may only discharge for a short time period that is not even once a month let alone 3? Please clarify how this would apply and how do we determine this?

For all inland surface waters:

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the diss oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the dis shall not cause further reduction in ambient dissolved oxy concentrations.

b. pH: The pH shall not be depressed below 6.5 nor raised above 8 caused to vary from normal ambient pH by more than 0.5

3. More Stringent Standards May Apply: The discharge shall not cause or contribute to a violation of any applicable water quality standard for rece waters adopted by the Regional Water Board or the State Water Board required by the Clean Water Act and regulations adopted there under. I stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

B. Groundwater Limitations

The discharge shall cause no violation of the Basin Plan water quality standards for receiving groundwaters.

VI. Provisions

A. Standard Provisions.

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

B. Monitoring and Reporting Program Requirements.

1. The Dischargers shall comply with the Monitoring and Reporting Program (MRP), and future revisions thereto, in Attachment E of this Order.

2. Dischargers authorized under this permit, especially the Dischargers with flow rate exceeding 10 gpm, may be required to comply with additional monitoring requirements. The Executive Officer will specify such additional monitoring requirements in the authorization letter. Examples of additional monitoring that could be required are listed below:
    a. Monitoring Required to Respond to a Complaint received about a Facility authorized to discharge under this permit,
    b. Storm Water Monitoring,
    c. Dioxins and Furans Monitoring,
    d. Regional Monitoring Program Monitoring,
    e. Additional Discharge Observations, and
    f. Additional Effluent and Amb

Since we already submitted our NOI, do the new NOI requirements result in our having to resubmit an NOI with the information now required that wasn't in our earlier NOI?

C. Special Provisions.

1. **Permit Reopener.** The Regional Water Board may modify or reopen this Order prior to its expiration date as authorized by law.

2. **Notice of Intent (NOI) or Modified NOI Application.** The NOI or Modified NOI application for each point of proposed discharge to a storm drain system shall contain the information required in the Notice of Intent Form as explained in Attachments B and C of this Order and as may be amended by the Executive Officer.

3. **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 shall document that:
    a. The proposed discharge results from the cleanup of groundwater polluted by VOC leaks and other related wastes;
    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.

4. **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. This discharge authorization may be terminated by the Executive Officer at any time.

5. **Non-Compliance Is A Violation.** Upon receipt of the Executive Officer's discharge authorization, the Discharger(s) shall comply with all applicable conditions and limitations of this Order and its Attachments. Any permit

noncompliance (violations of requiren
Program) constitutes a violation of the
Water Code and is grounds for enforc
termination, revocation and reissuanc

Shouldn't there be something here that tells dischargers when they need to analyze for these materials and when they don't? Especially if something is absent in the influent, do we need to analyze for that in the effluent?

6. **Triggers.** The following triggers are not effluent limitations, and must not be construed as such. Instead, they are levels above which additional investigation is required to determine further action. If any constituent in the discharge exceeds the corresponding trigger as listed in the Table 3 below, then the Discharger shall take three additional samples (three influent and three effluent) for each exceeded constituent during the following calendar quarter and conduct activities as required in Provisions VI.C.7 or VI.C.8. If this monitoring activity has alread
summarize the results including a
the previous exceedance, such as
operation of existing treatment un

Does this mean that the Cu Trigger Limits don't apply to a discharger if they don't directly discharge into SF Bay or could they still apply to dischargers whose discharge enters SF Bay after passing through creeks/ rivers e.g. Canoas and Guadalupe?

Table 3. Trig

Pollutant	Chemical Abstract Service (CAS) Number	Trigger (µg/L)
Antimony	7440360	6
Arsenic	7440382	10
Beryllium	7440417	4
Cadmium	7440439	1.1
Chromium (VI)	18540299	11[2]
Copper[3]	7440508	3.0
Copper[4]	7440508	4.7
Lead	7439921	3.2
Mercury	7439976	0.025
Nickel[3]	7440020	8.3
Nickel[4]	740020	19
Selenium	7782492	5
Silver	7440224	2.2
Thallium	7440280	1.7
Zinc	7440666	86
Cyanide	57125	2.9
2,3,7,8-TCDD	1746016	1.3E-08
Acrylonitrile	107131	0.059
Bromoform	75252	4.3
Chlorodibromomethane	124481	0.401
Dichlorobromomethane	75274	0.56
1,2-Dichloropropane	78875	0.52
1,3-Dichloropropylene	542756	0.5
1,1,2,2-Tetrachloroethane	79345	0.17
Pentachlorophenol	87865	0.28
2,4,6-Trichlorophenol	88062	2.1

Pollutant	Chemical Abstract Service (CAS) Number	Trigger (µg/L)
Benzidine	92875	0.00012
Benzo(a)anthracene	56553	0.0044
Benzo(a)pyrene	50328	0.0044
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	0.044
Dibenzo(a,h)anthracene	53703	0.0044
3,3'-Dichlorobenzidine	91941	0.04
2,4-Dinitrotoluene	121142	0.11
1,2-Diphenylhydrazine	122667	0.040
Hexachlorobenzene	118741	0.00075
Hexachlorobutadiene	87683	0.44
Hexachloroethane	67721	1.9
Indeno(1,2,3-c,d)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	50393	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	0.00010
PCBs, sum	1336363	0.00017
Toxaphene	8001352	0.0002
1,4-dioxane	123911	3
Turbidity	---	5
Odor-Threshold (Units)	---	3
TPHs (other than gasoline and diesel)	---	50[7]
Sulfate	---	250,000
Foaming agents	---	500
Color (units)	---	15

Notes:

[1] Criteria for metals based on a hardness value of 100 mg/L as $CaCO_3$. Criterion based upon the most stringent

Pollutant	Chemical Abstract Service (CAS) Number	Trigger (µg/L)

of the fresh and salt water, or human health criterion.
[2] If total chromium concentration exceeds 11 µg/L, then analysis for chromium(VI) shall also be conducted.
[3] Applicable to San Francisco Bay north of Hayward Shoals.
[4] Applicable to San Francisco Bay south of Hayward Shoals.
[5] California Department of Health Services Action Level for Drinking Water.
[6] USEPA National Recommended Ambient Water Quality Criterion.
[7] If a discharger is reporting monitoring data with a detection limit higher than 50 µg/L, the reason for the higher detection limit shall be fully explained within the monitoring report.

7. Triggers Case 1: If the results of all three additional effluent samples **do not** exceed the triggers, the Discharger shall report the results to the Executive Officer in the next Monitoring Report, and shall return to the schedule of sampling and analysis in the attached MRP (Attachment E).

8. Triggers Case 2: If the results of **any one of the three** additional effluent samples exceed the triggers, the Discharger shall investigate the source (e.g., comparing influent and effluent sample results), and investigate source control and/or treatment options for each triggered pollutant. The Discharger shall document its progress on these efforts in the annual monitoring reports submitted per Note 1 in Table E-3 of Attachment E. Until the Executive Officer determines that the "triggered pollutants" investigation is complete, the Discharger must implement the following monitoring schedule for the triggered pollutants:
   a. In case of a triggered inorganic pollutant; the Discharger shall accelerate monitoring of the effluent to quarterly and provide information, updated annually, confirming that pollutant source is background and explain the reasons why treatment of that pollutant is not a feasible, and
   b. In case of a triggered organic pollutant; the Discharger shall accelerate monitoring of the effluent to every two weeks and provide information, updated annually, confirming the reason(s) why that pollutant could not be treated to the level not exceeding the trigger for that pollutant.

9. The Executive Officer may require the Discharger to perform additional investigations or take additional actions if the Discharger: (1) exceeds a trigger value for the same pollutant and confirms (Trigger Case 2 above) the exceedance greater than two times in one calendar year; and (2) is not pursuing resolution of trigger exceedances in a timely fashion in the judgment of the Executive Officer. These two trigger exceedances do not include the data collected to verify the trigger (i.e., effluent data collected to confirm the trigger exceedance). These conditions are also grounds for permit or authorization termination.

10. Treatment System Modification Requirement for Existing Dischargers with Confirmed Detected 1,4-dioxane in the Effluent above the Trigger (3 ug/L): The Dischargers listed in Table 4 below shall modify their respective treatment facilities to remove 1,4-dioxane to the maximum extent practicable

no later than December 31, 2010. If the Discharger does not plan to modify its treatment facility, by December 31, 2009, it must submit a report acceptable to the Executive Officer explaining the reasons for not modifying the treatment system.

Table 4. Dischargers with 1,4-dioxane in the Effluent above the Trigger

Discharger's Name	Facility Address	CIWQS Place ID
Univar USA	2256 Junction Avenue, San Jose	202038
Bourns	1500 Space Park Drive, Santa Clara	201657
Hewlett-Packard	Building 15 at 3215 Porter Drive	202401
Hewlett-Packard	1501 Page Mill Road, Palo Alto	201661
Schlumberger Technology	313 Fairchild Drive, Mountain View	202372

11. **Individual NPDES Permit May Be Required.** The USEPA Administrator may request the Regional Water Board Executive Officer to require any Discharger authorized to discharge waste by the general permit to apply for and obtain an individual NPDES permit. The Executive Officer may require any Discharger authorized to discharge waste by a general permit to apply for and obtain an individual NPDES permit. 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 as authorized by 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; or
    d. A water quality control plan containing requirements applicable to such point sources is approved.

12. **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 the Regional Water Board for at least five years. Additional requirements for compliance with this provision are explained in Attachments B and C of the Order.

Suggest being more specific about which "tests" these are, analytical tests, treatment system tests, other tests?

13. **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 pre-empt 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.

VII. Compliance Determination

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

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data.

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

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

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

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

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

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Duly Authorized Representative is one whose:

a. Authorization is made in writing by a principal executive officer or ranking elected official;

b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general partner in a partnership, sole proprietor in a sole proprietorship, the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-

term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

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.

Field Blank is defined as an individual sample demonstrated to be free from the contaminants of interest and other potentially interfering substances, and treated as a sample in all respects, including exposure to grab-sampling site conditions, storage, preservation, and all analytical procedures. The purpose of the field blank is to determine if the field or sample transporting procedures and environments have contaminated the sample.

Flow Sample is defined as the accurate measurement of the average daily flow volume using a properly calibrated and maintained flow-measuring device.

Grab Sample is defined as an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with maximum daily limits and average monthly limits. Grab samples represent only the condition that exists at the time the wastewater is collected.

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

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

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the n/2 and n/2+1).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample

that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Ocean Waters are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Quality Assurance Officer is a qualified individual who was not otherwise involved in sample collection, transport, or analysis (please refer to the following web site for a more detailed description: http://www.waterboards.ca.gov/swamp/docs/swampqapp_template032404.doc) to investigate the cause of data error.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices,

and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ATTACHMENT B - NOTICE OF INTE ORM
To Receive
Authorization or Reauthorization to discharge and/or eated groundwater resulting from the cleanup of groundwater polluted b pounds under the requirements of NPDES Permit No. CAG9 Permit)

Difficult to tell Table 1 Items 1, 2, and 3 are part of the remaining numbering system. Suggest calling this portion 1 through 3 or renumber these

For Groundwater Treatment Facility located at:

Suggest rewording this to "...provide all Table 1 1.a, 1.b, and 1.c information...."

_____

Complete Facility Address

Table 1. Mark only one as applicable

1	For a New Discharge, please provide complete information on the following items:	
	a. Discharger's Certification	
	b. Administrative and Technical Information (Table Nos. 2, 3, 4, 5, 6, and 7)	
	c. Other Information including Item 13.a through 13.f and permit and Order number(s) if your discharge has been previously regulated	
2	For Modification of a current Notice of VOC General Permit Coverage: Except 13.f, please provide all 1.a, 1.b, and 1.c information specifically highlighting the requested modifications	
3	For an Existing Discharge (Permit Reissuance): Except 13.f, please provide all 1.a, 1.b, and 1.c information submitted 180 days before expiration date (no later than February 14, 2014).	
Applicable to all new and existing dischargers. Please mark the cell to the right that you have contacted the local sanitary sewer agency serving your facility and discharge to sanitary sewer is not an option.		
Applicable to all new and existing dischargers. Please mark the cell to the right that you have considered reuse of the effluent and in the row below provide reason(s) why partial or full reuse of the effluent is not an option.		

Discharger's Certification

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the design engineer whose signature and engineering license number is documented in this notice, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____ _____

Name (print) Signature and Date

_____ _____

Title/Organization Address

ADMINISTRATIVE AND TECHNICAL INFORMATION

Complete Table 2. Facility Information

1	Discharger's Name	
2	Name of Facility	
3	Facility Address	
4	Facility Contact and Title, Phone, and email address	
5	Consultant Name, Phone, and email address	
6	Authorized Person to Sign & Submit Reports Note: Perjury statement shall only be signed by the Discharger and/or its authorized representative	

7	Mailing Address and Contact Person Name, Phone, and email address	
8	Billing Address and Contact Person Name, Phone, and email address	
9	Type of site or project. For example: Solvent Spills/Leaks Active or Closed Groundwater Cleanup Sites, Short Term Dewatering Project, Long Term Dewatering Project, or other (please explain if "Other")	
10	Watershed	
11	Receiving Water Type	

Suggest adding the word "Condition" in front of each number since that is how these are referenced in Attachment C and will make these easier for a discharger to reference.

Suggest reference as (Section IV.A Effluent Limitations, Table 2, Column A of the Permit) and not reference pages since printers do not print the same

I understand that if the proposed discharge is eligible under the requirements of NPDES Permit No. CAG912003 (VOC General Permit) and if I meet the conditions described below, I will be authorized to discharge treated groundwater to surface waters from the above named facility.

1. Comply with all applicable requirements of th Reporting Program.
2. Ensure that the effluent does not contain const

Suggest reference as (Section IV.A Effluent Limitations, Table 2, Column B of the Permit) and not reference pages since printers do not print the same

Complete Table 3. Mark only one as applicable

1	Discharge to Drinking Water Areas (Column A, Table 2, Page 6 of the Permit)	
2	Discharge to Other Surface Water Areas (Column B, Table 2, Page 6 of the Permit)	

3. Provide a treatment system including the elements described in Table 4 below and the schematic shown in item 13.a, which will effectively treat the extracted groundwater to comply with the requirements of the permit.

Complete Table 4. Treatment System Description

	Unit	Number	Size, or capacity (e.g. pounds of GAC and/or air strippers), Further Description (If Applicable)
1	Extraction Well(s)		
2	Extraction Wells with Dedicated Treatment Unit(s)		
3	Dedicated Treatment Unit(s)		
4	Settling Tank(s) in series		
5	Settling Tank(s) in parallel		

6	Oil/Water Separator(s)		
7	Filter(s)		
8	Air Strippers with Air Filters		
9	Air Strippers without Air Filters		
10	Other Treatment Unit(s) installed for removing pollutants such as 1,4-dioxane		
11	Advanced Treatment Unit(s)		
12	Liquid-phase Granular Activated Carbon (GAC) vessel(s) in series		
13	GAC vessel(s) in parallel		
14	Effluent reuse Infrastructure (If so, provide additional detail)		
15	Chemical Additives		If applicable, please attach Material Safety Data Sheet (MSDS) as item 13.e

4. Retain, at all times, a professional engineer (PE) certified in the State of California to oversee the design, and proper operation and maintenance of the treatment system, including all facilities necessary to achieve compliance with the Order. The PE shall certify the adequacy of each component of the proposed treatment system and shall ensure compliance with the Order (the PE shall affix his/her signature and engineering license number to this certification report as item 13.b). Further, the PE shall certify that:

   a. All treatment facility startup and operation instruction manuals are adequate and available to operating personnel.

   b. Adequate treatment facility maintenance and testing schedules are included in the treatment facility O&M Manual.

   c. Influent and effluent sampling locations or ports are located in areas where samples representative of the waste stream to be monitored can be obtained.

   d. The residual concentration of any chemical additive or additives used in the treatment process is designed to be zero and will never exceed the No Adverse Effect Concentration (NOEC) as documented in the ecological section of the applicable Material Safety Data Sheet (MSDS). A copy of the MSDS for every chemical used is provided as item 13.e.

   e. If any chemical used in the treatment process may cause pH variances in the effluent, the frequency of pH monitoring in the effluent will be increased as explained in the Legends for Table E.2 of Attachment E to the permit (Monitoring and Reporting Program).

Complete Table 5. Professional Engineer(s) and Other Information

1	Design Professional Engineer's Name, California License Number, address, phone number,	

	and email address	
2	Operation and Maintenance Professional Engineer's Name, California License Number, address, phone number, and email address	

5. Comply with the authorized maximum discharge flow rate from the groundwater treatment system, which is _____ gallons per minute (gpm). The groundwater treatment system's capacity is designed for _____ gpm.

6. Ensure that treated water is discharged (e.g. through a storm drain) only to the receiving water(s) described in Table 6 below and shown on the aerial map attached as item 13.c.

Complete Table 6. Discharge Location

Discharge Point Location	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
Storm-Drain Location:			Storm-Drain
Outfall Location:			

7. Maintain a copy of the Order, a complete copy of this Notice of Intent documentation and its approved Notice of general Permit Coverage, a full copy of the O&M Manual, and any other related documents recommended by the PE at the treatment facility. These documents shall be made available to Regional Water Board staff during inspections.

8. Upload Self-Monitoring Reports on Geo-Tracker on a quarterly calendar basis, no later than 45 days after the last day of each calendar quarter. The report shall consist of a cover letter documenting number of violations occurred during the quarter and a brief description of the operation and maintenance of the groundwater extraction and treatment system. A summary of quality assurance/quality control data such as field, trip, and laboratory blank results shall be reported for each analyzed constituent or group of constituents. The laboratory data sheets need not be included in the monitoring reports unless requested. However, each monitoring report shall include a table summarizing the laboratory results with the following information:

   a. The sample location (e.g. influent, effluent, and receiving water);

   b. The constituents analyzed;

   c. The analytical methods used;

   d. The laboratory reporting limits in micrograms per liter (ug/l);

e. The sample results (ug/l); the date sampled; and the date samples were analyzed.

9. Upload on Geo-Tracker an annual report by February 15 of each year covering the previous calendar year. You may submit the Annual Report in lieu of the 4th quarterly report of a calendar year. In the cover letter to your Annual Report, document that the annual fee (currently $6, 970) has been paid.

10. For new discharges, submit a Check for $6,970 or most current fee amount, payable to State Water Resources Control Board.

11. As item 13.d of this application, list all pollutants of concern name and concentrations in influent or projected influent and effluent including the data suggested in Table 7. For new discharges, you may use monitoring data from the groundwater extraction wells to estimate the concentration of pollutants of concern in the influent. Please do not include any laboratory reports unless requested.

Table 7. Suggested format for listing pollutants in two tables for existing discharges (one table for influent and one table for effluent)

Monitoring data since effective date of the initial discharge authorization letter or estimated from groundwater monitoring data for new discharges	Pollutant 1	Pollutant 2	Pollutant 3	Add Columns and/or tables as needed (all detected pollutants with effluent limitations and all triggered pollutants exceeding the triggers shall be listed in this table)
Number of Samples				
Maximum Concentration				
Average Concentration (average of detected pollutants only)				
Number of times the effluent limitation was exceeded				
Median Concentration				
Minimum Concentration				
Number of Non-Detects				
Lowest Reporting Limit				
Highest Reporting Limit				

Monitoring data since effective date of the initial discharge authorization letter or estimated from groundwater monitoring data for new discharges	Pollutant 1	Pollutant 2	Pollutant 3	Add Columns and/or tables as needed (all detected pollutants with effluent limitations and all triggered pollutants exceeding the triggers shall be listed in this table)
Number of Samples with Lowest Reporting Limit				
Most recent sample Date, Method Number				

12. Include any other relevant information about this project that may be necessary to evaluate the eligibility of this discharge under the Order in 13.e below. An existing discharger, who is applying for permit reissuance, shall also provide the following information:

    a. The Reason(s) why reclamation or discharge to POTW is not feasible, and

    b. Total volume of the effluent reused and/or discharged and total grams of pollutants removed during 2009-2013 period).

13. **Please upload this NOI form and all the applicable following items 13 a through 13.f to Geo-Tracker (you may contact Lourdes Gonzales at (510) 622-2365 or lgonzales@waterboards.ca.gov if you have any questions).** If you have no access to computers or internet, please submit the NOI package to California Regional Water Quality Control Board, San Francisco Bay Region, located at 1515 Clay Street, Suite 1400, Oakland, California 94612:
    a. Flow Schematics (shall include every components of the treatment system)
    b. Engineering Certification Report
    c. Aerial Map (highlight the discharge path)
    d. More Tables listing Pollutants of Concern at this Site (e.g. Tables 7.a, 7.b, etc)
    e. Other Information (If applicable)
    f. Check for $6,970 (applicable only to new dischargers)

Note: The Regional Water Board may modify this form at any time to reflect any new fees and other needed improvements as applicable.
File No: 1210.48

ATTACHMENT C - INSTRUCTIONS FOR COMPLETING NOTICE OF INTENT FORM
To Receive
Authorization or Reauthorization to discharge and/or reuse extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds under the requirements of NPDES Permit No. CAG912003 (VOC General Permit)

Facility Address: Please include zip code and County of the facility address.

Table 1. Mark only one as applicable

1	For a New Discharge, please provide complete information on the following items:	This is applicable if discharging to sanitary sewer is not an option. Please contact the local sanitary sewer agency serving your facility before completing this form. All applicants shall also consider reuse of the effluent Please also contact the local agencies having jurisdiction over the use of the storm drain system or watercourse and inform them about your proposed discharge. Any Notice of General Permit Coverage granted by the Regional Water Board does not preempt the authority of local agencies such as flood protection agencies. This Notice of General Permit Coverage is conditional and may be terminated for cause at any time.
	a. Discharger's Certification	
	b. Administrative and Technical Information (Table Nos. 2, 3, 4, 5, 6, and 7)	
	c. Other Information including Item 13.a through 13.f and permit and Order number(s) if your discharge has been previously regulated	
2	For Modification of a current Notice of VOC General Permit Coverage: Except 13.f, please provide all 1.a, 1.b, and 1.c information specifically highlighting the requested modifications	Please complete applicable sections in this Form that pertain to your request of change
3	For an Existing Discharge (Permit Reissuance): Except 13.f, please provide all 1.a, 1.b, and 1.c information submitted 180 days before expiration date (no later than February 14, 2014).	Please submit a completed NOI no later than February 14, 2014, if you need to discharge after August 13, 2014. Please submit a completed Notice of termination if you no longer need the

Suggest rewording this to "...provide all Table 1 1.a, 1.b, and 1.c information...."

Suggest rewording this to "...provide all Table 1 1.a, 1.b, and 1.c information...."

		permit coverage.
Applicable to all new and existing dischargers. Please mark the cell to the right that you have contacted the local sanitary sewer agency serving your facility and discharge to sanitary sewer is not an option.		Table 1 of Attachment B
Applicable to all new and existing dischargers. Please mark the cell to the right that you have considered reuse of the effluent and in the row below provide reason(s) why partial or full reuse of the effluent is not an option.		Table 1 of Attachment B

Discharger's Certification

An appropriate corporate officer, general partner, principal executive officer, or ranking elected official of the Discharger's organization shall sign this document. In no case shall the consultant sign this certification unless the consultant is also a Discharger.

PLEASE COMPLETE ALL TABLES IN THE FORM

Administrative Information

Complete Table 2. Facility Information

1	Discharger's Name	
2	Name of Facility	Please use the Facility address as the name of the Facility and then add the name that Discharger prefers. For example: 1234 Main Street, San Jose, Nonochipco, Inc.
3	Facility Address	
4	Facility Contact and Title, Phone, and email address	
5	Consultant Name, Phone, and email address	
6	Authorized Person to Sign & Submit Reports Note: Perjury statement shall only be signed by the Discharger and/or its authorized representative	
7	Mailing Address and Contact Person Name, Phone, and email address	
8	Billing Address and Contact Person Name, Phone, and email address	
9	Type of site or project	For example: Computer-Related Active or Closed Groundwater Cleanup Site or Active or Closed Dry Cleaning Groundwater Cleanup Site, Short Term Dewatering Project, Long Term Dewatering Project, or other (please explain if "Other")
10	Watershed	If you do not know, you may check web sites such as "San Francisco Bay Area Creek & Watershed Finder", at http://www.museumca.org/creeks/resc.html.
11	Receiving Water Type	Please list the complete path of the Discharge. For example, the Discharge would travel about 0.1 mile

		inside a storm drain system before reaching a creek (provide the name of the creek), and then would travel 0.5 mile in the creek before reaching a river (provide the name of the river) and then would travel two miles in the river before reaching the bay

1. Condition No. 1 – The permit requires compliance with all its provisions and requirements.

2. Condition No. 2 – Please note that pursuant to Water Code Section 13385(h) and (i), a mandatory minimum penalty of $3,000 shall be assessed for certain effluent limitations and other violations (you may review the Water Code Section 13385(h) and (i) at http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=wat&codebody=&hits=20 for further detail).

3. Condition No. 3 – Please provide complete and full description of the treatment system in Table 4.

4. Condition No. 4 – Table No. 5 - The permit requires a professional engineer (PE) certified in the State of California to oversee the design, and proper operation and maintenance of the treatment system. The PE shall certify the adequacy of each component of the proposed treatment system. The PE shall also fully explain in the PE certification other relevant information such as the reason(s) if any chemical additive or additives are needed to be used in the treatment system, method of application, and method of disposal. Please note that the PE has the authority to reject usage of any chemical, which has an inadequate MSDS or may cause an adverse effect on most sensitive residents of the receiving water.

5. Condition No. 5 – The Notice of General Permit Coverage specifies the maximum discharge flow rate that you are authorized to discharge to surface water. You must file an amended Notice of Intent [illegible]cation, or maximum flow rate of the [illegible]equency, volume, and maximum flow [illegible]

Suggest changing wording to make this reference easier to locate: "... compliance with Permit Section IV.C.6 - Triggers." as there is no Provision E.6

6. Condition No. 6 – Table 6 - The discharge path shall be highlighted from the facility to the final receiving water. Some of this information may be obtained from the municipalities.

7. Condition No. 7 – All documents needed by your technicians to properly operate or maintain the treatment facility shall be at or near the facility.

8. Condition No. 8 – Reports that are late by 30 days or more are subject to mandatory minimum penalties. The minimum that must be assessed is $3,000 for each 30-day period for which a report is late.

9. Condition No. 9 – The Annual Report shall contain all data required for annual reporting such as tasks completed for compliance with the trigger Provision E.6.

10. Condition No. 10 – Please submit applicable fee with your NOI application form (applicable only to a new discharge). Your application for a new Discharge is not complete without submitting the applicable fee.

11. Condition 11 (applicable to new discharges) - No application will be considered complete without complete delineation of pollutants of concern. The NOI shall include analytical results, including the date the samples were taken, for influent (except for mercury, this may be a weighted average of individual extraction wells for non-operating facilities) and effluent (not required for proposed discharges with no prior operating experience). In case of detecting mercury in any well in excess of 0.025 microgram per liter, the Discharger shall install a dedicated treatment unit for that well and check with Regional Water Board staff if an application for an individual NPDES permit shall be submitted. All chemical analyses shall be performed by a certified laboratory using the most updated USEPA Methods or their equivalents.

12. Condition 12. Other information such as vicinity to a highly polluted site shall be provided. For example, if this is a dewatering project of a site adjacent to a site with documented groundwater pollution, then the information about how the PE in charge of this dewatering project will manage the risk of moving the contaminated groundwater plume from that site into the treatment facility. If you are applying for permit reissuance, please also explain the reason(s) why reclamation or discharge to POTW is not feasible and total volume of the effluent discharged and total grams of pollutants removed during the 2009-2014 period.

13. Condition 13. All items 13.a through 13.f are mandatory.

Please e-mail Lourdes Gonzales, current NPDES staff, at lgonzales@waterboards.ca.gov to confirm that you have uploaded the completed NOI form and all its attachments on Geo-Tracker. New Dischargers may obtain access rights to Geo-Tracker at http://www.waterboards.ca.gov/ust/cleanup/electronic_reporting/index.html

Note: The Regional Water Board may modify this form at any time to reflect any new fees and other needed improvements as applicable.
File No: 1210.48

ATTACHMENT D –STANDARD PROVISIONS

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ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

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

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR § 122.41(i); Wat. Code, § 13383):

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

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

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

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

G. Bypass

1. Definitions

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

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

2. Bypass of uncontaminated extracted groundwater. During a dewatering project, the Discharger may allow any bypass of uncontaminated extracted groundwater to occur which originates from uncontaminated extraction well(s). The Discharger shall monitor the water quality of these extractions wells to confirm that the extracted water remains uncontaminated.

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

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

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

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

4. The Regional Water Board may not take enforcement action against a Discharger for bypass, if the Regional Water Board determines that the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above have been met. (40 CFR § 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass of uncontaminated extracted groundwater. If the Discharger knows in advance of the need for a bypass of uncontaminated extracted groundwater, it shall submit the necessary information in the initial or modified Notice of Intent, if possible at least 45 days before the date of the bypass. The necessary information includes but not limited to the name and number of extraction wells, flow rates for each well, the distance to other contaminated wells, and monitoring data such as turbidity, color, conductivity, pH, temperature, metals, TPH, VOC, SVOC, PAHs, Oxygenates.

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

H. Upset

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

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

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

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

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must submit a completed Notice of Intent form (see Attachment B), 180 days in advance of the Order expiration date, **to** obtain a new permit. (40 CFR § 122.41(b).)

C. Transfers

Any authorization to discharge issued under this Order is not transferable to any person except after filing a modified Notice of Intent with the Regional Water Board. If the new Discharger has a different professional engineer, the modified Notice of Intent shall be revised accordingly.

Add 40 CFR

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under Part 136 or other test procedures specified in this Order. (40 CFR § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time (40 CFR § 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

Add California Water Code (CWC)

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

B. Signatory and Certification Requirements

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

2. All permit applications shall be signed by a responsible person as explained below:

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

    b. **For a partnership or sole proprietorship.** All permit applications shall be signed by a general partner or the proprietor, respectively. (40 CFR § 122.22(a)(2).)

    c. **For a municipality, State, federal, or other public agency.** All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a

principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR § 122.22(a)(3).).

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

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

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

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

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

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

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (40 CFR § 122.41(l)(4)(i).) or paper or electronic forms provided or specified by the Regional Water Board or State Water Board.

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

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

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

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

F. Planned Changes

The discharger shall 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. A modified Notice of Intent is required under this provision only when (40 CFR § 122.41(l)(1)) the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged (pollutants regulated or not regulated by this Order).

G. Anticipated Noncompliance

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

H. Other Noncompliance

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

I. Other Information

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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List of Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. Reporting responsibilities of waste Dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the California Water Code and this Regional Water Board's Resolution No. 73-16 and the Environmental Protection Agency's Discharge Monitoring Report (Form 3320-1).

B. The principal purposes of a monitoring program by a waste Discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by the Regional Water Board, (2) to facilitate self-policing by the waste Discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

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

D. Monthly discharge flow volume shall be recorded, as well as totalized quarterly and annual flow.

E. A tabulation reflecting bypassing and accidental waste spills shall be maintained.

F. A copy of this Order, a complete copy of the Notice of Intent filed, documentation of the authorization to discharge received from the Regional Water Board, a full copy of the O&M Manual, and any other documents relevant to the operation and maintenance of the treatment facility shall be stored at or near the treatment facility. These documents help the Dischargers' staff responsible for compliance assurance activities and shall be made available to Regional Water Board staff during inspections. The Dischargers' staff responsible for compliance assurance activities shall inspect the Facility as frequent as required by the O&M Manual. No O&M Manual shall be submitted to the Regional Water Board office, unless requested.

II. MONITORING LOCATIONS

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

Table E.1 - Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
--	INF-001	At a point in the extraction system immediately prior to inflow to the treatment unit.
	EFF-001	At a point in the discharge line immediately following treatment and before it joins or is diluted by any other waste stream, body of water, or substance.
	RSW-001U	At a point 50 feet upstream from the point of discharge into the receiving water, or if access is limited, at the first point upstream which is accessible.
	RSW-001D	At a point 50 feet downstream from the point of discharge into the receiving water, or if access is limited, at the first point downstream which is accessible.
	REU-001	At a point immediately prior to reuse location. Not Applicable if reused reclaimed water is the same as effluent or reclamation is in place.

III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Table E-2 and no Influent samples shall include any treatment system recirculation.

IV. EFFLUENT MONITORING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Table E-2 in accordance with the following conditions:

A. Samples of effluent shall be collected on days coincident with influent sampling.

B. When any type of bypass occurs, grab samples shall be collected on a daily basis for all constituents at all affected discharge points that have effluent limits for the duration of the bypass.

C. If the analytical results show violation of any effluent limit (Effluent Limitation, Table 2), the Discharger shall take a confirmation effluent sample, together with receiving water samples (see Table E.2 and VIII.A) within 24 hours of knowledge of violation of effluent limit. The Discharger must have the confirmation sample analyzed by expedited methods and obtain results within 24 hours of sample

collection. If the analytical results are also in violation of the effluent limit, the Discharger shall terminate the discharge until it has corrected the cause of violation. In this case, both the initial and confirmed results are violations. However, if the confirmation effluent sampling shows compliance, we will consider only the initial exceedance as a violation.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Table E-2 in accordance with the following conditions:

A. Fish bioassay samples shall be collected on days coincident with effluent sampling.

B. Rainbow trout test fish in 96-hour static renewal bioassays (EPA-821-R-02-012 Test method 2019.0) tests should be performed on effluent samples after chlorination-dechlorination.

C. Total ammonia nitrogen of the effluent shall be analyzed and un-ionized ammonia calculated whenever fish bioassay test results fail to meet the specified percent survival.

D. If the final or intermediate results of any single bioassay test indicate a threatened violation (i.e. the percentage of surviving test organisms is less than the required survival percentage), a new test will begin and the Discharger shall investigate the cause of the mortalities and report the finding in the next self-monitoring report.

TABLE E.2 - Schedule for Sampling, Measurements, and Analysis

Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001 or Effluent for Reuse REU-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, SM, USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	**Grab**	**Grab**	**Grab**	
Discharge Flow (gpm & gpd)		Continuous		
Reclamation Flow Rate (gpm & gpd or gallons reclaimed during the calendar quarter if reclamation is not continuous)		Continuous		
Fish Toxicity, 96-hr (% survival)		Q/Y		EPA-821-R-02-012 Test, Method 2019.0
All Applicable Standard Observations		M	V	
Volatile Organic Compounds		D/M	V	8260b
1,4-Dioxane (See Footnotes 1 and 3)		2/Y		8270c
Semi Volatile Organic Compounds except PAHs (See Note 2)		D/Y		8270c
Antimony Total (See Note 2)		3Y		204.2
Arsenic Total (See Note 2)		3Y		206.3

Note 2 appears to be related to only metals and does not appear to be related to PAHs?

Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001 or Effluent for Reuse REU-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, SM, USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	**Grab**	**Grab**	**Grab**	
Beryllium Total (See Note 2)		3Y		GFAA or ICPMS
Cadmium Total (See Note 2)		3Y		GFAA or ICPMS
Chromium Hexavalent and Total Chromium (See Note 2)		3Y		Standard Method (SM) 3500
Copper Total (See Note 2)		3Y		200.9
Cyanide Total (See Note 2)		3Y		SM 4500-CN^- C or I
Lead Total (See Note 2)		3Y		200.9
Mercury Total (See Note 2)		3Y		1631
Nickel Total (See Note 2)		3Y		249.2
Selenium Total (See Note 2)		3Y		SM 3114B or C
Silver Total (See Note 2)		3Y		272.2
Thallium Total (See Note 2)		3Y		279.2
Zinc Total (See Note 2)		3Y		200 or 289
Turbidity		D/Q/Y		
pH	D/M/Q/Y	D/M/Q/Y	V	
Dissolved Oxygen (mg/L)			V	
Total Dissolved Solids (mg/L) (construction and dewatering projects)		D/M		
Temperature (ºC)	D	D/M/Q/Y		
Electrical Conductivity	D	D/M/Q/Y		
Hardness (mg/L as $CaCO_3$)			T	SM
Salinity (parts per thousand)			T	SM
Ethylene Dibromide (EDB) (See Footnote 1)	Y	2/Y	V	504
Benzene, Toluene, Ethylbenzene, and/or Total Xylenes (See Footnote 1)	D/Q	D/M	V	8020
Methyl Tertiary Butyl Ether (MTBE) (See Footnote 1)	D/Q	D/M	V	8020
Total Petroleum Hydrocarbons as Gasoline (See Footnote 1)	D/Q	D/M	V	8015 Modified
Total Petroleum Hydrocarbons as Diesel (See Footnote 1)	D/Q	D/M	V	8015 Modified
Total Petroleum Hydrocarbons other than Gasoline and Diesel (required if Petroleum Hydrocarbons other than Gasoline and Diesel present in the soil and groundwater) (See Footnote 1)	D/Q	D/M	V	8015 Modified
Polynuclear Aromatic Hydrocarbons (PAHs) (See Footnote 1)	Q	Q	V	8310
Tertiary Amyl Methyl Ether (TAME), DiIsopropyl Ether (DIPE), Ethyl Tertiary Butyl Ether (ETBE), Tertiary Butyl Alcohol (TBA), Ethanol, and/or Methanol (See Footnote 1)	Y	Y		

Notes for Table E2-
Note 1: if known to be present in the influent
Note 2: Inorganic compounds samples shall be analyzed for total (unfiltered) constituents with the reporting levels not exceeding the following: 0.002 ug/l for Mercury; 0.25 ug/l for Cadmium and Silver; 1 ug/l for Nickel, Thallium, and Zinc; 2.0 ug/l for Arsenic and Selenium; 1 ug/l for Cyanide; and 0.5 ug/l for Antimony, Beryllium, Total Chromium, Copper, and Lead (SIP Appendix 4 Minimum Levels http://www.waterboards.ca.gov/iswp/docs/final.pdf). If the Discharger exceeds the trigger for mercury of 0.025, the Discharger may consider re-sampling and re-analyzing another sample using ultra-clean techniques as described in USEPA methods 1669 and 1631 to eliminate the possibility of artifactual contamination of the sample.
Note 3: Use techniques such selective ion mode or isotope dilution to achieve reporting levels below 3 ug/l.
Definitions: ug/L = microgram per liter or parts per billion (ppb), g/day = grams per day, gpm = gallons per minute, mg/L = milligram per liter or parts per million (ppm), gpd = gallons per day, MFL = million fibers per liter
GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; Hydride = Gaseous Hydride Atomic Absorption; ICP = Inductively Coupled Plasma; and ICPMS = Inductively Coupled Plasma/Mass Spectrometry.
Legends
D Once during the first and fifth day of start up.
M Once each month.
Y Once during the first week of start up; annually thereafter.
2/Y Once during the first week of start up; twice per year thereafter.
3Y Once during the first week of start up; every three years thereafter.
D/M Once during the first and fifth day of start up; monthly thereafter.
D/Q Once during the first and fifth day of start up; quarterly thereafter.
D/Y Once during the first and fifth day of start up; annually thereafter.
Q/Y Quarterly for first year of operation, annually thereafter.
D/Q/Y Once during the first and fifth day of start up; quarterly for first year of operation, annually thereafter.
D/M/Q/Y Once during the first and fifth day of start up; monthly for first year of operation, quarterly for the second year, and annually thereafter. In case of pH analysis, this monitoring requirement is only for facilities with a treatment process that would cause no pH variances in the effluent. If any chemical used in the treatment process may cause pH variances in the effluent, the frequency of pH monitoring in the effluent shall be increased to twice per week for the first month of operation and weekly thereafter if pH monitoring data for the first month of operation demonstrate compliance with pH effluent limits.
V Receiving Waters sampling must be performed together (on the same calendar day) with the required effluent confirmation sampling that is required when a violation of an effluent limit is known, and the sample analyzed for that specific violated parameter and the Dissolved Oxygen level. In no case, should a Discharger continue discharging in known violation of effluent limits just to comply with this receiving water sampling requirement.
T Sampling shall be performed when Cadmium, Chromium (total), Copper, Lead, Nickel, Silver, or Zinc triggers are exceeded.

VI. LAND DISCHARGE MONITORING REQUIREMENTS. (NOT APPLICABLE)

VII. RECLAMATION MONITORING REQUIREMENTS

The same as effluent and see section IX-E.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

The Discharger is required to perform sampling and analyses according to the schedule in Table E-2 in accordance with the following conditions:

A. Receiving Waters sampling shall be performed together (on the same calendar day) with the required effluent confirmation sampling.

B. Receiving water samples shall be collected at each station on each sampling day during the period within 1 hour following low slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period. Samples shall be collected within the discharge plume and 50 feet down current of the discharge point so as to be representative, unless otherwise stipulated.

The normally low flow in Canoas may not allow us to meet the 1 foot requirement.

C. Samples should be collected at least below the surface of the receiving water body. Explanation shall be provided in the monitoring report if this specification could not be met.

IX. OTHER MONITORING REQUIREMENTS

A. Start Up Phase Monitoring. During the original start up for the treatment system, sampling of the effluent must occur on the first day and fifth day of operation.

1. On the first day of the original start up, the system shall be allowed to run until at least three to five well volumes are removed and until three consecutive readings for pH, conductivity, and temperature are within five percent of each other; then, the influent and effluent shall be sampled and submitted for analyses. Prior to receipt of the results of the initial samples, all effluent shall be discharged into a holding tank (that is contained, not discharged to the receiving water) or discharged to the sanitary sewer until the results of the analyses show the discharge to be within the effluent limits established in this Order and/or as authorized by the Executive Officer. The treatment system may be shut down after the first day's sampling to await the analyses results and, thereby, reduce the amount of storage needed. For the stored effluent, if the results of the analyses show the discharge to be in violation, the effluent shall: (1) be retreated until the retreated effluent is in compliance, or (2) be disposed in accord with the applicable provisions of California Code of Regulations.

2. If the first day's sampling shows compliance, the treatment system shall be operated for a total of five days with the discharge to the storm sewer or other conveyance system leading to the receiving water, and be sampled again during the fifth day. While the fifth day's samples are being analyzed, the effluent may be discharged to the receiving water as long as the analyses are received within 72 hours of sampling, and then, continue to be discharged to the receiving water if the analyses show compliance. If the treatment system is shut down more than 72 hours during the original start up (awaiting analyses results, etc.), the original start up procedures and sampling must be repeated.

B. Chemical Additives Monitoring: If applicable, monitoring related to chemical usage shall be conducted by the Discharger as required in its treatment system design specification and Operation and Maintenance Manual.

C. Standard Observations for Receiving Water

1. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

2. Discoloration and turbidity: description of color, source, and size of

affected area.

3. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
4. Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site.
5. Hydrographic condition, if relevant:
    a. Time and height of corrected high and low tides (corrected to nearest National Oceanic and Atmospheric Administration (also known as NOAA) location for the sampling date and time of sample and collection).
    b. Depth of water columns and sampling depths.
6. Weather condition:
    a. Air temperature.
    b. Wind direction and estimated velocity.
    c. Total precipitation during the previous five days and on the day of observation.

E. Standard Observations for Onsite Usage of Reclaimed Water

1. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
2. Discoloration and turbidity: description of color, source, and size of affected area.
3. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
4. Weather condition:
    a. Air temperature.
    b. Wind direction and estimated velocity.
    c. Total precipitation during the previous five days and on the day of observation.
5. Deposits, discolorations, and/or plugging in the conveyance system that could adversely affect the system reliability and performance.
6. Operation of the valves, outlets, sprinkler heads, and/or pressure shutoff valves in conveyance system.

F. Standard Observations for Groundwater Treatment System

1. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
2. Weather condition: wind direction and estimated velocity.
3. Deposits, discolorations, and/or plugging in the treatment system (stripping tower, carbon filters, etc.) that could adversely affect the system reliability and performance.
4. Operation of the float and/or pressure shutoff valves installed to prevent system overflow or bypass.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

Please see Standard Provisions in Attachment D at Sections III and V.

B. Self Monitoring Reports (SMRs)

1. The Dischargers shall submit quarterly SMRs, uploaded on GeoTracker (http://www.geotracker.swrcb.ca.gov), no later than 45 days after end of each calendar quarter, including the results of all required monitoring. Annual Reports shall also be uploaded on GeoTracker by February 15 of each year, covering the previous calendar year. The annual report shall contain all data required for the fourth quarter in addition to summary data required for annual reporting. This report may be submitted in lieu of the report for the fourth quarter of a calendar year. The Dischargers shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. If there has been no discharge during the entire reporting period, quarterly and annual reports must still be submitted to report that has been the case.

2. The Discharger shall upload SMRs on GeoTracker in accordance with the following requirements:

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

b. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with the effluent limitations. The Discharger shall include no laboratory reports unless requested.

c. Monitoring reports must be submitted to the Regional Water Board signed, and certified as required by the Standard Provisions (Attachment D) to the address listed below:

California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Attn: NPDES Wastewater Division
VOC General NPDES NO. CAG912003

d. The monitoring reports shall also include a description of operation and maintenance (O&M) of the groundwater extraction and treatment system consistent with the O&M manual, which shall be available to all personnel who are responsible for operation and maintenance activities.

e. The monitoring reports shall include the results of analyses and observations as follows:

esults are required, but the actual lab ed? Suggest rewording to "Laboratory marized in tabular form but actual not need to be included in the report."

Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

A table identifying by method number the analytical procedures used for analyses. Any special methods shall be identified and should have prior approval of the Regional Water Board's Executive Officer.

3) Laboratory results shall be summarized in tabular form but do not need to be included in the report. A summary of quality assurance/quality control activities data such as field, travel, and laboratory blanks shall be reported for each analyzed constituent or group of constituents.
4) A summary of the monitoring data to include information such as source of the sample (influent, effluent, or receiving water); the constituents; the methods of analysis used; the laboratory reporting limits in ug/l; the sample results (ug/l); the date sampled; and the date sample was analyzed.
5) Flow (in gpm) and mass removal data (in kilograms).
6) Summary of treatment system status during the reporting period (e.g. in operation/on standby) and reason(s) for non-routine treatment system shut down.
7) The annual reports shall contain tabular summary of the monitoring data obtained during the previous year. In addition, the annual reports shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the waste discharge requirements including any trigger study required by Special Provision VI.C.6 and the progress in satisfaction of Special Provisions VI.C.7 and VI.C.8 of this Order. The annual report shall document that the annual fee has been paid.
8) If, during any calendar quarter, a Discharger becomes aware that any monitoring data obtained for compliance with this Order may be invalid, the Discharger shall submit a claim of invalid monitoring data, as uploaded on GeoTracker with a confirmation email to the Regional Water Board staff in charge of this permit, within 45 days after end of that calendar quarter. The Discharger shall include with this

claim, the name, phone number, and email of its assigned staff to investigate the cause(s) of errors and the corrective actions taken, or date when actions will be completed to eliminate or reduce future data errors. The Discharger shall also provide, in this claim, a date that the Operation and Maintenance Manual will be updated to include errors prevention measures. These preventive measures shall include but not be limited to accelerated monitoring (e.g. twice a month monitoring for at least one month) to provide valid monitoring data indicating the effectiveness of the proposed preventive measures.

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

Table E.3 - Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	**Effective start up date**	**All**	**See Note 1**
Daily	**Effective start up date**	**(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.**	**See Note 1**
Weekly	**Effective start up date**	**Effective start up day through one week after Effective start up date**	**See Note 1**
Monthly	**First day of calendar month following the last day of the start up date**	**1st day of calendar month through last day of calendar month**	**See Note 1**
Quarterly	**Closest of January 1, April 1, July 1, or October 1 following (or on) the last day of the start up date**	**January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31**	**See Note 1**
Semiannually	**Closest of January 1 or July 1 following (or on) the last day of the start up date**	**January 1 through June 30 July 1 through December 31**	**See Note 1**
Annually	**January 1 following (or on) the last day of the start up date**	**January 1 through December 31**	**See Note 1**

Note 1: A report on the start up phase shall be submitted to the Regional Water Board by uploading it on GeoTracker no more than fifteen (15) days after the end of the start up phase. Quarterly Self-Monitoring Reports shall also be submitted the Regional Water Board by uploading it on GeoTracker on a quarterly calendar basis, no later than forty five (45) days following the last day of the quarter. Annual Reports shall be uploaded on GeoTracker by February 15 of each year, covering the previous calendar year. The annual report shall contain all data required for the fourth quarter in addition to summary data required for annual reporting. This report may be submitted in lieu of the report for the fourth quarter of a calendar year.

Insert "40 CFR"

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

f. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

g. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. At any time during the term of this permit, the State or Regional Water Board may notify the Dischargers to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site, and will also provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Dischargers shall upload an electronic copy of the SMR on GeoTracker.

C. Discharge Monitoring Reports (DMRs) Not Applicable

D. Other Reports

1. Start-up Report: A report on the start up phase shall be included in the first quarterly monitoring report uploaded on GeoTracker. This report shall

include a certification that a professional engineer certified in the State of California oversees the treatment system operation and maintenance activities including the start up work.

2. Spill Reports: If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged in or on any waters of the state, the Discharger shall report such a discharge to this Regional Water Board, at (510) 622-2369 and to the Office of Emergency Services at (800) 852-7550 within 24 hours of becoming aware of the spill. A written report shall be uploaded on GeoTracker, with an confirmation email to staff, within five (5) working days and shall contain information relative to:
   a. Nature of waste or pollutant,
   b. Quantity involved,
   c. Duration of incident,
   d. Cause of spilling,
   e. Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any,
   f. Estimated size of affected area,
   g. Nature of effects (i.e., fish kill, discoloration of receiving water, etc.),
   h. Corrective measures that have been taken or planned, and a schedule of these activities, and
   i. Persons/agencies notified.

3. Reports of Treatment Unit Bypass and Permit Violation: In the event the Discharger violates or threatens to violate the conditions of the waste discharge requirements and prohibitions or intends to permit a treatment unit bypass due to:
   a. Maintenance work, power failures, or breakdown of waste treatment equipment,
   b. Accidents caused by human error or negligence,
   c. The self-monitoring program results exceeding effluent limitations,
   d. Any activity that would result in a frequent or routine discharge of any toxic pollutant not limited by this Order, or
   e. Other causes, such as acts of nature.

   The Discharger shall notify the Regional Water Board within 24 hours of when the Discharger or Discharger's agent has knowledge of the incident and confirm this notification in writing and uploaded on GeoTracker with a confirmation email to Regional Water Board staff, within 5 working days of the initial notification. The written report shall include time, date, duration and estimated volume of waste bypassed, method used in estimating volume and person notified of the incident. The report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

If a violation of the effluent limitations should occur, the Discharger shall direct the effluent to a holding tank and contained, or the extraction and treatment system shall be shut down. The confirmation sampling shall be conducted when the discharge is directed to a holding tank and contained or right before the extraction and treatment system is shut down. The content of the holding tank shall be retreated until the retreated effluent is in compliance, be discharged to a publicly owned treatment works (POTW), or be disposed in accord with the provisions of applicable California Code of Regulations. The Discharger shall obtain permission from the POTW for any temporary or permanent discharges to the sanitary sewer.

ATTACHMENT F – FACT SHEET
FOR ORDER NO. R2-2009-00XX
NPDES NO. CAG912003

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List of Tables

ATTACHMENT F – FACT SHEET

This Order is intended to cover discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds (VOC).

This Fact Sheet includes the legal basis and technical rationale for the requirements of the Order. This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Except identified as "not applicable", all sections or subsections are applicable to the discharges regulated under this permit.

In 1994, the Regional Water Board issued a National Pollutant Discharge Elimination System (NPDES) General Permit for allowing the discharge of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds. The permit was reissued twice in 1999 and 2004.

The 2004 permit expires on July 21, 2009, and needed to be reissued because within the next five years, approximately 100 VOC contaminated sites will be conducting cleanup, particularly in Santa Clara County, by extracting contaminated groundwater, treating, and discharging treated groundwater. Because some Publicly Owned Treatment Works (POTWs) do not accept new discharges from groundwater cleanups, at least 60 of these sites will require Waste Discharge Requirements from the Regional Water Board for discharge to surface water. These cleanups will exceed the capacity of available staff to develop and bring individual waste discharge requirements to the Regional Water Board for adoption. These circumstances create the need for an expedited system to process the anticipated numerous requests. The renewal of the VOC general NPDES permit will expedite the processing of requirements, enable the Regional Water Board to better utilize limited staff resources, and permit cleanups to begin promptly.

The following VOC-cleanup discharges are normally not eligible for coverage: discharges from cleanups involving significant contamination by metals, pesticides, or other conservative pollutants and discharges from sites with other NPDES discharges (e.g. process waste). A VOC-cleanup discharger that combines extracted groundwater with stormwater before treatment is normally not eligible for coverage under this Order because amount of rainwater varies and may exceed the treatment system capacity.

I. PERMIT INFORMATION

The following Table (Table F-1) and paragraphs summarize administrative information related to the facilities. As applicable, Table F-1 provides cross-

references to the specific sections of the Notice of Intent (NOI) Form, in Attachment B, that each Discharger enrolled under this Order must initially complete and submit as part of the NOI.

Table F-1. Facility Information

California Integrated Water Quality System (CIWQS) Regulatory measure and Place ID	A CIWQS Place ID and Regulatory measure identification number will be assigned to a facility when the Executive Officer issues the authorization to discharge
Discharger	Row 1 of Table 2 of NOI Form in Attachment B
Name of Facility	Row 2 of Table 2 of NOI Form in Attachment B
Facility Address	Row 3 of Table 2 of NOI Form in Attachment B
Facility Contact, Title, Phone, and email address	Row 4 of Table 2 of NOI Form in Attachment B
Consultant Name, Phone, and email address	Row 5 of Table 2 of NOI Form in Attachment B
Authorized Person to Sign and Submit Reports	Row 6 of Table 2 of NOI Form in Attachment B
Mailing Address and Contact Person Name, Phone, and email address	Row 7 of Table 2 of NOI Form in Attachment B
Billing Address and Contact Person Name, Phone, and email address	Row 8 of Table 2 of NOI Form in Attachment B
Type of Facility	Row 9 of Table 2 of NOI Form in Attachment B
Major or Minor Facility	Minor
Threat to Water Quality	Category 2 (based on three categories 1, 2, and 3)
Complexity	Category B (based on three categories A, B, and C)
Pretreatment Program	Not Applicable
Reclamation Requirements	Producer (See Row 14 of Table 4 of NOI in Attachment B)
Facility Permitted Flow	Condition 4 of NOI Form in Attachment B (in gallons per minute (gpm))
Facility Design Flow	Condition 4 of NOI Form in the Attachment B (in gpm)
Watershed	Row 10 of Table 2 of NOI Form in the Attachment B
Receiving Water Type	Row 11 of Table 2 of NOI Form in the Attachment B

A. Site Owners or Operators who will apply for an authorization to discharge under this Order and who may be granted such authorization are hereinafter called Discharger(s). The groundwater treatment facility is considered the Facility regulated under this Order (hereinafter Facility). For the purposes of this Order, references to the "Discharger(s)" or "permittee(s)" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger(s) herein.

B. The Facilities regulated under the previous general NPDES permit, Order No. R2-2004-0055, discharge wastewater to multiple receiving waters of the State and/or the United States, mainly in Santa Clara County. Order No. R2-2004-0055, which was adopted on July 21, 2004, expires on July 21, 2009. The terms and conditions of the previous Order were automatically continued in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order. During the term of Order No. R2-2004-0055, 84 facilities were authorized to discharge treated groundwater to the receiving water documented in the NOI submitted for each discharge. Out of 84 facilities, 24 completed groundwater cleanup or changed to different cleanup methods that obviate the need to discharge any treated groundwater.

C. As of January 2009, 56 Dischargers had filed a report of waste discharge by submitting an NOI application to continue their discharge authorization under this General Waste Discharge Requirements (GWDRs), NPDES permit. In the process of reviewing and approving NOIs, supplemental information may be requested from a subset of these facilities. It may also be necessary to visit facilities for which an NOI has been submitted, to observe operations and collect additional data to determine the eligibility of authorizing those discharges under this Order. This Order requires the Dischargers to submit monitoring data per Attachment E. A few Dischargers authorized under this Order may be required to apply for an individual NPDES permit if monitoring data indicate significant contamination by metals, pesticides, or other conservative pollutants.

II. FACILITY DESCRIPTION

The facilities that may be covered under this Order are groundwater treatment facilities located at active or closed sites with solvent leaks. These groundwater treatment facilities are in operation to extract and treat groundwater polluted mainly by volatile organic compounds leaks. This Order covers discharges from these facilities to all surface waters such as creeks, streams, rivers including flood control canals, lakes, or the Bay. Such discharges may occur directly to surface waters or through constructed storm drain systems.

A. Description of Wastewater Treatment

Dischargers authorized under this general permit typically use aeration and/or granular activated carbon (GAC) systems to treat their groundwater prior to discharge. Facilities that use other types of treatment systems that are effective at removal of volatile organic pollutants may be covered by this Order subject to the approval of the Executive Officer. The most common pollutants contained in the influent of these treatment systems are Tetrachloroethylene and Trichloroethylene. Other volatile or semi volatile organic compounds may also be present in the influent of a subset of facilities regulated under this permit.

Except for some inorganic compounds and some other organic compounds such as 1,4 Dioxane, the concentrations of organic pollutants in the effluents of the discharges are usually below detectable levels. The reported detection limit for most volatile organic compounds (VOCs) is 0.5 microgram per liter (ug/l); and the reported detection limits for semi volatile organic compounds are typically 5.0 or 10.0 ug/l. The Dischargers reported discharge flow rates ranging from 10 gpm to 605 gpm with an average flow rate of approximately 121 gpm and a median flow rate of 100 gpm.

B. Discharge Points and Receiving Waters

Condition No. 6 of the NOI Form (Attachment B) requires the Discharger to provide discharge location and a map highlighting the discharge path.

C. Summary of Existing Requirements

With three exceptions, the effluent limitations contained in the previous permit have been continued into this Order as summarized in Table F-4. These exceptions are: (1) MTBE limit lowered from 13 ug/l to 5 ug/l, (2) and Vinyl Chloride limit lowered from 5 ug/l to 1 ug/l, and (3) a new total chlorine residual effluent limit of 0.0 ug/L. These changes are further explained in the later sections of this fact sheet.

D. Compliance Summary

On average, Dischargers reported 85% of the effluent monitoring data were non-detect. The remaining 15% were reported as detected effluent monitoring data. Of these, not all are in violation of effluent limitations as some may be due to false positive analytical results or detected but not exceeding the effluent limits. Regional Water Board enforcement staff is continuing to review these data to determine which are violations of the previous permit and will initiate enforcement as appropriate in the near future.

This Order requires that the Discharger timely investigate future potential false positive incidents and report on such investigations to the Regional Water Board (X.B.2.e.8 in Attachment E).

E. Planned Changes

As required in Attachment D, a Discharger authorized under this Order shall submit a modified NOI before making any material change in the character, location, or volume of the discharge.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260). 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). 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. This general permit meets the requirements of 40 CFR 122.28 because the discharges and prop

Insert ") "

1. result from similar operations (all involve extraction, treatment, and discharge of groundwater),
2. are the same types of waste (all are groundwater containing VOC and other related wastes due to leaks and spills,
3. 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),
4. require similar monitoring, and
5. are more appropriately regulated under a general permit rather than individual permits.

B. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

C. State and Federal Regulations, Policies, and Plans

a. **Water Quality Control Plans.**

The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required.

The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan may not specifically identify beneficial uses for every Receiving Water regulated under this permit, but identifies present and potential uses for the downstream water body, to which the Receiving Water, via an Intermediate water body, is tributary. These potential and existing beneficial uses are: 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 for surface waters and municipal and domestic supply, industrial service supply, industrial process supply, agricultural supply, and freshwater replenishment for groundwaters. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Requirements of this Order implement the Basin Plan.

b. **Thermal Plan.**
The Regional Water Board has included this Plan in Page 3-4 of the Basin Plan.

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

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

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

Insert "40 CFR"

f. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16. Discharges regulated by this Order should not lower water quality if the terms and conditions of this Order are met. Therefore the permitted discharges are consistent with the antidegradation provision of 40 CFR Section 131.12 and State Water Board Resolution No. 68-16.

g. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-

backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

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

On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State (hereinafter referred to as the 303(d) list). The SIP requires final effluent limitations for all 303(d)-listed pollutants to be based on total maximum daily loads and associated waste load allocations.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

The specific factors affecting the development of limitations and requirements in this Order are discussed in the following sections.

A. Discharge Prohibitions

Exception to Basin Plan Prohibition

The Basin Plan allows for the shallow water discharges permitted under this Order only if the discharges meet one of the exceptions to the Basin Plan's discharge prohibitions (see below for more detail). To comply with the exception, this Order requires the Dischargers to document (in the NOI application) that neither

reclamation nor discharge to a POTW is technically and economically feasible and the discharge of inadequately treated waste will be reliably prevented.

Basin Plan Discharge Prohibition: The discharge prohibitions listed in Table 4-1 of the Basin are applicable to all aquatic systems throughout the region. However, the Basin Plan, Section 4.2, provides exceptions to these prohibitions if:

- A discharge is approved as part of a reclamation project; or
- It can be demonstrated that net environmental benefits will be derived as a result of the discharge; or
- A discharge is approved as part of a groundwater clean-up project, and in accordance with Resolution No. 88-160 "Regional Water Board Position on the Disposal of Extracted Groundwater from Groundwater Clean-up Projects," and 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 recognizes the resource value of extracted and treated groundwater and urges its utilization for the highest beneficial use for which applicable water quality standards can be achieved.

Prohibition III.A, no unauthorized discharge of extracted and treated groundwater, is the same as in the previous permit and is based on CWC Section 13260, which requires filing of a report of waste discharge (ROWD) before discharges can occur. Moreover, the Basin Plan prohibits discharges to shallow water unless an exception is met as detailed in the subsection above. Therefore, any discharge without an acceptable ROWD must be prohibited.

Prohibition III.B, no discharge other than treated groundwater is based on the fact that the requirements were developed for discharges of treated groundwater from VOC groundwater contaminated sites so only discharges associated with this type of activity can be permitted under this Order.

Prohibition III.C, no discharge of extracted and treated groundwater in excess of the authorized flow rate, is based on the same rationale documented for Prohibition III.A. The Dischargers submitted a ROWD for the discharges which included a treatment facility designed for a specific [illegible] by a professional engineer certified in the State of California. Therefore flow rates exceeding the designed/authorized flow rates are prohibited.

Insert "the"

Prohibition III.D, no scouring or erosion, due to discharge of extracted and treated groundwater, is based on Basin Plan (page 132) goal of reducing and preventing (human-caused) erosion.

Prohibition III.E, no pollution, contamination, or nuisance, is based on the Basin Plan (page 9).

Prohibition III.F, no bypass or overflow of untreated or partially treated polluted groundwater, is based on 40 CFR 122.41(m)(ii)(4).

Insert "(TBELs)"

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

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

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

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

Define BPJ, i.e. Best Professional Judgement?

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

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

2. Applicable Technology-Based Effluent Limitations

Regional Water Board staff used BPJ in developing technology-based effluent limitations in this Order. BPJ is defined as the highest quality technical opinion developed by a 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 CWA section 402(a)(1).

In the treatment systems regulated by this permit, organic compounds, including volatile organic compounds (VOCs) and petroleum compounds, are removed

from contaminated groundwater using such technologies as air stripping and activated carbon. Treated groundwater is then discharged to surface waters. When properly designed and operated, these treatment systems can lower the concentration of such pollutants to levels below analytical detection limits.

USEPA, Region 9 issued a document titled *NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document* (USEPA, 1986) in which USEPA concluded that the cost of reducin[illegible]ost organic compounds commonly detected in contami[illegible] a non-detect concentration of 5 µg/L, and to a non-detect [illegible]yl chloride of 1 µg/L, is considered economically achie[illegible]

Insert "for discharges to non-drinking water areas"

Based on an understanding that available treatment technologies can economically remove organic pollutants from contaminated groundwater to non-detect concentrations, using BPJ, Regional Water Board staff have established technology based limitations at 5.0 µg/L for benzene, carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, ethylbenzene, methylene chloride, tetrachloroethylene, and total xylenes, and at 1.0 µg/L for vinyl chloride.

Although the reporting limit for many organic pollutants is presently lower than 5 µg/L, which was achievable in 1986, USEPA has not updated its original guidance document to reflect currently achievable detection limits. The technology-based effluent limitations established by this permit are therefore consistent with the USEPA's 1986 guidance.

Because commingled plumes, where groundwater is contaminated with VOCs and fuel-leak contaminants, are common, petroleum-based compounds and fuel additives are often found at VOC contaminated sites. The General Permit therefore retains technology based effluent limitations for total petroleum hydrocarbons (TPH), ethylene dibromide, and methyl tertiary butyl ether (MTBE) from the previous permit. Limitations for TPH, and MTBE are, respectively, 50 and 5 µg/L, which reflect a level of treated wastewater quality that is economically achievable by the treatment technologies contemplated by the General Permit. Effluent limitations for MTBE were previously established at 5 µg/L for discharges to a surface water that is a source of drinking water, and at 13 µg/L for discharges to surface waters that are not a drinking water supply. This Order establishes a 5 µg/L limitation for MTBE in all circumstances, as effluent monitoring data show available treatment technology can consistently remove MTBE to that concentration.

Because a number of facilities covered under the General Permit are former semiconductor manufacturing operations, which used Freon in a manufacturing process and have detected concentrations of this compound in contaminated groundwater, this Order retains the effluent limitation from the previous permit for trichlorotrifluoroethane (Freon 113) The effluent limitation of 5 µg/L reflects a

level of treated wastewater quality that is economically achievable by the treatment technologies contemplated by the General Permit.

Effluent data collected during the term of the previous permit shows that 1,4-dioxane is being discharged at levels exceeding the 3 ug/L trigger level from five existing Dischargers. One of the Dischargers provided information that advanced oxidation techniques are available to treat 1,4-dioxane in the influent. A new provision (Provision VI.C.10) has been added to this permit, which requires these Dischargers to modify their treatment facilities for 1,4-dioxane removal or submit a report explaining the reasons for not modifying their treatment systems.

Effluent trigger data collected during the term of the previous permit shows bromoform and chlorodibromomethane detected at levels above non-detect concentrations. However, no TBELs are established for these pollutants because the detected values were false positives or infrequently detected in the effluent. For example, one Discharger, Department of the Navy (Navy), reported 52 non-detect bromoform influent monitoring data, and only one out of 52 detected bromoform effluent monitoring data. Upon the Navy detecting bromoform in the effluent , the Navy conducted accelerated monitoring and found no bromoform in the three additional influent or three additional effluent samples. The Navy concluded that the initial detection was a false positive.

Table F-2, below, summarizes the technology-based effluent limitations established by the General Permit.

Table F-2. Summary of Technology-Based Effluent Limitations

No.	Compound	Limitations Established by BPJ	
		USEPA	RWB
1	Benzene	5	---
2	Carbon Tetrachloride	5	---
3	Chloroform	5	---
4	1,1-Dichloroethane	5	---
5	1,2-Dichloroethane	5	---
6	1,1-Dichloroethylene	5	---
7	Ethylbenzene	5	---
8	Methylene Chloride	5	---
9	Tetrachloroethylene	5	---
10	Toluene	5	---
11	Cis-1,2-Dichloroethylene	5	---
12	Trans-1,2-Dichloroethylene	5	---
13	1,1,1-Trichloroethane	5	---
14	1,1,2-Trichloroethane	5	---
15	Trichloroethylene	5	---

16	Vinyl Chloride	1	---
17	Total Xylenes	5	---
18	Methyl Tertiary Butyl Ether (MTBE)	5	5
19	Total Petroleum Hydrocarbons (TPH)	---	50
20	Ethylene Dibromide (1,2-Dibromoethane)	---	5
21	Trichlorotrifluoroethane	---	5

C. Water Quality-Based Effluent Limitations (WQBELs)

WQBELs have been derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law. The procedures for calculating individual WQBELs are based on the SIP, which was approved by USEPA prior to May 1, 2001, or Basin Plan provisions approved by USEPA on May 29, 2000. Most beneficial uses and WQOs contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 20, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than the applicable WQS for purposes of the CWA.

1. Scope and Authority

a. 40 CFR 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants (including toxicity) that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a WQS, including numeric and narrative objectives within a standard. As specified in 40 CFR 122.44(d)(1)(i), permits are required to include WQBELs for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric WQC, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

The process for determining "reasonable potential" and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water specified in the Basin Plan, and achieve applicable WQOs/WQC that are contained in other State plans and policies, and applicable WQC contained in the CTR and NTR.

b. NPDES regulations and the SIP provide the basis to establish Maximum Daily Effluent Limitations (MDELs).

(1) NPDES Regulations. NPDES regulations at 40 CFR Part 122.45(d) state: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall *unless impracticable* be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works."

(2) SIP. The SIP (Section 1.4) requires WQBELs be expressed as MDELs and average monthly effluent limitations (AMELs).

c. MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The WQC applicable to the receiving waters for these discharges are from the Basin Plan; the California Toxics Rule (CTR), established by USEPA at 40 CFR 131.38; and the National Toxics Rule (NTR), established by USEPA at 40 CFR 131.36. Some pollutants have WQC established by more than one of these three sources.

a. Basin Plan. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in fresh and marine water, lead, mercury, nickel, silver, zinc, and cyanide.

The narrative toxicity objective states, in part, that "[a]ll waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states in part that "[c]ontrollable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered."

The Basin Plan also contains a narrative objective for surface waters designated for use as a domestic or municipal supply (MUN) which states that these surface waters shall not contain concentrations of constituents

in excess of the maximum contaminant levels (MCLs) or secondary MCLs specified in Title 22 of the California Code of Regulations. Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

b. CTR. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to all inland surface waters and enclosed bays and estuaries of the San Francisco Bay Region, although Tables 3-3 and 3-4 of the Basin Plan include numeric objectives for certain of these priority toxic pollutants, which supersede criteria of the CTR (except in the South Bay south of the Dumbarton Bridge).

Define "RPA"

Human health criteria are further identified as “water and organisms” and “organisms only.” The CTR criteria applicable to “water and organisms” are applied in the RPA for discharges to receiving waters with a MUN designation, and criteria applicable to “organisms only” were used in the RPA for discharges to receiving waters that are not MUN-designated.

c. NTR. The NTR establishes numeric aquatic life criteria for selenium and numeric “organisms only” human health criteria for 33 toxic pollutants for waters of San Francisco Bay upstream to, and including Suisun Bay and the San Joaquin-Sacramento River Delta.

d. Narrative Objectives for Water Quality-Based Toxics Control. Where numeric objectives have not been established or updated in the Basin Plan, NPDES regulations at 40 CFR Part 122.44(d) require that WQBELs be established based on USEPA criteria, supplemented where necessary by other relevant information, to attain and maintain narrative WQOs to fully protect designated beneficial uses.

To determine the need for and establish WQBELs, when necessary, the Regional Water Board staff has followed the requirements of applicable NPDES regulations, including 40 CFR Parts 122 and 131, as well as guidance and requirements established by the Basin Plan; USEPA’s *Technical Support Document for Water Quality-Based Toxics Control* (the TSD, EPA/505/2-90-001, 1991); and the SIP.

e. Basin Plan Receiving Water Salinity Policy. The Basin Plan and the CTR state that the salinity characteristics (i.e., freshwater versus saltwater) of the receiving water shall be considered in determining the applicable WQC. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one part per thousand (ppt) at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally influenced freshwaters that

support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria (the latter calculated based on ambient hardness) for each substance.

Receiving waters considered by for this permit are the San Francisco Bay and other estuarine and tidally influences waters, and inland freshwaters. The RPA therefore separately considered criteria that were applicable to receiving waters with a MUN designation and to receiving waters that are not MUN-designated. Aquatic life criteria were based on the most stringent of the fresh and salt water criteria, to be fully protective of all receiving waters.

f. Receiving Water Hardness. Ambient hardness values are used to calculate freshwater WQOs that are hardness dependent. In determining the WQOs for this Order, Regional Water Board staff used a hardness value of 100 mg/L as $CaCO_3$, which is a conservative value and generally protective of aquatic life in all circumstances contemplated by the General Permit.

g. Site-Specific Translators (SSTs). 40 CFR 122.45(c) requires that effluent limitations for metals be expressed as total recoverable metal. Since applicable WQC for metals are typically expressed as dissolved metal, factors or translators must be used to convert metal concentrations from dissolved to total recoverable and vice versa. The CTR includes default conversion factors that are used in NPDES permitting activities; however, site-specific conditions, such as water temperature, pH, suspended solids, and organic carbon, greatly impact the form of metal (filterable or non-filterable) that can is present in the water and therefore available to cause toxicity. In general, the dissolved form (filterable) form of the metal is more available and more toxic to aquatic life than the non-filterable forms. SSTs can be developed to account for site-specific conditions, thereby preventing exceedingly stringent or under-protective WQOs.

Receiving waters for discharges from the facilities covered under the General Permit are varied, and therefore site specific conditions are varied. In determining the need for and calculating WQBELs for all metals, the Regional Water Board staff has used default translators established by the USEPA in the CTR at 40 CFR 131.38 (b) (2), Table 2 to be protective in all circumstances.

3. Determining the Need for WQBELs

Assessing whether a pollutant has Reasonable Potential is the fundamental step in determining whether or not a WQBEL is required. Using the methods prescribed in section 1.3 of the SIP, Regional Water Board staff analyzed the effluent data to determine if the discharge demonstrates Reasonable

Potential. The Reasonable Potential Analysis (RPA) compares the effluent data with numeric and narrative WQOs in the Basin Plan, the NTR, and the CTR.

a. Reasonable Potential Methodology. The RPA identifies the observed maximum effluent concentration (MEC) in the effluent for each pollutant based on effluent concentration data. There are three triggers in determining Reasonable Potential according to Section 1.3 of the SIP.

(1) The first trigger (Trigger 1) is activated if the MEC is greater than or equal to the lowest applicable WQO (MEC $\geq$ WQO), which has been adjusted, if appropriate, for pH, hardness, and translator data. If the MEC is greater than or equal to the adjusted WQO, then that pollutant has Reasonable Potential, and a WQBEL is required.

(2) The second trigger (Trigger 2) is activated if the observed maximum ambient background concentration (B) is greater than the adjusted WQO (B > WQO), and the pollutant is detected in any of the effluent samples (MEC > ND).

(3) The third trigger (Trigger 3) is activated if a review of other information determines that a WQBEL is required to protect beneficial uses, even though both MEC and B are less than the WQO/WQC.

b. Effluent Data. Each discharger currently covered under the General Permit was required to conduct effluent monitoring pursuant to the Self-Monitoring Program for Order No. R2-2004-0055. Regional Water Board staff analyzed effluent quality data from 46 facilities in "summaries" Bay Region collected from 2004 to 2008 to determine if the discharges have Reasonable Potential. These 46 facilities submitted their application and summary of their 2004 to 2008 monitoring data on time and no later than January 21, 2009. Monitoring data ~~summary~~ submitted after January 21, 2009, were not included in this analysis.

c. Reasonable Potential Determination. The MECs and the most stringent applicable WQC used in the RPA are presented in Table F-3, along with the RPA results (yes or no) for each pollutant. Reasonable potential was not determined for all pollutants because there are not available WQC for all pollutants, or monitoring data was not available for others. Only the pollutants with monitoring data above non-detect concentrations are summarized in the table below.

The pollutants that demonstrate reasonable potential by Trigger 1 are antimony, chromium (VI), copper, nickel, selenium, and cyanide.

Regional Water Board staff has also determined that reasonable potential exists to exceed water quality objectives, by Trigger 3, for the organic

pollutants that have been identified as pollutants that are commonly present in VOC contaminated groundwater (i.e., those pollutants for which technology-based limitations have been established.) As these technology-based effluent limitations are achievable dependent on the proper design and operation of treatment systems, there is reasonable potential for excursions above applicable water quality criteria for these pollutants if the system is not designed or operated correctly.

Total residual chlorine is also identified as a pollutant with reasonable potential to exceed the Basin Plan narrative toxicity objective, as determined by Trigger 3. Regional Water Board staff have identified that chlorine may be used in conjunction with air stripping and/or activated carbon treatment systems to control biological growth, and therefore reasonable potential exists for total residual chlorine for those facilities that use it.

Table F-3. Summary of RPA Results

CTR #	Priority Pollutants	MEC or Minimum DL [1][2] (µg/L)	Governing Applicable Criteria (µg/L)				RPA Results [3]
			Aquatic Life	Human Health			
			(Most stringent of salt and fresh water)	CTR Water + Organisms	Basin Plan Title 22 MCLs	CTR Organisms Only	
1	**Antimony**	**17**	**---**	**14**	**6**	**4300**	**Yes**
2	Arsenic	18	36	---	---	---	No
3	Beryllium	0.00053	---	---	4	---	No
4	Cadmium	0.36	1.1	---	---	---	No
5a	Chromium (III)	NA	207		50		Ud
5b	**Chromium (VI)**	**14**	**11**	**---**	**---**	**---**	**Yes**
6	**Copper**	**24**	4.7[4]	---	1000	---	**Yes**
	Copper	**24**	3.0[5]	---	1000	---	**Yes**
7	Lead	1.9	3.2	---	---	---	No
8	Mercury (303d listed)	0.00082	0.025	0.050	2	0.051	No
9	**Nickel**	**48**	**19[6]**	**610**	**100**	**4600**	**Yes**
	Nickel	**48**	**8[7]**	**610**	**100**	**4600**	**Yes**
10	**Selenium (303d listed)**	**25**	5.0	---	---	---	**Yes**
11	Silver	<0.25	2.2	---	---	---	No
12	Thallium	1.3	---	1.7	2	6.3	No
13	Zinc	58	86		5000		No
14	**Cyanide**	**30**	**2.9[8]**	**700**	**150**		**Yes**
19	**Benzene**	**1.2**	**---**	**1.2**	**1**	**71**	**Yes**
26	**Chloroform**	**7.1**	**---**	**No Criteria**			**Yes**
28	**1,1-Dichloroethane**	**4.1**	**---**	**---**	**5**	**---**	**Yes**
29	**1,2-Dichloroethane**	**0.6**	**---**	**0.38**	**0.5**	**99**	**Yes**
30	**1,1-Dichloroethylene**	**5.7**	**---**	**0.057**	**6**	**3.2**	**Yes**
33	**Ethylbenzene**	**<0.5**	**---**	**3100**	**300**	**29,000**	**Yes**
36	**Methylene Chloride**	**23**	**---**	**4.7**	**5**	**1600**	**Yes**
38	**Tetrachloroethylene**	**25**	**---**	**0.8**	**5**	**8.85**	**Yes**
39	**Toluene**	**0.88**	**---**	**6800**	**150**	**200,000**	**Yes**

CTR #	Priority Pollutants	MEC or Minimum DL [1][2] (µg/L)	Governing Applicable Criteria (µg/L)				RPA Results [3]
			Aquatic Life	Human Health			
			(Most stringent of salt and fresh water)	CTR Water + Organisms	Basin Plan Title 22 MCLs	CTR Organisms Only	
---	**1,2-Cis-Dichloroethylene**	**20**	**---**		**6**		**Yes**
40	**1,2-Trans-Dichloroethylene**	**4.2**	**---**	**700**	**10**	**140,000**	**Yes**
41	**1,1,1-Trichloroethane**	**15**	**---**	**---**	**200**	**---**	**Yes**
42	**1,1,2-Trichloroethane**	**0.5**	**---**	**0.60**	**5**	**42**	**Yes**
43	**Trichloroethylene**	**460**	**---**	**2.7**	**5**	**81**	**Yes**
44	**Vinyl Chloride**	**66**	**---**	**2**	**0.5**	**525**	**Yes**
70	Butylbenzyl Phthalate	22	**---**	3000	---	5200	No
---	**Total Xylenes**	**3**	**---**	**---**	**1750**	---	**Yes**
---	**Methyl Tertiary Butyl Ether (MTBE)**	**<0.5**	**---**	**---**	**13**	**---**	**Yes**
---	Total Petroleum Hydrocarbons	930	No Criteria				Ud
---	**Ethylene Dibromide**	**<0.05**	**---**	**---**	**0.05**	**---**	**Yes**
---	**Trichlorotrifluoroethane**	**5.4**	**---**	**---**	**1200**	**---**	**Yes**
---	**Total Residual Chlorine[9]**	**NA**	**---**	**---**	**---**	**---**	**Yes**

[1] The Maximum Effluent Concentration (MEC) and maximum background concentration are the actual detected concentrations unless preceded by a "<" sign, in which case the value shown is the minimum detection level (DL).

[2] The MEC or maximum background concentration is "Not Available" (NA) when there are no monitoring data for the constituent.

[3] RPA Results = Yes, if MEC > WQO/WQC, B > WQO/WQC and MEC is detected, or Trigger 3;
= No, if MEC and B are < WQO/WQC or all effluent data are undetected;
= Undetermined (Ud), if no criteria have been promulgated or there are insufficient data.

[4] Criterion based on the Basin Plan marine SSO for copper, and the site-specific translator (0.53) for the South Bay.

[5] Criterion based on the Basin Plan marine SSO for copper, and the default CTR conversion factor for copper (0.83).

[6] Criterion based on the Basin Plan marine SSO, and the site-specific translator (0.44) for nickel for the South Bay.

[7] Criterion based on the Basin Plan criterion for nickel, and the default CTR conversion factor for nickel (0.99).

[8] Criterion based on the Basin Plan marine SSO for cyanide.

[9] Total Residual Chlorine: The water quality objective applicable to total residual chlorine is the Basin Plan narrative objective for toxicity which states "[a]ll waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms."

(1) Constituents with Limited Data. In some cases, Reasonable Potential cannot be determined because applicable water quality criteria have not been promulgated.

(2) Pollutants with No Reasonable Potential. Some organic and inorganic compounds, other than the pollutants identified having reasonable potential in Table F-3, above, may be detected in the effluent of some treatment systems. While this General Permit does not establish effluent limitations for these compounds (summarized as "Trigger Pollutants"), Dischargers are required to monitor for these constituents in the effluent using analytical methods that provide the

best feasible detection limits, and following the procedures outlined in Provision VI. C. 6 of the Order.

4. WQBEL Calculations

a. Pollutants with Reasonable Potential. WQBELs were developed for the toxic and priority pollutants that were determined to have reasonable potential to cause or contribute to exceedances of the WQOs or WQC. The WQBELs were calculated based on appropriate WQC and the appropriate procedures specified in Section 1.4 of the SIP. The WQOs or WQC used for each pollutant with reasonable potential are discussed below.

Some inorganic compounds such as antimony, chromium (VI), copper, lead, nickel, selenium, and cyanide (hereinafter called inorganic compounds) are found to have reasonable potential to be present above the criteria in some of the VOC-cleanup discharges, primarily due to background concentrations in the shallow groundwater being cleaned up. The discharge volume and effluent concentrations of inorganic compounds discharges from facilities regulated by this permit are low. In the Regional Water Board staff's judgment, the Bay-wide loading of inorganic compounds from VOC cleanup discharges -- representing a very small portion of total inorganic compounds loadings from sources within the Region (including municipal and industrial point-source discharges and stormwater discharges) -- will cause no impairment of potential exceedances of inorganic compounds object waters. Facilities where inorganic compounds have ac groundwater are not eligible for coverage under this O reason, no effluent limitations are established for the a compounds. Instead, the Dischargers with the above c pollutants with concentrations exceeding the most stringent water quality criteria, shall comply with the Special Study Provisions VI.C.6 through VI.C.9 of the Order.

Confusing w/Reference to Order or Permit as nothing noted about a provision called "Special Study Provision" in the Order at VI.C.6 - VI.C.9

b. Shallow/Deep Water Discharge. The Basin Plan defines a deep water discharge as a discharge through an outfall equipped with a diffuser that achieves a minimum initial dilution of 10:1. Because the General Permit authorizes discharges to many types of receiving waters, dischargers covered under the General Permit are classified by Regional Water Board staff as shallow water discharges, so that the General Permit is protective under all circumstances.

c. Dilution Credit. The General Permit assumes minimal dilution is available for discharges which it authorizes and therefore no dilution credit is granted in calculating WQBELs.

d. Development of WQBELs for Specific Pollutants. To develop WQBELs for pollutants that demonstrate reasonable potential based on CTR criteria, the average monthly effluent limitation (AMEL) is established as the most stringent WQC because the WQC are based on applicable human health criteria. To calculate the maximum daily effluent limitation (MDEL), the AMEL is multiplied by a MDEL/AMEL multiplier of 2.01, which assumes a coefficient of variation (CV) of effluent data of 0.60.

For pollutants based on Title 22 MCLs, the maximum daily effluent limitations are set equal to the MCL, because the MCLs are levels that shall not be exceeded in the receiving water, and no credit for dilution is granted.

WQBELs for total residual chlorine are based in Table 4-2 of the Basin Plan.

For the CTR metals, although reasonable potential exists for a number of metals, final WQBELs are not being established at this time. These inorganic pollutants are sometimes [Insert "a"] of treated groundwater primarily due to background concentrations of the groundwater itself, and not due to contamination of the groundwater. The Regional Water Board has concluded that discharge volume and effluent concentrations of these inorganic constituents are very small fraction of total inorganic loadings to the Bay. Instead, trigger values will be set for these inorganic pollutants, as opposed to final effluent limitations, and upon exceedance of these trigger values, a discharger shall be required to comply with Special Provision VI.C.6.

Table F-4. Summary of WQBELs

No.	Compound	Discharge to Receiving Waters used as Drinking Water Source[1]		Discharge to Other Receiving Waters	
		AMEL (µg/L)	MDEL (µg/L)	AMEL (µg/L)	MDEL (µg/L)
1	Benzene	---	1	71	142.7
2	Carbon Tetrachloride	0.25	0.5	4.4	8.8
3	Chloroform	---	---	---	---
4	1,1-Dichloroethane	---	5	---	---
5	1,2-Dichloroethane	0.38	0.5	99	199
6	1,1-Dichloroethylene	0.057	0.11	3.2	6.4
7	Ethylbenzene	---	300	29,000	58,000
8	Methylene Chloride	4.7	9.4	1600	3200
9	Tetrachloroethylene	0.8	1.6	8.85	17.8
10	Toluene	---	150	200,000	402,000
11	Cis-1,2-Dichloroethylene	---	6	---	---
12	Trans-1,2-Dichloroethylene	---	10	140,000	280,000
13	1,1,1-Trichloroethane	---	200	---	---
14	1,1,2-Trichloroethane	0.60	1.2	42	84

No.	Compound	Discharge to Receiving Waters used as Drinking Water Source[1]		Discharge to Other Receiving Waters	
		AMEL (µg/L)	MDEL (µg/L)	AMEL (µg/L)	MDEL (µg/L)
15	Trichloroethylene	2.7	5.4	81	160
16	Vinyl Chloride	---	0.5	525	1060
17	Total Xylenes	---	1750	---	---
18	Methyl Tertiary Butyl Ether (MTBE)	---	13	---	---
19	Total Petroleum Hydrocarbons (TPH)	---	---	---	---
20	Ethylene Dibromide (1,2-Dibromoethane)	---	0.05	---	---
21	Trichlorotrifluoroethane	---	1200	---	---
22	Total Residual Chlorine[2]	---	0.0	---	0.0

[1] Receiving waters which are sources of drinking water are surface waters with the existing or potential beneficial use of Municipal and Domestic Supply, and/or Groundwater Recharge.

[2] The total residual chlorine requirement is defined as below the limit of detection in standard test methods defined in the latest USEPA approved edition of *Standard Methods for the Examination of Waste and Wastewater*.

5. Whole Effluent Toxicity (WET)

The Basin Plan requires dischargers to either conduct flow-through effluent toxicity tests or perform static renewal bioassays (Chapter 4, Acute Toxicity) to measure the toxicity of wastewaters and to assess negative impacts upon water quality and beneficial uses caused by the aggregate toxic effect of the discharge of pollutants. This Order establishes effluent limitations for whole effluent acute toxicity. Compliance evaluation with these limitations is based on 96-hour static-renewal bioassays. All bioassays shall be performed according to the USEPA-approved method in 40 CFR Part 136, currently *"Methods for Measuring the Acute Toxicity of Effluents and Receiving Water, 5th Edition."*

D. Final Effluent Limitations

1. The following table presents a summary of final effluent limitations for toxic pollutants established by this Order. The most stringent of the technology-based and water quality-based effluent limitations are established by the Order as final effluent limitations. For pollutants where the WQBEL is more stringent than the TBEL, average monthly and maximum daily effluent limitations have been established, which is consistent with the SIP. When the TBEL is limiting, only an MDEL is established. For pollutants where the analytical detection limit is higher than the effluent limitation, the Regional Water Board shall deem a

discharge out of compliance if the sample result is greater than the detection limit.

Table F-5. Summary of Final Effluent Limitations

No.	Compound	Discharge to Receiving Waters used as Drinking Water Source[1]		Discharge to Other Receiving Waters	
		AMEL[2] (µg/L)	MDEL (µg/L)	AMEL[2] (µg/L)	MDEL (µg/L)
1	Benzene	---	1	---	5
2	Carbon Tetrachloride	0.25	0.5	4.4	5
3	Chloroform	---	5	---	5
4	1,1-Dichloroethane	---	5	---	5
5	1,2-Dichloroethane	0.38	0.5	---	5
6	1,1-Dichloroethylene	0.057	0.11	3.2	5
7	Ethylbenzene	---	5	---	5
8	Methylene Chloride	4.7	5	---	5
9	Tetrachloroethylene	0.8	1.6	---	5
10	Toluene	---	5	---	5
11	Cis-1,2-Dichloroethylene	---	5	---	5
12	Trans-1,2-Dichloroethylene	---	5	---	5
13	1,1,1-Trichloroethane	---	5	---	5
14	1,1,2-Trichloroethane	0.60	1.2	---	5
15	Trichloroethylene	2.7	5	---	5
16	Vinyl Chloride	---	0.5	---	1
17	Total Xylenes	---	5	---	5
18	Methyl Tertiary Butyl Ether (MTBE)	---	5	---	5
19	Total Petroleum Hydrocarbons (TPH)	---	50	---	50
20	Ethylene Dibromide (1,2-Dibromoethane)	---	0.05	---	5
21	Trichlorotrifluoroethane	---	5	---	5
22	Total Residual Chlorine[3]	---	0.0	---	0.0

[1] Receiving waters which are sources of drinking water are surface waters with the existing or potential beneficial use of Municipal and Domestic Supply, and/or Groundwater Recharge.

[2] Average monthly effluent limitations are applicable when three or more days of effluent monitoring results are available in the reporting period.

[3] Limitation defined as below the limit of detection using standard test methods defined in the latest USEPA approved edition of *Standard Methods for the Examination of Waste and Wastewater*.

E. Interim Effluent Limitations. (Not Applicable)

F. Land Discharge Specifications. (Not Applicable)

G. Reclamation Specifications

Water Reclamation Specifications are carried over from previous versions of this permit adopted by the Regional Water Board in 1994, 1999, and 2004 and is based on BPJ.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The proposed receiving water limitations are intended to protect beneficial uses of the surface waters and ground waters of the San Francisco Bay Region and are based on the Basin Plan.

A. Surface Water: These limitations are based on the narrative/numerical objectives contained in Chapter 3 of the Basin Plan as explained below:

The basis for V.A.1.a is on page 58 of the Basin Plan;
The basis for V.A.1.b is on page 57 of the Basin Plan;
The basis for V.A.1.c is on pages 57and 60 of the Basin Plan
The basis for V.A.1.d is on page 58 of the Basin Plan;
The basis for V.A.1.e is on page 58 of the Basin Plan;
The basis for V.A.2.a is on page 58 of the Basin Plan;
The basis for V.A.2.b is on page 58 of the Basin Plan; and
The basis for V.A.3 is Section 303 of Clean Water Act.

B. Groundwater: These limitations are on pages 62-64 of the Basin Plan.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

The purpose of influent monitoring is to provide documentation that the pollutants loadings are below the level that the treatment system was designed for and provide warnings should one or more new pollutants being extracted that the as built treatment system was not designed to remove them. Except PAHs, the influent monitoring has been reduced in this permit. PAHs monitoring frequency

has been changed to quarterly because a few PAHs have been detected in the influent of a few facilities.

B. Effluent Monitoring

The purpose of effluent mo Insert "be" documentation that the treatment system adequately removed all pollutants of concern in compliance with the limits in the permit. These effluent monitoring data also provide warnings should one or more pollutants detected, even though below the limits, that may be a sign of poor maintenance or other unexpected problems. Except PAHs, the effluent monitoring has been reduced in this permit. PAHs monitoring frequency has been changed to quarterly because a few PAHs have been detected in the effluent of a few facilities.

C. Whole Effluent Toxicity Testing Requirements

The selected test species and frequency of testing are the same as previous permit and appropriately cost effective for these discharges.

D. Receiving Water Monitoring

The purpose of receiving water monitoring is to provide documentation about the condition of the receiving water should any effluent limit violations occur that may harm the life in the receiving water. The receiving water monitoring frequency is the same as previous permit.

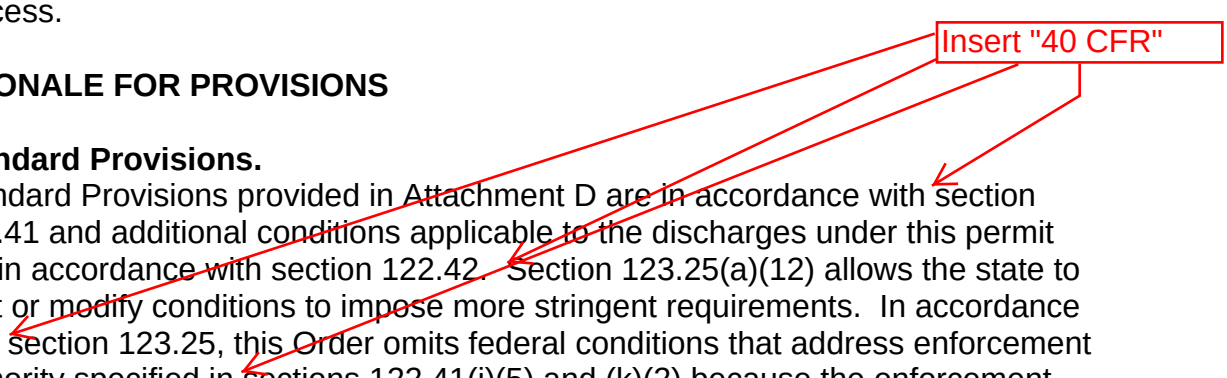
E. Other Monitoring Requirements

The purpose of additional monitoring requirements is to investigate complaints, identify the discharges that should be regulated by individual NPDES permits, coordinate storm water monitoring with municipalities, and quantify potential impacts of extracted and treated groundwater discharge on the receiving water and the ambient conditions of the receiving waters.

F. Additional Quality Assurance/Quality Control Requirements

As explained in section II.D of this Fact Sheet, the purpose of the additional quality assurance/quality control requirements is to prevent generation and reporting of invalid monitoring data, such as TPHd false positives. Everyone involved in the compliance assurance activities including the Discharger's staff and PE shall pay close attention to quality assurance/quality control activities. Dischargers who claim invalid monitoring data shall assign a specific person to investigate the cause(s) of errors, to lead the required corrective actions development, and to implement the Discharger’s proposed measures to prevent future invalid monitoring data.

This Order has no Quality Assurance Officer" requirement so that a Discharger's staff person involved in generating monitoring data could also oversee quality assurance/quality control aspects of data generation. If, however, a Discharger were to continue to generate invalid monitoring data, the Regional water Board Executive Officer may require that Discharger to assign an individual independent from those generating the data, to oversee the data generation process.



VII. RATIONALE FOR PROVISIONS

A. Standard Provisions.

Standard Provisions provided in Attachment D are in accordance with section 122.41 and additional conditions applicable to the discharges under this permit are in accordance with section 122.42. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Monitoring and Reporting Program Requirements.

The basis for "Monitoring and Reporting Program Requirements" Provision is 40CFR 122.41, 122.48, 122.62, 122.63, and 124.5, CWC Sections 13267 and 13383, and BPJ.

C. Special Provisions.

1. **Basis for Reopener Provisions.** The Basis for "Reopener Provisions" is 40CFR122.41(f).

2. **Basis for Notice of Intent (NOI) Application.** Provision VI.C.2, Notice of Intent (NOI) Application, is based on 40 CFR 122.28(b).

3. **Basis for NOI Review.** Provision VI.C.3, NOI Review, is based on 40 CFR 122.28(b).

4. **Basis for Discharge Authorization.** Provision VI.C.4, Discharge Authorization, is based on 40 CFR 122.28(b).

5. **Basis for Non-Compliance is a Violation.** Provision VI.C.5, Non-Compliance is a Violation, is based on 40 CFR 122.41(a).

6. **Basis for Provisions VI.C.6 through VI.C.9.** The Dischargers authorized under this Order are expected to use BAT and treat their volatile organic pollutants to non-detectable levels. However, some compounds, other than pollutants with effluent limitations, may be detected in the effluent of some of

the treatment systems. These pollutants include both organic and inorganic compounds. The purpose of these provisions is to require Dischargers to do additional activities should any pollutants exceed the triggers in Table F-6. These triggers are not effluent limitations, and must 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. Unless explained in a footnote, the Table F-6 concentration-based triggers are set at the lowest value of the State Maximum Contaminant Level, Federal Maximum Contaminant Level, California Toxics Rule lowest criterion, or Basin Plan water quality or site specific objectives but mostly not exceeding 5 ug/l as referenced in Table F-6 below. The reason for this approach is explained in section IV of this Fact Sheet, and further explained below.

a. **Triggers for Inorganic Compounds.** Antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc (hereinafter called inorganic compounds) are present in VOC-cleanup discharges, primarily due to background concentrations in the shallow groundwater being remediated. The discharge volume and effluent inorganic compounds concentrations are low before the effluent is discharged into the storm drain system. In staff judgment, Bay-wide inorganic compounds loading from VOC cleanup discharges, represent a very small portion of total inorganic compounds loadings from sources within the Region (including municipal and industrial point-source discharges and stormwater discharges), and therefore, shall cause no impairment of beneficial uses or potential exceedances of inorganic compounds objectives in receiving waters. Facilities where inorganic compounds have adversely impacted groundwater are not eligible for coverage under this Order. Each Discharger shall submit, as part of the application for proposed discharge, analytical results including inorganic compounds concentrations in the influent and effluent, if available, or maximum concentrations in any individual extraction wells, if not operating yet. Based on these data, the Discharger may receive a discharge authorization letter. In some cases after starting up an extraction and treatment system, the effluent concentration of some inorganic compounds may exceed the triggers listed in Table F-3. In this case, the Discharger shall take three additional samples and have them analyzed for the inorganic compound of concern and comply with the Provisions VI.C.7, VI.C.8, or VI.C.9. A few other parameters were also added to the triggers list to accommodate special cases that may occur during a dewatering project authorized under this Order.

b. **Triggers for Organic Compounds.** Dischargers authorized under this Order are expected to use BAT and treat their volatile organic pollutants to non-detectable levels. Sites where pesticides or other conservative pollutants have adversely impacted groundwater are not eligible for coverage under this Order. Each Discharger shall submit, as part of the

application for proposed discharge, analytical results including volatile and semi volatile organic compounds concentrations in the influent and effluent if available or maximum concentrations in any individual extraction wells, if not operating yet. In addition, each Discharger shall submit a report, to the satisfaction of Executive Officer, certifying the adequacy of the proposed treatment system in removal of all organic pollutants of concern. Based on these data and information, the Discharger may receive a discharge authorization letter. However, some organic compounds, other than pollutants with effluent limitations, may be detected in the effluent of some of the treatment systems. This could be due to the movement of the contaminated groundwater from a neighboring site into the capture zone of the treatment facility authorized under this permit. Table F-6 contains concentration-based triggers for conducting additional activities for a list of pollutants reported by Dischargers or listed in the CTR. This provision would allow Dischargers to continue groundwater cleanup while investigating the ability to treat any detected volatile or semi volatile organic compounds, in excess of Table F-3 triggers.

Table F-6. Basis for Table 3 Trigger Compounds

Pollutant	CAS Number	Minimum State/Federal MCL (µg/L)	Minimum Basin Plan Criteria[1] (µg/L)	Minimum CTR Criteria[1] (µg/L)	Trigger (µg/L)
Antimony	7440360	6	---	14	6
Arsenic	7440382	10	36	36	10
Beryllium	7440417	4	---	---	4
Cadmium	7440439	5	1.1	2.5	1.1
Chromium (VI)	18540299	---	11	11	11[2]
Copper[3]	7440508	1000	3.0	9.0	3.0
Copper[4]	7440508	1000	4.7	17	4.7
Lead	7439921	15	3.2	3.2	3.2
Mercury	7439976	2	0.025	0.050	0.025
Nickel[3]	7440020	100	8.3	8.3	8.3
Nickel[4]	740020	100	27	19	19
Selenium	7782492	50	---	5	5
Silver	7440224	100	2.2	2.2	2.2
Thallium	7440280	2	---	1.7	1.7
Zinc	7440666	5000	86	86	86
Cyanide	57125	150	2.9	5.2	2.9
2,3,7,8-TCDD	1746016	0.00003	---	1.3E-08	1.3E-08
Acrylonitrile	107131	---	---	0.059	0.059
Bromoform	75252	80	---	4.3	4.3
Chlorodibromomethane	124481	80	---	0.401	0.401
Dichlorobromomethane	75274	80	---	0.56	0.56
1,2-Dichloropropane	78875	5	---	0.52	0.52
1,3-Dichloropropylene	542756	0.5	---	10	0.5
1,1,2,2-Tetrachloroethane	79345	1	---	0.17	0.17
Pentachlorophenol	87865	1	---	0.28	0.28
2,4,6-Trichlorophenol	88062	---	---	2.1	2.1
Benzidine	92875	---	---	0.00012	0.00012

Pollutant	CAS Number	Minimum State/Federal MCL (µg/L)	Minimum Basin Plan Criteria[1] (µg/L)	Minimum CTR Criteria[1] (µg/L)	Trigger (µg/L)
Benzo(a)anthracene	56553	---	---	0.0044	0.0044
Benzo(a)pyrene	50328	0.2	---	0.0044	0.0044
Benzo(b)fluoranthene	205992	---	---	0.0044	0.0044
Benzo(k)fluoranthene	207089	---	---	0.0044	0.0044
Bis(2-chloroethyl)ether	111444	---	---	0.031	0.031
Bis(2-ethylhexyl)phthalate	117817	---	---	1.8	1.8
Chrysene	218019	---	---	0.0044	0.044
Dibenzo(a,h)anthracene	53703	---	---	0.0044	0.0044
3,3'-Dichlorobenzidine	91941	---	---	0.04	0.04
2,4-Dinitrotoluene	121142	---	---	0.11	0.11
1,2-Diphenylhydrazine	122667	---	---	0.040	0.040
Hexachlorobenzene	118741	1	---	0.00075	0.00075
Hexachlorobutadiene	87683	---	---	0.44	0.44
Hexachloroethane	67721	---	---	1.9	1.9
Indeno(1,2,3-c,d)pyrene	193395	---	---	0.0044	0.0044
N-nitrosodimethylamine	62759	---	---	0.00069	0.00069
N-nitrosodi-n-propylamine	621647	---	---	0.005	0.005
Aldrin	309002	---	---	0.00013	0.00013
alpha-BHC	319846	---	---	0.0039	0.0039
beta-BHC	319857	---	---	0.014	0.014
gamma-BHC	58899	0.2	---	0.019	0.019
Chlordane	57749	0.1	---	0.00057	0.00057
4,4-DDT	50393	---	---	0.00059	0.00059
4,4-DDE	72559	---	---	0.00059	0.00059
4,4-DDD	72548	---	---	0.00083	0.00083
Dieldrin	60571	---	---	0.00014	0.00014
alpha-Endosulfan	959988	---	---	0.0087	0.0087
beta-Endosulfan	33213659	---	---	0.0087	0.0087
Endrin	72208	2	---	0.0023	0.0023
Endrin aldehyde	7421934	---	---	0.76	0.76
Heptachlor	76448	0.01	---	0.00021	0.00021
Heptachlor epoxide	1024573	0.01	---	0.00010	0.00010
PCBs, sum	1336363	0.5	---	0.00017	0.00017
Toxaphene	8001352	3	---	0.0002	0.0002
1,4-dioxane	123911	3[5]	---	---	3
Turbidity	---	5	---	---	5
Odor-Threshold (Units)	---	3	---	---	3
TPHs (other than gasoline and diesel)	---	---	---	---	50[7]
Sulfate	---	250,000	---	---	250,000
Foaming agents	---	500	---	---	500
Color (units)	---	15	---	---	15

Notes:

[1] Criteria for metals based on a hardness value of 100 mg/L as $CaCO_3$. Criterion based upon the most stringent of the fresh and salt water, or human health criterion.

[2] If total chromium concentration exceeds 11 µg/L, then analysis for chromium(VI) shall also be conducted

[3] Applicable to San Francisco Bay north of Hayward Shoals.

[4] Applicable to San Francisco Bay south of Hayward Shoals.

[5] California Department of Health Services Action Level for Drinking Water.

[6] USEPA National Recommended Ambient Water Quality Criterion.

[7] Trigger value based on Regional Water Board staff BPJ. If a discharger is reporting monitoring data with a detection limit higher than 50 µg/L, the reason for the higher detection limit shall be fully explained within the monitoring report.

7. **Basis for Treatment System Modification Requirement for Existing Dischargers with Confirmed Detected 1,4-dioxane in the Effluent above the Trigger (3 ug/L)**: The basis for Provision VI.C.10 is Regional Water Board staff's best professional judgment .Five facilities have confirmed average effluent concentrations exceeding the 3 ug/L trigger for 1,4-dioxane as shown in Table F-7 below. Provision VI.C.10 requires the Dischargers listed in Table F-7 to modify existing treatment systems for 1,4-dioxane removal. In the next permit reissuance, the Regional Water Board will consider establishing future effluent limits for 1,4-dioxane based on the reported influent and effluent monitoring data of the modified treatment facilities.

Table F-7. Dischargers with 1,4-dioxane in the Effluent above the Trigger

Discharger's Name	Facility Address	CIWQS Place ID	Average Effluent Concentration (ug/L)
Univar USA	2256 Junction Avenue, San Jose	202038	47
Bourns	1500 Space Park Drive, Santa Clara	201657	16
Hewlett-Packard	Building 15 at 3215 Porter Drive	202401	3.76
Hewlett-Packard	1501 Page Mill Road, Palo Alto	201661	6.1
Schlumberger Technology	313 Fairchild Drive, Mountain View	202372	4.5

8. **Basis for Individual NPDES Permit may be Required.** Provision VI.C.11, Individual NPDES Permit may be Required, is based on 40 CFR 122.28(b)(3).

9. **Basis for Treatment Reliability Requirement.** Provision VI.C.12, Treatment Reliability, is mostly based on 40 CFR 122.41. The basis for the requirement for a certified engineer to oversee the treatment and operation of the treatment system is to ensure that qualified professionals perform this work. Service stations operators are generally not qualified for this technical level of oversight.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) is considering the reissuance of general waste discharge requirements (GWDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit. As a step in the GWDR adoption process, the Regional Water Board staff has developed tentative GWDRs. The Regional Water Board encourages public participation in the GWDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through a legal notice published in the Recorder.

B. Written Comments

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

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on June 17, 2009**.**

C. Public Hearing

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

Date: August 12, 2009
Time: 9:00 AM
Location: Elihu Harris State Building (1st Floor auditorium)
1515 Clay Street
(Walking distance from City Center 12th Street BART station)
Oakland, CA 94612

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, GWDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is http://www.waterboards.ca.gov/sanfranciscobay where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The Report of Waste Discharges (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above during regular office hours, which are generally weekdays from 8:00 a.m. to 5:00 p.m., excluding 12:00 p.m. to 1:00 p.m. lunch hours and holidays. Copying of documents may be arranged through the Regional Water Board by calling (510) 622-2300.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to **Farhad Azimzadeh at (510) 622-2310 or by e-mail at fazimzadeh@waterboards.ca.gov.**

ATTACHMENT G - NOTICE OF TERMINATION

For a Groundwater Treatment System authorized to Discharge under the Requirements of General Waste Discharge Requirements for Discharge or Reuse of Extracted and Treated Groundwater resulting from the Cleanup of Groundwater Polluted by volatile organic compounds (VOC) NPDES PERMIT NO. CAG912003

A PDF electronic copy of this Form shall be uploaded on GeoTracker and after GeoTracker upload a confirmation email shall be sent to the responsible staff member at this office, currently Lourdes Gonzales, at lgonzales@waterboards.ca.gov.

For Groundwater Treatment Facility located at:

_____ _____

Type or Print Facility Address above the line CIWQS Place Identification Number

_____

CIWQS Regulatory Measure ID Identification Number
(CIWQS numbers are documented on the Notice of Coverage Letter)

Table 1. Mark only one as applicable

1	Groundwater cleanup works or dewatering cleanup project have been completed	
2	Method of groundwater cleanup has been changed with no need to discharge treated groundwater	
3	Extract and treat method of groundwater cleanup will be stopped for a while and only groundwater will be monitored at this site. In this case, documentation shall be attached to this Notice that the cleanup overseeing agency has no objection to have this authorization rescinded. Otherwise complete Notice of Temporary Shut Down (Attachment H)	
4	Other reasons such as discharge to POTW has been granted	

Table 2. Agency Approval (If you have marked Groundwater cleanup works have been completed number one in Table 1, please add the name, address, and phone number of the agency and agency staff finding the clean up work to be complete and you have also provided a copy of this termination notice)

	Name, address, and phone number of the agency and agency staff finding your clean up work to be complete	Have you provided a copy of this termination notice to this staff? (Yes/No. If No, please explain the reason)
1		

I certify under penalty of law that this notice is prepared under my direction or supervision and the effective termination date of this Discharge is _____. I am aware that discharging without a discharge authorization is in violation of California Water Code.

_____ _____

Name (print) Signature and Date

_____ _____

Title/Organization Address

Note: The Regional Water Board may modify this form at any time to reflect the new requirements and other needed improvements.

Tamalpais
Environmental
Consultants

June 17, 2009

Farhad Azimzadeh,
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Comments to Draft Tentative Order NPDES No. CAG912003

Dear Mr. Azimazadeh:

Tamalpais Environmental Consultants (TEC) has prepared these comments to the Regional Water Quality Control Board (Water Board) regarding Tentative Order NPDES No. CAG 912003 on behalf of Cityview Plaza. Cityview Plaza operates two foundation dewatering systems at 150 Almaden Boulevard in San Jose that discharge treated groundwater to the Guadalupe River through the storm drain system under the existing NPDES permit. The contaminant of concern in the groundwater is tetrachloroethene (PCE) with average influent concentrations during the past year of approximately 1.0 µg/L in the East Sump and 3.9 µg/L in the West Sump. Two carbon treatment systems were installed in the parking structure at 150 Almaden Blvd. in 2005 (8 vessels for the East Sump and 16 vessels for the West Sump) to remove PCE to below the threshold of 0.8 µg/L prior to discharge. Each treatment system averages between 100 and 200 gallons per minute of water that must be removed to prevent flooding in the parking garage.

Previous investigation reports for the RiverPark Development, located approximately ¼ mile to the southwest of 150 Almaden Blvd., indicate shallow groundwater in the vicinity was generally toward the northeast. The RiverPark property had a known source of PCE and was closed by the Water Board following remediation with excavation and groundwater extraction. The Santa Clara Valley Water District indicated there were many potential sources of PCE in the vicinity that have affected a significant portion of groundwater in the downtown area. This has required landowners to provide costly treatment to reduce PCE to a fraction of the drinking water standard for discharge to the Guadalupe River. Discharges to other water bodies could have a higher discharge limit of 5.0 µg/L. Neither of the sumps at 150 Almaden Blvd. would currently require treatment at this discharge level.

Due to the very low concentrations of PCE in groundwater and the necessity to operate without interruption to prevent flooding at the facility, TEC proposes two comments to address this type of low risk facility where significant treatment requirements are in place due to an offsite source(s) and associated regional groundwater plume.

Comment 1: In order for the Water Board to have slightly more flexibility in discharge requirements, TEC proposes to add a footnote for Table 2 with the following intent:

> The Water Board caseworker shall have the authority to allow a foundation dewatering system to bypass a treatment system if the influent concentration is below the Maximum Daily Effluent Limitation (1.6 µg/L for PCE in Column A).

This comment would provide the Water Board the flexibility to discontinue treatment of the waters discharged through the East Sump. Significant expenditures are required to maintain the treatment system for this sump with the average influent concentration of only 1.0 µg/L. Regular carbon replacements have been required due to mineral fouling of the carbon and breakthrough of PCE above 0.8 µg/L. Ongoing monitoring could be conducted to confirm that PCE concentrations in the sump were below the threshold.

Comment 2: In order to perform maintenance on a treatment system for a foundation dewatering system, TEC proposes to add a footnote for Table 2 with the following intent:

> The Water Board caseworker shall have the authority to allow a foundation dewatering system to bypass a treatment system for up to 48 hours providing the water discharged is below the Maximum Daily Discharge in Column B (5.0 µg/L for PCE) and sufficient notice is provided to the Water Board.

This comment would allow the replacement of some sections of the treatment systems, such as the manifold piping and flow meter for the West Sump Treatment System, which could not be replaced or repaired while the treatment system is in operation.

TEC appreciates the opportunity to provide these comments to the Water Board for their consideration. Please contact Aaron O'Brien at (415) 456-5084 if you have any questions or would like to discuss these comments.

Sincerely,

Aaron O'Brien, P.E., CHMM
President

cc: Noelle Clarke, Roux Associates
Michelle Judd, Cityview Plaza

Environmental Liquidating Trust

ITEL Trust
2251 Lake Herman Rd.
Benicia, CA 94510
Tel. (707) 751-1999
Fax. (707) 745-0785

June 17, 2009

Mr. Farhad Azimzadeh
San Francisco Bay Region
California Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Comments to Tentative Order for NPDES Permit No. CAG912003
by the IT Environmental Liquidating Trust

Dear Mr. Azimzadeh,

The IT Environmental Liquidating Trust (ITELT) received the Regional Water Quality Control Board's Tentative Order for NPDES Permit No. CAG912003 for reissuance of General Waste Discharge Requirements for Discharge or Reuse of Extracted and Treated Groundwater Resulting from Cleanup of Groundwater Polluted by Volatile Organic Compounds.

ITELT has reviewed the tentative order and is providing the following comments:

1) Within Table 3 of the Trigger Pollutants at the bottom of page 14, the trigger units for Turbidity, Odor, Foaming Agents, and Color are listed incorrectly in the column as "ug/L". These values appear to be taken from Table F.6 and reference the Minimum State/Federal MCLs. The descriptions of the units of measurement for these parameters should be specifically defined if they are required for monitoring (see No. 2 next).

2) In addition, in Table 3 of the Trigger Pollutants, the parameters Odor, Sulfate, Foaming Agents, and Color are not listed in Table E.2 of the Monitoring and Reporting Program (MRP). There appears to be no requirement to monitor these parameters except for the Standard Observations for odor and color on pages E.6 and E.7. Are there specific monitoring requirements for these parameters? Please clarify.

3) Within the Attachment E of the MRP in Table E.2 on page E-3, the row entitled "Semi Volatile Organic Compounds except PAHs (See Note 2)." The designation to Note 2 applies to inorganic compounds and is not applicable for semi volatile compounds; however, "Note 1: if known to be present in the influent" is applicable. Please clarify.

If you have any questions regarding these comments, please contact me at (707) 751-1999.

Sincerely,

Richard R. Swanson

Richard R. Swanson, P.G.
Groundwater Programs Manager
IT Environmental Liquidating Trust

Univar USA Inc.
66 Feece Dr.
Batavia, IL 60510

Tel: (630) 761-0486
Fax: (630) 761-0586
james.hooper@univarusa.com

June 17, 2009

Mr. Farhad Azimzadeh
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1515 Clay St. Suite 1400
Oakland, CA 94612
FAzimzadeh@waterboards.ca.gov

Comments on Tentative Order
Reissuance of NPDES No. CAG912003
Univar USA Inc.
2256 Junction Avenue
San Jose, California

Dear Mr. Azimzadeh:

This letter provides comments from Univar USA Inc. (Univar) on the tentative order reissuing National Pollutant Discharge Elimination System (NPDES) Permit No. CAG912003, which is a general permit for discharges from cleanup efforts involving volatile organic compounds (VOCs) in ground water. On January 16, 2009, Univar submitted a Notice of Intent (NOI) for reauthorization to discharge treated ground water. A draft of the tentative order was received by Univar on May 20, 2009.

p.12, VI.C.3: NOI Review
As mentioned above, on January 16, 2009, Univar submitted the NOI requesting authorization for continued discharge after the current permit expires on July 21, 2009. Univar requests that the RWQCB send an acknowledgement of the receipt of NOI, and if possible, the RWQCB's tentative finding as to whether reauthorization will be granted in order that Univar may plan accordingly past the July 21, 2009 date.

p.13, VI.C.3: Triggers
There appears to be contradictory or unclear statements regarding triggers levels and what actions are required by exceedences of trigger levels. The order states *"…triggers are not effluent limitations, and must not be construed as such. Instead, they are levels above which additional investigation is required to determine further action."* The order later asks for *"… a description of plans underway to address the previous exceedance, such as details of source elimination, changes in operation of existing treatment units, or the re-design of any*

treatment unit." Actions such as the redesign of treatment systems due to an exceedance of a trigger level implies the existence of an effluent limitation.

As has been documented in previous Univar submittals, the effluent stream from Univar's site has 1,4-dioxane and nickel concentrations above the respective trigger levels. Univar has undertaken the investigatory actions required including sampling of the receiving water body at locations 50 feet upstream and 50 feet downstream of the point of discharge to the receiving body. The analytical results showed no degradation in the receiving water quality. Specifically, results of the receiving water sampling showed nickel at 5.2 and 4.8 ug/L in the upstream and downstream samples, respectively. Also, the 1,4-dioxane concentration was 0.7 ug/L in the upstream sample and less than the 0.5 ug/L reporting limit in the downstream sample.

For 1,4-dioxane treatment, Univar has ordered an advanced oxidation unit which uses ultraviolet light (UV) and hydrogen peroxide for 1,4-dioxane destruction. The unit is expected to be online in Fall 2009. In this case, a proven technology was available and Univar had run bench scale tests to show that 1,4-dioxane at the site could be treated using advanced oxidation.

Univar has been pursuing effective technologies for nickel treatment at low concentrations. Nickel levels in the effluent stream has been found to be on the order of 40 micrograms per liter (ug/L) which is above the proposed trigger level of 19 ug/L. Univar has performed field pilot tests using 10 different resins or adsorbents for reduction of nickel, but has not to-date found an adsorbent that has a sufficiently long breakthrough time. Univar has added a carbon vessel for polishing the effluent from the air stripper and is using an acid-washed carbon which can reduce nickel concentrations. However, the acid-washed carbon effectiveness is on the order of weeks. Traditional precipitation-type treatments are effective for nickel of the milligrams per liter range (mg/L), but not necessarily viable in the ug/L range.

Univar will continue to pursue alternative nickel treatment options, however it is unclear from the wording of the draft permit what actions, if any, will be required. The order is "gray" in the area of what level of reduction is required. Is this eventual long term approach to nickel reduction and allowable discharge concentrations something that can be mutually agreed upon based on the specifics of the Univar site? Again, the order uses the term trigger to values that initiate further investigation and are not discharge limits.

p.13, VI.C.3: Triggers, Table 3 – Trigger Pollutants

Note 1 in the table states *"Criteria for metals based on a hardness value of 100 mg/L as CaCO3. Criterion based upon the most stringent of the fresh and salt water, or human health criterion."* If the trigger values are a function of the hardness of the receiving waters, then the permittee should have the option of measuring the hardness and deriving a project-specific criteria for metals. Also, the NPDES permits issued prior to 2004, contained mass-based rather than concentration-based allowable levels for metals such as nickel. Univar suggests that an option of applying mass-based levels (e.g. lb/year) be reconsidered.

When discussing the rationale for nickel levels, the Fact Sheet on page F-20 of the tentative order states, *"…The discharge volume and effluent concentrations of inorganic compounds discharges from facilities regulated by this permit are low. In the Regional Water Board staff's judgment, the Bay-wide loading of inorganic compounds from VOC cleanup*

discharges -- representing a very small portion of total inorganic compounds loadings from sources within the Region (including municipal and industrial point-source discharges and stormwater discharges) -- will cause no impairment of beneficial uses or potential exceedances of inorganic compounds objectives in receiving waters." Univar asks that the above statement regarding the low impact of nickel from facilities such as Univar's be weighed when evaluating what actions, if any, will eventually be required for future nickel treatment at the site.

p.15, VI.C.10

The section of the permit is specific to actions required related to 1,4-dioxane trigger levels. As mentioned above, Univar is procuring a treatment unit to specifically reduce 1,4-dioxane concentrations. The treatment unit is expected to be online in Fall 2009, well before the December 10, 2010 deadline. The order states that facilities shall *"...remove 1,4-dioxane to maximum extent practicable."* Univar welcomes a pragmatic approach when working to reduce 1,4-dioxane concentrations. However, how will "practicable" be interpreted and by who. Univar believes that a free dialogue, using site-spcecific data and actions, between Univar and the RWQCB would be beneficial in defining what is practicable.

p.B-6, NOI Application Form, Item 9

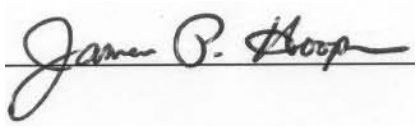
"... document the annual fee (currently $6,970) has been paid." How and when will this be billed? Will Univar be receiving an annual invoice? If so, during what month will invoices be sent?

pp.E-2 & E-3, Monitoring Requiremnts in E.IV.C

"...In this case, both the initial and confirmed results are violations. However, if the confirmation effluent sampling shows compliance, we will consider only the initial exceedance as a violation."

A confirmation sampling event should be just that, an approach to confirming whether an effluent limit has been exceeded. It should not be viewed as a separate event that would warrant a second violation. Also, latitude should be given to address false positives of the initial event such as laboratory errors. If the confirmation sampling confirms that the initial event gave erroneous values, then no violation should be determined.

Sincerely,



James P. Hooper
Director, Environmental Affairs
Univar USA Inc.

cc: Michael Gaudette, Univar USA Inc.
file