



B A S M A A

Alameda Countywide
Clean Water Program

Contra Costa
Clean Water Program

Fairfield-Suisun
Urban Runoff
Management Program

Marin County
Stormwater Pollution
Prevention Program

San Mateo Countywide
Stormwater Pollution
Prevention Program

Santa Clara Valley
Urban Runoff Pollution
Prevention Program

Vallejo
Sanitation and Flood
Control District

February 27, 2007

Bruce Wolfe,
Executive Officer
Attn: Lila Tang, NPDES Division Chief
California Regional Water Quality Control Board,
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Tentative General Waste Discharge Requirements Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment of Groundwater by Reverse Osmosis

Dear Ms. Tang:

These comments are filed by the Bay Area Stormwater Management Agencies Association ("BASMAA") with respect to the Notice of Application and Public Hearing for NPDES No. CAG912004 dated January 12, 2007 in the above matter. We request that these comments be incorporated into the Water Board record in this proceeding.

BASMAA and its member agencies applaud the Water Board's initiative in considering for adoption a general NPDES permit addressing discharges of low-level, incidental, or potentially contaminated groundwater and discharges of reverse osmosis concentrate resulting from groundwater treatment. Discharges subject to the draft permit are often proposed to be routed to municipal storm water conveyances. Since these discharges have not previously been NPDES permitted, uncertainty exists about whether such discharges can be accepted by municipalities without violating discharge prohibitions contained in municipal stormwater permits (MS4 permits) issued in this Region.

One of the discharge categories described in the tentative order, structural dewatering resulting in greater than 50,000 gallons per day and requiring treatment, is defined too narrowly and excludes from permit coverage many other discharges of low-level or incidentally-contaminated groundwater. Whether municipal stormwater permits cover such discharges is often unclear. It would be beneficial to extend the applicability and coverage of the proposed General Permit to lower volume dewatering and other non-fuel- or VOC-contaminated discharges, including certain discharges that do not require treatment, so that they could be accepted under MS4 permits as permitted discharges under the General Permit without the need for additional regulation at the local level.

(The tentative order as currently drafted appears to envision that all such additional discharges will be managed pursuant to the provisions of MS4 permits

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that allow municipalities to accept certain non-stormwater discharges that are not covered by other NPDES permits provided that specified conditions are met. However, this is a large universe of potential discharges and, accordingly, would impose a potentially large administrative, oversight, and resource burden on municipalities – a burden that could be avoided, or at least reduced, if these discharges were instead addressed under the proposed General Permit.)

Broadening the scope of the proposed General Permit to include additional categories of low-level and incidentally-contaminated discharges with volumes less than 50,000 gallons per day could be accomplished fairly easily by taking an approach to them similar to that taken by the Santa Ana Water Board in its Order No. R8-2003-0061 (copy attached). The Central Valley Board has a similar General Order No. 5-00-175. Adopting an expanded General Permit approach along these lines would help reduce uncertainty in the regulated community, lessen the burden being imposed on municipal stormwater programs (as many are facing increased requirements with regard to other aspects of the stormwater permitting program), and result in an increase in fee revenue from the General Permit to cover any additional administrative expense implied – fees Proposition 218 effectively prevents municipalities from imposing to cover the expense of their regulatory and oversight activities.

While we strongly encourage the Water Board to consider potential revisions to the General Permit reflecting the broadened applicability approach suggested above, at a minimum, BASMAA believes that we need to further discuss the relationship between and better fine tune and align this General Permit and the “conditionally exempt” discharges program BASMAA proposed to the Water Board’s stormwater subcommittee for purposes of a municipal regional permit (MRP) on September 22, 2006 (copy also attached). Such collaboration is essential if we are to avoid uncoordinated approaches that will otherwise waste resources and result in confusion for all concerned. (No matter which approach is ultimately pursued, it probably would be helpful to attach to the General Permit a matrix showing the various categories of discharges to be regulated under it and the “conditionally exempt” provisions of the MRP respectively and to summarize the key requirements associated with each.)

We appreciate the opportunity to offer our comments on the proposed General Permit and believe it presents a substantial opportunity for all involved. We would like to discuss our suggestions with you further in advance of a Board adoption hearing.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Donald P. Freitas". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Donald P. Freitas

cc: Bruce Wolfe

attachment: Santa Ana Water Board in its Order No. R8-2003-0061



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

MAR 15 2007

QUALITY CONTROL BOARD

1400 Treat Boulevard
Walnut Creek, CA 94597-2142

A not-for-profit organization

March 13, 2007

Lila Tang, NPDES Division Chief ✓
California Regional Water Quality Control Board,
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA

Re: Proposed General Permit for Discharges of Low Level, Incidental or Potentially Contaminated Groundwater (NPDES No: CAG912004)

Dear Ms. Tang:

These comments are filed by John Muir Health ("JMH") with respect to the above matter. JMH is pleased that the Regional Board is considering the adoption of a general NPDES permit addressing discharges of low-level, incidental, or potentially contaminated groundwater.

In attempting to meet the State's requirements for assuring the seismic safety of hospitals and otherwise expand its facilities, JMH has previously encountered groundwater that must be discharged in connection with the reconstruction of its medical center in Walnut Creek, California. Based on recent data, JMH will be required to dewater the foundation of its new hospital tower on an on-going basis at a volume of approximately 3,000 gallons per day. This discharge is proposed to be routed to the Walnut Creek municipal storm water conveyance system. Based on our review of the Contra Costa Countywide NPDES Municipal Stormwater Permit (Order No. 99-0528, as amended) (the "Municipal Permit") and our discussions with City staff, uncertainty exists about whether this proposed discharge can be accepted by a Contra Costa municipality without violating the non-stormwater discharge prohibition contained in the Municipal Permit or otherwise requiring separate Regional Board approval of a "conditional exemption."

One of the discharge categories described in the Tentative Order, structural dewatering resulting in greater than 50,000 gallons per day and requiring treatment, currently *excludes* from permit coverage discharges of low volume and low-level or incidentally-contaminated groundwater, such as those associated with the anticipated dewatering at JMH's Walnut Creek facility. It would be helpful to JMH and others in similar circumstances to extend the coverage of the proposed General Permit to lower volume dewatering so that those discharges could automatically be accepted with certainty into the municipal storm sewer system and without the need for additional regulation at the local level and/or further Municipal Permit action by the Regional Board. The Tentative

Order appears instead to envision that discharges of less than 50,000 gallons per day would continue to be governed by municipal stormwater permits. However, our prior experience is that the ambiguous language in section C.11 of the current Contra Costa Municipal Permit leads some municipalities to think they need to obtain Regional Board authorization before accepting such discharges. The approach currently envisioned could therefore continue to impose this uncertainty and a larger administrative burden on JMH, the City of Walnut Creek, and the Regional Board than the alternative of simply covering these same discharges via an expansion of the General Permit.

Accordingly, we urge the Regional Board to broaden the scope of the Tentative Order to include additional categories of low-level and incidentally-contaminated discharges with volumes less than 50,000 gallons per day and to set forth more narrowly tailored effluent limitations and reduced monitoring and reporting requirements for such categories commensurate with their lower potential impact to water quality (e.g., perhaps categories could be constructed in increments of less than 10,000 gpd, 10-25-000 gpd, and 25-50,000 gpd with the applicability of effluent limitations and associated monitoring and reporting requirements sliding up at each step). These changes would help reduce uncertainty in the regulated community and assist municipalities whose storm sewer systems are the most appropriate places to route these low impact discharges. (It is frustrating under the current system to go through the dance of trying to get treatment plants to devote their capacity to accepting these discharges, which they won't, and then having municipal stormwater officials say that they cannot accept them without further Regional Board approvals or assurances; coverage under an NPDES general permit would cut through and avoid this.)

Thank you for giving JMH the opportunity to comment on the Tentative Order. Please do not hesitate to contact the undersigned if you would like to discuss any of these issues further.

Sincerely yours,



Ken Meehan
Executive Vice President, Hospital Operations

cc: Jim Lennon, Interim Director of Facilities Development
Mitchell S. Randall, Esq., Morrison & Foerster LLP
Michael Bassilios, Kier & Wright

DUBLIN
SAN RAMON
SERVICES
DISTRICT

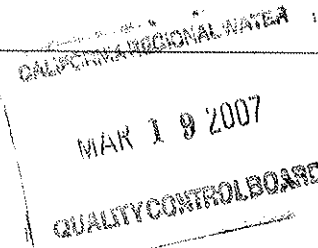


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March 15, 2007

VIA FACSIMILE: (510) 622-2460

Mr. Bruce Wolfe, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612



Subject: Comments on the Tentative Order, General Waste Discharge Requirements for Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment of Groundwater by Reverse Osmosis (CAG912004)

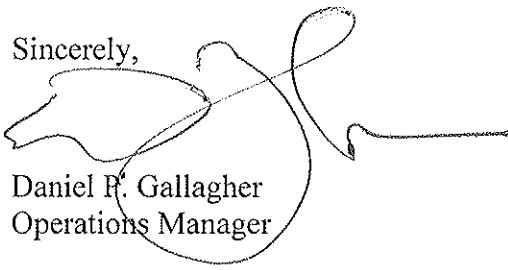
Dear Mr. Wolfe:

The Dublin San Ramon Services District (DSRSD) appreciates the opportunity to comment on the subject Tentative Order.

As you may recall, an NPDES permit (CA0037613) was issued to DSRSD on August 9, 2006, which includes the provision for Zone 7 water Agency to provide reverse osmosis reject water to DSRSD through DSRSD's pretreatment program. It is our understanding that DSRSD will be permitting the Zone 7 Water Agency reverse osmosis reject water through the pretreatment program, an already-established permitting mechanism. Therefore this reverse osmosis reject water will not be subject to the groundwater general permit.

We look forward to your confirmation of this approach for permitting of the Zone 7 reverse osmosis reject water. Thank you for your consideration.

Sincerely,



Daniel P. Gallagher
Operations Manager

cc: Lila Tang, Regional Water Quality Control Board
Farhad Azimzadeh, Regional Water Quality Control Board
Bert Michalczyk, General Manager, DSRSD
Dave Requa, District Engineer, DSRSD

UARWQCBDSRSD COMMENTS ON GENERAL GW PERMIT 3-15-07.DOC



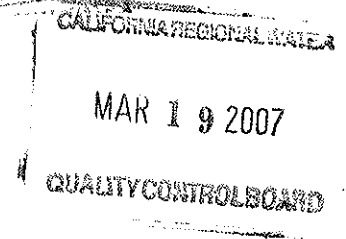
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551-9486

PHONE (925) 454-5000

March 15, 2007

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



Subject: General Waste Discharge Requirements for: Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment of Groundwater by Reverse Osmosis

Dear Mr. Azimzadeh:

Thank you for the opportunity to comment on the above subject document. The Zone 7 Water Agency (Zone 7) has reviewed the documents provided and has the following comments for your consideration.

1. The proposed general permit covers reverse osmosis (RO) concentrate from aquifer protection well discharges. The Tentative Order mentions a specific discharger, the Alameda County Water District (ACWD), as an example of what type of RO concentrate would be covered under this permit. It further mentions that ACWD had an individual permit with the Regional Water Board to discharge their RO concentrate and this general permit would take the place of that individual permit.

We request that this should be further clarified by adding language that the General Permit should specifically exempt discharges that are already under industrial pretreatment requirements to a permitted publicly-owned treatment works (POTW) to provide consistency with other NPDES permits issued to POTWs.

2. The proposed general permit regulates discharges from very specific sources (i.e., structural dewatering, aquifer protection well discharges, and RO concentrate from aquifer protection well discharges). There is no mention in the Tentative Order on how this proposed general permit relates to the conditionally exempted discharges provision in the upcoming Municipal Regional Permit (MRP).

We request that the Regional Board cross reference the discharges covered under this Tentative Order with the conditionally exempted discharges provided in the MRP to avoid potential conflicts between these two general permits.

3. Lastly, on page 9 of the Tentative Order, under chlorine residual, it states that a detection level of up to 0.04 milligrams per liter (mg/L) would be considered a non-detect. In the Region Wide NPDES Permit for Discharges from Surface Water Treatment Facilities for Potable Supply (NPDES No. CAG382001; Order no. R2-2003-0062), specifically in the Self Monitoring Report,

Mr. Farhad Azimzadeh
Regional Water Quality Control Board
SF Bay Region
March 15, 2007
Page 2

a chlorine residual violation would occur when “. . . the field test (Standard Methods 4500-Cl F and G) shows that the effluent chlorine residual is 0.08 mg/L or greater.” (See Footnote [6] for Table 1 in the Self Monitoring Report)

We request making the chlorine residual detection limit in this order consistent with specified chlorine residual detection levels elsewhere (i.e., 0.08 mg/L).

We appreciate the opportunity to comment on the subject Tentative Order. If you have any questions or comments, please feel free to contact me at (925) 454-5016 or Mary Lim at 925 454-5036 at your earliest convenience.

Sincerely,



G.F. Duerig
General Manager

cc: Dave Requa, Dublin San Ramon Services District
Paul Piraino and Steve Dennis, Alameda County Water District
Jim Horen, Jarnail Chahal, Mary Lim, Conrad Tona, Gerald DeWitt

Via Electronic Mail

March 15, 2007

Lila Tang, Chief
NPDES Division
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay St., Suite 1400
Oakland, CA 94612

Attn: Ms. LilaTang

Re: Tentative Order - General Waste Discharge Requirements for Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting From Treatment of Groundwater by Reverse Osmosis

Dear Ms. Tang:

Hewlett-Packard Company and Varian Medical Systems thank you for the opportunity to provide comments on the subject Tentative Order (the "Order"). In general, the Order will streamline the permitting process for sites that are discharging groundwater from long-term dewatering systems for buildings and underpasses. However, the current draft of the Tentative Order prohibits the discharge of groundwater from these systems if the groundwater contains incidental levels of volatile organic compounds (VOCs). This is of interest to us due to our relationship with Santa Clara County and its discharge of water from the Oregon Expressway Underpass (OEU). This long-term dewatering system serves an essential function to ensure that the underpass is safe for public use. The water does contain low levels of VOCs, which are treated by air stripping prior to discharge to Matadero Creek. The discharge concentrations are consistently below MCLs. We feel that this permit may be a good fit for the discharge from the OEU, as its purpose is structural dewatering, and we request that prohibition G, under Section III be modified to include exceptions that would accommodate special cases such as the OEU.

Sincerely,

Elizabeth McDonald

Hewlett – Packard Company

Denise Kato

Varian Medical Systems



DIRECTORS
ARTHUR LAMPERT
President
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Vice President
JAMES G. GUNTHER
JUDY C. HUANG
MARTIN L. KOLLER

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Operations Manager

MAR 19 2007

QUALITY CONTROL BOARD

March 15, 2007

Mr. Bruce Wolfe, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
✓Attn: Mr. Farhad Azimzadeh


Dear Mr. Wolfe:

Subject: Hardcopy Transmittal of Written Comments and Submitted Attachments Pertaining to the Tentative Order Issuing New General Waste Discharge Requirements for: Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment of Groundwater by Reverse Osmosis NPDES No. CAG912004

Enclosed, please find the following (7) hardcopy submittals. These documents were also submitted electronically to the attention of Mr. Farhad Azimzadeh on March 15, 2007.

- 1) ACWD Comment Letter on Tentative Order for NPDES No. CAG9122004
- 2) ACWD Detailed Comments on Tentative Order
- 3) ACWD Detailed Comments on Tentative Order – ATTACHMENT B
- 4) ACWD Detailed Comments on Tentative Order – ATTACHMENT C
- 5) ACWD Detailed Comments on Tentative Order – ATTACHMENT E
- 6) ACWD Detailed Comments on Tentative Order – ATTACHMENT F
- 7) ACWD NPDES Permit Reissuance Chronology

Sincerely,


Paul Piraino
General Manager

sd
By FedEx



DIRECTORS
ARTHUR LAMPERT
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Operations Manager

March 15, 2007

Mr. Bruce Wolfe, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
Attn: Mr. Farhad Azimzadeh

Dear Mr. Wolfe:

Subject: Comments on Tentative Order Issuing New General Waste Discharge Requirements for: Discharges of Low-Level, Incidental, or Potentially Contaminated Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment of Groundwater by Reverse Osmosis NPDES No. CAG912004

The Alameda County Water District (ACWD) appreciates the opportunity to comment on the Tentative Order (TO) issuing this new General Permit. By policy, ACWD actively manages the Niles Cone Groundwater Basin within its service area of Fremont, Newark, and Union City. The core objective of ACWD's groundwater management policy is to take all appropriate action required in order to protect and preserve the groundwater basin as a primary source of potable water supply. A key program element of this effort in ACWD's **Board adopted** policy is to *"protect the groundwater quality from any and all sources including: saline water intrusion, wastewater discharge, recycled water use, urban and agricultural runoff, and chemical contamination."* The policy further states a commitment to *"improve groundwater quality by taking steps to remove salts and other contaminants from affected areas of the basin."* To this day, portions of the groundwater basin still contain brackish potable water resulting from historic salt water intrusion.

Since 1974, ACWD has installed and variably-operated 14 Aquifer Reclamation Program (ARP) and Salinity Barrier Wells (SBP) to remove existing salt water intrusion and protect the groundwater basin from further degradation. Historically, up to 30 million gallons per day (mgd) of extracted brackish potable ground water has been pumped from these 2,000 gallon-per-minute (gpm) wells in the Fremont-Newark area. The extracted brackish groundwater is discharged at up to 12 locations in flood control channels maintained by the Alameda County Flood Control and Water Conservation District (ACFCWCD).

In October of 2003, ACWD started operation of the Newark Desalination Facility (NDF). The source water for this facility is the extracted groundwater from four of the existing ARP wells. Drinking water production from the NDF and the associated ARP well blending water now provides approximately eight percent of the potable water supply serving the customers of ACWD. Given the success of the NDF, ACWD is proceeding with the second phase of the NDF project as described in Findings 10 through 17 of ACWD's existing NPDES permit. ACWD is completing final design of these facilities and anticipates that the next 5 mgd of RO production capacity will be operational in 2009.

Since the start of the extensive groundwater protection and reclamation program in 1974, considerable progress has been made toward reducing the extent and reach of brackish water within the Newark Aquifer. Positive effects of the program include a marked reduction of the TDS levels in the extracted brackish water being discharged, and a decline in the quantity of water discharged through the program.

The ARP/SBP/NDF program has been operating for over 20 years under an individual NPDES permit (CA0038059). As required by the permit, ACWD applied for reissuance of the current permit (Order No. 00-029) in November 2004. In October 2006, Water Board staff informed ACWD of their intent to provide NPDES coverage for the ARP/SBP/NDF program under a new General Permit (GP) instead of an individual permit.

Since October 2006, ACWD has been working with Water Board staff in an effort to develop a GP approach and language that would provide ACWD with an equivalent level of regulatory certainty and requirements comparable to that historically provided by its individual NPDES permit. As a major municipal water purveyor, it is critically important that ACWD know before, not after permit adoption, what the specific NPDES permit requirements will be in order to enable continued operation of our groundwater protection and potable water supply facilities. Progress has been made toward this objective as noted below and in the attached NPDES permit reissuance chronology.

Outline of Major Concerns

ACWD summarized its major concerns about the Tentative Order (TO) in a memo from its consultant (EOA) dated and provided to Water Board staff on February 23, 2007. A summary of these concerns as were outlined in this memo is presented below. This information is intended to help provide a clear background understanding of the primary issues that ACWD and Water Board staff have focused on to date. As stated above, as of the time of this letter, considerable progress has been made toward the resolve of many of these concerns.

1. Salinity trigger

The draft TO proposed that ACWD and other discharges covered under this permit be subject to a salinity trigger that, if exceeded, would set off a series of additional studies and evaluations, leading to possible termination of discharge and/or termination of NPDES coverage.

ACWD requested that it either be exempted from the salinity trigger or that the salinity triggers be deleted.

2. Extent of CTR priority pollutant testing and identification of applicable non-salinity trigger category of constituents

The Monitoring and Reporting Program (MRP) (TO Attachment E, Table 2) was interpreted to require monitoring at all wells (not “indicator” wells) at least annually for CTR metals plus other constituents at varying frequencies. It was not clear which category of triggers ACWD discharges would be subject to under the Permit Table 2’s columns A and B.

ACWD provided alternative monitoring language to monitor representative wells rather than all wells for all constituents. Given the purpose and objectives of its groundwater protection program, ACWD requested clarification as to whether or not the Permit Table 2 “estuarine discharge” triggers would apply to its discharges.

3. Basin Plan exceptions

Water Board staff questioned the basis for the Basin Plan exceptions contained in the current NPDES permit for ACWD’s discharges that receive less than 10:1 dilution and that discharge to channels flowing into South San Francisco Bay south of the Dumbarton Bridge.

ACWD noted that the permitted operations and facilities have not changed and they are still providing net environmental benefits. Therefore, the current exceptions should be continued.

4. Obtaining coverage under the general permit upon its effective date

The draft TO would require ACWD to go through the full process for filing a Notice of Intent (NOI) for coverage under the GP. Water Board staff viewed the amount of CTR data available from testing the extracted brackish potable groundwater as insufficient for coverage under the NOI.

ACWD noted that it had already filed an individual NPDES application (and supplemental information) that had been deemed complete by Water Board staff. ACWD requested that the existing monitoring data and other submittals be deemed complete for purposes of coverage under the NOI.

5. Language related to termination of discharge

The draft TO would allow the Executive Officer to terminate discharge authorization at any time.

ACWD requested that language be added indicating that an order to terminate discharge would not occur without opportunity for a public hearing.

Current Status of Major Concerns and Proposed/Requested Actions

ACWD met with Water Board staff on March 7, 2007 and verbally resolved several of the above issues. The agreements reached were summarized in meeting notes dated March 8, 2007. Water Board staff reviewed the meeting notes and concurred that they accurately captured the discussion and agreements reached. ACWD has not yet seen revised TO language that reflects these agreements. Therefore, for the record, we are summarizing the agreements below and are providing suggestions consistent with these agreements for revised TO language in the attached redline-strikeout copy of the complete TO package. ACWD staff are available and committed to continue working closely with Water Board staff to develop mutually acceptable language to include in the Revised TO that will be provided to the Board members and the public the week before the scheduled April 11, 2007 Water Board hearing.

A summary of the agreements reached on the five issues outlined above, ACWD comments on still unresolved aspects of the draft TO, and requested actions is provided below.

1. Salinity Trigger and Non-Salinity Triggers

- Water Board staff noted that the real concern with salinity is for new discharges, not existing ones, such as ACWD's discharges. Because staff recognizes that any new discharges of brackish water as part of an aquifer protection or reclamation program would likely occur within, or very near to estuarine receiving water environments (as ACWD's discharges do), a salinity trigger is not applicable.
- **Agreement (*March 7, 2007 meeting*):** To delete the salinity trigger requirements from the draft tentative order. Appropriate edits will be made to the language in Special Provision 6 and wherever else in the overall General Permit package that salinity triggers are referenced.
- **Discussed Language Edits (*March 7, 2007 meeting*):** New language will be added under II. FINDINGS, B. Facility Description, subsection "2. Aquifer protection well discharges (typically long term)" and "3. RO Concentrate aquifer protection well discharges." This language will state that these two categories of discharge occur either in an estuarine area, or to a flood control channel near and tributary to an estuarine area. In addition, within these sections, language will be added to indicate that these types of discharges will follow Column "B" of Table 2. Trigger Compounds or Constituents. Column "A" within Table 2 is intended for use where discharges are to designated municipal drinking water sources.
- **Proposed/Requested Action:** 1) ACWD will provide recommended edits to the TO package to remove references to salinity triggers. ACWD will provide footnote language to Table 2 noting that the trigger values are default values and should be adjusted using site specific hardness, metals translators, and site specific water quality objective information, where sufficient site specific data exist.

2. Representative Testing for CTR Priority Pollutants

- The Water Board staff is open to considering possible amendments to the NOI application requirements to provide for representative monitoring. Water Board staff suggested that NPDES data needs be met where feasible by reference to data collected for other purposes, such as DHS/SDWA requirements. ACWD provided the following excerpt from the EPA NPDES Application Form 2C instructions:

If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

- **Agreement (March 7, 2007 meeting):** ACWD will provide additional information about why the priority pollutant data that has been collected is representative or represents the worst case (see item 4 below).
- **Proposed/Requested Action: 2a)** ACWD will provide a draft Monitoring and Reporting Plan (MRP) for its facilities. ACWD requests that the MRP be included in the GP adoption by the Water Board and be effective on the effective date of the GP. It is our understanding that approval of the MRP is the only remaining action necessary for ACWD to obtain discharge authorization under the GP.
- **Proposed/Requested Action: 2b)** ACWD requests and has provided in its TO markup, inclusion of the above EPA Form 2C language allowing ACWD to use representative outfalls (wells) and well data.

3. Basin Plan Exceptions

- **Agreement (March 7, 2007 meeting): 3)** Board staff will continue in the general permit the ACWD individual permit's existing exceptions from the Basin Plan's 10:1 dilution prohibition.

4. NOI Approval and Discharge Authorization Procedure

- ACWD provided by email on March 12, 2007 to Water Board staff a summary of monitoring data collected to date and on-going groundwater management programs to satisfy NOI requirements as complete.
- **Agreement (received via email March 13, 2007):** Water Board staff reviewed the ACWD information submitted on March 12th and by email dated March 13, 2007 stated that the ACWD NOI was found complete for coverage under the GP.

- Water Board staff reassured ACWD that there would be continuous permit coverage for ACWD's discharges either under the current, individual permit or under the general permit once it becomes effective (tentatively effective date is October 1, 2007). Staff plans to go to the Water Board to rescind the individual permit 30 days after the TO for the general permit is adopted (tentative date for adoption is April 11, 2007).
- **Proposed/Requested Action: 4a)** ACWD has provided requested permit language whereby (following submittal and inclusion of the ACWD MRP) ACWD would be granted discharge authorization upon the effective date of the permit. ACWD requests this given that it has been operating under an individual NPDES for over 20 years. This option is allowed under 40 CFR 122.28(b)(2)(iv):

“General permits shall specify whether a discharger (or treatment works treating domestic sewage) that has submitted a complete and timely notice of intent to be covered in accordance with the general permit and that is eligible for coverage under the permit, is authorized to discharge, (or in the case of a sludge disposal permit, to engage in a sludge use or disposal practice), in accordance with the permit either upon receipt of the notice of intent by the Director (emphasis added), after a waiting period specified in the general permit, on a date specified in the general permit, or upon receipt of notification of inclusion by the Director.”

The Central Valley Board Low Threat Discharge to Surface Water General Order No. 5-00-176 Finding 9 provides for coverage upon receipt of a completed NOI:

Dischargers that meet the standards of this order and who submit a completed NOI and appropriate fee are authorized to discharge under the terms and conditions of this General Permit.

- **Proposed/Requested Action: 4b)** ACWD has provided the following requested permit language (from another GP) supporting the position that a single discharge authorization letter can be issued covering the multiple ACWD discharges. ACWD recommends this provision be applicable to its discharge authorization process.

Any discharger proposing similar discharges at multiple sites may be covered under one discharge authorization letter on a case-by-case basis, subject to the approval of the Executive Officer.

5. Termination of Discharge

- **Agreement (March 7, 2007 meeting):** Water Board staff explained that the current procedure would be to take the issue of termination of any discharge to the Water Board for a public hearing, and the language in the TO will be changed to reflect this procedure.
- **Proposed/Requested Action: 5)** ACWD has not yet seen the proposed TO language changes. The following language modified from a statewide GP has been included in the TO markup attached:

After notice and opportunity for a hearing, coverage of an individual discharge under this General Permit may be terminated or modified for cause, including but not limited to, the following:

- a. Violation of any term or condition of these General Permit;*
- b. In obtaining these General Permit, misrepresentation or failure to disclose all relevant facts; and*
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.*

Additional Minor Comments

1. General Permit Title

- ACWD is currently the primary entity that will be regulated under Facility Description categories (2) and (3) of this GP. ACWD does not discharge Low-Level, Incidental, or Potentially Contaminated Groundwater. ACWD only discharges brackish potable uncontaminated groundwater. ARP well water is blended with low TDS RO permeate and delivered directly to the drinking water distribution system serving ACWD customers. ACWD has been determined to be a minor discharger by EPA while it has historically extracted up to 30 mgd. ACWD also has been found to pose a very low threat to water quality based on the criteria included in the CCR Title 23 annual fee schedule guidelines. ACWD is concerned that through mis-interpretation of the current permit title, customers may perceive that they are being supplied contaminated groundwater.
- **Proposed/Recommended Action:** ACWD requests that the title be changed to “Low-Level, Incidental, Potentially Contaminated, or Uncontaminated Groundwater.”

2. Language Applicable to Category (1.) Facility Description Dischargers

- ACWD does not operate any structural dewatering facilities (Category 1). Therefore, ACWD has not provided comments relative to specific aspects of the TO as applicable to Category 1 discharges (i.e. implementation issues associated with the freshwater salinity trigger). However, in its markup comments on the TO package attached and wherever practical, ACWD has endeavored to provide language that would help clarify aspects of the permit common to all three categories of discharge

Summary of Major Requested Water Board Actions

- 1) Delete the salinity trigger for brackish potable groundwater discharges, such as ACWD’s, to estuarine receiving waters
- 2a) Adopt a monitoring and reporting plan specific for ACWD concurrent with and effective with adoption of the General Permit
- 2b) Allow use of representative groundwater data in lieu of individual discharge data
- 3) Continue in the general permit any current individual permit’s exceptions, such as ACWD’s, to the Basin Plan’s 10:1 dilution discharge prohibition

- 4a) Set the ACWD discharge authorization date as the effective date of the General Permit
- 4b) Allow similar discharges at multiple sites to be covered under one discharge authorization letter
- 5) Clarify that coverage of an individual discharger under this General Permit may be terminated or modified for cause only after public notice and opportunity for a Water Board hearing

In closing, we would like to take this opportunity to express our appreciation for the time and effort Ms. Lila Tang, Ms. Christine Boschen, and Mr. Farhad Azimzadeh of your staff have thus far put forth to discuss, and to cooperatively work with ACWD to address our issues of concern with this new General Permit. Our staff remains committed and available to provide any additional information needed to help address and or clarify our attached comments and recommended modifications to the Tentative Order.

We look forward to resolving the few remaining issues. We request the opportunity to conference with Water Board staff during the week of March 26th, or earlier, to clarify the intent of the additional minor requested changes which are included in the TO permit markup attached - but in the interest of brevity, are not called out in detail within this comment letter.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Paul Piraino
General Manager
Alameda County Water District

Attachments: ACWD Detailed Comments on Tentative Order
ACWD Detailed Comments on Tentative Order – ATTACHMENT B
ACWD Detailed Comments on Tentative Order – ATTACHMENT C
ACWD Detailed Comments on Tentative Order – ATTACHMENT E
ACWD Detailed Comments on Tentative Order – ATTACHMENT F
ACWD NPDES Permit Reissuance Chronology

cc: Tom Hall, EOA

California Regional Water Quality Control Board

San Francisco Bay Region
1515 Clay Street, Suite 1400
(510) 622-2300 • Fax: (510) 622-2460
<http://www.waterboards.ca.gov>

ORDER NO. R2-2007-00xx
NPDES NO. CAG912004

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**GENERAL WASTE DISCHARGE REQUIREMENTS FOR:
Discharges of Low-Level, Incidental, Potentially Contaminated, or
Uncontaminated Groundwater and Discharges of Reverse Osmosis Concentrate
Resulting from Treatment of Groundwater by Reverse Osmosis**

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Table 1. Administrative Information

This Order was adopted by the Regional Water Board on:	April 11, 2007 [Tentative]
This Order shall become effective on:	June 13, 2007 [Tentative]
This Order shall expire on:	June 13, 2012[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.	
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. The terms and conditions of the Order will automatically continue after its expiration date for such Dischargers that meet criteria for coverage under the General Permit and that have submitted an NOI deemed complete by the Executive Officer before the stated deadline. The terms and conditions of the General Permit will remain in effect until a new Order is adopted by the Regional Water Board. Such Dischargers for which coverage is extended will become subject to the new Order upon authorization by the Executive Officer.	

IT IS HEREBY ORDERED, that 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.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 11, 2007 [Tentative].

Bruce H. Wolfe, Executive Officer

California Regional Water Quality Control Board
 San Francisco Bay Region

ORDER NO. R2-2007-00xx
NPDES NO. CAG912004

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I. FACILITY INFORMATION

The regulated facilities under this Order are groundwater discharges that fall under one of the three following categories (typically long term) and are not otherwise covered by the municipal general stormwater permits or other applicable individual NPDES permits:

- A. Structural dewatering resulting in greater than 50,000 gallons per day and requiring treatment before discharging;
- B. Aquifer protection and salinity barrier well discharges specifically related to efforts aimed at protecting, reclaiming, and restoring ground water quality impacted by, or the possible occurrence of, salinity intrusion and; or,
- C. Reverse osmosis (RO) concentrate from aquifer protection well discharges.

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Specific Facility information for each discharge shall be included in the Notice of Intent (NOI) Form submitted for that discharge (see Attachments B and C). The submittal of an NOI Form is not needed for ACWD's 14 aquifer reclamation/salinity barrier protection well discharges and its discharge of RO concentrate that is generated by its desalination facility in Newark because comparable information has already been submitted.

Examples of typical discharges to be covered by this permit are provided in Findings II.B.1 through II.B.3.

II. FINDINGS

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

- A. Background.** The Regional Water Board has issued municipal stormwater permits to urbanized areas, requiring the municipalities to prohibit the discharge of non-stormwater into their storm drain systems that they own and/or operate. The stormwater permits contain a category of "Conditionally Exempted Non-Stormwater Discharges" that can be allowed to discharge to storm drains if applicable Best Management Practices (BMPs), control measures, and recording and reporting practices are followed. Large volume non-polluted groundwater discharges have been inconsistently regulated under the Conditionally Exempted permit provision. There are an unknown number of these non-polluted groundwater discharges occurring in the San Francisco Bay Region. There are instances when these discharges may become polluted by solids, non-organic pollutants, or organic pollutants not covered by the General Waste Discharge Requirements for Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Fuel Leaks and other Related Wastes at Service Stations and Similar Sites, NPDES Permit No. CAG912002 (hereinafter Fuels General NPDES permit); or, Discharge or Reuse

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of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds, NPDES Permit No. CAG912003 (hereinafter VOC General NPDES permit). There may also be instances when discharges cause degradation of the receiving water bodies due to the volume and/or velocity of the discharged water. These discharges are not covered by the exemption and need to be regulated by a NPDES permit such as this general permit. Drinking water aquifer remediation/protection well discharges in Alameda County are an example of a discharge that does not qualify for coverage under the municipal stormwater permits.

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. Upon approval by the Executive Officer, a single discharger proposing similar discharges at multiple sites may obtain coverage and authorization to discharge at multiple facilities/sites under this Order.

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B. Facility Description. This Order regulates discharges to surface water from the following sources:

1. Structural dewatering resulting in greater than 50,000 gallons per day and requiring treatment (typically long term). These are long-term dewatering systems under or around buildings and pipelines to remove groundwater infiltration. Buildings and underpass structures are two examples of structures that may require continuous dewatering.
2. Aquifer protection well discharges (typically long term). These groundwater extraction facilities are in operation to protect drinking water supply aquifers from salt water intrusion. For example, Alameda County Water District (ACWD), operates a series of wells along the southeast side of San Francisco Bay. Historically, ACWD has discharged and in the future may again discharge up to 30 MGD of extracted brackish potable groundwater and RO concentrate in the Fremont-Newark area to flood control channels. The locations of these wells and discharges are shown in xxx. (Note: Need to attach Figure.) The ACWD drinking water protection well discharges are regulated under an individual NPDES Permit No. CA0038059, Order No. 00-029. The Regional Water Board plans to rescind this individual permit as soon as this Order becomes effective.
3. Reverse osmosis (RO) concentrate covered by this order typically results from the reclamation of brackish potable groundwater extracted from long-term aquifer protection well discharges that are designed to protect groundwater from further brackish water intrusion. Pumped brackish groundwater may be treated by RO so that the extracted groundwater may be reclaimed as potable water, and the RO concentrate discharged as waste. For example, this is the case with the ACWD RO desalination

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facility located in Newark. This desalination facility currently processes about 6.25 mgd of extracted brackish groundwater to produce about 5 mgd of potable water used as part of ACWD's water supply and 1.25 mgd of concentrate that is discharged as waste. ACWD plans to double the capacity of this desalination facility in the near future and it may bring another similar facility on line in Fremont within the next 15 years. The current and anticipated future expanded discharge of RO concentrate will be to the Alameda County Flood Control and Water Conservation District's Line F where it crosses Central Avenue in Newark.

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All such discharges originate as groundwater and are discharged to fresh or estuarine surface waters. This Order requires Dischargers to provide a complete description of the discharge water's treatment system, if any, installed at each Facility, and the pollutants that the system is designed to remove, in the Notice of Intent NOI (Attachments B and C).

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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 an NPDES permit for point source discharges from these Facilities 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 ACWD's application for permit renewal, 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 are also incorporated into this Order.

The permit reapplication and supporting information submitted by ACWD is comparable to that needed to meet the application requirements prescribed in this Order. This information included the following:

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1. The ACWD's Report of Waste Discharge dated November 19, 2004, application for renewal of its individual NPDES permit to discharge brackish, extracted groundwater from its Aquifer Reclamation Program and Salinity Barrier Project wells and RO concentrate from its brackish groundwater desalination facility, hereinafter ACWD's Facilities.

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2. NPDES Permit Order No. 00-029 Self-Monitoring and Reporting program results, including the results of testing to meet the requirements of the Regional Water Board's August 6, 2001 13267 letter.

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3. Other special study and groundwater management program results as summarized in the March 12, 2007 email submitted by ACWD.

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4. Water Board staff found the NOI to be complete on March 13, 2007.

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On this basis the Water Board determines that ACWD is covered by this Order for its extracted groundwater discharges and for its current and future planned RO concentrate discharges as described under Findings B.2 and 3.

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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. CWA Section 301 (b) and NPDES regulations at 40 CFR 122.44 require permits to, at a minimum, meet applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Technology-based effluent limitations have not been established by USEPA for the types of discharges authorized by this Order

G. Water Quality-based Effluent Limitations. 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).

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H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the San Francisco Bay Basin (hereinafter Basin Plan) on June 21, 1995, and amended this plan on January 2, 2004, and November 16, 2005. This latter amendment will be final after approval from the State Water Board and Office of Administrative Law. 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.

The Basin Plan states that the Regional Water Board "recognizes that people of the San Francisco Bay region are interested in developing the capacity to conserve and reclaim water to supplement existing water supplies, meet future water requirements, and restore the region's watersheds and estuarine system." In addition, this section of the Basin Plan reiterates the Water Code's legislative intent that the state undertake all possible steps to encourage development of water reclamation facilities, so that reclamation may be a significant source to meet the growing water needs of the state. Water reclamation includes the augmentation of the long-term dependable water supply by activities, such as managing brackish water intruded groundwaters so that they may be treated and reclaimed for potable water supplies.

The Basin Plan contains a prohibition of discharge of any wastewater which has particular constituents of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any non-tidal water, dead-end slough, similar confined waters, or immediate tributaries thereof, or to San Francisco Bay south of the Dumbarton Bridge.

The Regional Water Board determined in Order No. 00-029, and reaffirms herein, that ACWD's Aquifer Reclamation Program and Salinity Barrier Project well

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Inserted: e ACWD's Aquifer Reclamation Program and Salinity Barrier Project well discharges to flood control channels comply with the three Basin Plan prohibitions because the groundwater discharges do not contain "particular characteristics of concern" to beneficial uses. In addition, the discharge of reverse osmosis concentrate into ACFCWCD flood control channel line F is consistent with the Basin Plan exception criteria to the discharge prohibitions because the desalination facility:¶
¶ Provides net environmental benefits through protection and desalination of the brackish groundwater basin and production of a new potable water supply.¶
¶ Provides an equivalent level of environmental protection since there will be no new constituents of concern introduced and the mass of trace elements discharged will be reduced compared to not operating the desalination facility.¶
¶ Is part of a reclamation project through salinity control and recovery of an otherwise wasted resource; and
¶ Would result in an inordinate burden relative to beneficial uses protected since if the desalination facility were not operated, water would have to be imported from new sources of supply.¶
¶

discharges to flood control channels comply with the three Basin Plan prohibitions because the groundwater discharges do not contain "particular characteristics of concern" to beneficial uses. In addition, the discharge of reverse osmosis concentrate into ACFCWCD flood control channel line F is consistent with the Basin Plan exception criteria to the discharge prohibitions because the desalination facility:

- Provides net environmental benefits through protection and desalination of the brackish groundwater basin and production of a new potable water supply;
- Provides an equivalent level of environmental protection since there will be no new constituents of concern introduced and the mass of trace elements discharged will be reduced compared to not operating the desalination facility;
- Is part of a reclamation project through salinity control and recovery of an otherwise wasted resource; and
- Would result in an inordinate burden relative to beneficial uses protected since if the desalination facility were not operated, water would have to be imported from new sources of supply.

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The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. Requirements of this Order implement the Thermal 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, toxic pollutants, applicable to inland surface waters, enclosed bays, and estuaries of the State.
- 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.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules and interim effluent limitations and/or discharge specifications.
- 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 the Fact Sheet, the permitted discharges are 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(i) 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

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ACWD's previous Order and other discharges that will be covered by this Order that were not covered under a previous Order.

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- 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, IV.C, V.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 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. 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.

III. DISCHARGE PROHIBITIONS

The following discharges are prohibited and cannot be authorized for coverage under this General Permit.

- A. Discharges of extracted groundwater or RO concentrate at a location or in a manner different from that prescribed by this Order are prohibited. Deleted: described in
- B. Discharges at flow rates greater than authorized by the Executive Officer or this Order are prohibited, unless an increase in the flow rate is approved by the Executive Officer.
- C. Discharges authorized by the Order shall not cause pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
- D. Discharges authorized by the Order shall not occur at a volume or velocity to cause erosion and/or scouring to the banks or bottoms of receiving waters.
- E. Discharges of filter backwash water, membrane cleaning solutions, or other waste streams resulting from or associated with the treatment of uncontaminated, brackish ground water by RO and not described as RO concentrate, are prohibited.
- F. Discharges of drilling fluids are prohibited.
- G. Discharges of groundwater contaminated with volatile organic compounds (VOCs) are prohibited. Discharges with VOC contamination shall apply for coverage under the VOC general NPDES permit No CAG912003.
- H. Discharges of groundwater contaminated with fuels are prohibited. Discharges with fuels contamination shall apply for coverage under the Fuels general NPDES permit No CAG912002.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

The discharges of effluent shall comply with the following effluent limitations.

1. **Residual Chlorine:** There shall be no detectable levels of residual chlorine in the effluent (a non-detect result using a detection level equal or less than 0.04 milligram per liter will not be deemed to be out of compliance).
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 or later edition) 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. Alternate test species and methods may be authorized by the Executive Officer.

{Note: Added since if discharging highly brackish groundwater, it may be necessary to test with an estuarine or marine species to be able to separate out potential toxicity from toxic constituents versus simply elevated salinity.}

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B. Discharge Specifications

All authorized Dischargers shall conduct receiving water, effluent monitoring and/or special studies as specified in the attached MRP (Attachment E) and compare analytical results with the triggers described in Provisions VI.C.6 and VI.C.7. These triggers are not effluent limitations. Exceedances of triggers, however, do lead to additional requirements, which are designed to mitigate potential adverse impacts and to determine if discharges continue to be suitable for coverage under the General Permit. All Dischargers shall adhere to applicable procedures, described by Provisions IV.C.6 and VI.C.7.

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C. Reclamation and Land Discharge Specifications

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 groundwater in accordance with the requirements of this Order.

2. **Reuse Allowed:** This Order permits reuse or reclamation of extracted groundwater in conjunction with the discharge to surface water, except for purposes of recharge or reinjection. Reuse of extracted groundwater can take many forms, such as irrigation of landscaping or agriculture, dust control or soil compaction on construction sites, and industrial water supply.

3. Water Reclamation Specifications (Water Reuse Only)

Reclaimed waters that are used for potable water shall meet the requirements established by the Department of Health Services for potable use. Land application reuse projects other than for potable use will meet the following requirements:

a.

{Note: Section IV.A's surface water effluent limits are not applicable to land application water reuse projects}

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.

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Inserted: Reuse projects other than for potable use will meet the following requirements:

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- 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 extracted groundwater intended for reuse.
{Note: Groundwater may or may not be treated before reuse}
- i. Water reclamation consisting of recharge or reinjection is not authorized under this Order.

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4. Land Discharge Specifications. This Order permits limited land discharges of extracted groundwater in conjunction with the discharge to surface water, except for purposes of significant recharge or reinjection. In general, the specifications in Section IV.C.3 also apply to land discharges. *{Note: How is this different than C.3?}*

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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. Discharges shall not cause the following conditions to exist in the receiving water.

1. Narrative Limits

- a. Floating, suspended, or deposited macroscopic particulate matter or foam;
- b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
- 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 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

- a. Dissolved Oxygen. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then discharges shall not cause further reduction in ambient dissolved oxygen concentrations.
- b. Dissolved Sulfide. Discharges shall not cause dissolved sulfide concentrations to be above natural background levels in receiving waters.
- c. pH. Discharges shall not cause pH of receiving waters to be less than 6.5 or greater than 8.5. In receiving water that are naturally alkaline (i.e. greater than pH 8.0), the discharges shall not cause changes greater than 0.5 units in background ambient pH levels.
- d. Turbidity. In non-tidal receiving waters, where background turbidity is greater than 50 NTU, the discharges shall not cause an increase of more than 10 percent above upstream background turbidity.
- e. Un-Ionized Ammonia. The discharge of waste shall not cause receiving waters to contain concentrations of un ionized Ammonia in excess of the following limits (in mg/l as N):

Annual Median	0.025
Maximum, Central Bay	0.16
Maximum, Lower Bay	0.40

- 3. Discharges shall not cause or contribute to a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board, as required by the Clean Water Act and regulations adopted there under. If more stringent water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, and such standards are applicable to discharges authorized by the Order, the Regional Water Board will revise and modify this Order in accordance with such newly promulgated or approved standards.

B. Groundwater Limitations

The discharge shall cause no violation of the Basin Plan water quality standards for receiving groundwaters with existing and potential beneficial uses of municipal and domestic supply, industrial water supply, industrial process water supply, agricultural water supply, and/or freshwater replenishment to surface water (see Table 2 numerical triggers in column A which are protective of municipal and domestic supply, agricultural water supply, and freshwater replenishment to surface water beneficial uses).

VI. PROVISIONS

A. Standard Provisions.

The Dischargers shall comply with all Standard Provisions 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 may be required to comply with additional monitoring requirements. The Executive Officer will specify such additional monitoring requirements in the authorization letter that will include an explanation of the need for the information. 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 Ambient Priority Pollutant Analysis.

[Note: The existing MRP in Attachment E appears overly prescriptive for most foreseen uncontaminated groundwater discharges. It requires the same extensive monitoring for all discharges regardless of their size, similarity, physical proximity, etc. Provide in the Permit as an option to Tables E.2 and E.3 the approach from the Utility Vault permit to instead submit a discharger specific MRP as part of the NOI. This would better accommodate dischargers like ACWD (and maybe Caltrans?) that have

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multiple but similar discharge sources. It would require them to "develop a representative sampling and analysis program to be used as case studies to represent the typical types of discharges occurring in their service areas." (See General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters Order No. 2006-0008-DWQ pages E-2 and 3)}

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C. Special Provisions.

1. **Reopener Provisions:** The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances:
 - a. If present or future investigations demonstrate that the discharge(s) governed by this Order will, or cease to, have adverse impacts on water quality and/or beneficial uses of the receiving waters;
 - b. As new or revised WQOs come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs;
 - c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified;
 - d. An administrative or judicial decision on a separate NPDES permit or WDR that addresses requirements similar to this discharge; and
 - e. As authorized by law.

The Dischargers may request permit modification based on the above. The Dischargers shall include in any such request an antidegradation and antibacksliding analysis as applicable.

{Note: This language was agreed to by Lila beginning with the EBDA permit reissuance in August 2006. Not all permit modification requests need anti-deg and anti-bs analyses}

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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.

The discharge of waters used for hydrotesting, flushing, or cleaning of wells, well water conveyance systems, and well water treatment systems, shall be subject to the effluent limits and triggers of this Order. The NOI shall contain the information about these discharges.

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{Note: The above may be a mistake/carry-over from an earlier permit draft, or are these types of discharges intended to be covered by this GP?}

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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 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 and Termination:** 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. *Any discharger proposing similar discharges at multiple sites may be covered under one discharge authorization letter on a case-by-case basis, subject to the approval of the Executive Officer.*

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After notice and opportunity for a hearing, coverage of an individual discharge under this General Permit may be terminated or modified for cause, including but not limited to, the following:

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- a. Violation of any term or condition of these General Permit;
- b. In obtaining these General Permit, misrepresentation or failure to disclose all relevant facts; and
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

{Note: The above language and approach are consistent with Standard Provisions II.A in the permit which derives from 40 CFR 122.41(f).}

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{Based on a reading of Water Code Section 13223 (a) below, it does not appear that the Board could delegate authority to the EO to require termination of discharge (i.e. issue the equivalent to a cease and desist order) or to terminate permit coverage as had been proposed in the TO;}

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"Each regional board may delegate any of its powers and duties vested in it by this division to its executive officer excepting only the following: (1) the promulgation of any regulation; (2) the issuance, modification, or revocation of any water quality control plan, water quality objectives, or waste discharge requirement; (3) the issuance, modification, or revocation of any cease and desist order; ... (emphasis added)

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The NOI application process described in Provision C.2 and 3 does not apply to ACWD's discharges because information comparable to these application requirements (listed in Finding D) has been submitted previously to the Water Board. The ACWD's discharges described under Findings II.B.2 and 3 are authorized under this Order starting on the date that the Order becomes effective.

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5. Non-Compliance as a Violation: Upon receipt of the Executive Officer's discharge authorization, or in the case of ACWD starting on the date that this Order becomes effective, the Discharger(s) shall comply with all applicable conditions and limitations of this Order and its Attachments. Any permit noncompliance (violations of requirements in this Order or Monitoring Program) constitutes a violation of the Clean Water Act, except as described in Finding Q, and the California Water Code and is grounds for enforcement action, permit or authorization termination, revocation and reissuance, modification, the issuance of an individual permit, or denial of a renewal application consistent with Special Provision C.4.

6. Salinity Trigger: The salinity trigger is not an effluent limitation, and should not be construed as such. Instead, it is a level at which additional investigation is warranted to determine whether a numeric salinity limit and/or other narrative requirements are necessary. The salinity trigger is not applicable to discharges, such as ACWD's discharges described in Findings II.B.2 and 3, because they do not adversely affect beneficial uses, including fish migration and estuarine habitat. The types of information needed for the Executive Officer to conclude that the salinity trigger is not applicable includes all of the following:

- a. The discharge is to a flood control channel that is located within an estuarine area or freshwater area that is upstream and near to an estuarine area.
- b. Any discharge to freshwater area contributes to the transition from freshwater to an estuarine area.
- c. The discharge does not cause a barrier to fish migration because the flood control channel is either located in watersheds, such as Plummer Creek, Newark Slough, and Mowry Slough, that do not support upstream habitat that would attract migrating fish or the channel, such as Alameda Creek, does have fish migration but the amount, location, and type of discharge does not adversely affect this migration.

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Where the Executive Officer determines that the salinity trigger applies, the following requirements will be met:

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The salinity trigger for discharges to freshwaters only applies to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment designated beneficial uses and is as follows: if the effluent causes a change in receiving water salinity of greater than 10 percent, as compared to the salinity data submitted with the NOI, the Discharger shall accelerate monitoring, and take monthly salinity samples and flow rate measurement, for one year (of the effluent, receiving water upstream, and receiving water downstream of the discharge point). If the accelerated monitoring confirms a change of more than 10 percent to receiving water salinity, for any one month or more, the Discharger shall follow Provisions VI.C.6.a.i through VI.C.6.a.iii.

- i. Within 180 days, conduct an assessment of the receiving water by following the California Stream Bioassessment Procedure, December 2003 Revision, http://www.dfg.ca.gov/cabw/csbbp_2003.pdf. The Discharger shall submit the results to the Executive Officer, and to the California's Department of Fish and Game.

[Note: We do not believe that chronic toxicity testing will provide information useful for evaluating the potential impacts of changes in salinity. There is no rationale in the Fact Sheet for why such monitoring would be beneficial. Chronic toxicity testing is not required under the Fuel Leak General Permit Order No. R2-2006-0075 from which this permit was derived. The rationale in that GP's fact sheet for only requiring acute toxicity testing was that it was "the same as previous permit and appropriately cost effective for these discharges." The same rationale should apply to discharge of uncontaminated groundwater under this permit.]

- ii. If the Regional Water Board Executive Officer determines there are adverse impacts to receiving waters applicable beneficial uses of, the Discharger shall evaluate and submit a report within 180 days on the feasibility of changing the discharge to a different receiving water, to discharge to land, or to discharge to sanitary sewer.
- iii. Based on the results of the above evaluations, the Regional Water Board Executive Officer may require termination of discharge and/or require application for individual NPDES permit.
- iv.

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Deleted: <#>The salinity trigger for discharges to estuarine waters is as follows: if the effluent causes a change in receiving water salinity of greater than 10 percent, as compared to the salinity data submitted with the NOI, the Discharger shall accelerate monitoring, and take monthly salinity samples and flow rate measurement, for one year (of the effluent, receiving water upstream, and receiving water downstream of the discharge point). If the accelerated monitoring confirms a change of more than 10 percent to receiving water salinity, for any one month or more, the Discharger shall follow Provisions VI.C.6.b.i through VI.C.6.b.iii. ¶

<#>Within 180 days, conduct a chronic toxicity test, and an assessment documenting the impacts to the applicable beneficial uses such as: areas of special biological significance, cold freshwater habitat, estuarine habitat, marine habitat, fish migration, preservation of rare or endangered species, shellfish harvesting, fish spawning, warm freshwater habitat, and/or wildlife habitat. The Discharger shall submit the results to the Executive Officer, and to the California's Department of Fish and Game. ¶

<#>If the Regional Water Board Executive Officer determines there are adverse impacts to receiving waters, based on the results of the toxicity reports, and/ or to the applicable beneficial uses of, the Discharger shall evaluate and submit a report within 180 days on the feasibility of changing the discharge to a different receiving water, to discharge to land, or to discharge to sanitary sewer. ¶

Based on the results of the above evaluations, the Regional Water Board Executive Officer may require termination of discharge and/or require application for individual

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[Note: RWB staff agreed 3/7/07 to delete this trigger as inapplicable for estuarine discharges]

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7. Other Triggers: The triggers as listed in Table 2 are not effluent limitations, and should not be construed as such. Instead, they are levels at which additional investigation is warranted to determine whether a numeric limit for a particular constituent is necessary. The authorization issued to each Discharger will indicate which trigger column is applicable to that specific discharge. The ACWD discharges described in Findings II.B.2. and 3 are required to follow the Table 2 column B triggers because the discharges are either located in estuarine areas or in freshwater areas close to these estuarine areas. If any constituent in the effluent of a discharge exceeds the corresponding trigger as listed in the Table 2, then the Discharger shall take three additional samples (three influent, if applicable, and three effluent) for each exceeded constituent during the following calendar quarter and if confirmed, the Discharger shall follow Provisions VI.C.7a through VI.C.7d. If this monitoring activity has already been completed in the past, then summarize the results including the design of any installed treatment unit.

- a. Within 90 days of confirming, through accelerated monitoring, that effluent concentrations of a pollutant exceed one or more of the above trigger, the Discharger shall submit a Feasibility Analysis to the Regional Water Board that describes if methods to control levels of pollutant(s) of concern are feasible, and if yes, describes the selected methods of source control, operational control, and/or treatment to control the pollutant(s) of concern and ensure that levels of pollutant(s) of concern in effluent will not be discharged at levels exceeding applicable water quality criteria. Source control, operational control, and/or treatment shall be implemented within 90 days following submittal of the Feasibility Study.
- b. If treatment is not feasible, within 180 days of the Feasibility Analysis report, the Discharger shall submit a chronic whole effluent toxicity report to evaluate impacts of discharge on receiving waters. This report shall include the results of chronic whole effluent toxicity testing.

[Note: this will be costly and time consuming if the standard multi-species multi-tier screening study needs to be done each time to first identify the most sensitive species. Results are also likely to be inconclusive since low level toxicity is often not persistent (i.e. not present weeks or months later. ACWD suggests replacing the chronic toxicity testing with a requirement to develop and implement an acute toxicity Toxicity Reduction Evaluation program, one step of which would be a Toxicity Identification Evaluation).

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- c. If the Regional Water Board Executive Officer determines there is adverse impacts to receiving waters based on the results of the toxicity reports, the Discharger shall evaluate and submit a report within 90 days on the feasibility of changing the discharge to a different receiving water, to discharge to land, or to discharge to sanitary sewer.
- d. Based on the results of the above evaluations, the Regional Water Board Executive Officer may require termination of discharge and/or require application for individual NPDES permit consistent with Special Provisions C.4 and C.5.

Table 2. Trigger Compounds or Constituents

Compound	CAS Number	Column A for Discharges to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Turbidity (Units)		5	
Total Dissolved Solids (TDS)		500,000	
Conductivity (mmhoms/cm)		200	
Chloride		142,000	
Antimony	7440360	6	4300
Arsenic	7440382	10	36
Beryllium	7440417	4	
Cadmium	7440439	2.2	2.2
Chromium (total)	18540299	11 (See Note 1)	11 (See Note 1)
Chromium (VI)	18540299	11	11
Copper	7440508	3.1	3.1 ¹
Lead	7439921	2.5	2.5
Mercury	7439976	0.025	0.025
Nickel	7440020	52	8.2 ²

Comment: Tom, add your comment about need to have hardness data to calculate whether the fw or salt water objective would be lower for some compounds

¹ The site-specific water quality objective for copper applicable as a trigger for discharges south of the Dumbarton Bridge is 6.9 ug/L.

² The site-specific water quality objective for nickel applicable as a trigger for discharges south of the Dumbarton is 11.9 ug/L.

³ Site-specific metals translators and ambient hardness data shall be used when available to adjust the applicable dissolved metals trigger values. After adoption by the Water Board, other applicable site specific objectives shall be used as the applicable triggers. [Note: The above dissolved metals triggers need to be translated to total metals since the monitoring data used for comparison, will be measured as total metals.]

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Compound	CAS Number	Column A for Discharges to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Selenium	7782492	5.0	5.0
Silver	7440224	3.4	1.9
Thallium	7440280	1.7	6.3
Zinc	7440666	120	81
Cyanide	57125	1.0	1.0
Asbestos	1392214	7 MFibers/L	
2,3,7,8-TCDD (Dioxin)	1746016	1.3E-08	1.4E-08
Acrylonitrile	107131	0.059	0.66
Bromoform	75252	4.3	360
Chlorodibromomethane	124481	0.401	34
Dichlorobromomethane	75274	0.56	46
1,2-Dichloropropane	78875	0.52	29
1,3-Dichloropropylene	542756	0.5	1,700
1,1,2,2-Tetrachloroethane	79345	0.17	1.1
Pentachlorophenol	87865	0.28	7.9
2,4,6-Trichlorophenol	88062	2.1	8.5
Benidine	92875	0.00012	0.00054
Benzo(a)Anthracene	56553	0.0044	0.049
Benzo(a)Pyrene	50328	0.0044	0.049
Benzo(b)Fluoranthene	205992	0.0044	0.049
Benzo(k)Fluoranthene	207089	0.0044	0.049
Bis(2-Chloroethyl)Ether	111444	0.031	1.4
Bis(2-Ethylhexyl)Phthalate	117817	1.8	5.9
Chrysene	218019	0.0044	0.049
Dibenzo(a,h)Anthracene	53703	0.0044	0.049
3,3'-Dichlorobenzidine	91941	0.04	0.077
2,4-Dinitrotoluene	121142	0.11	2.1
1,2-Diphenylhydrazine	122667	0.04	0.54
Hexachlorobenzene	118741	0.00075	0.00077
Hexachlorobutadiene	87683	0.44	50
Hexachloroethane	67721	1.9	8.9
Indeno(1,2,3-cd)Pyrene	193395	0.0044	0.049
N-Nitrosodimethylamine	62759	0.00069	2.1
N-Nitrosodi-n-Propylamine	621647	0.005	1.4
Aldrin	309002	0.00013	0.00014

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[Note: several Table 2 organics values were set at 5 ug/L instead of the CTR fish consumption value. These have been corrected in the table to the CTR values]

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Compound	CAS Number	Column A for Discharges to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	Column B for Discharges to Bay/Estuary (ug/L)
alpha-BHC	319846	0.0039	0.013
beta-BHC	319857	0.014	0.046
gamma-BHC	58899	0.019	0.063
Chlordane	57749	0.00057	0.00059
4,4'-DDT	50293	0.00059	0.00059
4,4'-DDE	72559	0.00059	0.00059
4,4'-DDD	72548	0.00083	0.00084
Dieldrin	60571	0.00014	0.00014
alpha-Endosulfan	959988	0.0087	0.0087
beta-Endosulfan	33213659	0.0087	0.0087
Endrin	72208	0.036	0.0023
Endrin Aldehyde	7421934	0.76	0.81
Heptachlor	76448	0.00021	0.00021
Heptachlor Epoxide	1024573	0.0001	0.00011
Polychlorinated biphenyls (PCBs) total	1336363	0.00017	0.00017
Toxaphene	8001352	0.0002	0.0002
Other VOCs	-	5	v
Other SVOCs	-	5	v
Turbidity (Units)	-	5	
Odor-Threshold (Units)	-	3	
Total Petroleum Hydrocarbons other than Gasoline and Diesel	-	50 (see Note 2)	v
Sulfate	-	250,000	
Foaming Agents	-	500	
Color (Units)	-	15	
Aluminum		5,000	
Boron		500	
Cobalt		50	
Fluoride		1,000	
Iron		300	
Lithium		2500	
Manganese		50	
Molybdenum		10	
Nitrate (as NO3)		45,000	
Nitrate + Nitrite (as N) NO3 + NO2 (as N)		5,000	
Nitrite (as N)		1,000	
Vanadium		100	
Combined Radium-226 and Radium-228 (IN pCi/l)		5	
Gross Alpha Particle (includes Radium-226 but excludes Radon and Uranium) (IN pCi/l)		15	

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Compound	CAS Number	Column A for Discharges to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Tritium (IN pCi/l)		20,000	
Strontium-90 (IN pCi/l)		8	
Gross Beta Particle Activity (IN pCi/l)		50	
Uranium (IN pCi/l)		20	
Fuels Related Pollutants		Apply for NPDES No. CAG912002	Apply for NPDES No. CAG912002
Solvents Related Pollutants		Apply for NPDES No. CAG912003	Apply for NPDES No. CAG912003

Legend: CAS = Chemical Abstract System, MCL = Maximum Contaminant Level, and CTR = California Toxics Rule

Note 1: If total chromium concentration exceeds 11 then Chromium (VI) analysis shall also be done

Note 2: If a Discharger is reporting monitoring data with a detection level higher than 50 ug/l, the reason for a higher detection level shall be fully explained in the monitoring report.

8. 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 a general permit to subsequently apply for and obtain an individual NPDES permit. The Executive Officer of the Regional Water Board may require any discharger authorized to discharge waste by a general permit to subsequently apply for and obtain an individual NPDES permit. An interested person may petition the Executive Officer or the Regional Administrator to take action under this provision. Cases where an individual NPDES permit may be required include the following.

- a. The discharger is not in compliance with the conditions of this Order or 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;
- d. A water quality control plan containing requirements applicable to such point sources is approved; or
- e. The requirements of 40 CFR 122.28(a), as explained in Finding No. II.C, are not met.

9. Treatment Reliability: Dischargers 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.

10. No Preemption: This Order permits the discharge of uncontaminated, brackish groundwater and RO concentrate, resulting from treatment of uncontaminated extracted ground water by RO, to waters of the State

subject to the prohibitions, effluent limitations and specifications, 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.

reporting program results, including the results of testing to meet the requirements of the Regional Water Board's August 6, 2001 13267 letter.

The salinity trigger for discharges to estuarine waters is as follows: if the effluent causes a change in receiving water salinity of greater than 10 percent, as compared to the salinity data submitted with the NOI, the Discharger shall accelerate monitoring, and take monthly salinity samples and flow rate measurement, for one year (of the effluent, receiving water upstream, and receiving water downstream of the discharge point). If the accelerated monitoring confirms a change of more than 10 percent to receiving water salinity, for any one month or more, the Discharger shall follow Provisions VI.C.6.b.i through VI.C.6.b.iii.

Within 180 days, conduct a chronic toxicity test, and an assessment documenting the impacts to the applicable beneficial uses such as: areas of special biological significance, cold freshwater habitat, estuarine habitat, marine habitat, fish migration, preservation of rare or endangered species, shellfish harvesting, fish spawning, warm freshwater habitat, and/or wildlife habitat. The Discharger shall submit the results to the Executive Officer, and to the California's Department of Fish and Game.

If the Regional Water Board Executive Officer determines there are adverse impacts to receiving waters, based on the results of the toxicity reports, and/ or to the applicable beneficial uses of, the Discharger shall evaluate and submit a report within 180 days on the feasibility of changing the discharge to a different receiving water, to discharge to land, or to discharge to sanitary sewer.

Based on the results of the above evaluations, the Regional Water Board Executive Officer may require termination of discharge and/or require application for individual NPDES permit.

ATTACHMENT B - NOTICE OF INTENT APPLICATION FORM

To Receive

**Authorization to Discharge Low-Level, Incidental, or Potentially Contaminated
Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment
of Groundwater by Reverse Osmosis under the Requirements of
ORDER NO. R2-2007-00xx, NPDES Permit No. CAG912004**

For Groundwater Discharge Facility located at:

_____ **Type or Print Facility Address above the line**

File No: 1210.60

This is an application to receive authorization to discharge wastewater as described below in Table 1:

Table 1. Mark Applicable Discharge Category

Category	Notice of Intent for:	
Category 1	Structural dewatering discharges (greater than 50,000 gallons per day and requiring treatment)	
Category 2	Aquifer protection well discharges	
Category 3	RO concentrate from aquifer protection well discharges	

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 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.

Name (print)

Signature and Date

Title/Organization

Address

Complete Table 2. Facility Information

1	Discharger's Name	
2	Name of Facility	
3	Facility Address	
4	Facility Contact, Title, and Phone	
5	Authorized Person to Sign & Submit Reports	
6	Mailing Address	
7	Billing Address	
8	Brief description and purpose of discharge	
9	Watershed (Please note that Watershed may have a different name than receiving water) ¹	
10	Receiving Water	
11	Receiving Water Type. For example, enclosed bay, estuary, inland surface water, or Sacramento-San Joaquin Delta	

I understand that if this discharge is eligible under the requirements of Order No. R2-2007-xxxx (Order), authorization to discharge extracted groundwater from the above facility will be granted providing the following conditions are met: {Note: ACWD ARP and SBP groundwater is not treated before discharge}

Deleted: treated

¹ If you do not know in which watershed your project is located, you may check web sites such as "San Francisco Bay Area Creek & Watershed Finder", at <http://www.museumca.org/creeks/resc.html>.

1. I must comply with all applicable requirements of the Order and the associated Self-Monitoring Program (SMP). The effluent shall not contain constituents in excess of the effluent limits in this Order.
2. A system including the elements described in Table 3 below and the schematic shown in Attachment 1 will be used for this discharge.

**Complete Table 3. Treatment System and/or Best Management Practices (BMP)
Description**

	Unit	Number	Further Description (such as size, capacity, location, and function),
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	Oxygenation Treatment Unit(s)		
11	Advanced Treatment Unit(s)		
12	Liquid-phase Granular Activated Carbon (GAC) vessel(s) in series		
13	GAC vessel(s) in parallel		
14	Dechlorination Unit		
15	Effluent reuse Infrastructure (If so, provide additional detail)		
16	Effluent land discharge Infrastructure (if so, provide additional detail)		
17	Energy Dissipater System		
18	Other Treatment Systems		
21	Other BMPs		

3. Attachment 2 is a report certifying the adequacy of each component of the proposed system, and including the table of contents of the associated Operation and Maintenance (O&M) Manual. This certification report contains an item-by-item analysis, based on accepted engineering practice, of how the process and physical design of the system will ensure compliance with the Order. This report also certifies that:
 - i. All facility startup and operation instruction manuals are adequate and available to operating personnel.

- ii. Adequate facility maintenance and testing schedules are included in the facility O&M Manual.
- iii. Influent and effluent sampling locations or ports are located in areas where samples representative of the waste stream to be monitored can be obtained.
- iv. The residual concentration of any chemical additive or additives used in the 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 an attachment in the O&M Manual.
- v. 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 be more frequent than the frequency as explained in the Tables E-2 through E-4 of Attachment E – Monitoring and Reporting Program and as required by the O&M Manual.
- vi. The design engineer has affixed his/her signature and engineering license number to this certification report in Attachment 2.

Complete Table 4. Responsible Party(ies) and Other Information

1	Design Engineer's Name, California License Number, Address, and Phone Number	
2	Operation and Maintenance Responsible Party Name (if applicable, Engineer's California License Number), Address, and Phone Number	

- 4. The maximum discharge rate of effluent shall not exceed _____ million gallons per day (MGD). The system is designed for _____ MGD. I understand this discharge shall not cause pollution, contamination, or nuisance. For example, the discharge shall cause no scouring or erosion at the point where the storm drain or outfall-pipe discharges into the receiving water(s).
- 5. The effluent will be discharged (directly or via a storm drain) to the receiving water(s) described in Table 5 below and shown on the aerial map in Attachment 3.

Complete Table 5. Discharge and Discharge Monitoring Locations

Discharge Point Location	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
Influent Monitoring Point(s)			
Effluent Monitoring Point			
Storm Drain Location (if applicable):			Storm Drain (if applicable)
Outfall Location:			
Upstream Receiving Water Monitoring Location (RSW-001U) <i>{Note: need to understand rationale for RW monitoring}</i>			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.
Downstream Receiving Water Monitoring Location (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.

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6. A copy of the Order, a complete copy of this Notice of Intent, documentation of the authorization to discharge received from the Regional Water Board, a full copy of the O&M Manual, and any other documents recommended by the design engineer shall be stored at or near the facility. These documents shall be made available to Regional Water Board staff during inspections. No O&M Manual shall be submitted to the Regional Water Board office, unless requested.

7. Self-Monitoring Reports shall be submitted on a quarterly calendar basis, no later than 45 days following the last day of the quarter. The laboratory results shall be summarized in tabular form, but the laboratory data sheets need not be included in the reports (unless requested). The reports shall summarize the monitoring data and include information such as the sample location (extraction well(s), influent, effluent, or receiving water); the constituents analyzed; the analytical methods used; the laboratory reporting levels in micrograms per liter (ug/l); the sample results (ug/l); the date sampled; and the date samples were analyzed. 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. These reports shall also include a description of the operation and maintenance of the groundwater extraction and treatment system. An annual report summarizing system operation and maintenance for the last four quarters shall be prepared and submitted no later than February 15 of the following year. The last calendar quarter monitoring report may be combined with the annual report. The annual report shall document that the annual fee has been paid.

8. I understand that it is the responsibility of any person proposing to discharge to a storm drain system or other watercourses to obtain authorization to discharge from the agency having jurisdiction over the use of the storm drain system or watercourse. I also understand any discharge authorization granted by the Regional Water Board is conditional and may be terminated at any time after notice and opportunity for a public hearing pursuant to General Permit Special Provision C.4.

9. Table 6 lists the sampling results for each influent or projected influent, and each effluent or projected effluent (as applicable). If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test. Unless requested, no laboratory reports have been included in this NOI.

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Table 6. Expected Compounds or Constituents in the Discharge

Compound	CAS Number	Maximum Levels of Pollutants expected in the influent (note the unit unless the unit is microgram per liter)	Maximum Levels of Pollutants expected in the effluent (note the unit unless the unit is microgram per liter)
Chlorine Residue			
pH (please include both maximum and minimum)			
Acute Whole Effluent Toxicity (Species used and percent survival)			
Turbidity (Units)			
Total Dissolved Solids (TDS)			
Conductivity (mmhoms/cm)			
Chloride			
Antimony	7440360		
Arsenic	7440382		
Beryllium	7440417		
Cadmium	7440439		
Chromium (total)	18540299		
Chromium (VI)	18540299		
Copper	7440508		
Lead	7439921		
Mercury	7439976		
Nickel	7440020		
Selenium	7782492		
Silver	7440224		
Thallium	7440280		
Zinc	7440666		
Cyanide	57125		
Asbestos	1332214		
2,3,7,8-TCDD (Dioxin)	1746016		
Acrylonitrile	107131		
Bromoform	75252		
Chlorodibromomethane	124481		
Dichlorobromomethane	75274		
1,2-Dichloropropane	78875		
1,3-Dichloropropylene	542756		
1,1,2,2-Tetrachloroethane	79345		
Pentachlorophenol	87865		
2,4,6-Trichlorophenol	88062		
Benzidine	92875		
Benzo(a)Anthracene	56553		
Benzo(a)Pyrene	50328		
Benzo(b)Fluoranthene	205992		
Benzo(k)Fluoranthene	207089		
Bis(2-Chloroethyl)Ether	111444		
Bis(2-Ethylhexyl)Phthalate	117817		
Chrysene	218019		

Compound	CAS Number	Maximum Levels of Pollutants expected in the influent (note the unit unless the unit is microgram per liter)	Maximum Levels of Pollutants expected in the effluent (note the unit unless the unit is microgram per liter)
Dibenzo(a,h)Anthracene	53703		
3,3'-Dichlorobenzidine	91941		
2,4-Dinitrotoluene	121142		
1,2-Diphenylhydrazine	122667		
Hexachlorobenzene	118741		
Hexachlorobutadiene	87663		
Hexachloroethane	67721		
Indeno(1,2,3-cd)Pyrene	193395		
N-Nitrosodimethylamine	62759		
N-Nitrosodi-n-Propylamine	621647		
Aldrin	309002		
alpha-BHC	319846		
beta-BHC	319857		
gamma-BHC	58899		
Chlordane	57749		
4,4'-DDT	50293		
4,4'-DDE	72559		
4,4'-DDD	72548		
Dieldrin	60571		
alpha-Endosulfan	959988		
beta-Endosulfan	33213659		
Endrin	72208		
Endrin Aldehyde	7421934		
Heptachlor	76448		
Heptachlor Epoxide	1024573		
Polychlorinated biphenyls (PCBs) total	1336363		
Toxaphene	8001352		
Constituents Below are Only Applicable to Discharges to Freshwaters with MUN and Related Beneficial Uses			
Other VOCs	-		
Other SVOCs	-		
Turbidity (Units)	-		
Odor-Threshold (Units)	-		
Total Petroleum Hydrocarbons other than Gasoline and Diesel	-		
Sulfate	-		
Foaming Agents	-		
Color (Units)	-		
Aluminum			
Boron			
Cobalt			
Fluoride			
Iron			

Compound	CAS Number	Maximum Levels of Pollutants expected in the influent (note the unit unless the unit is microgram per liter)	Maximum Levels of Pollutants expected in the effluent (note the unit unless the unit is microgram per liter)
Lithium			
Manganese			
Molybdenum			
Nitrate (as NO3)			
Nitrate + Nitrite (as N) NO3 + NO2 (as N)			
Nitrite (as N)			
Vanadium			
Combined Radium-226 and Radium-228 (IN pCi/l)			
Gross Alpha Particle (includes Radium-226 but excludes Radon and Uranium) (IN pCi/l)			
Tritium (IN pCi/l)			
Strontium-90 (IN pCi/l)			
Gross Beta Particle Activity (IN pCi/l)			
Uranium (IN pCi/l)			
Fuels Related Pollutants, please apply for NPDES No. CAG912002			
Solvents Related Pollutants, please apply for NPDES No. CAG912003.			
Other Pollutants not listed above but there is evidence to be present in the influent and/or effluent			

Legend: CAS = Chemical Abstract System

10. Monthly upstream and downstream receiving water flow rate and salinity data *[Note: TDS would appear to be a more appropriate monitoring parameter for most freshwater streams, particularly those with actual MUN type usage]* for one year and the projected flow rate and salinity of the projected effluent data are included in Attachment 5. I understand if the salinity of the effluent effects a change in the receiving water of 10 percent or greater for any month, then Attachment 5 includes an assessment report documenting the impacts to the applicable beneficial uses such as: cold freshwater habitat, fish migration, preservation of rare or endangered species, fish spawning, warm freshwater habitat, and/or wildlife habitat. This assessment report shall include chronic toxicity testing results if effluent samples are available. The California Stream Bioassessment Procedure, December 2003 Revision, http://www.dfg.ca.gov/cabw/csbp_2003.pdf, may be followed. In addition to its inclusion in the NOI, the report shall be submitted to the Department of Fish and Game. Requirements in this NOI Item 10 only apply to discharges to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment designated beneficial uses.

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Deleted: areas of special biological significance,

Deleted: estuarine habitat, marine habitat,

Deleted: shellfish harvesting,

Deleted: For receiving water characterized as fresh, t

11. Any other relevant information about this project that may be necessary to evaluate the eligibility of this discharge under the Order is included in Attachment 5.

12. Mark as applicable:

_____ A Check for \$ 5,688 is attached

(This discharge requires a treatment system to meet priority toxic pollutant limits and that could impair beneficial uses if limits are violated);

_____ A Check for \$ 3,437 is attached

(This Discharge requires a treatment system to meet non-priority pollutant limits, but are not expected to impair beneficial uses if limits are violated. Examples of non-priority pollutants include, but are not limited to, nutrients, inorganic compounds, pH, and temperature); or,

_____ A Check for \$ 1,185 is attached

(This Discharge requires minimal or no treatment system to meet limits and pose no significant threat to water quality).

13. Add the following five attachments to this form:

Attachment 1: Flow Schematics

Attachment 2: Engineering Certification Report

Attachment 3: Aerial Map (highlight the discharge path)

Attachment 4: Check for \$ _____

Attachment 5: Other Information

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

**ATTACHMENT C - INSTRUCTIONS FOR COMPLETING NOTICE OF INTENT (NOI) FORM
To Receive**

**Authorization to Discharge Low-Level, Incidental, or Potentially Contaminated
Groundwater and Discharges of Reverse Osmosis Concentrate Resulting from Treatment
of Groundwater by Reverse Osmosis under the Requirements of
Order No. R2-2006-XXXX, NPDES Permit No. CAG912004**

Facility Address: Please include Zip code and County for the Facility Address.

Table 1. Please Mark Applicable Discharge Category

Category	Notice of Intent for:	
Category 1	Structural dewatering discharges (Greater than 50,000 gallons per day and requiring treatment)	These are long-term dewatering systems under or around buildings and pipelines to remove groundwater infiltration. Buildings and underpass structures are two examples of structures that may require continuous dewatering.
Category 2	Aquifer protection well discharges	These groundwater extraction facilities are in operation to protect drinking water supply aquifers.
Category 3	RO concentrate from aquifer protection well discharges	Pumped groundwater may be treated by RO so that the groundwater may be returned to the drinking water supply, and the RO concentrate discharged as waste.

Discharger's Certification

This form must be signed by an appropriate corporate officer, general partner, principal executive officer, or ranking elected official. In no case should the consultant sign the forms.

Administrative Information

Complete Table 2. Facility Information

1	Discharger's Name	
2	Name of Facility	
3	Facility Address	
4	Facility Contact, Title,	

	and Phone	
5	Authorized Person to Sign & Submit Reports	
6	Mailing Address	
7	Billing Address	
8	Type of site or project.	For example: (1) temporary or permanent groundwater dewatering systems, operated to prevent groundwater infiltration or to remove collected groundwater, 2) groundwater extraction systems operated to protect or remediate drinking water supply aquifers from salt water intrusion, 3) facilities which treat groundwater by reverse osmosis (RO), or 4) other (please explain if "Other")
9	Watershed (Please note that Watershed may have a different name than receiving water)	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 .
10	Receiving Water	
11	Receiving Water Type	<enclosed bay, estuary, inland surface water, or Sacramento-San Joaquin Delta>

Condition 1. Please review the Order before completing this form.

Condition 2. The system shall be fully described.

Condition 3. This permit requires a professional engineer (PE) certified in the State of California to oversee the design of the system.

Condition 4. A PE shall certify the adequacy of each component of the proposed system. 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 disposal shall also be fully explained in the PE certification. Please note that the design engineer has the authority to reject usage of any chemical which has an inadequate MSDS or may cause an adverse effect on most sensitive Beneficial Uses of the receiving water. If you have a batch discharge, provide the frequency, volume, and maximum flow rate.

Condition 5. Some of this information may be obtained from the municipalities. The discharge path shall be highlighted from the facility to the final receiving water.

Condition 6. All documents needed by the facility technicians to properly operate or maintain the treatment facility shall be at or near the facility.

Condition 7. Late Self-Monitoring Reports are considered in violation of the permit's requirements and are subject to mandatory minimum penalty if more than 30 days late.

Condition 8. Prepare a contact List.

Condition 9: No application will be considered complete without complete delineation of constituents in the discharge. 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). Please note that Category 2 and 3 discharges (as listed in Table 1) may not receive treatment, and therefore effluent samples only will be required. If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

In case of detecting mercury in any well in excess of 0.025 microgram per liter (0.051 ug/L for well discharges tributary to the Lower South Bay), 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. {Note: RO is probably the only technology that would remove mercury in typical groundwater down to those levels. These are likely very de minimis discharges relative to overall mass loadings to the bay.} This NOI requires screening (meaning at least one grab sample analysis for all applicable constituents listed in Table 6 of NOI Form in Attachment B). All analytical test methods number and technique shall be reported. All analytical methods used shall be federally approved methods (in this case, please include 40 CFR part number), USEPA approved methods, Standard Methods, or equivalent. For equivalent methods, the lab director certification and name of the approved method shall be provided as an attachment to the NOI Form.

Condition 10. Receiving water salinity data may be available from the United States Geological Survey for select receiving water bodies (<http://www.usgs.gov>). The address for the Western Region of the U.S. Geological Survey office is: 345 Middlefield Road, Menlo Park, CA 94025; Phone: 650-853-8300. The Mission of the Department of Fish and Game (<http://www.dfg.ca.gov/cabw>) is to manage California's diverse fish, wildlife, and plant

resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

Condition 11. Other information such as vicinity to a highly polluted site shall also be provided in Attachment 5.

Condition 12. No application will be considered complete without the applicable fee. For discharges regulated under this General NPDES Permit, annual fees are based on California Code of Regulations (CCR) Title 23, Division 3, Chapter 9, Section 2200 (b) (9). The Regional Water Board may modify this instruction at any time to reflect a new CCR fee schedule. At this time, please follow the fee schedule explained on the next page.

- 1) Attach a Check for \$ 5,688 if your facility includes a treatment system to treat volatile or semi-volatile organic compounds and metals;
- 2) Attach a Check for \$ 3,437 if your facility includes a treatment system to treat pollutants other than volatile or semi-volatile organic compounds and metals; or,
- 3) Attach a Check for \$ 1,185 if your facility includes no treatment system.

Condition 13. All attachments are mandatory.

Please submit the PDF version of completed NOI Form and all attachments to the responsible staff member at the Regional Water Board office. At this time, the responsible staff member is Farhad Azimzadeh and his email address is fazimzadeh@waterboards.ca.gov

Note: The Regional Water Board may modify this instruction at any time as needed.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Table of Contents

I. General Monitoring Provisions.....	1	
II. Monitoring Locations.....	2	
III. Influent Monitoring Requirements.....		Deleted: 4
IV. Effluent Monitoring Requirements.....		Inserted: 4
V. Whole Effluent Toxicity Testing Requirements.....		Deleted: 3
VI. Land Discharge Monitoring Requirements. (Not Applicable).....		Deleted: 4
VII. Reclamation Monitoring Requirements.....	1	Inserted: 4
VIII. Receiving Water Monitoring Requirements – Surface Water and Groundwater.....	1	Deleted: 3
IX. Other Monitoring Requirements.....	1	Deleted: 4
X. Reporting Requirements.....	1	Inserted: 4

List of Tables

Table E-1. Monitoring Station Locations.....		Deleted: 3
Table E-2. Schedule for Sampling, Measurements, and Analysis.....		Deleted: 6
Table E-3. Monitoring Periods and Reporting Schedule.....		Inserted: 6
		Deleted: 5
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		Inserted: 11
		Deleted: 9
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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 Note: not required per MRP Section X.C.
- 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. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained by the Discharger and accessible and retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board or Regional Administrator of the U.S. Environmental Protection Agency, Region IX. Such records shall show the following for **each** sample:
1. Identity of sampling and observation stations by number.
 2. Date and time of sampling and/or observations.
 3. Method of sampling.
 4. Full report for rainbow trout bioassay test (96-hour static renewal(?) bioassay).
 5. Date and time that analyses are started and completed, and name of personnel performing the analyses.
 6. Complete procedure used, including method of preserving sample and

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identity and volumes of reagents used. A reference to a specific section of Standard Methods (SM) or the standard USEPA method number is satisfactory.

- 7. Calculations of results.
- 8. Results of analyses and/or observations.

- E. Monthly discharge flow volume shall be recorded, as well as totalized quarterly and annual flow.
- F. A tabulation reflecting bypassing and accidental waste spills shall be maintained.
- G. 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, <u>reclamation is in place, or reclamation is as potable water.</u>
	LDE-001	At a point immediately prior to land discharge. Not Applicable if land discharge groundwater is the same as effluent.

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[Note: Routine receiving water monitoring provides little pertinent information except for performing RPAs and calculating effluent limits. The distance up and downstream should be evaluated on a case by case basis depending on the relative size of the discharge and the receiving water and the receiving water channel width and depth.]

The monitoring locations that are applicable to ACWD's discharges are listed in Table E-2.

Table E-2. Monitoring Station Locations Applicable to ACWD

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
E-01	Lowry well	37° 34' 43" 122° 03' 29"
E-02	Cedar 1 & 2 wells	37° 32' 22" 122° 01' 06"
E-06	Willowood 1 & 2 wells	37° 32' 60" 122° 00' 39"
E-03	Bellflower well	37° 31' 47" 122° 00' 35"
E-04	Farwell	37° 31' 57" 121° 59' 48"
E-12	S.B.P. B well	37° 31' 14" 122° 01' 10"
E-13	S.B.P. A well	37° 30' 50" 122° 00' 19"
E-05	Darvon 1 & 2 wells	37° 32' 47" 122° 01' 28"
E-10	S.B.P. C well	37° 31' 38" 122° 03' 21"
E-07	S.B.P. E well	37° 35' 06" 122° 05' 22"
E-08	S.B.P. D well	37° 34' 23" 122° 05' 01"
E-14	Cedar 1, Cedar 2 & Bellflower wells and Desalination Facility Concentrate	37° 31' 18" 122° 01' 56" At a point between the facility and the point of discharge into ACFC/WCD Line F (located at Line F's intersection with Central Avenue) that includes any excess ARP well pumpage not being processed by the desalination facility.
Receiving Waters	C-1	Approximately 100 ft upstream of the E-14 discharge point in Line F
	C-2	Approximately 1,000 ft downstream of E-14
	C-3	Approximately 4,000 ft downstream of E-14 at the terminus of Line F
	C-4	Approximately 5,000 ft downstream from the terminus of Line F, within the tidally influenced area.

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III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Table E-3 and E-4, and, if applicable, no Influent samples shall include any treatment system recirculation. No influent monitoring is required for discharges that consist entirely of extracted groundwater, RO concentrate or a blend of these two.

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IV. EFFLUENT MONITORING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Tables E-3 and E-4 in accordance with the following conditions:

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- A. Samples of effluent shall be collected on days coincident with influent sampling.
- B. When any type of bypass of treatment systems occur, 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.

V. WHOLE EFFLUENT ACUTE TOXICITY TESTING REQUIREMENTS

The Discharger shall perform sampling and analyses according to the schedule in Tables E-3 and E-4 in accordance with the following conditions:

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- A. Fish bioassay samples shall be collected on days coincident with effluent sampling.
- B. Bioassay 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.3 - Schedule for Sampling, Measurements, and Analysis for Structural Dewatering Discharges and Aquifer Protection Well discharges

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Sampling Station	Minimum Sampling Frequency for Effluent EFF-001, Effluent for Reuse REU-001, or Effluent for Land Discharge LDE-001 or ACWD's E-1 - E-13 ¹ discharge points	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	Grab	Grab	
Flow Rate (MGD)	Daily (Meter or calculation based on time and pump capacity)		
Acute Whole Effluent Toxicity (% survival)	Y		EPA-821-R-02-012 Test, Method 2019.0
pH	M		USEPA Methods 150, 9040, or SM 4500-H+
Hardness (mg/L as CaCO ₃)	Y		USEPA Method 130 or SM 2340
Total Solids (mg/L) - this testing is only applicable to structural dewatering discharges	Q		SM 2540
Total Dissolved Solids (mg/L)	Q		SM 2540
Temperature (deg. C)	M		Field Measurement
Salinity (parts per thousand)	Q		EPA430/9-86-004 or SM 2520
Turbidity	Q	Q	USEPA Method 180 or SM 2130
Chlorine, applicable if influent being treated to have all chlorine residues removed	D		USEPA Method 330 or SM 4500-Cl
	Y		
Dissolved Oxygen (mg/L)	M		SM 4500 O
	Y		
Antimony Total (See Note 1)	Y		USEPA Method 206.3
Arsenic Total (See Note 1)	Y		USEPA Methods using GFAA or ICPMS Techniques
Beryllium Total (See Note 1)	Y		USEPA Methods using GFAA or ICPMS Techniques
Cadmium Total (See Note 1)	Y		Standard Method (SM) 3500
Chromium Hexavalent and Total Chromium (See Note 1)	Y		USEPA Method 200.9
Copper Total (See Note 1)	Y		SM 4500-CN- C or I
Cyanide Total (See Note 1)	Y		USEPA Method 200.9

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¹ The samples from ACWD's wells E-1 through E-13 may be composited (except for temperature, dissolved oxygen, pH, and turbidity) for laboratory analysis for groundwater extracted from wells that are screened in the same aquifer (e.g., samples from wells screened in the Newark aquifer may be composited for testing and samples from wells screened in the Centerville/Fremont aquifer may be composited). In addition, for the ACWD's wells this testing will cease for trigger constituents after two consecutive test results show no values exceeding the trigger values established in this Order's Table 2 column B.

Sampling Station	Minimum Sampling Frequency for Effluent EFF-001, Effluent for Reuse REU-001, or Effluent for Land Discharge LDE-001 or ACWD's E-1 --E-13 discharge points	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	Grab	Grab	
Lead Total (See Note 1)	Y		USEPA Method 1631
Mercury Total (See Note 1)	Y		USEPA Method 249.2
Nickel Total (See Note 1)	Y		SM 3114B or C
Selenium Total (See Note 1)	Y		USEPA Method 272.2
Silver Total (See Note 1)	Y		USEPA Method 279.2
Thallium Total (See Note 1)	Y		USEPA Method 200 or 289
Zinc Total (See Note 1)	Y		USEPA Method 204.2
Volatile Organic Compounds	Once within permit term from each well		USEPA Method 8260
Semi Volatile Organic Compounds except Polynuclear Aromatic Hydrocarbons	Once within permit term from each well		USEPA Method 8270
Polynuclear Aromatic Hydrocarbons	Once within permit term from each well		USEPA Method 8310
		{Note: too vague to implement}	

Notes for Table E-3. Note 1: 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 2: Standard Observations are explained in Provisions IX.C through IX.E of this document.

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 each day.
M Once each month.
Q Once each quarter.
Y Once each year.
Q/Y Quarterly for first year of operation, annually thereafter.

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TABLE E.4 - Schedule for Sampling, Measurements, and Analysis for RO Concentrate

Sampling Station	Minimum Sampling Frequency for Effluent EFF-001, Effluent for Reuse REU-001, or Effluent for Land Discharge LDE-001 and for ACWD's E-14 Discharge	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D) and for ACWD Receiving Water Stations Listed in Table E-2	Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	Grab	Grab	
Flow Rate (MGD)	Daily (Meter or calculation based on time and pump capacity)		
Acute Whole Effluent Toxicity (% survival)	Y		EPA-821-R-02-012 Test Method 2019.0
pH	M		USEPA Methods 150.9040 or SM 4500-H+
Hardness (mg/L as CaCO ₃)	Q		USEPA Method 130 or SM 2340
Total Dissolved Solids (mg/L)	M		SM 2540
Temperature (deg. C)	M		Field Measurement
Salinity (parts per thousand)	M		EPA430/9-86-004 or SM 2520
Turbidity (NTU)	Q	Q	USEPA Method 180 or SM 2130
Chlorine, applicable if influent is being treated to have all chlorine residues removed	D		USEPA Method 330 or SM 4500-Cl
Dissolved Oxygen (mg/L)	M		SM 4500 O
Antimony Total (See Note 1)	Y		USEPA Method 204.2
Arsenic Total (See Note 1)	Y		USEPA Method 206.3
Beryllium Total (See Note 1)	Y		USEPA Methods using GFAA or ICPMS Techniques
Cadmium Total (See Note 1)	Y		USEPA Methods using GFAA or ICPMS Techniques
Chromium Hexavalent and Total Chromium (See Note 1)	Y		Standard Method (SM) 3500
Copper Total (See Note 1)	Y		USEPA Method 200.9
Cyanide Total (See Note 1)	Y		SM 4500-CN- C or I
Lead Total (See Note 1)	Y		USEPA Method 200.9
Mercury Total (See Note 1)	Y		USEPA Method 1631
Nickel Total (See Note 1)	Y		USEPA Method 249.2
Selenium Total (See Note 1)	Y		SM 3114B or C
Silver Total (See Note 1)	Y		USEPA Method 272.2
Thallium Total (See Note 1)	Y		USEPA Method 279.2
Zinc Total (See Note 1)	Y		USEPA Method 200 or 289
Volatile Organic Compounds	Once within first year.,		USEPA Method 8260

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² For the ACWD's discharge this testing will cease for trigger constituents after two consecutive test results show no values exceeding the trigger values established in this Order's Table 2 column B.

Sampling Station	Minimum Sampling Frequency for Effluent EFF-001, Effluent for Reuse REU-001, or Effluent for Land Discharge LDE-001 and for ACWD's E-14 Discharge	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D, and for ACWD Receiving Water Stations Listed in Table E-2	Required Analytical Test Method Number, Technique, Standard Methods (SM), USEPA Report Number, 40 CFR Part (or equivalent)
Unit is "µg/L" and Type of Sample is "Grab" unless noted otherwise	Grab	Grab	
Semi Volatile Organic Compounds except Polynuclear Aromatic Hydrocarbons	Once within first year		USEPA Method 8270
Polynuclear Aromatic Hydrocarbons	Once within first year		USEPA Method 8310

Notes for Table E-3

Note 1: 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 2: Standard Observations are explained in Provisions IX.C through IX.E of this document.

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

GFAA = Graphite Furnace Atomic Absorption and ICPMS = Inductively Coupled Plasma/Mass Spectrometry.

Legends

- D Once each day.
- M Once each month.
- Q Once each quarter.
- Y Once each year.
- M/Q Monthly for first year of operation, Quarterly thereafter.

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TABLE E.5 – Additional Monitoring Requirements: Applicable when Limit or Trigger Value Exceeded in Previous Sample Set

Monitoring per this table is required for up to two quarters (as specified below) following an exceedance of an effluent limit or trigger value. In case of salinity trigger, 12 months of salinity monitoring is required. Other than the salinity trigger, the additional monitoring will be limited to the constituent or chemical that exceeded the trigger. For example, an exceedance of the effluent limit for pH would require additional monitoring for pH, etc.

Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (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	
	The monitoring requirements in these two columns apply when any constituent in the effluent of a discharge, as monitored per Table E-3 or E-4, exceeds the corresponding trigger as listed in the Table 2 of the Order:			
Flow Rate (MGD)		Daily (Meter or calculation based on time and pump)		

Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (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	
	The monitoring requirements in these two columns apply when any constituent in the effluent of a discharge, as monitored per Table E-23 or E-24, exceeds the corresponding trigger as listed in the Table 2 of the Order.			
		capacity)		
Acute Whole Effluent Toxicity (% survival)		V		EPA-821-R-02-012 Test, Method 2019.0
*		v		Approved USEPA Method Appropriate for the Receiving Water
Stream Bioassessment			Required to comply with the salinity trigger provision for a freshwater receiving water	California Stream Bioassessment Procedure, Revised 12/2003 http://www.dfg.ca.gov/cabw/csbp_2003.pdf
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Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (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	
	The monitoring requirements in these two columns apply when any constituent in the effluent of a discharge, as monitored per Table E-3 or E-4, exceeds the corresponding trigger as listed in the Table 2 of the Order:			
pH	V	V	V, Q ⁵	USEPA Methods 150, 9040, or SM 4500-H+
Hardness (mg/L as CaCO ₃)			Q ⁶	USEPA Method 130 or SM 2340
Total Solids (mg/L)			Q ⁵	SM 2540
Total Dissolved Solids (mg/L)	3 per Q	3 per Q	3 per Q ⁴	SM 2540
Temperature (deg. C)			Q ⁵	Field Measurement
Salinity (parts per thousand)		M ⁶	M ⁵	EPA430/9-86-004 or SM 2520
Turbidity (NTU)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 180 or SM 2130
Chlorine, applicable if influent being treated to have all chlorine residues removed		V		USEPA Method 330 or SM 4500-Cl
Chlorides (mg/L)	3 per Q	3 per Q	3 per Q ⁴	SM 4500 Cl-
Dissolved Oxygen (mg/L)			3 per Q ⁴	SM 4500 O
Conductivity (mmhoms/cm)	3 per Q	3 per Q	3 per Q ⁴	SM 2510
Antimony Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 204.2
Arsenic Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 206.3
Beryllium Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Methods using GFAA or ICPMS Techniques
Cadmium Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Methods using GFAA or ICPMS Techniques
Chromium Hexavalent and Total Chromium (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	Standard Method (SM) 3500
Copper Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 200.9
Cyanide Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	SM 4500-CN- C or I
Lead Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 200.9
Mercury Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 1631
Nickel Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 249.2
Selenium Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	SM 3114B or C
Silver Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 272.2
Thallium Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 279.2

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Sampling Station	Minimum Sampling Frequency for Influent INF-001	Minimum Sampling Frequency for Effluent EFF-001	Minimum Sampling Frequency for Receiving Surface Water RSW-001U and RSW-001D	Required Analytical Test Method Number, Technique, Standard Methods (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	
	The monitoring requirements in these two columns apply when any constituent in the effluent of a discharge, as monitored per Table E-3 or E-4, exceeds the corresponding trigger as listed in the Table 2 of the Order:			
Zinc Total (See Note 1)	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 200 or 289
Volatile Organic Compounds	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 8260
Semi Volatile Organic Compounds except Polynuclear Aromatic Hydrocarbons	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 8270
Polynuclear Aromatic Hydrocarbons	3 per Q	3 per Q	3 per Q ⁴	USEPA Method 8310
Y		Y	Y	

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- Y: Sampling should be performed ~~within 24 hours~~ after an ~~effluent limit exceedance~~ is confirmed in E-001.
- Q Once each quarter

Notes for Table E-4

- 1: 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.
 - 2: Standard Observations are explained in Provisions IX.B through IX.D of this document.
 - 3: If the additional 3 samples collected in the quarter following the initial exceedance confirms the exceedance and treatment is not feasible, then within 180 days of the feasibility analysis report, the Discharger shall conduct a chronic whole effluent toxicity. It is also required per salinity trigger provision. ~~(Note: As commented in the Permit, recommend deleting chronic toxicity monitoring as excessive and unlikely to provide useful information)~~
 - 4: In addition to the monitoring required per Note 3, during the same period, the Discharger shall take three additional samples (three up-gradient receiving surface water (RSW-001U) and three down-gradient receiving surface water (RSW-001D)) for each exceeded constituent. ~~(Note: As commented elsewhere, it does not appear that receiving water monitoring will provide useful information unless it is intended to be used for conducting Reasonable Potential Analyses and/or calculating effluent limits)~~
 - 5: This parameter should monitored if changes in this parameter may cause changes in the concentration of the triggered constituent. ~~(Note: Unclear how total solids data would be used)~~
 - 6: Sampling should be performed when Cadmium, Chromium (total), Copper, Lead, Nickel, Silver, or Zinc triggers are exceeded.
- 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
GFAA = Graphite Furnace Atomic Absorption and ICPMS = Inductively Coupled Plasma/Mass Spectrometry.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

The same as effluent and see section IX-E.

VII. RECLAMATION MONITORING REQUIREMENTS

The same as effluent and see section IX-E. These requirements exclude the monitoring, testing, and reporting for reclaimed water that is used as potable water.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

- A. The Discharger is required to perform sampling and analyses according to the schedule in Tables E-3 through E-5 as applicable.

IX. OTHER MONITORING REQUIREMENTS

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

^{*}{NOTE: These qualitative standard observations do not provide very useful information relative to monitoring these essentially clear, uncontaminated groundwater discharges. The time and effort would be better spent elsewhere in the monitoring program. Most wastewater treatment plant NPDES reissuances since EBDA in August 2006 have been allowed to delete this type of qualitative monitoring. It is also not readily compatible with current and future electronic reporting.}

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions in Attachment D and in this document related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports (SMRs)

1. 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>).

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Deleted: <#>Standard Observations for Receiving Water¶
<#>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.¶
<#>Discoloration and turbidity: description of color, source, and size of affected area.¶
<#>Odor: presence or absence, characterization, source, distance of travel, and wind direction.¶
<#>Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site.¶
<#>Hydrographic condition, if relevant:¶
<#>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).¶
<#>Depth of water columns and sampling depths.¶
<#>Weather condition:¶
<#>Air temperature.¶
<#>Wind direction and estimated velocity.¶
<#>Total precipitation during the previous five days and on the day of observation.¶
¶
<#>Standard Observations for Onsite Usage of Reclaimed Water Excluding Reclamation as Potable Water¶
<#>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.¶
<#>Discoloration and turbidity: description of color, source, and size of affected area.¶
<#>Odor: presence or absence, characterization, source, distance of travel, and wind direction.¶
<#>Weather condition:¶
<#>Air temperature.¶
<#>Wind direction and estimated velocity.¶
<#>Total precipitation during the previous five days and on the day of observation.¶
<#>Deposits, discolorations, and/or plugging in the conveyance sys... [5]

Inserted: <#> Excluding Reclamation as Potable Water

Inserted: <#>(Excluding RO Desalination Facilities)

2. The Dischargers shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Dischargers shall submit quarterly SMRs, no later than 45 days after end of each calendar quarter, including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

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Table E.6 - Monitoring Periods and Reporting Schedule

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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	1 st 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: Quarterly Self-Monitoring Reports shall also be submitted the Regional Water Board on a quarterly calendar basis, no later than forty five (45) days following the last day of the quarter. ~~Unless SMR data have been submitted electronically.~~ Annual Reports shall be submitted 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.

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:
 - a. 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).
 - b. 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

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numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm 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.

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5. The Discharger shall submit SMRs in accordance with the following requirements unless the equivalent SMR data has been submitted electronically to the RWB in accordance with RWB guidance and procedures:

- a. 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.
- b. The Discharger shall attach a cover letter to the monitoring reports. The information contained in the cover letter shall clearly identify violations of the permit; 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.
- 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
General NPDES NO. CAG912004

- 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:
1. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
 2. 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. The annual report shall document that the annual fee has been paid.

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C. Discharge Monitoring Reports (DMRs) Not Applicable

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D. Other Reports

1. Trigger Study Report: The Discharger shall report the results of any trigger study required by Special Provisions – VI.C.6 and the progress in satisfaction of compliance schedule dates specified in Special Provisions VI.C.7, VI.C.8, and VI.C.9 of this Order.
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) 622-2300 on weekdays during office hours from 8 a.m. to 12 p.m. and 1 p.m. to 5

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p.m, and to the Office of Emergency Services at (800) 852-7550 during non-office hours. A written report shall be submitted, with a 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 with a confirmation email to 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.

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Chlorides (mg/L)		M	SM 4500 Cl-
Page 7: [3] Deleted		E	2/15/2007 11:37 AM
Conductivity (mmhoms/cm)		M	SM 2510
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Other Pollutants not listed above but there is evidence to be present in the influent and/or effluent		Q	(Note: Too vague to implement) 40 CFR or USEPA Approved Method, SM, or equivalent

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Standard Observations for Receiving Water

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.

Discoloration and turbidity: description of color, source, and size of affected area.

Odor: presence or absence, characterization, source, distance of travel, and wind direction.

Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site.

Hydrographic condition, if relevant:

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).

Depth of water columns and sampling depths.

Weather condition:

Air temperature.

Wind direction and estimated velocity.

Total precipitation during the previous five days and on the day of observation.

Standard Observations for Onsite Usage of Reclaimed Water Excluding Reclamation as Potable Water

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.

Discoloration and turbidity: description of color, source, and size of affected area.

Odor: presence or absence, characterization, source, distance of travel, and wind direction.

Weather condition:

Air temperature.

Wind direction and estimated velocity.

Total precipitation during the previous five days and on the day of observation.

Deposits, discolorations, and/or plugging in the conveyance system that could adversely affect the system reliability and performance.

Operation of the valves, outlets, sprinkler heads, and/or pressure shutoff valves in conveyance system.

Standard Observations for Groundwater Treatment (Excluding RO Desalination

Facilities) and/or Discharge System

Odor: presence or absence, characterization, source, distance of travel, and wind direction.

Weather condition: wind direction and estimated velocity.

Deposits, discolorations, and/or plugging in the treatment system (stripping tower, carbon filters, etc.) that could adversely affect the system reliability and performance.

Operation of the float and/or pressure shutoff valves installed to prevent system overflow or bypass.

ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

The Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Some sections or subsections of the Order have therefore been identified as “not applicable” to this group of dischargers. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to the dischargers authorized by the Order.

I. PERMIT INFORMATION

This Order represents a new NPDES General Permit issued by the Regional Water Board. Dischargers expected to seek coverage under the Order include some that have been authorized to discharge by individual NPDES permits and/or Waste Discharge Requirements and some that are new dischargers.

II. DISCHARGE DESCRIPTION

A. Description of Wastewater

All discharges authorized under this Order originate as groundwater. The Regional Water Board acknowledges that groundwater may contain naturally occurring or incidental pollutants and various organic pollutants not addressed by the Fuels or VOC general permits at levels that exceed those found in surface waters, and in limited circumstances, at concentrations above applicable water quality criteria for surface waters. Such naturally occurring pollutants of concern include total dissolved solids (TDS), the common metals, and various organic pollutants not addressed by the Fuels or VOC general permits. In addition, discharges authorized by the Order may include suspended and settleable solids and turbidity that are introduced to discharges due to poorly constructed or deteriorating wells and at the points of discharge by erosion and scouring of the banks and bottoms of receiving waters.

The Order also authorizes the discharge of reverse osmosis concentrate resulting from treatment of uncontaminated ground water by reverse osmosis. Such discharges will contain the naturally occurring dissolved pollutants that are present in well waters, but these dissolved materials may be concentrated by the reverse osmosis process. In these discharges, therefore, pollutants of concern include TDS and the common metals; however, the reverse osmosis process and pre-filtering will remove all suspended and settleable material that is attributed to poorly constructed or deteriorating wells. Such discharges can introduce suspended and settleable solids and turbidity at the points of discharge due to erosion and scouring of the banks and bottoms of receiving waters. In summary, this Order regulates discharges to surface water from the three following sources:

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1. Structural dewatering resulting in greater than 50,000 gallons per day and requiring treatment (typically long term). These are long-term dewatering systems under or around buildings and pipelines to remove groundwater infiltration. Buildings and underpass structures are two examples of structures that may require continuous dewatering.
2. Aquifer protection well discharges (typically long term). These groundwater extraction facilities are in operation to protect drinking water supply aquifers from salt water intrusion. For example, Alameda County Water District (ACWD), operates a series of wells along the southeast side of San Francisco Bay. Historically, ACWD has pumped up to 30 MGD of extracted brackish groundwater from a total of 14 wells in the Fremont-Newark area to flood control channels. The ACWD drinking water protection well discharges were regulated under NPDES Permit No. CA0038059, Order No. 00-029. The Regional Water Board plans to rescind this individual permit once ACWD obtains coverage under this Order.

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Aquifer protection well discharges (typically long term). These groundwater extraction facilities are in operation to protect drinking water supply aquifers from salt water intrusion. For example, Alameda County Water District (ACWD), operates a series of wells along the southeast side of San Francisco Bay. Historically, ACWD has discharged and in the future may again discharge up to 30 MGD of extracted brackish potable groundwater and RO concentrate in the Fremont-Newark area to flood control channels. The locations of these wells and discharges are shown in xxx. The ACWD drinking water protection well discharges are regulated under an individual NPDES Permit No. CA0038059, Order No. 00-029. The Regional Water Board plans to rescind this individual permit as soon as this Order becomes effective. (Note: complete copy from edited permit for consistency,

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3. RO concentrate from aquifer protection well discharges (typically long term). Pumped groundwater may be treated by RO so that the groundwater may be returned to the drinking water supply, and the RO concentrate discharged as waste. For example, this is the case with the ACWD RO facility located in Newark. The ACWD RO discharge was regulated under NPDES Permit No. CA0038059, Order No. 00-029. The Regional Water Board plans to rescind this individual permit once ACWD obtains coverage under this Order. ACWD plans to double the capacity of the existing Newark RO Facility in the near future and bring another similar Facility on line in Fremont within the next 15 years.

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Reverse osmosis (RO) concentrate covered by this order typically results from the reclamation of brackish potable groundwater extracted from long-term aquifer protection well discharges that are designed to protect groundwater from further brackish water intrusion. Pumped brackish, groundwater may be treated by RO so that the extracted groundwater may be reclaimed as potable water, and the RO concentrate discharged as waste. For example, this is the case with the ACWD RO desalination facility located in Newark. This desalination facility

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currently processes about 6.25 mgd of extracted brackish groundwater to produce about 5 mgd of potable water used as part of ACWD's water supply and 1.25 mgd of concentrate that is discharged as waste. ACWD plans to double the capacity of this desalination facility in the near future and it may bring another similar facility on line in Fremont within the next 15 years. The current and anticipated future expanded discharge of RO concentrate will be to the Alameda County Flood Control and Water Conservation District's Line F where it crosses Central Avenue in Newark. (Note: complete copy from edited permit for consistency.

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B. Discharge Points and Receiving Waters

The Order authorizes otherwise qualified discharges to all receiving waters of the San Francisco Bay Region, including inland surface waters, enclosed bays, estuaries. The beneficial uses of these receiving waters are described in Section II, Findings, of the Order. Condition No. 5 of the Notice of Intent (NOI) Form (Attachment B) requires the Discharger to provide discharge location data and a map with the discharge path highlighted.

C. Summary of Existing Requirements

Dischargers expected to seek coverage under the General Permit include some that have been authorized to discharge by individual NPDES permits and/or Waste Discharge Requirements. For example, the individual NPDES permit for discharges of uncontaminated brackish potable groundwater that had previously been issued to ACWD by the Regional Water Board has established effluent limitations only for acute toxicity.

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D. Compliance Summary

This is a new Order. As applicable to ACWD, this Discharger complied with the Order No. 00-029 requirements.

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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 its implementing regulations adopted by the USEPA, and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for the point source discharges described herein to surface waters of the Region. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260).

Pursuant to NPDES regulations at 40 CFR 122.28, States may request authority to issue general NPDES permits. On June 8, 1989, the State Water Board applied to the USEPA requesting revisions to its NPDES Program in accordance with 40 CFR 122.28, 123.62, and 403.10, including 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, granting authorization for the State to issue general NPDES permits.

Pursuant to NPDES regulations at 40 CFR 122.28(a)(2) general permits may be used to regulate point source discharges that:

1. Involve the same or substantially similar types of operations,
2. Discharge the same types of wastes,
3. Require the same effluent limitations,
4. Require the same or similar monitoring, and
5. In the opinion of the Executive Officer, are more appropriately controlled under a general permit than under individual permits.

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This Order shall become effective about two months after the date of its adoption provided the Regional Administrator, USEPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn. This general permit does not cover direct discharges to the Pacific Ocean.

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

1. **Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the San Francisco Bay Basin* (hereinafter the Basin Plan) on June 21, 1995, and amended this plan on January 2, 2004 and November 16, 2005. The Basin Plan designates beneficial uses of receiving waters, establishes water quality objectives, and contains implementation programs and policies to achieve those

objectives for all waters addressed by the Plan. Beneficial uses of any water body specifically identified in Chapter 2 of the Basin Plan generally apply to its tributary streams. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes a policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses are designated for all waters of the San Francisco Bay Region and are designated for coastal and inland waters, wetlands, and ground waters. Applicable beneficial uses of surface waters of the San Francisco Bay Region are listed below.

- Agricultural Supply
- Areas of Special Biological Significance
- Cold Freshwater Habitat
- Ocean, Commercial and Sport Fishing
- Estuarine Habitat
- Freshwater Replenishment
- Groundwater Recharge
- Industrial Service Supply
- Marine Habitat
- Fish Migration
- Municipal and Domestic Supply
- Navigation
- Industrial Process Supply
- Preservation of Rare or Endangered Species
- Water Contact Recreation
- Non-Contact Water Recreation
- Shellfish Harvesting
- Fish Spawning
- Warm Freshwater Habitat
- Wildlife Habitat

The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (the Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface water of the State.

This Order implements applicable provisions of the Basin Plan and the Thermal Plan.

2. **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. Approximately forty water quality criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR, which established new criteria for toxics in the State and incorporated the previously adopted criteria of the NTR. The CTR was amended on February 13, 2001. These rules contain water

quality criteria for priority, toxic pollutants, applicable to inland surface waters, enclosed bays, and estuaries of the State.

- 3. 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.
- 4. Alaska Rule.** On March 30, 2000, at 40 CFR 131.32, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [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 before May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
- 5. Antidegradation Policy.** NPDES regulations require that State water quality standards include an antidegradation policy consistent with the federal policy established at 40 CFR 131.12. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which 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 Basin Plan implements and incorporates by reference both the state and federal antidegradation policies. As discussed in the Fact Sheet, discharges authorized under this Order are consistent with applicable antidegradation provisions of NPDES regulations at 40 CFR 131.12 and with State Water Board Resolution No. 68-16.
- 6. Anti-Backsliding Requirements.** CWA Sections 402 (o) (2) and 303 (d) (4) and NPDES regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits; i.e., effluent limitations in a reissued permit must be at least as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. This Order/General Permit is consistent with applicable anti-backsliding requirements, as dischargers, previously subject to individual NPDES permits with limitations more stringent than imposed by this Order, will not be authorized to discharge under the Order/General Permit.

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

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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.

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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 NPDES regulations: 40 CFR 122.44 (a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 122.44 (d) requires that permits include water quality-based effluent limitations (WQBELs) 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, 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 40 CFR 122.44 (d) (1) (vi). The Basin Plan contains a prohibition of discharge of any wastewater which has particular constituents of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any non-tidal water, dead-end slough, similar confined waters, or immediate tributaries thereof, or to San Francisco Bay south of the Dumbarton Bridge. In general the Category 2 and 3 groundwater discharges regulated by this Order may be exempted from these prohibitions because these discharges are normally associated with drinking water protection activities. (Note: this last sentence is somewhat vague and does not directly link to any specific Basin Plan Prohibition exemption)

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The Basin Plan states that the Regional Water Board "recognizes that people of the San Francisco Bay region are interested in developing the capacity to conserve and reclaim water to supplement existing water supplies, meet future water requirements, and restore the region's watersheds and estuarine system." In addition, this section of the Basin Plan reiterates the Water Code's legislative intent that the state undertake all possible steps to encourage development of water reclamation facilities, so that reclamation may be a significant source to meet the growing water needs of the state. Water reclamation includes the augmentation of the long-term dependable water supply by activities, such as managing brackish water intruded groundwaters so that they may be treated and reclaimed for potable water supplies.

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The Regional Water Board determined in Order No. 00-029, and reaffirms herein, that ACWD's Aquifer Reclamation Program and Salinity Barrier Project well discharges to flood control channels comply with the three Basin Plan prohibitions because the groundwater discharges do not contain "particular characteristics of concern" to beneficial uses. In addition, the discharge of reverse osmosis concentrate into ACFCWCD flood control

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channel line F is consistent with the Basin Plan exception criteria to the discharge prohibitions because the desalination facility:

- Provides net environmental benefits through protection and desalination of the brackish groundwater basin and production of a new potable water supply;
- Provides an equivalent level of environmental protection since there will be no new constituents of concern introduced and the mass of trace elements discharged will be reduced compared to not operating the desalination facility;
- Is part of a reclamation project through salinity control and recovery of an otherwise wasted resource; and
- Would result in an inordinate burden relative to beneficial uses protected since if the desalination facility were not operated, water would have to be imported from new sources of supply.

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A. Discharge Prohibitions

1. Discharge Prohibition III. A (no discharge other than that described in this Order). This prohibition is based on California Water Code section 13260, which requires the filing of a Report of Waste Discharge (ROWD) before discharges can occur. Discharges not described in the ROWD (here, the NOI), and subsequently in the Order, are prohibited.
2. Discharge Prohibition III. B (no discharges at flow rates greater than authorized). Discharges authorized under the Order shall be no greater than as described to the Regional Water Board in an NOI. When considering authorization, the Regional Water Board will consider the proportion of the receiving water flow contributed by the discharge and will consider potential erosive effects of the discharge on the receiving water. Flow rate will, therefore, be an important consideration in the authorization process, and flows greater than those considered in the authorization process will be prohibited to assure protection of receiving waters.
3. Discharge Prohibition III. C (discharges shall not cause pollution, contamination, or nuisance). This prohibition is established to assure protection of receiving waters from the effects of pollution, contamination, and nuisance, as those terms are defined by as defined by CWC Section 13050 of the California Water Code.
4. Discharge Prohibition III. D (no discharges at a volume or velocity that causes erosion and/or scouring). This prohibition is established to protect receiving waters from potential adverse physical effects of excessive discharger volumes and velocities at the points of discharge to receiving waters.
5. Discharge Prohibition III. E (no discharges of filter backwash water, membrane cleaning solutions, or other waste streams associated with reverse osmosis (other than reverse osmosis concentrate). Although the Order authorizes only the discharge of ground water and concentrate resulting from treatment of ground water

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by reverse osmosis, this prohibition clarifies that the discharge of filter backwash water, membrane cleaning solutions, or other waste streams associated with reverse osmosis (other than reverse osmosis concentrate) are not authorized by the Order.

- 6. Discharge Prohibition III. F (no discharges of well drilling fluids). Although the Order authorizes only the discharge of uncontaminated ground water and concentrate resulting from treatment of uncontaminated ground water by reverse osmosis, this prohibition clarifies that the discharge of well drilling fluids are not authorized by the Order.
- 7. Discharge Prohibition III. G and H (Discharges of groundwater contaminated with volatile organic compounds (VOCs) and Fuels are prohibited). Although these prohibitions are obvious, they are included to remind Dischargers of VOCs or Fuels contaminated groundwater to apply for coverage under these specific permits.

B. Technology-Based Effluent Limitations

1. Scope and Authority

CWA Section 301 (b) and NPDES regulations at 40 CFR 122.44 require permits to, at a minimum, meet applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards.

The CWA requires the USEPA to develop effluent limitations, guidelines and standards (Effluent Limitations Guidelines - ELGs) representing application of best practicable treatment control technology (BPT), best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and best available demonstrated control technology for new sources (NSPS), for specific industrial categories. Where USEPA has not yet developed ELGs for a particular industry or a particular pollutant, Section 402 (a) (1) of the CWA and USEPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

2. Applicable Technology-Based Effluent Limitations

Except for chlorine residue and pH, the Order does not establish technology-based effluent limitations. Effluent Limitations A.1 for chlorine residue and A.2 for pH are both pursuant to Table 4-2 (page 4-69) of the Basin Plan.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

NPDES regulations at 40 CFR 122.44 (d) (1) (i), require permits to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard (Reasonable Potential). The process for determining Reasonable Potential and calculating WQBELs, when necessary, is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in the CTR, NTR, Basin Plan, and other State plans and policies.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Order authorizes certain discharges to inland surface waters, enclosed bays, and estuaries within the San Francisco Bay Region. Beneficial uses of these receiving waters, as designated by the Basin Plan are described in Section II, Findings, of the Order. The water quality criteria applicable to these receiving waters are established by the NTR, CTR, and the Basin Plan.

- a. 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 water, and lead, mercury, nickel, silver, zinc, and total polynuclear aromatic hydrocarbons (PAHs) in salt water. The narrative toxicity objective states in part "[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 "[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." Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.
- b. NTR. The NTR establishes numeric aquatic life criteria for selenium, numeric aquatic life and human health criteria for cyanide, and numeric human health criteria for 34 toxic organic pollutants for waters of San Francisco Bay upstream to, and including Suisun Bay and the Delta.
- c. 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 inland surface waters and enclosed bays and estuaries such as San Francisco Bay, except where the Basin Plan's Tables 3-3 and 3-4 specify numeric objectives for certain of these priority toxic pollutants. The Basin Plan's numeric objectives apply over the CTR (except in the South Bay south of the Dumbarton Bridge).

3. WQBELs

NPDES regulations at 40 CFR 122.44 (d) (1) (i) require permits to include WQBELs for all pollutants (non-priority or priority) "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 narrative or numeric criteria within a State water quality standard" (have Reasonable Potential). Thus, assessing whether a pollutant has Reasonable Potential is the fundamental step in determining whether or not a WQBEL is required.

Because discharges authorized by the Order originate as groundwater, discharges are expected to have minimal impact on receiving water quality, therefore the Regional Water Board is establishing WQBELS only for acute toxicity and pH. These limitations are based on Basin Plan Table 4-4 (page 4-70) and page 3-3.

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For discharges of reverse osmosis concentrate, the Regional Water Board understands that naturally occurring constituents will be concentrated by the process. Although the Regional Water Board cannot identify or project specific constituents in these discharges that have a reasonable potential to contribute to exceedances of applicable water quality criteria, the concentration effect may lead to effluent quality that has adverse impacts on receiving water quality. The Order, therefore, establishes effluent limitations for whole effluent acute toxicity, as a parameter that will indicate poor effluent quality. The Order also establishes discharge specifications and monitoring requirements that are meant to highlight pollutants of concern in all discharges.

4. WQBEL Calculations

Not Applicable

5. Whole Effluent Toxicity (WET)

The basis for Effluent Limitations A.3 (toxicity) is Table 4-4 (Chapter 4, Page 70) of the Basin Plan. The basis for using rainbow trout and 96-hour static renewal bioassays is in Chapter 4, Page 9, of the Basin Plan. The basis for repeating the toxicity testing if the percentage of surviving test organisms is less than the required survival percentage, and the requirements to investigate the cause of mortality is based on 40 CFR 122.41(d), which is needed to minimize adverse impacts from discharges in violation of requirements. Non-compliance is also a cause for termination of the authorization to discharge (40 CFR 122.64) following public notice and opportunity for a hearing pursuant to Special Provision C.4.

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D. Discharge Specifications

Because discharges authorized by the Order originate as groundwater, the Order establishes only a few specific effluent limitations and otherwise relies on implementation of Best Management Practices (BMP) Plans to control authorized discharges. Discharge Limitations established by the Order require authorized dischargers to compare effluent data, generated through routine monitoring, to certain criteria. Exceedance of any of the specified criteria triggers additional discharger requirements, which, in extreme

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circumstances, may lead to discontinuance of coverage under the Order, following public notice and opportunity for a hearing pursuant to Special Provision C.4. The Discharge Specifications are designed to allow the Order to impose few specific effluent limitations, while assuring that authorized discharges are not creating adverse impacts on receiving water quality. When adverse impacts are highlighted following exceedance of a trigger, dischargers are directed to confirm the findings, to treat the discharge, evaluate its effect on receiving waters, and may be required to seek coverage under an individual NPDES permit.

E. Interim Effluent Limitations

Not Applicable

F. Reclamation and Land Discharge Specifications

In general, these specifications are consistent with sound common reuse practices and the Regional Water Board Resolution No. 88-160.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order.

A. Surface Water

These limitations are based on the narrative/numerical objectives contained in Chapter 3 of the Basin Plan and as identified in Section V.A. of this Order.

- The basis for V.A.1.a is on page 3-3 of the Basin Plan;
- The basis for V.A.1.b is on page 3-2 of the Basin Plan;
- The basis for V.A.1.c is on pages 3-3 and 3-4 of the Basin Plan
- The basis for V.A.1.d is on page 3-3 of the Basin Plan;
- The basis for V.A.1.e is on pages 3-2, 3-3, and 3-4 of the Basin Plan;
- The basis for V.A.2.a is on page 3-3 of the Basin Plan;
- The basis for V.A.2.b is on page 3-3 of the Basin Plan;
- The basis for V.A.2.c is on page 3-3 of the Basin Plan; and
- The basis for V.A.2.d is on pages 3-4 of the Basin Plan.
- The basis for V.A.2.e is on pages 3-4 of the Basin Plan.

B. Groundwater

Not Applicable.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

The principal purposes of a monitoring program by a discharger are to:

1. Document compliance with waste discharge requirements and prohibitions established by the Regional Water Board,
2. Facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge,
3. Develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and
4. Prepare water and wastewater quality inventories.

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment D of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for the facilities covered by this Order.

The MRP is a standard requirement in almost all NPDES permits issued by the Regional Water Board, including this Order. It contains definitions of terms, specifies general sampling and analytical protocols, and sets out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's policies. The MRP also contains a sampling program specific for the Facilities covered by this Order. It defines the sampling stations and frequency, the pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all parameters for which effluent limitations are specified. Monitoring for additional constituents, for which no effluent limitations are established, is also required to provide data **for future completion of RPAs for them.** *{Note: Under what conditions will RPAs be conducted?}*

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A. Influent Monitoring

No influent monitoring is required by the Order, unless effluent violations or trigger constituent values are exceeded in the previous self monitoring report. In that event, influent monitoring would be required as an investigatory to determine the cause of the exceedance.

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B. Effluent Monitoring

Effluent monitoring is required to determine compliance with effluent limitations and to allow ongoing characterization of discharges to determine potential adverse impacts and to determine continued suitability for coverage under the Order.

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In addition to discharge rate, effluent is monitored for hardness, pH, totals suspended and total dissolved solids, salinity, and turbidity. If chlorine is applied to well water, chlorine monitoring is required to assure that no measurable chlorine residual remains in effluent. Acute toxicity monitoring is required to determine compliance with effluent limitations and as a general measure of effluent quality. And, monitoring is required for the metals and other priority, toxic pollutants which have water quality criteria established by the NTR and CTR.

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C. Whole Effluent Toxicity Testing Requirements

The selected test species and frequency of testing are specified in Basin Plan Page 4-9 and Table 4-4 (Page 4-70), respectively, and are appropriate for the range of discharges to be covered by this Order.

D. Receiving Water Monitoring

The receiving water monitoring program is described in the Monitoring and Reporting Program (MRP) (Attachment E), and for the majority of constituents, is only required by the Order if effluent violations or trigger constituent values are exceeded in the previous self monitoring report. The exceptions are flow rate, salinity, and turbidity, which dischargers are required to monitor on a quarterly basis. Collecting data on flow rate and salinity will help the Regional Water Board staff evaluate the overall impacts of discharges covered in this permit, over the 5-year permit cycle. Turbidity, because it is caused by the force of the discharge as it enters the receiving water, can only be accurately assessed by monitoring the receiving water. *{Note: no routine receiving water monitoring appears necessary}*

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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.

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VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment C. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42.

40 CFR 122.41 (a) (1) and (b) - (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly

or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR 123.25 (a) (12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 122.41 (j) (5) and (k) (2), because the enforcement authority under the California Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387 (e).

B. Monitoring and Reporting Requirements

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are contained in the MRP (Attachment E) of the Permit. This provision requires compliance with Attachment E, which is based on 40 CFR 122.63, 122.41, 122.48, 122.62, and 124.5, CWC Sections 13267 and 13383. The Standard Provisions and SMP, Part A are standard requirements in almost all NPDES permits issued by the Regional Water Board, including this Order. They contain definitions of terms, specify general sampling and analytical protocols, and set out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's policies. The MRP contains sampling programs for authorized facilities. It defines the sampling stations and frequency, the pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all parameters for which effluent limitations are specified. Monitoring for additional constituents is required to provide ongoing characterization of authorized discharges to assure that receiving waters are protected and that authorized discharges remain suitable for coverage under the Order.

[Note: The existing MRP in Attachment E is overly prescriptive for most foreseen uncontaminated groundwater discharges. It requires the same extensive monitoring for all discharges regardless of their size, similarity, physical proximity, etc. Provide as an option to Tables E.2 and E.3 the approach from the Utility Vault permit to instead submit a discharger specific MRP as part of the NOI. This would better accommodate dischargers like ACWD (and maybe Caltrans?) that have multiple but similar discharge sources. It would require them to "develop a representative sampling and analysis program to be used as case studies to represent the typical types of discharges occurring in their service areas." (General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters Order No. 2006-0008-DWQ pages E-2 and 3)]

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C. Special Provisions

1. Reopener Provisions. These provisions are based on 40 CFR 122.41(f) and allow future modification of this Order and its effluent limitations as necessary in response to updated WQOs that may be established in the future.

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

6. Basis for Provision VI.C.6 (Salinity Trigger). The effect of discharge salinity on the beneficial uses of a freshwater receiving body is likely to be a matter of change in salinity, at any given time, than an absolute value. The Order requires dischargers to freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment designated beneficial uses to comply with this trigger if the salinity of the discharge is at least 10 percent out of the range of the receiving water salinity. The basis for a trigger of not more than 10 percent change in salinity is the similarity to the Basin Plan page 3-4 turbidity objective that the discharges shall not cause an increase of more than 10 percent above upstream background turbidity. The Regional Water Board staff received comments from the scientific and regulatory community on concept of a salinity trigger and the adequacy of the proposed 10 percent value. Based on the comments received, this trigger and associated monitoring requirements were changed in the final Tentative Order to delete the trigger for discharges to or near to Bay/estuary locations.

7. Basis for Provision VI.C.7. In general, the Dischargers authorized under this Order are expected to use Best Management Practices (BMP) to reduce the potential negative impacts of pollutants in their discharges. However, some pollutants may be detected in the effluent of some of the treatment or discharge 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-1. These triggers are not effluent limitations, and should not be construed as such. Instead, they are levels at which additional investigation is warranted to determine whether a numeric limit for a particular pollutant is necessary. The Table F-1, Column A for discharges to freshwater bodies, concentration-based triggers are set at the lowest value of the following: Basin Plan Table 3-6 Water Quality Objectives for Agricultural Supply, State Maximum Contaminant Levels, Federal Maximum Contaminant Levels, California Toxics Rule lowest freshwater criterion, or California Toxics Rule criterion for drinking the water and fish consumption. Table F-1, Column B for Discharges to Bay/Estuary, concentration-based triggers are set at the lowest value of the following: California Toxics Rule lowest saltwater criterion, California Toxics Rule lowest freshwater criterion, or California Toxics Rule criterion for fish consumption. The reason for this approach is explained below. *{Note: several Table F-1 organics values were set at 5 ug/L instead of the CTR fish consumption value as described above. These value have been corrected in the table to the CTR values}*

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a. **Triggers for Inorganic Compounds.** Antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc (hereinafter called inorganic compounds) may be present in groundwater dewatering discharges, primarily due to background concentrations in the groundwater being extracted. Water Board staff's best professional judgment is that the loading of inorganic compounds from discharges covered by this Order is negligible when compared to loadings from municipal and industrial point-source discharges and stormwater discharges. Therefore, it is acceptable to utilize the trigger monitoring system for these compounds instead of designating them as effluent limits. *[Note: consistent with the permit, footnotes need to be added to Table F-1 regarding the need to translate dissolved metals triggers to total, reference SSOs, and allow for site specific translators and hardness data to be used for calculating applicable metals triggers]*

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b. **Triggers for Organic Compounds.** Dischargers authorized under this Order are expected to use BMPs. Sites where pesticides or other conservative pollutants have adversely impacted groundwater are not eligible for coverage under this Order. It is possible that organic compounds may be detected in the effluent of some of the discharge systems. This could be due to the movement of the contaminated groundwater from a neighboring site into the capture zone of the facility authorized under this Order, and may occur after discharge has been authorized, and groundwater is mobilized. Table F-1 contains concentration-based triggers for conducting additional activities when the trigger compounds have been detected above the trigger value. This provision would allow Dischargers to continue the discharge while investigating the toxicity and ability to treat any detected volatile or semi volatile organic compounds, in excess of Table F-1 triggers. If a Discharger detects any Fuels or Solvent related pollutants in the effluent or any extraction wells, the Discharger shall apply for discharge authorization under general NPDES No. CAG912002 (Fuels) or NPDES No. CAG912003 (Solvent), respectively.

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Table F-1. Trigger Compounds or Constituents

Compound	CAS Number	Agricultural ug/L	State MCL ug/L	Federal MCL ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Water and Organisms ug/L	Column A for Discharges to Freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	CTR Lowest Saltwater Criterion ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Organisms Only ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Turbidity (Units)	-		5	5	-		5		-		
Total Dissolved Solids (TDS)		10,000,000	500,000				500,000				
Conductivity (mmhoms/cm)		200	900				200				
Chloride		142,000	250,000				142,000				
Antimony	7440360		6	6	14		6			4300	4300
Arsenic	7440382	100	50	10	150		10	36	150		36
Beryllium	7440417	100	4	4			4				

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Compound	CAS Number	Agricultural ug/L	State MCL ug/L	Federal MCL ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Water and Organisms ug/L	Column A for Discharges to Freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	CTR Lowest Saltwater Criterion ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Organisms Only ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Cadmium	7440439		5	5	2.2		2.2	9.3	2.2		2.2
Chromium (total)	18540299	100	50	100	180		11 (See Note 1)		180		11 (See Note 1)
Chromium (VI)	18540299		-	-	11		11	50	11		11
Copper	7440508	200	1000	1000	3.1		3.1		3.1		3.1
Lead	7439921	5,000	15	15	2.5		2.5	8.1	2.5		2.5
Mercury	7439976		2	2		0.050	0.025	0.025 (See Note 2)		0.051	0.025
Nickel	7440020	200	100	-	52	610	52	8.2	52	4600	8.2
Selenium	7782492	20	50	50	5.0		5.0	71	5.0		5.0
Silver	7440224		100	100	3.4		3.4	1.9	3.4		1.9
Thallium	7440280		2	2		1.7	1.7			6.3	6.3
Zinc	7440666	2,000	5000	5000	120		120	81	120		81
Cyanide	57125		200/150	200	5.2	5.2	1.0	1	5.2	220,000	1.0
Asbestos	1932214		7 MFL	7 MFL		7 MFL	7 MFibers/L				
2,3,7,8-TCDD (Dioxin)	1746016		0.00003	0.00003		1.3E-08	1.3E-08			1.4E-08	1.4E-08
Acrylonitrile	107131		-	-		0.059	0.059			0.66	0.66
Bromotom	75252		100/80	100/80		4.3	4.3			360	360
Chlorodibromo methane	124481		100/80	100/80		0.401	0.401			34	34
Dichlorobromo methane	75274		100/80	100/80		0.56	0.56			46	46
1,2-Dichloropropane	78875		5	5		0.52	0.52			39	39
1,3-Dichloropropylene	542756		0.5	-		10	0.5			1700	1,700
1,1,2,2-Tetrachloroethane	79345		1	-		0.17	0.17			11	11
Pentachlorophenol	87865		1	1	15	0.28	0.28	7.9	15	8.2	8.2
2,4,6-Trichlorophenol	88062		-	-		2.1	2.1			6.5	6.5
Benzidine	92875		-	-		0.00012	0.00012			0.00054	0.00054
Benzo(a)Anthracene	56553		-	0.1		0.0044	0.0044			0.049	0.049
Benzo(a)Pyrene	50328		0.2	0.2		0.0044	0.0044			0.049	0.049
Benzo(b)Fluoranthene	205992		-	-		0.0044	0.0044			0.049	0.049
Benzo(k)Fluoranthene	207089		-	-		0.0044	0.0044			0.049	0.049
Bis(2-Chloroethyl)Ether	111444		-	-		0.031	0.031			1.4	1.4
Bis(2-Ethylhexyl)Phthalate	117617		-	-		1.8	1.8			5.9	5.9
Chrysene	218019		-	-		0.0044	0.0044			0.049	0.049
Dibenzo(a,h)Anthracene	53703		-	-		0.0044	0.0044			0.049	0.049
3,3'-Dichlorobenzidine	91941		-	-		0.04	0.04			0.077	0.077
2,4-	121142		-	-		0.11	0.11			9.1	9.1

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Compound	CAS Number	Agricultural ug/L	State MCL ug/L	Federal MCL ug/L	CTR Lowest Freshwater Criteria ug/L	CTR Water and Organisms ug/L	Column A for Discharges to Freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	CTR Lowest Saltwater Criterion ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Organisms Only ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Dinitrotoluene											
1,2-Diphenylhydrazine	122667		-	-		0.04	0.04			0.54	0.54
Hexachlorobenzene	118741		1	1		0.00075	0.00075			0.00077	0.00077
Hexachlorobutadiene	87683		-	-		0.44	0.44			50	50
Hexachloroethane	67721		-	-		1.9	1.9			6.9	6.9
Indeno(1,2,3-cd)Pyrene	193395		-	-		0.0044	0.0044			0.049	0.049
N-Nitrosodimethylamine	62759		-	-		0.00069	0.00069			8.1	8.1
N-Nitrosodi-n-Propylamine	621647		-	-		0.005	0.005			1.4	1.4
Aldrin	309002		-	-	3	0.00013	0.00013	1.3	3	0.00014	0.00014
alpha-BHC	319846		-	-		0.0039	0.0039			0.013	0.013
beta-BHC	319857		-	-		0.014	0.014			0.046	0.046
gamma-BHC	58899		0.2	0.2		0.019	0.019			0.063	0.063
Chlordane	57749		0.1	2	0.0043	0.00057	0.00057	0.004	0.0043	0.00059	0.00059
4,4'-DDT	50293		-	-	0.001	0.00059	0.00059	0.001	0.001	0.00059	0.00059
4,4'-DDE	72559		-	-		0.00059	0.00059			0.00059	0.00059
4,4'-DDD	72548		-	-		0.00083	0.00083			0.00084	0.00084
Dieldrin	60571		-	-	0.058	0.00014	0.00014	0.0019	0.058	0.00014	0.00014
alpha-Endosulfan	959988		-	-	0.056	110	0.0087	0.0087	0.056	240	0.0087
beta-Endosulfan	33213659		-	-	0.058	110	0.0087	0.0087	0.056	240	0.0087
Endrin	72208		2	2	0.036	0.76	0.036	0.023	0.036	0.81	0.0023
Endrin Aldehyde	7421934		-	-		0.76	0.76			0.81	0.81
Heptachlor	76448		0.01	0.4	0.0038	0.00021	0.00021	0.0036	0.0038	0.00021	0.00021
Heptachlor Epoxide	1024573		0.01	0.2	0.0038	0.0001	0.0001	0.0036	0.0038	0.00011	0.00011
Polychlorinated biphenyls (PCBs) total	1336363		0.5	0.5	0.014	0.00017	0.00017	0.03	0.014	0.00017	0.00017
Toxaphene	8001352		3	3	0.0002	0.00073	0.0002	0.0002	0.0002	0.00075	0.0002
Other VOCs	-		-	-	-		5		-		v
Other SVOCs	-		-	-	-		5		-		v
Turbidity (Units)	-		5	5	-		5		-		
Odor-Threshold (Units)	-		3	3	-		3		-		
Total Petroleum Hydrocarbons other than Gasoline and Diesel	-		-	-	-		50 (see Note 3)		-		v
Sulfate	-		250,000	250,000	-		250,000		-		
Foaming Agents	-		500	500	-		500		-		
Color (Units)	-		15	15	-		15		-		
Aluminum		5,000					5,000				

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Compound	CAS Number	Agricultural ug/L	State MCL ug/L	Federal MCL ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Water and Organisms ug/L	Column A for Discharges to Freshwater bodies with municipal and domestic supply, agricultural water supply, and/or freshwater replenishment beneficial uses ug/L	CTR Lowest Saltwater Criterion ug/L	CTR Lowest Freshwater Criterion ug/L	CTR Criteria Organisms Only ug/L	Column B for Discharges to Bay/Estuary (ug/L)
Boron		500					500				
Cobalt		50					50				
Fluoride		1,000					1,000				
Iron		5,000	300				300				
Lithium		2500					2500				
Manganese		200	50				50				
Molybdenum		10					10				
Nitrate (as NO3)			45,000				45,000				
Nitrate + Nitrite (as N) NO3 + NO2 (as N)		5,000	10,000				5,000				
Nitrite (as N)			1,000				1,000				
Vanadium		100					100				
Combined Radium-226 and Radium-228 (IN pCi/l)			5				5				
Gross Alpha Particle (includes Radium-226 but excludes Radon and Uranium) (IN pCi/l)			15				15				
Tritium (IN pCi/l)			20,000				20,000				
Strontium-90 (IN pCi/l)			8				8				
Gross Beta Particle Activity (IN pCi/l)			50				50				
Uranium (IN pCi/l)			20				20				
Fuels Related Pollutants							Apply for NPDES No. CAG912002				Apply for NPDES No. CAG912002
Solvents Related Pollutants							Apply for NPDES No. CAG912003				Apply for NPDES No. CAG912003

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Legend:

- CAS = Chemical Abstract System
- MCL = Maximum Contaminant Level
- CTR = California Toxics Rule

Notes:

- 1 If total chromium concentration exceeds 11 then Chromium (VI) analysis shall also be done
- 2 Basin Plan
- 3: If a Discharger is reporting monitoring data with a detection level higher than 50 ug/l, the reason for a higher detection level shall be fully explained in the monitoring report.

⁴ The site-specific water quality objective for copper applicable as a trigger for discharges south of the Dumbarton Bridge is 6.9 ug/L.

⁵ The site-specific water quality objective for nickel applicable as a trigger for discharges south of the Dumbarton is 11.9 ug/L.

⁶ Site-specific metals translators and ambient hardness data shall be used when available to adjust the applicable dissolved metals trigger values. After adoption by the Water Board, other

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applicable site specific objectives shall be used as the applicable triggers. [Note: The above dissolved metals triggers need to be translated to total metals since the monitoring data used for comparison, will be measured as total metals.]

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).

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 an NPDES permit. As a step in the process towards adoption of the Order, the Regional Water Board staff has developed a tentative Order. The Regional Water Board encourages public participation in the 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 March 15, 2007.

C. Public Hearing

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

Date: April 11, 2007 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. 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.

ACWD NPDES PERMIT REISSUANCE CHRONOLOGY

1974	Aquifer Reclamation Program (ARP) Brackish Groundwater Pumping Initiated
Jan. 1989	ACWD Groundwater Management Policy Adopted
1998/1999	Reverse Osmosis (RO) Pilot Studies on ARP Well Water Desalination Plummer/Newark Creek Monitoring for RO Concentrate Discharge
Jan. 2000	Brackish Desalination Facility Discharge Alternatives Report
Apr. 2000	NPDES Permit Reissued with Continued 2 ARP Well/Month Monitoring
Mar. 2003	Wet Season 13267 Monitoring
May 2003	RWB Groundwater Committee Report " <i>A Comprehensive Groundwater Protection Evaluation for the South San Francisco Bay Basins</i> "
Oct. 2003	Dry Season 13267 Monitoring
Nov. 2003	Newark Desalination Facility (NDF) Operational Recovering ARP Water Monthly E-14 and C-1 – C-4 Receiving Water Monitoring Initiated
Nov. 2004	Individual NPDES Permit Reissuance Application Submitted
Feb. 2005	E-14 (RO concentrate blend with excess ARP water) CTR Scan
May 2005	EOA RPAs completed for Cedar #2 well, NDF (E-14), Pilot PT RO Facility NPDES Application Deemed Complete by RWB Staff
Feb. 2006	ACWD " <i>Survey Report on Groundwater Conditions</i> "
Sept. 2006	Tetra Tech (TT) RPA Completed
Oct. 2006	RWB Proposal to EPA to Shift TT Resources from Individual to General Permit Draft General Permit Outline Released (10/23/06)
Dec. 4, 2006	Meeting with RWB Staff on General Permit (GP) Outline
Dec. 11, 2006	ACWD Comments Provided on GP Outline
Jan. 12, 2007	General Permit Tentative Order (TO) released
Feb. 5, 2007	ACWD " <i>Groundwater Monitoring Report 2006</i> " (prepared annually)
Feb. 1, 2007	Meeting with RWB Staff on GP TO
Feb. 9, 2007	RWB Staff Memo on Monitoring Concerns
Feb. 23, 2007	ACWD Response To RWB Monitoring Concerns Memo ACWD GP TO Major Concerns Memo NDF E-14 and Upstream/Downstream Data Compilation and Time Series Plots
Mar. 7, 2007	Meeting with RWB Staff on GP TO
Mar. 12, 2007	Monitoring Data and Groundwater Management Programs Summary
Mar. 13, 2007	Submittals Deemed Equivalent to Complete NOI per GP
Mar. 15, 2007	ACWD Written Comments on GP TO Submitted