

**REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**Response to Written Comments**

**On the Issuance of 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, NPDES NO. CAG912004**

On January 12, 2007, we distributed the Tentative Order to Alameda County Water District (ACWD), other potential Dischargers, and other interested persons or organizations. During the 60-day comment period, we received written comments from the following as indicted below:

1. Letter, February 27, 2007, Donald Freitas, Bay Area Stormwater Management Agencies Association (BASMAA).
2. Letter, March 13, 2007, Ken Meehan, Executive Vice President, Hospital Operations, John Muir Health.
3. Letter, March 15, 2007, Daniel P. Gallagher, General Manager, Dublin San Ramon Services District (DSRSD).
4. Letter, March 15, 2007, G.F. Duerig, General Manager, Alameda County Flood Control and Water Conservation District, Zone 7 Water Resources Management (Zone 7).
5. Electronic Mail, March 15, 2007, Elizabeth McDonald, Hewlett – Packard Company and Denise Kato, Varian Medical Systems (HP and Varian).
6. Letter, March 15, 2007, Paul Piraino, General Manager, Alameda County Water District (ACWD).

Below are summaries of comments received and our responses to these comments. The actual comment letters should be consulted to get the full sense of each comment.

**Bay Area Stormwater Management Agencies Association (BASMAA)**

1. *BASMAA Comment: 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.*

Response: Noted.

2. *BASMAA Comment: 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 [Municipal Separate Storm Sewer System] MS4 permits as permitted discharges under the General Permit without the need for additional regulation at the local level.*

Response: In response to this request to broaden the facilities that may be covered by this general permit, we have revised the Tentative Order Section I, Facility Information, as follows:

“Structural dewatering resulting in greater than ~~50,000~~  
**10,000** gallons per day and requiring treatment before discharging.”

Additionally, Section II Findings, B.3, Facility Description, has been revised as follows:

**Long-term** structural dewatering resulting in greater than 10,000 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. **Treatment is required where a physical, biological, or chemical treatment process is necessary in order for the structural dewatering discharge to comply with the prohibitions and limitations of this order.**

- 3. BASMAA Comment: The Tentative Order as currently drafted appears to envision that all such additional discharges [lower volume dewatering and other non-fuel- or VOC-contaminated discharges, including certain discharges that do not require treatment] will be managed pursuant to the provisions of MS4 permits 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.*

Response: Board staff envisions that such other discharges will be regulated through the provisions of the pending Municipal Regional Permit (MRP) specifically because the regulation of all such other discharges is a current requirement of Region 2’s Phase I MS4 permits. For example, Contra Costa

County Clean Water Program's current permit<sup>1</sup> requires municipalities to manage prohibited and conditionally exempt discharges to their storm drain systems and water courses. Specifically, that permit requires municipalities to, "...effectively prohibit the discharge of non-stormwater (materials other than stormwater) into their storm drain systems and watercourses that they own and/or operate. NPDES permitted discharges are exempt from this prohibition." This Tentative Order will reduce the current requirements on MS4 permittees by directly regulating a subset of discharges that are currently their responsibility to prohibit or conditionally exempt as further discussed below.

Current MS4 permits exempt municipalities from having to address broad categories of discharges to their storm drain systems and waterways. For example, Contra Costa Clean Water Program's current permit lists exempted discharges as:

- Flows from riparian habitats or wetlands;
- Diverted stream flows;
- Springs;
- Rising groundwater; and
- Uncontaminated groundwater infiltration.

Current MS4 permits also require municipalities to actively manage 'conditionally exempt' discharges, such as the following, excerpted from the same Contra Costa permit:

- Uncontaminated pumped groundwater;
- Foundation drains;
- Water from crawl space pumps;
- Footing drains;
- Air conditioning condensate;
- Irrigation water;
- Landscape irrigation;
- Lawn or garden watering;
- Planned and unplanned discharges from potable water sources;
- Water line and hydrant flushing;
- Individual residential car washing; and
- Discharges or flows from emergency fire fighting activities;
- Dechlorinated swimming pool discharges.

This Tentative Order will not modify or change the exempt and conditionally exempt discharges regulated under the MS4 permits. The overall impact of this Tentative Order is to reduce the responsibilities

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<sup>1</sup> Order No. 99-058, as amended by Order No. R2-2004-0059

currently experienced by MS4 permittees, in regard to their active prevention of prohibited discharges to their storm drain systems and waterways.

- 4. BASMAA Comment: 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.*

Response: At this time, the Board does not have the staffing and resources to accommodate a broad 'de minimus' permit similar to Region 8's R8-2003-0061. (NPDES programs at Regional Water Boards are not funded and staffed in direct correlation to NPDES permit fees collected by each Region.) In the future, if resources allow, we may consider adopting specific NPDES permits for other subsets of 'low impact' discharges, but this permit is not designed to serve that purpose.

Furthermore, the requirements and expectations of MS4 permittees in other Regional Water Board jurisdictions are not necessarily equivalent to what is currently required (or proposed in the MRP) of MS4 permittees in our region. Other regions use 'de minimus' general permits as only one aspect of the regulatory stormwater requirements for their jurisdictions. For example, the City of Riverside in Region 8 actively regulates mobile surface cleaners with a program that is more rigorous and intensive than what Bay Area storm water municipalities have accomplished. Riverside requires all mobile surface cleaners within its city limits to be licensed. Licensing requires passing a physical examination, administered by City staff. City staff regularly patrol for mobile surface cleaners (including inspections performed in the middle of the night) and fines violators). Bay Area storm water municipalities' oversight programs, in comparison, consist of primarily of educational materials and outreach, and a self-policing "recognition certificate" to cleaners who take an online 15 minute true/false quiz.

5. *BASMAA Comment: 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.)*

Response: Please refer to response to Comment No.3.

### **John Muir Health (JMH)**

6. *JMH Comment: 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 JHM and others in similar circumstances to extend the coverage of the proposed General Permit to lower volume dewatering.*

Response: As noted above in response to Comment No. 2, the threshold for coverage under the Tentative Order has been revised from 50,000 gallons/day to 10,000 gallons/day. Further, an uncontaminated groundwater discharge of any volume does not require permit coverage. Also, this Board has two other general permits to address groundwater that is polluted with VOCs or fuel-related substances. Information and application forms for the VOCs and Fuels permits are located at ([http://www.swrcb.ca.gov/rwqcb2/npdes\\_gen\\_\\_permit.htm](http://www.swrcb.ca.gov/rwqcb2/npdes_gen__permit.htm)).

### **Dublin San Ramon Services District (DSRSD)**

7. *Dublin San Ramon Services District (DSRSD) Comment: 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 Water Agency reverse osmosis reject water through the DSRSD’s pretreatment program, an already-*

*established permitting mechanism. Therefore this reverse osmosis reject water will not be subject to the groundwater general permit.*

Response: That is correct. Because Order No. R2-2006—0054, NPDES No. CA0037613 already authorizes DSRSD to regulate Zone 7's discharge as part of DSRSD's pretreatment program, Zone 7 will not be required to obtain coverage under this Tentative Order.

### **Alameda County Flood Control and Water Conservation District, Zone 7 Water Resources Management (Zone 7)**

8. *Zone 7 Comment: 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.*

Response: Discharges to POTWs whose discharges are already authorized under the NPDES permits for those POTWs are not required to obtain coverage under this Tentative Order. Discharges of RO concentrate—or of the other categories covered by this Tentative Order—that are not authorized by the NPDES permit for the POTW may be required to obtain coverage under this Tentative Order. We have revised the Tentative Order to add the following explanation to Finding B.3:

“RO Concentrate discharges that are permitted under industrial pretreatment requirements to a permitted publicly-owned treatment works (POTW) are not required to obtain coverage under this Order.”

9. *Zone 7 Comment: 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 upcoming Municipal Regional Permit (MRP), specifically the conditionally exempted discharges provision of the permit. 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.*

Response: Please refer to response to Comment No. 3.

10. *Zone 7 Comment: 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, 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).*

Response: The effluent chlorine residual limitation from the Tentative Order has been modified to apply only to dischargers that chlorinate their extracted groundwater. Whether the chlorine residual limitation applies to a particular facility will be determined at the time it submits its NOI. The limit has been revised from 0.04 mg/L to 0.08 mg/l, to reflect the detection limitations of field chlorine test kits (the method most likely to be used by dischargers covered under this general permit), Specifically, the Tentative Order has been revised as follows:

**“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 0.08 milligram per liter will not be deemed to be out of compliance). This limit only applies to the Dischargers that chlorinate their well water.”

### **Hewlett – Packard Company and Varian Medical Systems (HP and Varian)**

11. *HP and Varian Comment: 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*

Response: The OEU discharge is already permitted under its own individual NPDES permit. Because the discharge can be polluted by VOCs, it is more appropriate for coverage under another existing general permit for groundwater treated for the removal of VOCs (Order No. R2-2004-0055, NPDES Permit No. CAG912003.) In fact, Board staff has recently been in discussion with the County to explore this option.

### **Alameda County Water District (ACWD)**

12. *ACWD Comment: ACWD requests that it either be excluded from the salinity trigger or that the salinity triggers be deleted.*

Response: We agree to delete the salinity trigger as it is unnecessary in most cases. The original purpose in having a salinity trigger was to protect fresh water creeks from the discharge of brine. This same protection can be accomplished by limiting the list of eligible facilities such that brackish water would not be allowed to discharge to fresh water bodies under this permit. Specifically, we revised the Tentative Order at Finding B.3., Facility Description starting on page 4, as follows:

“3. RO concentrate from aquifer protection well discharges that discharge to storm drain systems and/or to engineered flood control channels that drains to estuarine environments or directly discharges to estuarine environments (Discharges are typically long term).”

We also revised Provision VI.C.6 to add the following language:

“Aquifer protection well and RO Concentrate from aquifer protection well discharges occur normally either in an estuarine area or to a flood control channel near and tributary to an estuarine area. These types of discharges will follow Column “B” of Table 2. Trigger Compounds or Constituents in Column “A” within Table 2 is intended for use where discharges are to drinking water sources.”

13. *ACWD Comment: In regard to Basin Plan exceptions for ACWD’s discharges that receive less than 10:1 dilution, 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.*



Response: We agree.

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

Response: We agree; the materials submitted by ACWD constitute a complete NOI for purposes of obtaining coverage under the Tentative Order.

15. *ACWD Comment: 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.*

Response: We agree. The procedure requested by ACWD is in fact an accurate description of our current practice and legally mandated procedures. We have modified the related sections of the permit to read, "...the Regional Water Board may require termination of discharge and/or require application for individual NPDES permit. In this case, the discharger will be allowed the opportunity for a public hearing prior to any consideration of possible termination."

16. *ACWD Comment: Set the ACWD discharge authorization date as the effective date of The General Permit.*

We agree. We plan to prepare a draft discharge authorization letter for ACWD with the same effective date as this General Permit.

17. *ACWD Comment: Allow similar discharges at multiple sites to be covered under one discharge authorization letter.*

Response: This comment is unclear. If the request is that one entity with similar discharges at multiple outfalls to be subject to one fee (e.g. paying \$1,185 total, for ACWD's entire nine active outfall discharges), we disagree. If the request is that an entity with similar discharges at multiple outfalls be covered under one discharge authorization letter, we agree, as long as each outfall is charged a fee. Therefore, we have inserted the following sentence to the findings and Provision VI. C.4.:

“Any discharger proposing similar discharges at multiple sites may be covered under one discharge authorization letter subject to the approval of the Executive Officer on a case-by-case basis. Each outfall will be subject to individual fees.”

*18. ACWD Comment: Several of the Revised General Permit Table 2 and Fact Sheet Table F-1 Column B Triggers are inappropriate for Category 2 and 3 discharges that do not provide treatment. The triggers may or may not be appropriate for Category 1 discharges depending on the type of treatment (GAC/air stripping) provided. The 5 ug/L triggers should also be deleted from the Column “B” listing for “Other VOCs” and “Other SVOCs” and the 50 ug/l trigger for “Total Petroleum Hydrocarbons other than Gasoline and Diesel.*

Response: We agree. We have modified the related sections of the permit and Fact Sheet to read as follows:

Fact Sheet:

“In the Tentative Order distributed for public comment, Column B of the Table 2 set trigger values at 5 microgram per liter (ug/L). This was a technology-based number, and its basis was a U.S. EPA Region 9 document issued in 1986, titled “NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document”. The guidance document concluded that the cost of attaining effluent levels to non-detect (5 ug/l detection levels except 1 ug/l for Vinyl Chloride) for all organic compounds that are commonly found in contaminated groundwater is considered economically achievable. However, since this new general permit is written primarily for brackish groundwater discharges, some discharges covered by this permit will not be treated before discharge. For this reason, the trigger values in the revised Tentative Order are based on water quality objectives, which in some cases, are higher than 5 ug/L. The revised Tentative Order directs the dischargers of fuels or solvent-contaminated groundwater to apply for coverage under the general permit for Fuels or for VOCs.

The table below shows the technology-based trigger of 5 ug/L for the specific constituents from Table 2 that were replaced with the CTR water quality objectives in the revised Tentative Order. For discharges that may be covered under this permit and treat their extracted groundwater for pollutants other than those regulated by Fuels or VOC permits, the treatment performance data will be collected and technology-based effluent limitations or triggers may be considered for this General Permit's future reissuances."

<b>Constituents</b>	<b>Table 2 Column B Trigger (ug/L) before change</b>	<b>Table 2 Column B Trigger (ug/L) after changing to CTR Human Health Fish Consumption Criterion (ug/L)</b>
Bromoform	5	360
Chlorodibromomethane	5	34
Dichlorobromomethane	5	46
1,2-Dichloropropane	5	39
1,3-Dichloropropylene	5	1,700
1,1,2,2-Tetrachloroethane	5	11
Pentachlorophenol	5	7.9 <sup>a</sup> <sup>a</sup> Lowest WQO is CTR saltwater CCC
2,4,6-Trichlorophenol	5	6.5
Bis(2-Ethylhexyl)Phthalate	5	5.9
2,4-Dinitrotoluene	5	9.1
Hexachlorobutadiene	5	50
Hexachloroethane	5	8.9
N-Nitrosodimethylamine	5	8.1
Total Petroleum Hydrocarbons other than Gasoline and Diesel	50	Deleted
Other VOCs	5	Deleted
Other SVOCs	5	Deleted

Attachment B

The “other VOC, other SVOC, and other TPH...” have been deleted and instead an explanation has also been added to Condition 9 of Attachment B that “if the Discharger has been monitoring for constituents or parameters other than those specifically listed in Table 6, the Discharger shall report the range of concentrations or measurement in an attachment to the NOI application.”

Attachment C

An explanation has also been added to Condition 9 of Attachment C that “if the Discharger has been monitoring for constituents or parameters other than those specifically listed in Table 6, the Discharger shall report the range of concentrations or measurement in an attachment to the NOI application.”

*19. ACWD Comment: Delete “All Applicable Standard Observations” in the Tables E-2, E-3, and E-4, of the Monitoring and Reporting Program (MRP)”.*

Response: We disagree on the need to delete this monitoring requirement but agree to reduce this monitoring frequency to “Q or whenever attending the Facility” and “Q or whenever sampling the receiving water”.

Additional substantive revisions to the Tentative Order:

20. Finding N., Anti-Backsliding Requirements, was revised to state, “All effluent limitations in this Order are at least as stringent as the effluent limitations in NPDES Permit No. CA0038059, Order No. 00-029, and the effluent limitations in the San Francisco Bay Region’s municipal stormwater permits.”