

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
November 12, 2008

ITEM: 14

SUBJECT: General Waste Discharge Requirements for *In-situ* Ground Water Remediation Projects within the San Diego Region (Tentative Order No. R9-2008-0081) (*Helen Yu*).

PURPOSE: Consider the adoption of tentative Order No. R9-2008-0081

PUBLIC NOTICE: The tentative Order (Supporting Document 1) was posted on the Regional Board web site on August 28, 2008. Selected federal, state and local agencies as well as other interested persons were notified of the tentative Order via letter or emails sent on August 28, 2008, and had opportunity to comment (Supporting Document 2).

DISCUSSION: The tentative Order No. R9-2008-0081 would establish General Waste Discharge Requirements (WDRs) for the application of chemicals and other reactive materials to soil and ground water for remediation of pollutants, including petroleum hydrocarbon fuel waste and volatile organic compounds (VOCs), from groundwater. The reactive materials include various chemicals (e.g. ozone and permanganate to degrade pollutants), and carbon and electron sources (e.g., glucose and acetate) and microorganisms (e.g. KB-1® dechlorinator) to enhance degradation of pollutants.

The regulated treatment processes have common components and associated issues (e.g., monitoring) that can be effectively regulated by general WDRs. The general WDRs are needed because they will expedite remediation of ground-water pollution at numerous cleanup sites throughout the San Diego Region. The tentative Order would accomplish the following objectives: a) simplify the application process for dischargers; b) reduce time needed for staff to prepare, and the Regional Board to adopt, individual WDRs for common remedial activities; c) enhance the protection of surface water by providing alternatives to the discharge of wastewater to surface water or Publicly

Owned Treatment Works (POTWs); and d) provide a level of protection comparable to individual WDRs.

Under some conditions, the application of reactive materials into soil and groundwater could result in unintended adverse impacts to ground-water quality. With proper management of materials and application processes, the potential effects will be of very limited extent, temporary, and will not be expected to unreasonably impair any existing or prospective beneficial uses of ground water. The reactive materials listed under Section A.1, "Conditions of Eligibility" in the general WDRs have been selected based on their histories of successful performance at various cleanup sites throughout the State of California. These reactive materials have been demonstrated to be effective in the treatment of soil and groundwater to remove petroleum hydrocarbon constituents and VOCs, with only limited and short-lived impacts on ground-water quality. The implementation of the Monitoring and Reporting Program (Supporting Document 1.B.) requires the dischargers to effectively assess the effectiveness of ground-water cleanup, monitor potential impacts upon ground-water quality, and report the results to the Regional Board.

The discharges regulated under the tentative Order would have to meet all requirements prescribed in the general WDRs with respect to the use and application of reactive materials at cleanup sites. The general WDRs do not apply to the application of other reactive materials not listed in Section A.1 of the general WDRs. The Regional Board previously adopted a negative declaration (Supporting Document 1.C) for this project to comply with the requirements of the California Environmental Quality Act (CEQA). Although the Negative Declaration for this project was adopted in 2003, the WDRs were not developed until recently.

The Regional Board received written comments from Delta Consultants on September 9, 2008 and from OnMaterials™ on September 29, 2008. Responses to those written comments are provided in Supporting Document 3. The tentative Order includes references to and categories of treatment technologies that are known to the Regional Board as having a history of successful performance at various cleanup sites throughout the State of California.

Other treatment technologies may also be viable but those in-situ treatment methods would require the Regional Board to adopt individual WDRs in the San Diego Region.

KEY ISSUES:

1. Chemicals and other reactive materials that may be used to obtain coverage under the general WDRs should be effective and efficient in the remediation of ground-water pollutants, with an established history of successful performance at various cleanup sites throughout the State of California.
2. The applied chemicals and other reactive materials will not permanently impact ground-water quality at enrolled cleanup projects located within the San Diego Region.

LEGAL CONCERNS: *None*

SUPPORTING DOCUMENTS:

1. Tentative Order No. R9-2008-0081 and Attachments:
 - A. Application/General Information Form for WDRs (Form 200).
 - B. Tentative Monitoring and Reporting Program No. R9-2008-0081.
 - C. Negative Declaration – Resolution No. R9-2003-0167
2. Letter transmitting the tentative Order for public review and comment.
3. Responses to Public Comments.

RECOMMENDATION(S): Regional Board staff recommends adoption of tentative Order No. R9-2008-0081