

**Note: This document has been prepared by the Central Valley Water Board's Prosecution Team**

ITEM: 20

SUBJECT: Stanislaus County Department of Environmental Resources,  
Geer Road Class III Landfill, Stanislaus County

BOARD ACTION: *Consideration of a Cease and Desist Order and a Revised  
Monitoring and Reporting Program*

BACKGROUND: The Stanislaus County Department of Environmental Resources (the "Discharger") owns and maintains a closed Class III landfill adjacent to the Tuolumne River. The unlined landfill was closed in 1995 by capping with a geomembrane liner on the top deck and with compacted clay on the side slopes.

Groundwater pollution, primarily due to volatile organic compounds ("VOCs") was identified at the site in 1985. The Discharger has implemented multiple phases of corrective action, including the installation and subsequent expansion of a landfill gas extraction system and the installation of a limited shallow-zone groundwater extraction and treatment system at the southwestern edge of the landfill.

However, the horizontal and vertical extent of groundwater contamination has not been defined on the northwest, west, and southwest sides of the landfill, and the contamination may extend to the opposite side of the Tuolumne River. Additionally, the existing landfill gas and groundwater extraction systems are not adequate to prevent the migration of VOCs and inorganic constituents away from the site or into deeper groundwater zones. Several VOC compounds persist in groundwater at and beyond the point of compliance at concentrations that exceed primary Maximum Contaminant Limits for drinking water.

The Discharger previously submitted both a Engineering Feasibility Study and a Report of Waste Discharge to obtain new Waste Discharge Requirements ("WDRs"), which were issued by the Board in 2009. The 2009 WDRs required that the Discharger complete the following work:

- Define the lateral and vertical extent of VOCs in groundwater downgradient of the point of compliance (which is the edge of the landfill).
- Implement corrective action for groundwater remediation at the north end of the landfill (this area is not addressed by the current groundwater extraction and treatment system).
- To achieve compliance with Title 27 and applicable provisions of the WDRs, implement a corrective action plan to install additional landfill gas extraction wells and a new gas flare, or additional groundwater extraction wells and an upgraded groundwater treatment system.

The Discharger has thus far failed to define the extent of VOCs in

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groundwater; has failed to implement corrective action at the north end of the landfill; and although the Discharger has submitted a corrective action plan for the installation and operation of new groundwater extraction wells, it has stated that it will not implement this plan.

The proposed CDO was issued on 22 November 2010, and was scheduled for consideration at the Board's 4 February 2011 meeting. However, the Prosecution Team subsequently agreed to postpone the matter to engage the Discharger in settlement negotiations. Although these discussions have been productive, and have resulted in modifications and clarifications being incorporated into the proposed CDO, the Discharger and the Board's Prosecution Team have failed to reach consensus on the scope of work that the Discharger should be obligated to perform..

The proposed CDO requires that the Discharger to come into compliance with its WDRs by providing a time schedule to accomplish the following tasks:

- (a) Define the lateral and vertical extent of contamination in the shallow and deep groundwater zones;
- (b) Optimize the current landfill gas extraction system to extract as much gas as possible, given site constraints;
- (c) Properly destroy the two groundwater supply wells that provide a conduit between the shallower and deeper groundwater zones. In addition, destroy the damaged groundwater monitoring well and replace it.
- (d) Prevent the discharge of pollutants to the Tuolumne River on the south and southwest side of the landfill by installing the enhanced groundwater extraction remedy that the Discharger proposed in its 2010 workplan.
- (e) Comply with an updated Monitoring and Reporting Program, which has been revised to include requirements to: (1) monitor the Tuolumne River for impacts associated with the landfill, (2) monitor certain groundwater monitoring wells on a more frequent schedule to ascertain whether the corrective actions are successful, and (3) submit landfill gas monitoring reports on a semi-annual instead of quarterly basis.
- (f) After defining the lateral and vertical extent of contamination, prepare and submit a revised Report of Waste Discharge and, if needed, an Engineering Feasibility Study ("EFS") to discuss whether additional landfill gas and/or groundwater corrective action measures are needed to comply with the requirements of the WDRs, the Basin Plan, Title 27, and State Board Resolution 68-16. The Discharger may also propose concentration limits greater than background. The EFS shall also evaluate whether additional permanent groundwater monitoring wells need to

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be installed.**

**ISSUES:**

Comments were received from Rosemary Sofes, the California Sportfishing Protection Alliance (CSPA), and the Discharger. The key comments of all parties are addressed in the attached Response to Comments, and the Prosecution Team has made numerous revisions to the CDO to address the comments.

The Prosecution Team and the Discharger were unable to reach consensus on the following three issues:

1. While the Discharger recommends optimizing and expanding the landfill gas extraction system to effectuate source control, optimizing the existing groundwater extraction and treatment system, and later completing the characterization of off-site groundwater impacts, the Discharger does not believe that it is appropriate to install an enhanced groundwater extraction and treatment system at this time.

While the Prosecution Team agrees that aggressive source control is appropriate, the Prosecution Team recommends that the Board require the Discharger to implement the enhanced groundwater extraction and treatment system that it previously selected as a feasible remedy for the following reasons:

- The landfill has no bottom liner, and groundwater periodically inundates at least some of the waste in the bottom layers of the landfill, generating landfill gas and rendering portions of the landfill gas extraction and treatment system ineffective;
  - The landfill gas extraction system can neither treat VOCs that have already impacted groundwater nor can it ameliorate the migration of all constituents of concern to groundwater;
  - The current groundwater extraction system is can not capture polluted groundwater as it leaves the site and migrates towards the river;
  - Available data indicate that shallow groundwater is in hydraulic communication with the river.
2. The Prosecution Team believes that it is appropriate to require the Discharger to investigate off-site groundwater impacts, to ensure that impacts to beneficial uses are identified and appropriately addressed as soon as practical.
  3. The Discharger states that it does not have sufficient funds to complete all of the work required by the CDO. The Prosecution Team believes that the \$3.4 million currently available is sufficient to cover the cost of compliance with the CDO provided that the Discharger continues to set aside another \$450,000 per year per the current pledge of revenue.

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RECOMMENDATION: The Prosecution Team recommends that the Board adopt the Cease and Desist Order and Revised Monitoring and Reporting Program as proposed.

Mgmt. Review \_\_\_\_\_  
Legal Review PEP

**April 7/8, 2011**  
Central Valley Regional Water Quality Control Board meeting  
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Rancho Cordova, CA 95670