

## INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2012-XXXX  
FOR COUNTY OF KERN  
FOR OPERATION AND CONSTRUCTION  
TAFT SANITARY LANDFILL  
KERN COUNTY

The County of Kern (hereafter Discharger) owns and operates the Taft Sanitary Landfill at 13351 Elk Hills Road, about three miles north of the City of Taft.

The California Regional Water Quality Control Board (Central Valley Water Board) adopted Waste Discharge Requirements (WDRs) Order 5-01-160 on 14 June 2001, which classified the waste management unit (Unit) as a Class III unit for the discharge of municipal solid waste as defined in Title 27, California Code of Regulations, Section 20005 et seq. (hereafter Title 27). The proposed Order revises the existing WDRs to provide for construction of new waste management cells with an engineered alternative composite liner system, acceptance of treated wood waste, and to implement a corrective action plan.

The 161.68-acre waste management facility contains one existing Unit covering approximately 85 acres. The existing 35-acre module is unlined. Three future modules totaling another 36 acres are planned for the balance of the Unit area.

The waste management facility is located in the southwestern portion of the San Joaquin Valley. The geology of the southern San Joaquin Valley is characterized by structural deformation associated with the tectonics of the continental margin, including movement along the San Andreas Fault. The facility is located on the northeast flank of the Buena Vista Hills anticline and is underlain by Pleistocene age unconsolidated non-marine sediments of the Upper Tulare Formation. The ground surface in the vicinity of the facility slopes to the northeast with natural elevations ranging from 600 to 700 feet above mean

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sea level (msl). There are no natural surface waters within one mile of the facility.

The first encountered groundwater ranges from about 410 feet to 480 feet below the native ground surface. Groundwater elevations range from about 237 to 238 feet mean sea level. Monitoring data indicate background groundwater quality for first encountered groundwater has electrical conductivity ranging between 6,250 and 7,230 micromhos/cm, with total dissolved solids ranging between 3,500 and 4,500 milligrams per liter. The groundwater gradient is shallow and slight changes in groundwater elevation cause variability in the flow direction. The direction of groundwater flow varies mainly between the southeast and the southwest. The average groundwater gradient is approximately 0.001 feet per foot and the average groundwater velocity is approximately 138 feet per year.

Organic compounds that are not naturally occurring have been detected in groundwater along the point of compliance. Tetrachloroethene (PCE) has been regularly detected in groundwater samples at concentrations above the practical quantitation limit. Trichloroethene (TCE), dichlorofluoromethane (Freon 11), and dichlorodifluoromethane (Freon 12) have been detected in compliance well samples at concentrations below the practical quantitation limit but above the method detection limit.

The Discharger submitted an Evaluation Monitoring Program Report on 12 September 2011. The nature of the release was demonstrated to be volatile organic compounds that originated from landfill gas. The extent of the release plume is limited to the immediate vicinity of monitoring wells TA1-10 and TA1-11.

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The Discharger completed an Engineering Feasibility Study in accordance with Section 20425(c) of Title 27. The Engineering Feasibility Study concluded that the most technically and economically feasible corrective action alternative is monitored natural attenuation. On 21 October 2011, the Discharger submitted an amended Report of Waste Discharge (ROWD) in compliance with Section 20425(d)(2) of Title 27. The Amended ROWD included an assessment of the nature and extent of the release, a proposed WQPS, a description of proposed corrective action measures to be taken to achieve compliance with the proposed WQPS, and monitoring and contingency plans that will demonstrate the effectiveness of the proposed corrective action.

Section 20080(b) of Title 27 allows the Central Valley Water Board to consider the approval of an engineered alternative to the prescriptive standard liner design. In order to approve an engineered alternative in accordance with Sections 20080(c)(1) or (2) of Title 27, the Discharger must demonstrate that the prescriptive design is unreasonably and unnecessarily burdensome and will cost substantially more than an alternative which will meet the criteria contained in Section 20080(b) of Title 27, or would be impractical and would not promote attainment of applicable performance standards.

The Discharger demonstrated that the proposed engineered alternative liner system is consistent with the performance goal addressed by the particular prescriptive standard, and provides protection against water quality impairment equivalent to the prescriptive standard in accordance with Section 20080(b)(2) of Title 27.

The proposed waste containment system consists of, from the bottom up: an engineered subgrade, a geosynthetic clay liner (GCL), a 60-mil high-density

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polyethylene (HDPE) geomembrane, and a granular leachate collection and removal system.

On 28 June 2011, the recirculated final environmental impact report for the facility was certified by the Kern County Board of Supervisors. A Notice of Determination was filed on 6 July 2011 in accordance with the California Environmental Quality Act (Public Resources Code section 21000 et seq.) and CEQA guidelines (Title 14, section 15000 et seq.). Central Valley Water Board staff considered the environmental impact report and incorporated mitigation measures from the environmental impact report into the WDRs designed to prevent potentially significant impacts to design facilities and to water quality.

This order requires full containment of wastes and does not permit degradation of surface water or groundwater. Further antidegradation analysis is therefore not needed. The discharge is consistent with the antidegradation provisions of State Water Resource Control Board Resolution No. 68-16.

REH: 05/06/2012