

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2012-XXXX FOR COUNTY OF KERN FOR POST-CLOSURE MAINTENANCE AND CORRECTIVE ACTION KERN VALLEY SANITARY LANDFILL KERN COUNTY

The County of Kern owns and maintains the Kern Valley Sanitary Landfill (facility). Part of the land was formerly owned by the United States Department of the Interior, Bureau of Land Management (BLM), and leased by the County. The County of Kern has purchased from BLM the land it didn't previously own. The facility is located about 4 miles southeast of Kernville and approximately one mile east of Lake Isabella. The 156-acre facility contains one closed, unlined 36-acre waste management unit.

The California Regional Water Quality Control Board (Central Valley Water Board) adopted Waste Discharge Requirements (WDRs) Order R5-2002-0073 on 26 April 2002, 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 regulate post-closure maintenance and to implement a corrective action program.

The waste management facility is located in Cyrus Canyon, a steep-sided east-west trending valley in the southern Sierra Nevada that drains into Lake Isabella. Metasedimentary rocks of the Kernville Series, intrusive igneous rocks, and alluvium composed of sands, silts, and gravels and derived mostly from the intrusive igneous rocks are the main geologic units in the vicinity of the facility.

The depth to first encountered groundwater ranges from about 52 feet to 115 feet below the native ground surface. Groundwater elevations range from about 2,580 feet above mean sea level to 2,840 feet above mean sea level. Monitoring data indicate background groundwater quality for first encountered groundwater has electrical conductivity ranging between 425 and 1,300 micromhos per centimeter, with total dissolved solids ranging between 300 and 1,000 milligrams per liter. The direction of groundwater flow is generally to the south. The average groundwater gradient is approximately 0.041 feet per foot and the average groundwater velocity is approximately 82 feet per year.

Waste constituents consisting of naturally occurring inorganic compounds and organic compounds that are not naturally occurring have been detected in groundwater along the point of compliance. The inorganic compounds consist of chloride and bicarbonate. The VOCs consistently detected in groundwater are tetrachloroethylene (PCE), trichloroethylene (TCE), 1,1-dichloroethane,

1,1-dichloroethene, dichlorodifluoromethane (Freon 12), and trichlorofluoromethane (Freon 11).

The Discharger submitted an Evaluation Monitoring Program Report in June 2003. The nature of the release of waste constituents from the waste management unit is associated with leachate and landfill gas migration. The extent of the leachate release is limited to an area beneath the southwest portion of the waste management facility. Waste constituents released due to landfill gas migration are present in the groundwater approximately 2,800 feet southwest of the facility boundary. The vertical extent of the release is limited to the upper fractured rock zone of the aquifer.

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 landfill gas extraction and monitored natural attenuation.

The Discharger adequately demonstrated that construction of a Title 27 prescriptive standard cover would be unreasonable and unnecessarily burdensome when compared to the proposed engineered alternative design. The Discharger demonstrated that a cover design utilizing a low linear density polyethylene membrane as the barrier layer would be an appropriate engineered alternative to the prescriptive design. During 2002, the Discharger constructed the final cover in accordance with the Final Closure Plan and the WDRs.

The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resource Code section 21000, et seq., and the CEQA guidelines, in accordance with Title 14, section 15301.

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 68-16.