

INFORMATION SHEET

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

The County of Kern (hereinafter Discharger) owns and maintains the China Grade Sanitary Landfill (the "Facility") about six miles northeast of Bakersfield. The 212-acre facility contains one closed, unlined 58-acre waste management unit.

The California Regional Water Quality Control Board (Central Valley Water Board) adopted Waste Discharge Requirements (WDRs) Order R5-2005-0162 on 21 October 2005, 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 on a bluff south of the Kern River in the southeastern portion of the San Joaquin Valley. The ancestral Kern River was the source of the sedimentary geologic formations present at the surface and underlying the landfill. Two geologic units are exposed at the surface at the site. These units are the Miocene to Pliocene Kern River Formation and alluvium of Pleistocene age.

The depth to first encountered groundwater ranges from about 515 feet to 560 feet below the native ground surface. Groundwater elevations range from about 170 feet above mean sea level to 365 feet above mean sea level. Monitoring data indicate background groundwater quality for first encountered groundwater has electrical conductivity ranging between 350 and 500 micromhos/centimeter, with total dissolved solids ranging between 250 and 330 milligrams per liter. The direction of groundwater flow is generally to the south. The average groundwater gradient is approximately 0.08 feet per foot and the average groundwater velocity is approximately 60 feet per year.

Organic compounds that are not naturally occurring have been detected in groundwater along the point of compliance. Historically, several aromatic hydrocarbons and chlorinated hydrocarbons have been detected in groundwater samples obtained from compliance wells.

The most recent monitoring report, dated August 2012, reports dichlorodifluoromethane (Freon 12) in monitoring well CG2-13 was detected at a concentration below the practical quantitation limit but above the method detection limit. No other volatile organic compounds were detected.

The Discharger submitted an Evaluation Monitoring Program Report on 30 August 2006. 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 area between the southern edge of waste and the southern property boundary.

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. There is no clay source on-site or nearby and the cost of importing clay from off-site or mixing on-site soils with bentonite would cost substantially more than the alternative design. The Discharger demonstrated that an evapotranspirative cover utilizing soil from a nearby borrow source would be an appropriate engineered alternative to the prescriptive design. During 2010, the Discharger constructed the final cover in accordance with the Final Closure Plan and the WDRs.

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.