INFORMATION SHEET

ORDER NO.
SAN JOAQUIN COUNTY DEPARTMENT OF PUBLIC WORKS
NORTH COUNTY LANDFILL
SAN JOAQUIN COUNTY

Background

The North County Landfill is an active, Class III, municipal solid waste (MSW) landfill on East Harney Lane near Atkins Road, approximately nine miles east of Lodi. The landfill has been in operation since 1991, accepting primarily household and commercial wastes. The 320-acre site includes the existing landfill, a materials recovery facility, wetlands area, and a future landfill development area. The landfill currently consists of three waste disposal modules - M1, M3, and M4, covering an area of about 53 acres. Other landfill facilities include storm water drainage systems; leachate collection systems; landfill gas controls; monitoring systems; access roads; maintenance facilities; an office and scale house; pump station; and other facilities. Approximately 400 tons per day (144,000 tons per year) of wastes, including MSW, commercial wastes, and construction and demolition debris were discharged to the landfill in 2008. Approximately 5.3 million cubic yards of waste are estimated to be in place at the landfill.

Development Plans

An additional 132 acres (the remainder of the landfill unit area) are planned for future landfill development. Seven additional modules (M5 through M11) will be constructed in phases for a total of 11 modules at build-out. Development will proceed module-by-module on an as needed basis. The Discharger currently estimates that Module M5 will be constructed in 2012. In addition to lateral expansion, the Discharger is proposing a vertical expansion over existing and future modules to increase landfill capacity. The maximum elevation of fill, including cover, would increase from 190 feet MSL to 320 feet MSL and total landfill capacity would increase from about 20.9 million cubic yards to about 36.9 million cubic yards. The maximum thickness of the fill, including cover, would increase to 148 feet (Module 1) and 254 feet (future modules).

Landfill Design

Module 1 was constructed in 1991 with a pre-Subtitle D containment system consisting of a single 60 mil HDPE liner and geonet blanket LCRS and collection piping. Module 3 was constructed in 1995 with a similar LCRS, but a single composite liner meeting Subtitle D and Title 27 requirements. Module 4 was constructed in 2004 in accordance with a liner performance demonstration and engineered alternative design (EAD) approved under previous WDRs (Order No. R5-2002-0219). The approved EAD included a single composite liner similar to Module 4, but with a gravel LCRS blanket. The Discharger plans to construct future modules consistent with existing approvals for Module 4, or as separately proposed and approved by the Board. Specific designs and construction plans will be submitted for approval as each module is proposed for development.

Groundwater
The average depth to groundwater at the site is about 154 feet bgs (-36.5 feet MSL) with about six (+/-3) feet of seasonal variation. The gradient is typically about 0.004 ft/ft toward the southwest. The upper water-bearing zone occurs in the alluvial deposits of the Turlock Lake and Laguna formations. There are currently six groundwater monitoring wells at the site including one upgradient (G-1), one side gradient (G-2), and four down gradient (Gs-3D, 4, 5 and 6). Monitoring of well G-2 was discontinued in 1997.

In 2002, a VOC release to groundwater consisting primarily of low to trace concentrations of BTEX constituents was confirmed. Subsequent monitoring showed attenuation of the VOCs, however; no VOCs have been detected in groundwater since startup of a LFG extraction system installed as a corrective action measure in 2006. Historical monitoring data for the landfill shows good upper zone groundwater quality, with no indication of impacts from leachate constituents. In the First Half 2008, for example, the maximum concentration of TDS and chloride detected down gradient of the landfill were 160 mg/L and 7 mg/L, respectively.

Revised WDRs
These revised WDRs prescribe updated requirements for landfill construction, operations and monitoring.

Construction
The WDRs (Construction Specifications 1 and 2) require that future landfill modules be constructed in accordance with Subtitle D; the approved EAD for Module 4; or as separately proposed and approved by the Regional Water Board. Discharge Specification B.1 limits vertical expansion to the maximum proposed elevations for each module under the Discharger's Vertical Expansion Plan, as supported by geotechnical analysis and approved by the Local Enforcement Agency.

Facilities and Operations
Provision G.8 requires that the Discharger investigate the condition of certain landfill facilities, including manually operated LCRS sumps, lysimeters that have been historically dry, and inactive monitoring well G-2. A report as to the status of these facilities, including work plans and schedules for necessary/required repairs and improvements, must be submitted by **31 March 2010**. (Facility Specification C.4 requires that manually sumps must be upgraded with automatic controls **within two years** of adoptions of this Order.)

Discharge Prohibition A.3 and Discharge Specification B.4 allow the Discharger to continue returning landfill leachate and LFG condensate to Subtitle D-lined modules consistent with liquids restrictions in Title 27 and Subtitle D. The WDRs also prescribe requirements for the handling and disposal of hazardous treated wood waste (TWW) under the California Health and Safety Code (division 20, chapter 6.5, article 5, section 25150.7); and CCR, title 22 (chapter 34, section 67386.2). The WDRs allow the landfill to accept TWW, provided that the discharge is limited to Subtitle D-lined modules and that it is handled in accordance with specified alternative management standards under Title 22. A copy of Title 22, Chapter 34

Alternative Management Standards for Treated Wood Waste is attached to this Information Sheet for reference.

Financial Assurances

Provision G.9 requires that, by **30 April 2010**, the Discharger submit an updated preliminary closure and postclosure maintenance plan (PCPMP) for the Executive Officer's approval. The PCPMP is required to be updated to reflect current operations and WDR requirements, including vertical expansion plans and cost estimates for closure, postclosure maintenance, and corrective action. Provision G.10 requires that the Discharger maintain financial assurance (F/A) balances with the CIWMB in at least the amount of these cost estimates, while Provision G.11 requires that, by **30 November 2010** and every five years thereafter, the Discharger demonstrate to the Executive Officer that F/As in acceptable amounts and mechanism(s) under Title 27 have been provided to the CWIMB. A copy of the letter of acceptance of the annual F/A demonstration to the CIWMB is also required under the MRP.

Monitoring

The monitoring and reporting program (MRP) in the WDRs requires regular facility maintenance inspections and semiannual monitoring of leachate, the unsaturated zone, and groundwater for representative monitoring parameters. Monitoring every five years is required for a longer list of landfill constituents of concern. The MRP also requires that the Discharger perform semiannual surface water monitoring at the site and maintain coverage under the General Industrial Storm Water Permit.

The MRP requires that the Discharger update concentration limits as background data is collected under the MRP. For inorganic COCs (i.e., dissolved metals) for which concentration limits have not yet been developed, the MRP specifies that background monitoring be conducted annually until a sufficient amount of data has been collected for determination of concentration limits. Thereafter, such monitoring may be reduced to every five years. WDR Provision G.12 requires that the Discharger submit an updated WQPS report for the Executive Officer's approval by **31 July 2012.**

Drainage

The site receives an average of 16.5 inches per year of precipitation. Surface drainage at the site is to South Paddy Creek, tributary to Paddy Creek, Bear Creek, and the San Joaquin River. (JDM)