INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-20018-XXXX
CITY OF WINTERS
WINTERS LANDFILL
CLASS III LANDFILL
CLOSURE, POST-CLOSURE MAINTENANCE. AND CORRECTION ACTION
YOLO COUNTY

Background

The Winters Landfill is an inactive, municipal solid waste (MSW) landfill facility on a 29.5-acre site about one-mile northwest of downtown Winters. The 6.5-acre landfill consists of a single, unlined waste management unit referred to as Landfill 1 (LF-1). LF-1 operated from 1962 to September 1975, accepting primarily MSW and agricultural wastes. The site was previously operated as a burn dump from 1925 to 1961. In June 2000, after 25 years of inactivity, an interim cover consisting of two feet of compacted soil was installed over the landfill. Burn dump ash and other wastes from historical operations were also excavated and consolidated into LF-1. The landfill predates Chapter 15 regulations and is a "closed, inactive, or abandoned" (CAI) unit under Title 27, section 20080(d)(1).

Geology

The site is in the Putah Plain in the southwestern part of the Sacramento Valley. The site is underlain by surface soils (gravelly clay or clay loam); Younger Alluvium (fine-grained sandy silts); Older Alluvium (silts and clays with sand and gravel lenses); and the Tehama formation (clean sands with silt and clay up to 2,500 feet thick), which is the primary aquifer in the western part of the Sacramento Valley.

Groundwater

Shallow groundwater at the site generally flows to the northeast consistent with the regional gradient. The depths to groundwater range from about 47 feet below ground surface (bgs) on the southwestern side of the site to about 92 feet bgs in the northeast corner of the site. Background groundwater quality is good with total dissolved solids (TDS) of about 190 milligrams per liter (mg/L). There are currently three landfill monitoring at the site, two which have been dry since 2013. Due to a lack of functional monitoring wells, the Discharger has not been able to determine the groundwater flow direction and gradient in recent years. It is unknown whether the wells are dry because of damage or clogging or whether the water table has fallen below the level of the screens.

A release to groundwater consisting primarily of elevation concentrations of general minerals was discovered at the site during a 1989 Solid Waste Assessment Test (SWAT) investigation. Historical monitoring data indicates elevated concentrations of general minerals in groundwater downgradient of the landfill indicative of a leachate release from the facility. Elevated concentrations of total dissolved solids (610 mg/L), chloride (82 mg/L) and other general minerals continue to be detected in point of compliance wells at the site.

Landfill Unit Design

The landfill originally consisted of a large, unlined pit excavated in 1962 in the northeast portion of the site. Native soils at the base of the excavation were reported to be clay-rich. No liner or leachate collection and recovery system was installed in the pit prior to filling. The original pit was filled to ground surface level in about three years, after which the landfill was developed above ground surface, ultimately creating a 4.3-acre, elongated mound of waste up to 20 feet high.

Closure/Corrective Action

In June 2000, burn dump ash and wastes from other historical site operations were excavated and consolidated into the landfill as a corrective action measure in accordance with a phased closure work plan approved by Water Board staff. Two feet of interim cover soil were then placed over the landfill and graded and compacted. The Discharger then conducted groundwater monitoring under a stand-alone monitoring and reporting program (MRP), Revised Order 5-00-802, to assess the effectiveness of the closure measures as a corrective action. In the event that monitoring indicated that the interim cover layer was not sufficient to protect groundwater, the closure work plan anticipated a second phase that included installation of a Title 27 clay soil cover over the landfill.

Revised WDRs

These revised WDRs classify LF-1 as a Class III landfill unit and require that the Discharger install a Title 27-compliant cover over the landfill per Title 27 requirements and as a corrective action measure to address groundwater impacts at the site. The Closure and Postclosure Specifications and Provisions of the WDRs require submission of the necessary plans and technical reports for this work, including, but not limited to, a Preliminary Closure and Postclosure Maintenance Plan (PC/PCMP), Final Closure and Postclosure Maintenance Plan (FC/PCMP), Closure Certification Report, and associated financial assurance documents.

The WDRs also require that the Discharger investigate the condition and operability of all monitoring wells at the site and repair or replace any wells that are not operable or otherwise not meeting Title 27 construction or performance standards. Additional wells and/or piezometers may also be necessary depending on the results of the investigation. The WDR provisions require submission of the work plans and technical reports for this investigation.

Cost estimates for closure, postclosure maintenance and corrective action are required to be included in the PC/PCMP and a corrective action report to be submitted for the facility. The WDRs also require that the Discharger submit a revised Water Quality Protection Standard (WQPS) Report and an updated Sample Collection and Analysis Plan reflecting the installation any new monitoring wells, updated concentration limits, and proposed data analysis methods. The Monitoring and Reporting Program in the WDRs generally requires semiannual monitoring for general minerals and five-year monitoring for landfill constituents of concern (COCs). The first five-year COC monitoring event under the WDRs is required to be conducted by December 2018.

Surface drainage at the site is to Dry Slough, which is tributary to Willow Slough (north of Davis), the Yolo Bypass area. and ultimately the Sacramento River.

JDM