

## **INFORMATION SHEET**

ORDER NO.  
BERRYESSA GARBAGE SERVICE, INC.  
STEELE CANYON LANDFILL  
NAPA COUNTY

The 10-acre landfill is on Steele Canyon Road approximately one mile northeast of Moskowitz's Corner on State Highway 128. The facility includes two unlined landfill units, a borrow area, a storm water collection pond, drainage facilities, access roads, and a bin storage area. The facility operated from the 1960s until 1993, accepting primarily household and commercial wastes. The landfill stopped accepting wastes on 1 March 1993 and since then has been operated as a transfer station. The groundwater impacts consist of general minerals such as total dissolved solids (TDS) and chloride. Current groundwater monitoring data shows TDS and chloride up to 1,200 mg/L and 610 mg/L respectively in downgradient compliance wells at the site, compared to upgradient concentrations of 610 mg/L and 30 mg/L.

### **Final Closure Plan**

In 1996 the Discharger conducted a preliminary site investigation to evaluate the cause of historically-detected leachate seeps and to scope closure issues. The report concluded that the seeps were primarily the result of ponding and storm water infiltration resulting from lack of cover and drainage controls (April 1996 *Preliminary Site Investigation Report*, prepared by Emcon). The Discharger subsequently submitted a work plan (July 1996 Workplan for Preliminary Closure Construction Activities, prepared by Emcon) proposing phased closure of the landfill over a seven year period. The work plan was intended as both a Final Closure Plan (FCP) and a corrective action plan. Board staff approved the work plan on 1 July 1996, indicating that it would be construed as a FCP upon approval of the construction plans for the first phase, and as an amended FCP thereafter as each phase is proposed and approved.

The CIWMB did not recognize the work plan as a complete FCP since the Discharger could not provide financial assurances for the total estimated cost of closure in the plan as required under Title 14 (now Title 27) solid waste regulations. The CIWMB approved the technical aspects of the work plan as a corrective action measure, however, allowing the Discharger to proceed with closure on its own (i.e., in the absence of an approved closure plan and without financial assurances) under a Certification of Closure approach. Under this approach, the CIWMB would certify closure of the landfill after all phases were complete, provided that the landfill was closed as proposed.

### **Landfill Closure**

The Discharger initiated the first closure phase in 1996 and completed the final closure phase in December 2005. Board staff approved certification reports submitted by the Discharger after construction of Phases 1 through 6. The final phase (Phase 7) report was approved subject to the requirement that the Discharger submit an acceptable slope stability report, as required under 27 CCR Sections 21090(a)(6) and 21750(f)(5) and this Order. Borrow soil from approved onsite sources was used in the foundation layer and low hydraulic conductivity (LHC) layers. Existing cover soil was also used in the foundation layer. Laboratory tests of the soil used in the LHC

ORDER NO.  
BERRYESSA GARBAGE SERVICE, INC.  
STEELE CANYON LANDFILL  
NAPA COUNTY

- 2 -

layer indicated that it typically consisted of sandy lean clay (“CL”) and/or fat clay with sand (“CH”) under the Unified Soil Classification System.

#### Post-Closure

The first post-closure aerial survey of the site was conducted in February 2006.

#### Precipitation and Drainage Controls

##### LF-1

A clay-lined diversionary ditch along the northeastern perimeter of the old fill area diverts run-on flows around the landfill, through a culvert under the main access road, and into a corrugated PVC pipe extension of the drain, which conveys the runoff west to the site perimeter ditch along Steele Canyon Road.

##### LF-2

An unlined seasonal stream diverts flows around the northeast end of LF-2 and drains the adjacent northeast slopes of the unit and adjacent borrow area. The drain discharges to an outfall in the southeast corner of the site, which spills down the adjacent ravine slope into an unnamed creek. A northwestern perimeter ditch drains the northwestern slopes of landfill and adjacent hill, while the southeastern ditch drains the southeastern slopes of landfill and run-on flows diverted from the landfill toe. Both perimeter drains have sufficient capacity to accommodate a 24-hour, 100-year storm event. The southeastern drain is eroded to bedrock in most places, but is lined with broken rubble from weathered bedrock that serves as a natural velocity control.

A cover ditch and berm constructed along upper toe slopes of LF-2 diverts flows from the middle deck around toe slopes. Run-on diverted to the west is directed to a corrugated plastic overside drain which discharges to the storm water collection pond near the landfill toe, while run-on diverted to the east flows to the southeastern perimeter ditch.

An unlined storm water collection pond at the toe of LF-2, formerly used to collect leachate seepage from the landfill toe area, is now primarily used to collect and evaporate storm water. The pond receives flows from overside drain, direct runoff from toe slopes and flows from SE perimeter ditch. The pond has a capacity of about 0.5 acre-foot, above which it overflows to the perimeter ditch along Steel Canyon Road. Overflows from the pond are monitored under the MRP of this Order.

#### Surface Water

Site drainage, including runoff from LF-1 and the western side of LF-2, flows to a ditch along the along Steele Canyon Road. The ditch ultimately joins the ravine creek about ½ mile down stream of the site, and flows to Oak Moss Creek, tributary to Capell Creek, and thence Lake Berryessa.

ORDER NO.  
BERRYESSA GARBAGE SERVICE, INC.  
STEELE CANYON LANDFILL  
NAPA COUNTY

- 3 -

JDM: 5 April 06