

ITEM: 4

SUBJECT: *Order to Amend Special Order 98-165 for Clean Harbors Buttonwillow, LLC, Buttonwillow, Kern County for Closure of Class II Waste Management Units*

BOARD ACTION:

BACKGROUND: Clean Harbors Buttonwillow, LLC, (Clean Harbors) currently operates a 320-acre Class I and Class II waste treatment and disposal facility at 2500 West Lokern Road in Kern County, approximately eight miles west of Buttonwillow, CA. The facility accepts both Class I and Class II liquid and solid waste but does not accept municipal waste or polychlorinated biphenyls. The Facility is regulated by Waste Discharge Requirements (WDRs) Order 96-094. Closure of five former Class II surface impoundments, Waste Management Unit (WMUs) Nos. 18, 21, 22, 23, and 27, was initially regulated by the WDRs but later modified by Special Order 98-165.

The Facility lies on an alluvial fan originating from the Treblor Range to the west. Site topography is characterized as planar, with elevations varying from 410 to 340 feet mean sea level, and sloping to the Northeast. Three ephemeral stream channels drain toward the site. All ephemeral channels have been improved to divert precipitation events away from the WMUs.

Three groundwater zones have been identified in the upper 600 feet of sedimentary sequence. The Board, Department of Toxic Substance Control (DTSC) and the Environmental Protection Agency (EPA) have defined these zones as follows: the Upper Perched Zone, the Intermediate Perched Zone, and the Lower Water Table Zone. Groundwater quality in all three groundwater zones is generally considered to be poor with total dissolved solids concentrations ranging from 2,070 to 7,380 milligrams per liter in all three zones. There are no producing wells within a one-mile radius, other than two water supply wells located at the Facility, used primarily for dust control and equipment washing.

The WMUs accepted only non-hazardous Class II liquid waste from petroleum exploration and production operations. The WMUs are lined with soil and polyvinyl chloride (PVC) geomembranes and the Special Order classified the WMUs as Class II landfills in accordance with Title 27. Additionally, the Special Order described the closure of WMUs 18, 21, 22, and 23 and the clean-closure of WMU 27, since it had historically been considered to lie within a 100-year floodplain. Recent FEMA studies have determined that this no longer is the case. The Special Order required that the WMUs contain only dry, solid non-hazardous waste. Sludge solidification is currently being achieved by the addition of dry, non-hazardous soil, mixing, and compaction in accordance with the current closure plan.

Clean Harbors submitted a *Revised Final Design Report and Revised Supplemental Final Closure Plan* for WMUs 18, 21, 22, 23, and 27, dated July 2011. The plan proposed changing the closure design, modifying the cover that was adopted in Special Order No. 98-165. The changes include constructing a final evapotranspiration (ET) soil cover system, an engineered alternative, in lieu of the cover system specified in the Special Order. Additionally, Clean Harbors proposed closing WMU 27 using the same method described for WMUs 18, 21, 22, and 23 instead of a clean-closure.

The facility is in an arid environment, with average annual precipitation of approximately

five inches and average annual pan evaporation of approximately 108 inches. Several soil ET covers of this type have been constructed to close landfills in Region 5, and are used throughout Kern County based on climatic conditions. The Facility encompasses the east half of Section 16, Township 29 south, Mount Diablo Base & Meridian. Central Valley Water Board staff have reviewed and commented on the closure plan.

ISSUES:

RECOMMENDATION: Adopt the proposed order

Mgmt. Review _____

Legal Review _____

November 29 Workshop in Buttonwillow

11020 Sun Center Dr. #200

Rancho Cordova, CA 95670