

INFORMATION SHEET

ORDER R5-201X-XXXX OPERATION, CONSTRUCTION, AND CLOSURE McKITTRICK WASTE TREATMENT SITE KERN COUNTY

Liquid Waste Management, Inc. (hereafter Discharger) owns and operates the McKittrick Waste Treatment Site (Facility), located approximately one mile south of the town of McKittrick in Kern County. The California Regional Water Quality Control Board (Central Valley Water Board) adopted Waste Discharge Requirements (WDRs) Order R5-2003-0160 on 17 October 2003, which classified the Facility as a Class II landfill as defined in Title 27, California Code of Regulations, section 20005 et seq. (hereafter Title 27). The proposed revised Order provides for continuing operation and expansion.

The 90-acre Facility consists of five waste management units (WMUs) covering approximately 27 acres. The Discharger proposes to expand the waste disposal area by an additional 24 acres. All WMUs are lined. The Facility is underlain by about 12 to 15 feet of fill material or alluvium overlying the Monterey Formation marine shale. The Tulare Formation overlies the Monterey Formation in portions of the western expansion area. The McKittrick thrust fault is located along the northeast boundary of the Facility and dips to the southwest. It is a dominant geologic structure and hydrogeologic boundary. The upper portion of the Monterey Formation is generally deeply weathered and highly fractured and is the upper water-bearing zone west of the fault. The younger Ridge Reef Formation consists of weakly consolidated fine- to medium-grained sandstone and is the upper water-bearing zone east of the fault. Folded and fractured Upper Miocene Monterey shale underlies the Facility and has resulted in ubiquitous tar and spring seeps on and around the Facility and primarily along the McKittrick thrust fault. A majority of tar and spring seeps lie to the north along the East and West Parcel lines. Shallow groundwater above an elevation of 1,260 feet msl flows towards the northeast and discharges into nearby springs.

Formation water in the McKittrick area is generally above 10,000 parts per million of total dissolved solids (TDS) and occurs at depths of several hundred feet below ground surface. Naturally occurring oil, high evaporation rates, percolation through marine sediments, and upwelling connate groundwater (water trapped in sediment at the time of deposition) along faults contribute to the overall poor groundwater quality. Petroleum compounds and the following volatile organic compounds (VOCs) are naturally occurring in groundwater at the Facility: benzene, carbon disulfide, isopropylbenzene, 1,2,4-trimethylbenzene, n-propylbenzene, and naphthalene. In 1991, the anthropogenic VOCs 1,1-Dichloroethane (1,1-DCA) and methyl tertbutyl ether (MTBE) were released to groundwater beneath the site, which was attributed to former unlined surface impoundments. The Facility was placed into a corrective action program (CAP) in 2002, which consisted of monitored natural attenuation. The concentrations of 1,1-DCA and MTBE attenuated to background water quality conditions by 2006 and 2009, respectively. Corrective action for 1,1-DCA and MTBE was deemed complete and the Facility returned to detection monitoring in 2015.

The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. Groundwater and spring water within a 0.5 mile radius of the Facility are not suitable, or potentially suitable, for municipal or

domestic supply. Furthermore, the WDRs require full containment of wastes and do not permit degradation of surface water or groundwater. Therefore, further anti-degradation analysis is not needed. The discharge is consistent with the anti-degradation provisions of State Water Resources Control Board Resolution No. 68.16.