ORDER NO. R5-2008-____
IT ENVIRONMENTAL LIQUIDATING TRUST
BENSON RIDGE FACILITY
OPERATION OF CLASS II SURFACE IMPOUNDMENT
AND POST-CLOSURE MAINTENANCE OF CLASS I LANDFILL
LAKE COUNTY

IT Environmental Liquidating Trust (hereafter Discharger) maintains a closed Class I landfill and operates an active Class II surface impoundment at the Benson Ridge Facility in Lake County. From 1979 to 1984, the facility accepted liquid, sludge, and solid wastes from the geothermal industry in the Geysers area for disposal in three Class II-1 surface impoundments equipped with two-foot compacted clay liners. The site is located about 3 miles southeast of Kelseyville and four miles south of Clear Lake. The Class I landfill consists of two separate units covering about 4.5 acres, and has a composite liner system and a composite final cover. The Class II surface impoundment was constructed with two independent cells covering about 3.2 acres, and is double lined.

The facility was formerly owned and operated by IT Corporation until their bankruptcy proceedings were completed in 2004, at which time the IT Environmental Liquidating Trust was formed to handle the ongoing monitoring and maintenance using the existing financial assurance mechanism (insurance policies). The former IT Corporation completed closure of the site in 1992 by consolidating wastes from the former Class II-1 surface impoundments into an onsite Class I landfill located in two of the former surface impoundments. No outside wastes have been accepted at the facility since 1984. The active Class II surface impoundment was constructed as part of site closure to contain and evaporate impacted groundwater, leachate from the landfill and surface impoundment, and purge water from the onsite monitoring wells. The closed facility is jointly regulated by the California Department of Toxic Substances Control (DTSC).

The facility was formerly regulated by the Toxic Pits Cleanup Act (TPCA) of 1984. The TPCA required that a Hydrogeological Assessment Report be submitted and the closure of three surface impoundments that had leaked. The former surface impoundments were closed in accordance with Waste Discharge Requirements (WDRs) Order No. 91-136; an 8 October 1990 Closure and Post-Closure Plan Revision 2.0; a 23 December 1987 Hydrogeological Assessment Report (HAR); and a 1 June 1987 Waste Characterization Report. WDRs Order No. 91-136 directed the Discharger to close the existing Class II-1 surface impoundments and to construct a new Class II surface impoundment for evaporation of extracted groundwater and landfill leachate. Closure construction was completed in December 1992 and the facility is now in post-closure with an active Class II surface impoundment for evaporation of impacted groundwater.
The Discharger estimated that there are approximately 85,000 cubic yards of geothermal drilling muds and geothermal production wastes within the existing landfills. Laboratory analyses of waste samples from the former surface impoundments have reported occurrences of hazardous levels of arsenic, vanadium, and mercury. The Discharger treated the waste to below hazardous levels and stabilized the waste with mixtures of cement and fly ash prior to being placed within the Class I landfill; however, DTSC still regulates the wastes in the Class I landfill as hazardous. The Discharger closed the facility by consolidating wastes contained within the three former Class II-1 surface impoundments into a two-celled Class I landfill with a composite liner and a composite final cover. About 103,100 cubic yards of solidified waste and unusable existing clay liners were transferred to the Class I landfill which consists of two independent units covering about 4.5 acres. A double-lined Class II surface impoundment was constructed with two independent cells and receives leachate collected from its own leachate collection and removal system (LCRS), the Class I landfill's LCRS, polluted ground water recovered from beneath the facility, and on-site generated liquids from monitoring, maintenance, and equipment decontamination. The total area of the two cells of Class II surface impoundment is about 3.2 acres.

Leakage from the three former Class II-1 surface impoundments polluted the perched groundwater body directly beneath the three former surface impoundments with inorganic constituents including total dissolved solids, sulfate, chloride, sodium, and boron. The cleanup of groundwater was addressed in Cleanup and Abatement Order No. 91-107 adopted by the Regional Water Board on 26 April 1991. Groundwater has been extracted from the perched zone from five recovery wells (RW-1 through RW-5) since 1992. To date, approximately 8 million gallons of groundwater has been extracted. Monitoring data indicate that groundwater extraction has resulted in significant reductions in the concentrations of the constituents of concern. Extraction has resulted in concentrations either below or near the concentration limits in recovery wells RW-3 through RW-5. Concentrations in RW-2, and particularly in RW-1 are generally still well above the concentration limits, but have seen substantial reductions with concentrations ranging from about 10 percent to 40 percent of what they were when extraction began. Concentrations are continuing to decline, although the rate of the decreases has slowed with time.

Previous WDRs Order No. 98-047, adopted by the Regional Water Board on 27 February 1998, also prescribed requirements for operation of the Class II surface impoundment, and post-closure maintenance of the Class I landfill. This Order is being updated to ensure consistency with the Regional Water Board’s plans and policies.

Surface water drainage is to McIntire Creek, which is tributary to Cole Creek, which flows into Clear Lake.