INFORMATION SHEET

ORDER NO. _____
AERA ENERGY LLC
SOUTH WASTEWATER DISPOSAL FACILITY
SOUTH BELRIDGE OIL FIELD, KERN COUNTY

Aera Energy LLC (hereafter Discharger) owns and operates the South wastewater disposal facility in the South Belridge Oil Field. The facility consists of surface impoundments that receive oil field produced water, backwash water from treatment filters at the Water Softening Plant, and softener regeneration wastewater from ion exchange units at the Water Softening Plant. The impoundments, which have a surface area of approximately 80 acres, are used for the disposal of wastewater by evaporation and percolation. Approximately 18,245,000 barrels of wastewater were discharged to the impoundments during 2004. The impoundments are unlined and do not meet the prescriptive construction criteria for surface impoundments as specified in Title 27. The wastewater disposal operation is currently regulated by Waste Discharge Requirements (WDRs), Resolution No. 68-268. The WDRs are outdated and are being updated to reflect Basin Plan policy and current State regulations.

The facility lies on Quaternary age lithologic units, which include the Alluvium and the Tulare Formation. Alluvium contains sand, silty sand, silt, and clay beds. At the base of the Alluvium is a sand bed known as the 22K Sand and an underlying silt and clay bed known as the Corcoran Clay Equivalent (CCE). The CCE is the lateral equivalent of the Corcoran Clay. The Tulare Formation is comprised of interbedded clay, silt, and sand.

The Discharger has conducted an investigation to determine the hydrogeology and lateral and vertical extent of wastewater migration in the subsurface. The Discharger or predecesssor companies have installed 67 groundwater monitoring wells to the east of the South Belridge Oil Field. Three stratigraphic intervals have been identified by the Discharger as aquifer zones containing water-bearing layers. The shallowest aquifer is designated as the unconfined Aquifer I, which consists of discontinuous water-bearing sands separated by clays. Below a discontinuous clay aquitard at the base of Aquifer I is the 22K Sand, which is water-bearing and is designated as the semi-confined 22K Aquifer. Underlying the 22K Aquifer, is the CCE. Unconformably underlying the CCE are water-bearing zones in the Tulare Formation collectively designated as the confined Aquifer II.

Groundwater in Aquifer I is impacted by wastewater migrating from the impoundments for at least one mile to monitoring well 36K1, which was sampled by the Discharger in 2003 and had the following salinity concentrations: total dissolved solids (TDS), 5,800 mg/L; chloride, 1,400 mg/L; and, boron, 10 mg/L. Groundwater in the 22K Aquifer is impacted by wastewater migrating from the impoundments for at least 1.65 miles to monitoring well 31Q2, which was sampled by the Discharger in 2003 and had the following salinity concentrations: TDS, 5,400 mg/L; chloride, 1,600 mg/L; and, boron, 11 mg/L. Groundwater in Aquifer II is not impacted by wastewater from the impoundments at monitoring well 36Q2, which was sampled by a predecessor company to the Discharger in 1994 and had the following salinity concentrations: TDS, 2,300 mg/L; chloride, 680 mg/L; and boron, 7.3 mg/L.

The Discharger has not delineated the lateral extent of groundwater impacted by wastewater migrating from the impoundments. In accordance with the time schedule contained in the Order, the Discharger must complete an investigation to determine the lateral extent of wastewater impacts on groundwater in Aquifer I and the 22K Aquifer; and, after completion of the investigation, submit a plan to implement a Corrective Action Program in accordance with Title 27.

The beneficial uses of groundwater in the area are designated by the Basin Plan as municipal and domestic supply, agricultural supply, and industrial service supply. There are no municipal or domestic supply wells in the area.

Wastewater in the impoundments is sampled and analyzed by the Discharger each quarter and the results reported semi-annually. The Discharger collected wastewater samples from the inlet impoundment, a middle impoundment, and the terminal impoundment during May 2005. The samples had the following salinity concentration ranges: EC, 20,000 - 25,000 µmhos/cm; TDS, 12,000 - 13,000 mg/L; chloride, 5,600 - 6,800 mg/L; and boron, 90 - 98 mg/L. The wastewater is classified as designated waste, and the discharge is subject to the requirements of Title 27 for discharges of waste to land. The wastewater has salinity concentrations that exceed maximum numerical salinity limits prescribed in the Basin Plan for oilfield discharges.

The Discharger has submitted a letter of commitment to permanently cease the discharge of wastewater to the impoundments in accordance with the Compliance Schedule. The Order contains a Compliance Schedule requiring the Discharger to cease the discharge of wastewater to unlined impoundments and close the impoundments.

The action to adopt WDRs for existing facilities is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.), in accordance with Title 14, California Code of Regulations, Section 15301.

DLW:12/12/05