INFORMATION SHEET

ORDER NO._____
COUNTY OF SHASTA
REDDING REGIONAL SEPTAGE DISPOSAL FACILITY
SHASTA COUNTY

Shasta County owns and operates the Redding Regional Septage Disposal Facility approximately 3.5 miles west of the City of Anderson. The Facility was constructed in 1976 and originally consisted of 10 unlined surface impoundments covering approximately 15 acres and with a storage capacity of 17.7 million gallons. In 2007, five additional septage ponds were constructed to accommodate increasing waste flow rates. The new ponds were constructed with composite liner system and leak detection system. Incoming septage enters a primary pond (Pond 1-A or 1-B), where solids are allowed to settle and the decanted liquid flows over a weir to the next pond hydraulically downgradient in series. Each successive pond in series is similarly constructed such that a weir ensures spillover to the next pond in succession before storage capacity and freeboard of the pond in use is exceeded, except for the terminal ponds (E-4 and E-5). An average of 550,000 gallons per month was received at the septage ponds in 2005. The annual volume of waste received at the Facility has increased at an average rate of 3 percent per year since 1994. The Facility was originally designed for a flow rate of 9,000 gallons per day (gpd, approximately 270,000 gallons/month) and when operation began in 1977 received about 5,000 gpd. The current pond configuration covers a surface area of 18.85 acres, and can receive up to 13 million gallons annually.

Originally, the facility configuration consisted of two separate series of five ponds. Each series had a primary receiving pond (W-1 and E-1) that served as a waste stabilization lagoon and four evaporation ponds. The pond series were used on an alternating basis so that one chain would be accepting septage while the other could be cleaned out. In 2000, the pond chain was reconfigured into a single chain. Ponds W-1 and W-4 alternated as primary ponds and flow was routed to the eight remaining ponds. E-4 and E-5 are both terminal ponds. Ponds 1-A and 1-B now alternate as primary receiving ponds, and flow is routed to the remaining ponds.

Ponds E-4 and E-5 were originally designed as emergency overflow ponds. Shasta County proposed installation of valves in each of the ponds so that clean rainwater could be discharged while the ponds were not in use for septage disposal. In a January 1999 letter, Regional Water Board staff approved the proposal, however in order to discharge, the ponds must contain only rainwater and the gate valves must remain locked except when the discharge of rainwater has been approved by the Regional Water Board. As a result of the increasing septage disposal rates, Ponds E-4 and E-5 typically contain septage year round and are no longer considered emergency overflow ponds.

On 8 April 2005, Regional Water Board staff reviewed a 28 March 2005 20-Year Capacity Study and Proposed Expansion of the Redding Regional Septage Ponds, prepared by Shasta County Department of Public Works. The 20-Year capacity study revealed that septage intake is increasing at a rate of approximately 300,000 gallons per year and that the ponds were near maximum capacity. Even normal septage intake and average rainfall would result in exceedence of the storage capacity of the Facility. Shasta County concluded that the Facility

immediately needed an additional 13.5 million gallons of storage capacity to retain projected septage and rainfall from a 100-year event.

On 13 March 2006, Shasta County notified Regional Water Board staff that the Redding Regional Septage Ponds were full and wastewater was overtopping Pond E-5. On 30 March 2006, Regional Water Board staff issued a Notice of Violation for discharging wastewater from Ponds E-4 and E-5 and not maintaining adequate freeboard.

To prevent further discharges from the septage ponds and potential discharge to surface waters or surface water drainage courses and to maintain adequate freeboard, Shasta County completely dried and cleaned out ponds E-4 and E-5 prior to the onset of wet weather in 2006/2007 so that rainwater could be discharged from the clean ponds until the ponds were needed to contain septage. On 16 March 2007, the Regional Water Board adopted Order No. R5-2007-0022, requiring the County of Shasta to cease and desist from violating Waste Discharge Requirements. The Order further required the County to submit final plans, design specifications, and construction quality assurance specifications for the septage pond expansion project by 31 May 2007, and complete construction of the project by 31 October 2007. In November 2007, Shasta County completed construction of the five additional septage ponds.

Historical data from monitoring wells indicates that the discharge has not impacted groundwater. Vadoze zone monitoring however, indicates that waste may have migrated approximately 30 feet below ground surface. The vadose zone monitoring network consists of four suction lysimeters, installed approximately 30 feet below ground surface (bgs). Regional groundwater is identified approximately 300 feet bgs, however a discontinuous perched groundwater layer is also identified 69 feet bgs. Four groundwater monitoring wells were originally constructed in September 1995, which included one shallow well (total depth 79 feet bgs) and three deep wells (total depths approximately 350 feet bgs).

Surface run-off from the Facility is toward Anderson Creek, an intermittent tributary of the Sacramento River, about one-quarter mile north of the site.

Land use within 1,000 feet of the Facility is designated for solid waste disposal (Anderson Class III Municipal Solid Waste Landfill), light agriculture, and open space. The surrounding vegetation consists of oaks, chaparral and grasses. There are no other septage receiving facilities within 70 miles of the facility capable of receiving waste generated from septic tanks in Shasta County.

KB/KLC: sae