The Lower Colorado River Authority (LCRA) (CN600253637) operates the Sim Gideon Power Plant (SGP) (RN102038486), which is a natural gas steam/electric power generation facility that consists of three generating units. The facility is located at 256 Power Plant Road, Bastrop County, Bastrop, Texas 78602.

LCRA has applied to TCEQ to request a major amendment of the SGP’s Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002052000. This permit currently authorizes the plant to discharge once-through cooling water, auxiliary cooling water, stormwater, and “previously monitored effluents” from external Outfall 001. “Previously monitored effluents” are additional waste streams from SGP that are monitored inside the facility (internal outfalls) before they mix with other wastewaters authorized to discharge via Outfall 001. The previously monitored effluents include low-volume wastewater, metal cleaning waste, and stormwater. The SGP also accepts once-through and auxiliary cooling water and previously monitored effluent (wastewaters from internal outfalls) from the Lost Pines 1 Power Plant (LP1) (internal outfalls authorized by TPDES permit WQ0004155000), which is located adjacent to the SGP facility. The SGP receives and monitors the cooling water from LP1. The average flow authorized to discharge from Outfall 001, including the LP1 cooling water, is 985,000,000 gallons per day. In addition to Outfall 001, the SGP permit is authorized to discharge via Outfall 002 whose waste streams include low-volume wastewater and stormwater. Both Outfalls 001 and 002 discharge to Lake Bastrop.

The major amendment of this permit requests the addition of a new internal Outfall 401 to authorize the discharge of treated domestic wastewater. Sanitary domestic wastewater from the SGP is treated in an on-site aerobic treatment system. The discharge of treated domestic wastewater from Outfall 401 is subject to effluent guidelines from 40 CFR Part 133 (Secondary Treatment Regulation) and requirements from 30 TAC Chapter 309 (Domestic Wastewater Treatment Limitations). The pollutants expected from these discharges are: total residual chlorine, total suspended solids, Biochemical Oxygen Demand 5-day (BOD5),and pH.