

EXHIBIT A
RESOLUTION NO. 2007-_____

Description of Wastewater System Improvements

The Wastewater System Improvements for the Marshall Phase 1 Community Wastewater Project fall into two major categories, On-lot Facilities and Common Facilities, which are summarized below.

On-lot Facilities

The On-lot Facilities component of the project includes individual septic tanks, pumping systems, pressure laterals and, in some cases, gravity piping that will provide primary sewage treatment and conveyance of septic tank effluent to the community wastewater collection and disposal system.

- **Septic Tanks.** Watertight septic tanks will be required for each building or property. In some cases existing septic tanks will be retained and upgraded, and in other cases new tanks will be installed. All tanks will be equipped with watertight access risers.
- **STEP Units.** Nearly all properties will include a Septic Tank Effluent Pump (STEP) unit. The STEP unit includes a submersible effluent pump installed in a separate chamber following the septic tank or in the second compartment of the septic tank, along with associated electrical controls and float-activated switches. The STEP unit allows pumping of primary treated effluent to the common force main (see below) via a 1.5-inch diameter pressure lateral. The two commercial sites, Marshall Boat Works and Marshall Tavern, will each have a cluster STEP unit serving three and two properties, respectively. In both cases the properties served are under single ownership. These cluster STEP units will include a duplex (two) pump system.
- **STEG Units.** Because of topographic location, two properties in the Phase 1 Service Area will be served by gravity connections, termed STEG (Septic Tank Effluent Gravity). No pumping equipment will be needed for these properties. The septic tanks will be equipped with an effluent filter and 3-inch diameter gravity lateral connection to the effluent force main.

Common Facilities

The Common Facilities component of the project includes wastewater collection piping and a community wastewater disposal system (leachfield) that will be located near the Marshall Boat Works on a 6-acre site to be acquired from the Barinaga Ranch.

- **Effluent Force Main.** Septic tank effluent from on-lot facilities will be collected in a small diameter effluent sewer force main. The force main will be one mile long, extending the full length of the Phase 1 Service Area, and will be installed within State Route 1 right-of-way along the west side of the roadway. The force main will consist of 350 lineal feet of 2-inch diameter pipe, and approximately 5,000 lineal feet of 3-inch diameter pipe. It will be a continuous collection network leading from the STEP or STEG connection at each property to the community wastewater site.

- **Main Lift Station and Emergency Storage Tank.** The effluent force main will terminate at the community wastewater site where the effluent will be collected in a main lift station, consisting of a 5,000-gallon capacity tank (buried) with a duplex pump system. The effluent will be pumped from this point to a dosing tank located at the high point of the site (east side), for dispersal of the effluent to a community leachfield. A second 5,000-gallon holding tank will be installed alongside the main pumping tank to provide additional emergency storage capacity in times of pump or power outage. The holding tank will have a submersible pump, manually operated, to return any accumulated effluent back to the main pump tank after the emergency situation has passed.
- **Control Building and Backup Generator.** A small, 6-foot-by-12-foot control building will be constructed adjacent to the main pumping tank. This building will house the control panel for the pump system, tools, and other equipment. There will be a separate enclosure for a portable emergency back-up generator. The generator will be available for manual operation of the main pumps and the emergency holding tank pump.
- **Pressure Line and Dosing Tank.** A 2-inch diameter pressure line will run from the main lift station to a 2,000-gallon fiberglass dosing tank located on the knoll above the leachfield. The dosing tank will be equipped with two automatic dosing siphons. The siphons will operate alternately to deliver effluent under pressure to the leaching trenches.
- **Pressure Distribution Leachfield.** The septic tank effluent will be dispersed via soil absorption using a standard pressure distribution leachfield trench system. The system will include a 100-percent capacity primary leachfield, plus a 100-percent designated reserve area for future use, if needed. The leaching trenches will be 48-inches deep, 18-inches wide and minimum 10 feet on centers. There will be a total of approximately 2,600 lineal feet of trench extending over an area of roughly one acre.
- **Land Acquisition and Site Improvements.** The approximately 6-acre wastewater disposal site will be acquired under friendly eminent domain proceedings from the Barinaga Ranch. The property will be fenced and gated. An easement for controlled livestock grazing will be granted back to the Barinaga Ranch. Vehicle access to the community wastewater disposal site will be from State Route 1 via an existing entrance gate at the northwest corner of the site. The existing dirt entrance road will be improved with an all-weather surface. Other site improvements include gravel surfacing around the main lift station and control building, a buried water tank and piping for incidental water needs, and overhead electrical and telephone service lines.