

Los Osos Wastewater Project Preliminary Operations Plan

The proposed Los Osos Wastewater Project will serve an area of Los Osos with an existing population of approximately 12,500 and a build-out population estimated at 14,500. The service area is currently served by on-site septic systems, therefore the project will consist of almost entirely new facilities for wastewater collection, treatment, and reuse to serve 4,769 planned connections with a capacity of 1.2 mgd.

The County of San Luis Obispo is developing the Los Osos Wastewater Project under the authority of special California legislation, AB 2701 (Blakeslee, 2006). AB 2701 specifically authorizes the County to construct and operate a wastewater system to meet the needs of the Los Osos Community Services District (LOCSD). After a minimum of three years after completion of the project, the facilities and operational responsibility may be transferred to the LOCSD. However, the County and LOCSD must mutually apply to the Regional Water Quality Control Board for approval of the transfer of responsibility and the timing of such a transfer is uncertain, especially when considering the current financial situation of the LOCSD.

Facility Operations Staff: In order to provide the most cost effective operations service and address any unforeseen issues that may arise during the first several years of operations, the County plans to operate the project with County staff. The County, through the Utilities Division of the Public Works Department currently employs 21 water system workers, with certifications up to Grade 4. Existing water systems workers, or new hires specifically for Los Osos, will be assigned on a dedicated, full-time basis to the Los Osos facilities. Engineering, administrative support, and laboratory services will also be provided by County Public Works Department staff. An organizational chart is provided in Figure 1.

The labor estimates for the collection, treatment, and recycled water distribution systems consist of 5 full time equivalent workers. Staff are expected to include a Chief Plant Operator with a Grade III or IV certification, two water system workers for the treatment and recycled water distribution system (Grade I or II certification), and two water systems workers for the collection system. The final determinations of certified operator grades required will be specified by the Regional Water Quality Control Board in their final permit. Experience and training requirements for each grade of certified operator are established by the State Water Resources Control Board's operator certification program. The project operations and maintenance requirements are detailed in the Preliminary Engineering Report. Table 1 is a summary of total O&M cost estimates.

| Table 1. Summary of Total Project Annual O&M Cost Estimate | |
|---|-----------------------|
| | Annual O&M |
| Collection System | |
| • Labor | \$170,000 |
| • Power | \$60,000 |
| • Equipment Maintenance | \$200,000 |
| Treatment Process | |
| • Labor | \$310,000 |
| • Power | \$110,000 |
| • Equipment Maintenance | \$75,000 |
| • Allowances | \$50,000 |
| • Tertiary O&M | \$100,000 |
| Solids Handling | |
| • Thickening & Dewatering | \$450,000 |
| • Hauling | \$190,000 |
| Recycled Water Reuse | |
| • Leachfield Energy | \$165,000 |
| • Leachfield Labor | \$90,000 |
| • Reuse Irrigation Energy | \$40,000 |
| Miscellaneous Costs | |
| • Habitat Mitigation | \$10,000 |
| • County Overhead and Billing | \$300,000 |
| • Contingency/Operating Reserves | \$50,000 |
| Total Annual O&M Costs | \$2,370,000 |

Water Quality Standards: The treatment facility will be designed to produce CA Title 22 Disinfected Tertiary Recycled Water for unrestricted reuse and will consist of an oxidation ditch secondary process, secondary clarification, cloth media or soil filtration, and ultraviolet disinfection. The average daily dry weather flow capacity will be 1.2 mgd. Peak hour wet weather flow capacity will be 2.5 mgd. In addition to the Title 22 Water Recycling Criteria, the Waste Discharge Requirements from the Regional Water Quality Control Board are expected to include a total nitrogen limit of 7 mg/L, monthly average and 10 mg/L, daily maximum. The following table is a summary of expected recycled water quality limits.

| Table 2. Recycled Water Quality Limits | | | |
|---|--------------|-------------------------------------|--------------------------|
| Constituent | Units | Monthly (30-day) Average | Daily Maximum |
| Total Nitrogen (as N) | mg/l | 7 | 10 |
| BOD, 5-day | mg/l | 30 | 30 |
| Suspended Solids | mg/l | 90 | 90 |
| Turbidity (24 hour mean value) | NTU | 2 | 5 |
| pH | Units | In range of 6.5 to 8.4 | |

Facilities Management Plan: The Waste Discharge Requirements will also include a provision for the development of a facilities management plan to ensure the effective management of the system, including:

- Maintaining or improving the condition of the facilities to provide reliable service.
- Cost-effectively providing adequate collection and treatment capacity.
- Minimizing the number of spills, overflows, or water quality limit failures.

The to-be-developed facilities management plan will follow the Regional Water Quality Control Board's development guidelines, which include requirements for the following:

- **Emergency Response Plan:** A stand-alone document that provides standard procedures for notification and response to an overflow, spill, or system malfunction. Potential failure mechanisms are identified and mitigated to reduce risks prior to an emergency. Major events are required to be reported within 24 hours.
- **Resources and Budget:** Identify and allocate resources and budget to maintain the necessary level of service, including capital replacement costs.
- **Prioritize Preventative Maintenance:** Establish scheduled maintenance intervals for critical components and known trouble spots, investigate customer complaints, and keep maintenance records for analysis and reporting.
- **Scheduled Inspections:** Establish an inspection schedule to proactively correct system deficiencies.
- **Training:** Establish an on-going training program to maintain skills required for O&M, emergency response, and worker safety.
- **System Audits:** Annual audits of the facilities management plan and its effectiveness are required, with a report submitted to the Regional Water Quality Control Board.

Revenue Collection and Delinquent Accounts. Revenue collection for both capital debt repayment and annual operations costs will be through the County's semi-annual property tax bills. Collection of property assessments on the property tax bills is authorized by the completed Proposition 218 proceedings. User charges are also authorized to be collected on the property tax bills pursuant to CA Health and Safety Code Sections 5470-5473.11 and County Code Section 3.22.

Any delinquent project accounts for either the property assessments or user charges will be paid by the County under the *Teeter Plan*, as provided in the CA Revenue and Taxation Code Section 4701 *et seq.* Under the Teeter Plan, the County annually distributes 100% of the secured tax revenue due to the project on a cash basis. The County is then responsible for collection of delinquent charges, plus interest and penalties, through subsequent collections.

Figure 1. Organizational Chart – Project Operations

