



Los Olivos Community Services District Wastewater Reclamation Project Description

Purpose

The Los Olivos Community Services District (LOCSD), formed by voters in 2018, is to provide direction and obtain funding that will enable the development, financing, building, and operation of facilities to collect and reclaim wastewater in the unincorporated community of Los Olivos. The water reclamation solution will be economically viable, meet public health needs, protect groundwater quality and comply with regulatory requirements of the Regional Water Quality Control Board (RWQCB).

Project Components

The following four components are interdependent and will be implemented concurrently:

1. Work with the County to develop an addendum to the Local Area Management Plan (LAMP) that defines interim requirements for Onsite Wastewater Treatment Systems (OWTS) in the Los Olivos community while the longer-term wastewater reclamation solution is being developed
2. Identify and secure funding resources that will make the project economically viable
3. Implement a local groundwater monitoring program
4. Design, permit and build a district-wide collection and water reclamation system

1. Implement Interim OWTS Requirements (With County)

It is not reasonable to require property owners to invest heavily in their existing OWTS when connection to the community water reclamation system is not far away. LOCSD is working with the Santa Barbara County Environmental Health Department (County EHS) to add provisions to the LAMP to revise OWTS requirements during the transition from OWTS to connection to the community system. Items to be considered include:

- Operation of conventional systems
- Routine maintenance
- Management of existing low and high-risk systems within the community
- Dwelling expansion
- System failure requirements
- The need for installation of an advanced treatment system
- Requirements for connection to a community collection and treatment system.

County EHS is responsible for the LAMP document and for enforcing the associated requirements. Both Santa Barbara County and RWQCB must approve the interim provisions for the Los Olivos community.

2. Secure Project Funding

Having developed a project approach and description, the district is now able to pursue Local, State, and Federal funding mechanisms that will minimize the cost of this project to community property owners.

Assessments will be established in accordance with State Law (Proposition 218), and as required by the Local Agency Formation Commission (LAFCO). The district will pursue approaches to minimize and/or offset costs through a combination of the following:

- Public-private partnerships (P3)
- Grant fund opportunities
- Matching fund opportunities
- Commercial/private financing alternatives
- Assess project privatization to determine cost efficiencies when compared to a public project

3. Implement Groundwater Monitoring Program

Data from an active groundwater monitoring program will enable the district to:

- Determine the impact of community OWTS on groundwater water quality
- Quantify the impact of upgradient sources of contaminants
- Model soil characteristics such as infiltration rates, permeability, and other geological and hydrological parameters
- Establish a baseline and monitoring of groundwater quality trends that will show the impact of community wastewater reclamation

This program, including cost sharing, is being pursued in cooperation with County Environmental Health Services (EHS) and the Groundwater Sustainability Agency (GSA) for the Eastern Management Area of the Santa Ynez River Basin and County Public Works.

4. Design and Build District-wide Collection and Water Reclamation System

Zones

The District is designing a collection and water reclamation system for the entire district. Two zones within the district are being considered in the design of the district-wide collection and water reclamation system:

- Zone I: Downtown Los Olivos, including the commercial core and nearby small-lot residences
- Zone II: The remainder of the LOCSD

The district intends to develop the district-wide system for both zones at once. However actual implementation will depend on the project final design and cost as well as groundwater data that are yet to be determined and studied. The need to address

Zone I is most urgent because of the OWTS challenges based on density where the land area is small and wastewater load is higher.

Requirements

The system will comply with the:

- Santa Barbara County Comprehensive Plan, including the Santa Ynez Valley Community Plan
- Santa Barbara County Land Use and Development Code.

With the effluent volume exceeding the County EHS limit of 10,000 gallons/day, the system will be under the jurisdiction of the RWQCB, which will review the system design approach and issue all appropriate permits.

The effluent will be compliant with the California Code Regulation (CCR) Title 22 discharge requirements which will enable:

- Beneficial reuse through an underground infiltration
- Groundwater recharge
- Strategic flushing of existing nitrate/contaminates
- Local irrigation as site conditions allows

The design basis includes maximum build out based on current zoning as well as a 7.5% growth rate from 2017-2050 or an annual growth rate of 0.26% Based on the Santa Barbara Association of Governments Growth Rate Forecast.

Description of the Collection System

The collection system will consist of underground gravity sewer pipes strategically placed under community streets and alleys to allow for the closest possible connections. Structures will be connected to the district-owned collection system via privately owned laterals. Certain laterals may be successfully connected with gravity flow while others may require small private grinder pumps to move the sewage into the collection system. Maintenance holes and an “end of the line” lift station will be provided as needed, with an associated force-main (pressure main) to move the wastewater to the water reclamation plant.

Description and Siting of the Water Reclamation Facility

The reclamation facility will be a high-efficiency, low odor, expandable Membrane Bioreactor (MBR) package plant that can be sized to serve the entire District. A California-licensed and trained operator will ensure proper operation and maintenance of the facility and will generate required reporting. The equipment will be contained within a barn-like structure with colors and associated landscaping that will help it blend in with the surrounding area and architecture.

Siting considerations include:

- Size, availability, and cost of the lot
- Proximity to collection and effluent discharge systems
- Potential for the facility to blend in with the surroundings

Potential locations include:

- County parcels and rights of ways
- Institutional parcels
- Commercial and private properties

Description of the Effluent Discharge System

Effluent handling facilities will return drinking-water-quality reclaimed water to customers or the groundwater basin for beneficial reuse.

Design, Financing, Construction, and Operation Process

Steps of the construction include:

- Generating basis of design and project planning documents
- Performing preliminary design, environmental studies, cost assessments, and conducting the Proposition 218 assessment process
- Performing final design, including preparation of plans, specifications, and estimates
- Identifying grant funding opportunities for various project components
- Procuring professional and construction services in accordance with the State Contracting Code - the package plant will be built offsite, while most other components will be built by contractors on-site
- Working with property owners to establish lateral connections as the sewer trunk main is installed
- Package plant start-up
- System Operation and Maintenance (O&M).