

Capital Improvement Projects

Studies are underway and projections in the planning/preliminary design stages include the following:

Headworks Project – Modern wastewater treatment plants are designed with preliminary treatment facilities, which consist of screening and grit removal processes to remove large debris from the wastewater influent stream prior to primary and secondary treatment. Preliminary treatment equipment protect downstream pumps and equipment from rocks, gravel, grit, rags and other large debris that would otherwise cause blockages and harm downstream equipment.

The District's original treatment plant was designed and constructed in the 1950's. Preliminary treatment facilities were not provided. As a result, plant performance has suffered and operations and maintenance cost has been high.

In 2007, SMCSD was placed under an USEPA Administrative Compliance Order, which indicated that the District was not in compliance with the conditions of its NPDES permit. Among the reasons cited by USEPA for the non-conformance was the fact that the District was not removing floatables and debris upstream of the primary clarifier, which is required for reliable treatment of wastewater.

The Headworks project is intended to remedy the non-compliance, improve plant performance and reliability; and decrease operation and maintenance costs. The Headworks project consists of the construction of a new structure that would house plant influent screening and grit removal and dewatering equipment. In addition, influent filtration screens will be provided to serve as a back-up to the one primary sedimentation basin that was constructed under the original plant improvements.

In 2009, the District Board of Directors selected RMC Water and Environment, Inc. as the engineering consultant for the project. RMC has been retained to provide project planning and preliminary engineering services. Included in the consultant's scope of services is an evaluation of cogeneration systems to determine the cost effectiveness and benefit of utilizing digester gas to reduce the purchase of power from PG&E and to reduce the District's carbon footprint pursuant to the new state greenhouse gas reduction law. The budget for the Headworks Project is \$13.6 million.

Wet Weather Improvement Program – The Wet Weather Improvement Program is intended to reduce the frequency and volume of wet weather spills and treatment plant blending events during wet weather. (Blending is the bypassing of primary effluent around the secondary treatment process during peak wet weather flow conditions.)

SMCSD and other local wastewater agencies were issued an Administrative Compliance Order in 2008 by USEPA to reduce/eliminate wastewater spills. In addition, the Regional Water Board made it be known during the District's 2007 NPDES Permit renewal process that wet weather blending would no longer be considered an acceptable treatment process in future NPDES permits. The District is required under its NPDES permit to take steps and report on progress toward reducing/eliminating blending.

The District originally considered the construction of an underground equalization storage basin that was to be located in northern Sausalito as a means of eliminating spills and blending events. Equalization storage would store high wet weather flows until the storm passed and the flows could be safely re-introduced into the wastewater conveyance system for treatment and disposal. The District conducted a siting study and determined several feasible locations for the underground basin. However, community siting concerns and the relatively high cost of constructing the basin led the District Board of Directors to evaluate other alternatives.

In collaboration with the City of Sausalito and TCSD, decisions were made to reduce inflow and infiltration through collection system repair and rehabilitation and to expand the secondary treatment capacity of the plant. I&I reduction would be the responsibility of all three agencies, while the District would be responsible for expanding the secondary plant capacity.

To expand plant capacity, the District plans to increase the pumping rate to the Fixed Film Reactors (FFR's) from 6.0 to 9.0 million gallons per day and perform tests on the performance of the FFR's while operating under greater hydraulic conditions. In addition, the existing sand filters is planned to be replaced with a ballasted flocculation process to ensure compliance with the District's discharge requirements.

Planning and preliminary engineering is underway. The budget for the secondary treatment capacity expansion is \$6.2 million.

Marin City Collection System Repair and Rehabilitation – The District Board of Directors selected West Yost and Associates to provide planning and preliminary engineering services for the Marin City Sewer Repair and Rehabilitation Project. Sewer condition assessment data, wet weather flow monitoring analysis, and maintenance records are being use to develop the project scope of work. The project budget is \$1.3 million.