Master Plan Summary – Spring 2018

The District's mission is "To safely provide the highest level of wastewater collection and treatment as economically possible for the people of Rodeo while protecting the sensitive ecosystem of the San Pablo Bay and the overall environment." In June 2013, District completed a planning process to determine how to best meet this mission over the next 20 years. The plan is identified in the Comprehensive Wastewater Master Plan (CWWMP) prepared for the District. The plan is available on the District's website. The primary objectives of the CWWMP were to assess the ability of existing facilities to provide reliable wastewater collection and treatment, plan for future regulations, and develop a prioritized and comprehensive 20-year Capital Improvement Program (CIP) that address the District's current and future needs.

The District Board reviewed a number of potential options presented in the master plan and selected a CIP alternative that included various hydraulic improvements at the wastewater treatment plant (WWTP) and Influent Pump Station, along with an extensive sewer replacement program to address sewer rehabilitation needs where sanitary sewer overflows had occurred or risk of overflow was very high. The estimated budget to fund these projects over the next 20 years was approximately $37.2 million dollars. The District Board chose to finance the initial CIP projects primarily through the use of Clean Water State Revolving Fund (CWSRF) low interest loans in order to minimize the long-term cost of borrowing. The District Board prioritized eight separate projects with a $16.6 million total budget as listed in the table below. Following completion of these eight projects in 2018, the District Board will reassess the CIP projects remaining on the 20-year plan to reconsider priorities for those projects.

Schedule	Project	Budget Cost (million)
Completed 2015	Sewer Year 1 Improvements	$2.0
Completed 2016	Sewer Year 2A Improvements	$2.4
Completed 2018	WWTP Improvements	$1.9
Completed 2017	Sewer Year 2B Improvements	$2.4
Completed 2017	Sewer Year 3A Improvements	$2.0
Completed 2018	Influent Pump Station Improvements	$2.0
Completed 2017	Sewer Year 3B Improvements	$2.0
Start Summer 2018	Sewer Year 3C Improvements	$1.9
	Total Cost	$16.6

The sewer project construction started in January 2015 with the Sewer Year 1 project. Since that time, the District has completed replacement or rehabilitation of over 25,300 feet (4.8 miles) of sewers. The locations of the sewer projects are shown on Figure 1. All sewer projects were prioritized to include replacements of sewers that had the highest numbers of defects and the greatest risk of overflow. Many of these defects allowed storm water to enter the sanitary sewer system during heavy rains, causing peak flows that exceeded pumping capacity and caused sanitary sewer overflows at manhole locations.

The completed sewer replacements have greatly reduced peak wet weather flows. During recent record setting rainfall in the 2016-17 wet weather season, the District was “overflow free”. There were no wet or dry weather overflows through the entire wet weather season. Last year, the District also experienced its first 12 month period without a single overflow. These are significant improvements compared to years prior where minor rainstorms typically led to a wet weather overflow.

The WWTP project included both mechanical improvements at the treatment plant and the replacement of the outdated monitoring and alarm systems. Completed in early 2018, the mechanical projects at the treatment plan included digester equipment rehabilitation, generator seismic restraint, and structural rehabilitation. Both projects resolved long standing maintenance issues at the treatment plant, and prepared the plant for any necessary future upgrades to meet potentially higher treatment standards. The Influent Pump Station Improvements were also completed in early 2018. This project increased the pump station reliability and pumping capacity to meet the expected peak wet weather flows and further reduced overflow risks in the sewer system. The pump station electrical system originally installed in the mid 1950s was replaced as part of the pump station improvements. Operator safety measures were also incorporated into the project.

The next step in the sewer replacements will be the Sewer Year 3C project anticipated to start construction this summer. These project locations are shown on Figure 1. The Sewer Year 3C project will include about 2,300 feet (0.4 miles) of sewer replacements between Fourth Street and Seventh Street in the area between Napa Avenue and Suisun Avenue. It will also include a sewer replacement along Sixth Street west of Parker Avenue.

The significant improvements to the collection and treatment system were driven by the collective support of the District Board of Directors, management and staff. The District Board direction and support was crucial in developing a fee structure that would provide resources for the capital improvement plans for sewer replacement. District management coordinated numerous consultants and contractors necessary to complete the projects, and also coordinated with CWSRF staff for funding and ongoing payment for the project. As costs for sewer construction began to increase with the accelerating economic growth in the San Francisco Bay Area, individual projects were reevaluated to ensure that the projects at highest risk of overflow were given highest priority for rehabilitation. The District also subdivided the original scope of the projects to develop a series of smaller projects that engaged a larger number of bidders. These management process improvements have proven very effective in managing construction costs, and have kept the District’s program moving forward in an efficient and cost effective manner.