



Agenda Date: 2/19/2020

Agenda Placement: 8B

Napa Sanitation District Board Agenda Letter

TO: Honorable Board of Directors

FROM: Timothy Healy - General Manager
NS-Technical Services/Engineer

REPORT BY: Matthew Lemmon, Senior Civil Engineer - 707-258-6004

SUBJECT: Receive Presentation from Staff on Collection System Master Plan Progress and Provide Direction

RECOMMENDATION

Receive presentation from staff on the progress of the Collection System Master Plan and provide direction.

EXECUTIVE SUMMARY

The primary goal of the Collection System Master Plan (CSMP) update is to identify a plan for long-term collection system reliability by evaluating the anticipated service levels required against the existing and planned demands on the system. An update to the CSMP is needed for the following reasons:

- | Construct a collection system hydraulic model with advanced software to evaluate flows and capacity deficiencies. Current and projected flows in the collection system have changed since 2007 due to water conservation and changes to growth projections and development density.
- | Complete an evaluation of the capacity of the 66-inch trunk main and confirm the recommendation to rehabilitate the existing pipe.
- | Assess the performance of the I/I reduction program recommended by the 2007 CSMP to determine the lowest life-cycle cost program to address the capacity deficiencies within the collection system.
- | Establish service levels and recommend a 10-year Capital Improvement Program for collection system upgrades. Integrate this analysis with NapaSan's asset management program.

The hydraulic analysis of the collection system conducted in the CSMP will help NapaSan meet the requirements of the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The CSMP study area is consistent with the District's Sphere of Influence.

FISCAL & STRATEGIC PLAN IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

None.

BACKGROUND AND DISCUSSION

NapaSan last updated its CSMP in 2007. The study evaluated the condition and performance of the collection system under current and future (2030) buildout conditions. "Buildout" was based on the existing City of Napa General Plan and the General Plan update for the County of Napa that was underway at the time. Flow monitoring was conducted to evaluate peak flows during wet-weather conditions. The study found that the collection system had adequate dry-weather capacity to handle anticipated growth in the General Plans, but had inadequate capacity for peak wet-weather flows.

The 2007 CSMP estimated that \$120 million (2007 dollars) in collection system upgrades would be required to convey the existing peak wet-weather flows. This cost did not include treatment plant upgrades necessary to accommodate increased flows from the collection system. Instead of constructing \$120+ million in capacity improvement projects, the 2007 CSMP recommended a 5-year Capital Improvement Program focused on I/I reduction, followed by a performance assessment. The study anticipated that the most cost-effective solution would be a mixture of I/I reduction projects and capacity upgrades.

SUPPORTING DOCUMENTS

A . Presentation Slides

Napa Sanitation District: Approve

Reviewed By: Timothy Healy