Agenda Date: 2/6/2019
Agenda Placement: 8A

Napa Sanitation District
Board Agenda Letter

TO:	Honorable Board of Directors
FROM:	Andrew Damron for Timothy Healy - General Manager NS-Technical Services/Engineer
REPORT BY:	Simon Kobayashi, Associate Engineer - 707-258-6030
SUBJECT:	Approve the Project, Concur with CEQA Determination, and Authorize the General Manager to Issue Notice Inviting Bids for the 2019 Treatment Plant Improvements Project (CIP 18740)

RECOMMENDATION

Approve the Project, concur with staff's CEQA determination, and authorize the General Manager to issue Notice Inviting Bids for the 2019 Treatment Plant Improvements Project (CIP 18740)

EXECUTIVE SUMMARY

This project consists of rehabilitating/replacing components of the chemical building and repaving an area near the solids handling building. The following components are included in the scope of this project:

- Drain line replacement - the drain lines from the chemical building have reached the end of their service lives and are in need of immediate repair. The deteriorated pipes posed a safety concern but were temporarily repaired with a cured-in-place pipe liner installed by Collections Department Staff. This project will address the safety concern by replacing the deteriorated metallic piping with corrosion resistant pipe.
- Concrete and rebar replacement - leaks in the hypochlorite system combined with degradation of the existing protective coating system have resulted in hypochlorite penetration into the concrete. This has caused concrete delamination and identifiable failure of the concrete surface. The corroded/failed concrete and rebar will be removed and replaced.
- New protective coating - the existing protective coating has deteriorated from years of exposure to hypochlorite to the point where it no longer protects the concrete from contamination. The replacement of the coating will protect the new concrete from future hypochlorite exposure.
- Replace hypochlorite tanks - the tanks are near the end of their useful lives. The tanks need to be removed for the contractor to rehabilitate the concrete pads, so replacement of the tanks will safeguard against damage to the existing tanks during removal and storage.
- Temporary pipes, pumps, and chemical storage - the contractor will provide temporary chemical dosing

facilities to keep plant operating through construction.

- Paving - a section of pavement near the solids handling building is subject to truck traffic, which has led to accelerated wear. The pavement was restored in 1998 and is 20 years old. The pavement will be removed and replaced to avoid further degradation. It will also prevent local ponding, which also accelerated pavement wear.

Notice to proceed is expected to be issued in April 2019 and construction is expected to be complete by November 2019. The majority of construction is scheduled for the dry-weather season of 2019 to take advantage of lower plant flows during the summer.

The engineer's estimate for construction is $1,090,000.

Plans are available for review at NapaSan's office and will be available at the Board meeting on February 6, 2019.

FISCAL IMPACT

Is there a Fiscal Impact?	Yes
Is it currently budgeted?	Yes
Where is it budgeted?	The project is budgeted in the 10-year capital improvement program.
Is it Mandatory or Discretionary?	Discretionary
Discretionary Justification:	The existing assets need to be repaired or replaced.
Is the general fund affected?	Yes
Future fiscal impact:	Construction will be completed in FY 19/20. Unused budget in this fiscal year will be carried forward into the next fiscal year.
Consequences if not approved:	The existing hypochlorite tanks and drain lines, which have reached the end of their service lives, will not be replaced. The corroded concrete in the building would continue to corrode and will lead to more significant structural damage to the building. The tanks and drain lines would operate with an increasing risk of failure. The pavement will continue to deteriorate at an accelerated rate.
Additional Information:	None.

ENVIRONMENTAL IMPACT

Staff performed a preliminary CEQA review of this project and determined the project is Categorically Exempt. This project consists of replacement or reconstruction of existing systems and/or facilities involving no expansion of capacity, which corresponds to Categorical Exemption 15302 (c) of the California Environmental Quality Act (CEQA) Guidelines. If the Board concurs with this determination, staff will file the attached Notice of Exemption.

BACKGROUND AND DISCUSSION

The chemical storage building was constructed in 2000 as part of the Phase 1 Soscol Water Recycling Facility Upgrade Project. The interior of the building houses the dedicated chemical pumps, while the exterior chemical containment areas house the chemical storage tanks for hypochlorite (disinfectant) and bisulfite (eliminates chlorine residual for river discharge). The chemical storage building stores and doses hypochlorite and bisulfite. The hypochlorite is used to dose effluent at the hypochlorite mix box, activated sludge, oxidation ponds, flocculating clarifier, and the recycled water reservoirs. The sodium bisulfite is used to dose after chlorine dosing and time-concentration is achieved and prior to river discharge.

The chemical storage building hypochlorite tanks were replaced on staggered years of 2007 and 2011. The tanks are 12 and 8 years old, nearing the end of their expected life given the corrosive hypochlorite environment. The chemical storage building structure and pumps have been in service for 19 years. The building has significant remaining life; however, portions of the concrete and drain lines have undergone significant corrosion due to hypochlorite exposure and require rehabilitation. The improvements to the building should significantly prolong it's useful life. The replacement of the existing metal drain pipe with a plastic pipe will greatly reduce corrosion risk. Improvements have been made in coating technology which should limit the intrusion of hypochlorite into the future rehabilitated concrete structure.

SUPPORTING DOCUMENTS

A . Notice of Exemption

B . Presentation Slides

Napa Sanitation District: Approve

Reviewed By: Andrew Damron