



Agenda Date: 6/21/2017

Agenda Placement: 8B

Napa Sanitation District Board Agenda Letter

TO: Honorable Board of Directors

FROM: Andrew Damron - Technical Services Director
NS-Technical Services/Engineer

REPORT BY: Kyle Broughton, Senior Civil Engineer - 258-6000 x530

SUBJECT: Award Task Order for Headworks Equipment Replacement Project (CIP 17726) Design Services

RECOMMENDATION

Authorize the Purchasing Agent to execute Task Order No. 27 with HDR Engineering, Inc. to provide engineering design services for the Headworks Equipment Replacement Project (CIP 17726) in the amount of \$261,808.

EXECUTIVE SUMMARY

This project, which consists of replacing existing equipment in the Headworks facility, was identified in the Wastewater Treatment Plant Master Plan for 2016 implementation and confirmed by equipment condition assessment. The existing equipment scheduled for replacement includes (2) fine screens, (2) washer/compactors, and grit removal equipment. The project also includes the rehabilitation of corroded assets in the influent channels, improvements to the ventilation system, and electrical system improvements to support the new equipment.

HDR Engineering was selected through a competitive procurement process as the most qualified firm to design the project and previously completed the project's preliminary design report which identified the scope of the project and analyzed equipment replacement options. Under this Task Order, HDR will prepare design and construction bid documents. The design will begin in July 2017 and is scheduled to be completed by June 2018.

NapaSan staff will request that the Board approve the project in July 2018 in order to bid and award in the fall of 2018. Construction is scheduled for the dry weather season of 2019.

FISCAL IMPACT

Is there a Fiscal Impact?	Yes
Is it currently budgeted?	Yes
Where is it budgeted?	The total budget in the 10-year capital improvement plan is \$1,950,000. Sufficient funds are available to cover this Task Order.
Is it Mandatory or Discretionary?	Discretionary
Discretionary Justification:	The existing Headworks equipment has reached the end of its service life and requires replacement.
Is the general fund affected?	No
Future fiscal impact:	The project is scheduled to be completed during FY 19/20.
Consequences if not approved:	The existing Headworks equipment, which has reached the end of its service life, will not be replaced. The screening and grit systems would likely require increased maintenance, and be subject to failure. Materials normally removed by the fine screens and grit system would pass through Headworks into the treatment process and affect downstream processes. Normally screened materials would pass on to the Digester and adversely affect the quality of NapaSan's biosolids.

Additional Information:

ENVIRONMENTAL IMPACT

None.

BACKGROUND AND DISCUSSION

The Headworks facility was constructed in 1998 as part of the Phase 2 Soscov Water Recycling Facility Upgrade Project. The Headworks receives raw wastewater flows from the Influent Pump Station. The wastewater passes through screens to remove debris (rags, wrappers, solids) exceeding 6mm to prevent it from continuing into the treatment process. The screenings are conveyed to washer-compactors for cleaning and compaction prior to landfill disposal. Smaller and heavier particles (grit) that pass through the 6mm screens flows into aerated grit chambers where it is collected and pumped to a grit classifier. After the grit is collected it is washed and placed into a hopper for landfill disposal.

The Headworks facility and related equipment is approaching 20 years in age, exposed to raw wastewater, and subject hydrogen sulfide corrosion. The equipment is near the end of its useful life due to wear and corrosion and some equipment is long longer supported by the manufacturer. A condition assessment revealed issues that require rehabilitation or replacement. In addition, newer technologies exist in equipment alternatives in comparison to the existing equipment that provide improved screening, grit removal and processing.

SUPPORTING DOCUMENTS

A . CIP 17726 Presentation Slides

B . CIP 17726 Task Order

Napa Sanitation District: Approve

Reviewed By: Andrew Damron