



Agenda Date: 4/6/2016
Agenda Placement: 7D

Napa Sanitation District Board Agenda Letter

TO: Honorable Board of Directors

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

REPORT BY: Kyle Broughton, Associate Engineer - 258-6000 x530

SUBJECT: Authorize Purchasing Agent to Execute Agreement for Purchase of Aeration Basin Diffuser Equipment (CIP 15713)

RECOMMENDATION

Authorize Purchasing Agent to execute a Memorandum of Agreement with Xylem Water Solutions USA, Inc. in the amount of \$121,807 for the purchase of Aeration Basin diffuser equipment for Aeration Basin Diffusers, Instrumentation and Controls Project (CIP 15713).

EXECUTIVE SUMMARY

The Aeration Basin Diffuser, Instrumentation & Controls Project (CIP 15713) will replace the existing Aeration Basin diffuser equipment.

Due to the critical schedule to replace the existing diffuser equipment prior to the 2016 river discharge season and diffuser equipment manufacturing lead time, District Staff issued Requests for Proposals to pre-qualified manufacturers in order to pre-purchase the diffuser equipment. Xylem Water Solutions USA, Inc. is the manufacturer that proposed the lowest cost diffuser equipment in the amount of \$121,807. Proposals were received from two other manufacturers in the amounts of \$125,200 and \$189,700.

The diffuser equipment will be installed in the summer of 2016 by a general contractor retained through a competitive bid process.

Staff anticipates the following project schedule moving forward:

- | April 4, 2016: Advertise for Public Bids for Construction
- | May 3, 2016: Public Bids for Construction Due

- | May 18, 2016: Board Award Construction Contract
- | May 19, 2016: Construction Notice of Award
- | June 2, 2016: Construction Notice to Proceed
- | October 15, 2016: Project Completion

FISCAL IMPACT

Is there a Fiscal Impact?	Yes
Is it currently budgeted?	Yes
Where is it budgeted?	Staff's estimated total project cost is \$1,200,000, inclusive of the pre-purchased Aeration Basin diffuser equipment. \$1,200,000 is budgeted in the proposed FY 16/17 capital improvement program.
Is it Mandatory or Discretionary?	Discretionary
Discretionary Justification:	The existing Aeration Basin diffusers have reached the end of their service life and require replacement prior to the 2016 river discharge season. Replacement of the diffusers will result in energy savings.
Is the general fund affected?	No
Future fiscal impact:	Staff anticipates energy savings as a result of the aeration diffuser equipment replacement.
Consequences if not approved:	The existing diffusers, which have reached the end of their service life, will not be replaced. Some panels have failed and others are expected to fail in the future if not replaced. This condition would adversely affect the Activated Sludge process and increase blower energy consumption due to poor dissolved oxygen control in the Aeration Basins. The blowers are one of the largest energy consumers at the Soscol Water Recycling Facility.

Additional Information:

ENVIRONMENTAL IMPACT

None.

BACKGROUND AND DISCUSSION

Originally installed in 2000 and refurbished in 2008, the existing Aeration Basin panel-type diffuser equipment has reached the end of its service life and requires replacement. Due to their age and normal wear their performance has deteriorated to the extent that replacement is required prior to the 2016 river discharge season. The existing diffusers have become inefficient; increased air flow from the blowers is required to maintain dissolved oxygen levels in the Aeration Basins. The blowers are one of the largest energy consumers at the Soscol Water Recycling Facility.

Diffuser manufacturers were pre-qualified based on up front capital costs, replacement costs, air transfer efficiency, energy consumption and operations and maintenance considerations. In order to meet the project

schedule, Staff will enter into a pre-purchase agreement with a diffuser manufacturer. Requests for proposals were issued to pre-qualified diffuser manufacturers and the District has selected the diffusers with the lowest up front capital cost. The design engineer, Hazen and Sawyer, will then complete the design based on the selected diffuser equipment and the District will publicly advertise bids for installation.

SUPPORTING DOCUMENTS

A . Aeration Diffuser Pre-Purchase Memorandum of Agreement

Napa Sanitation District: Approve

Reviewed By: Timothy Healy