



Agenda Date: 7/13/2016  
Agenda Placement: 71

## Napa Sanitation District Board Agenda Letter

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**TO:** Honorable Board of Directors

**FROM:** Jeff Tucker for Timothy Healy - General Manager  
NS-Technical Services/Engineer

**REPORT BY:** Matthew Lemmon, Associate Engineer - 707-258-6004

**SUBJECT:** Approve Change Order No. 1 and Authorize Increase of Change Order Signing Authority of the General Manager for the ACP Lining Project No. 1B (CIP 15721)

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### **RECOMMENDATION**

(1) Approve Michels Corporation Contract Change Order No. 01 (CCO No. 01) for the ACP Lining Project No. 1B (CIP 15721) in the amount of \$30,762, and authorize the General Manager to execute CCO No. 01 and issue the Notice to Proceed when appropriate.

(2) Authorize the General Manager to approve future change orders, if any, for the ACP Lining Project No. 1B (CIP 15721) up to an additional \$25,000, for a potential total approved contract amount of \$318,970, prior to seeking further authorization from the Board for change order approval.

### **EXECUTIVE SUMMARY**

Construction work for the ACP Lining Project No. 1B (CIP 15721) is in progress. After issuance of a contract to Michels Corporation, the District identified two locations of ACP that were in poor condition and in immediate need of rehabilitation.

- | Brown Street right-of-way between Restaurante Allegria and Dwight Murray Plaza - 20 feet of 10-inch and 74 feet of 8-inch ACP
- | Young Avenue north of Redwood Road - 514 feet of 8-inch ACP

Young Avenue is a location where District crews performed an emergency spot repair of a collapsed pipe in March 2016 after two large rain storms created saturated ground water conditions in the area. This proposed rehabilitation work by Michels will reduce the likelihood of a similar failure occurring on this portion of Young Avenue in future wet seasons.

The ACP sewer main in the Brown Street right-of-way has a large void and is in an advanced stage of deterioration.

The District received a quote from Michels for \$30,762 for the additional work. The unit prices for the additional work are similar to the unit prices in Michels' original bid. District staff believes Michels' quote is a fair price.

Per District procurement rules, the General Manager can approve contract change orders up to 10% of the original contract amount. The original contract amount is \$263,208.

Staff is requesting that the Board authorize the General Manager to approve up to an additional \$25,000 in change orders for the project. The General Manager's authorized change order approval would be up to \$55,762, if needed. The resulting total maximum contract amount for the project would be \$318,970, which is 21.2% over the original contract amount.

### **FISCAL IMPACT**

Is there a Fiscal Impact?	Yes
Is it currently budgeted?	Yes
Where is it budgeted?	The project is budgeted in the FY 2015-2016 Capital Improvement Program. Unspent funds from FY15/16 will be carried forward into FY16/17 for completion of the project. There is sufficient funds in the project budget to cover the proposed change order.
Is it Mandatory or Discretionary?	Discretionary
Discretionary Justification:	The proposed contract change order exceeds the General Manager's current approval authority. The General Manager cannot approve change orders above the signing authority without Board authorization. The proposed change order will rehabilitate sections of pipe that are in immediate need of repair.
Is the general fund affected?	Yes
Future fiscal impact:	Construction will be completed in FY 2016-17. Unused budget from FY 2015/16 will be carried forward to FY 2016/17.
Consequences if not approved:	The rehabilitation of the additional pipelines will be delayed until Spring 2017 and repaired as part of a separate project.
Additional Information:	None.

### **ENVIRONMENTAL IMPACT**

None.

### **BACKGROUND AND DISCUSSION**

Asbestos Cement Pipe (ACP) was a common construction material for sewer and water mains between the 1940s and 1970s, but was largely discontinued in the 1980s. ACP is manufactured by wrapping a thin layer of a portland

cement and asbestos fiber mixture around form that matches the desired pipeline diameter. The thin layers are continuously wrapped around the form until the required wall thickness is achieved.

Failure modes of ACP are similar to that of other pipeline materials (cracking, offset joints, hydrogen sulfide corrosion, etc.), however the severity of degradation of ACP is often difficult to determine. The individual thin layers of pipe material can corrode and delaminate slowly over time, reducing the wall thickness of the installed pipeline (and its structural integrity). Common closed-circuit television inspection methods used by District staff can identify areas of corrosion and delamination, but cannot adequately determine how much of the original pipe wall thickness remains intact.

In cases, ACP material has corroded to a degree that no pipeline wall thickness remains and voids in the sewer mains are observed. In addition, numerous "problem areas" in the system that are constructed of ACP receive more frequent maintenance work orders (including high pressure cleaning). These activities can result in washing away layers of the pipe wall material, which are observed during cleaning operations.

This project rehabilitates the most severely deteriorated ACP mains in the system that have been identified to date that require immediate repair. It is the second in a series of anticipated projects to assess condition and repair severely degraded ACP in the collection system.

#### **SUPPORTING DOCUMENTS**

A . CIP 15721 Change Order 01

Napa Sanitation District: Approve

Reviewed By: Jeff Tucker