



Agenda Date: 5/19/2021

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:** Karl Ono, Associate Engineer - (707) 258-6013

**SUBJECT:** Accept Completion of the 2019 Manhole Rehabilitation Project (CIP 20702)

---

### **RECOMMENDATION**

Adopt Resolution accepting completion and authorizing General Manager to file the Notice of Completion at the Napa County Office of the Recorder for the 2019 Manhole Rehabilitation Project (CIP 20702).

### **EXECUTIVE SUMMARY**

On November 21, 2019, NapaSan entered into a contract with H&R Plumbing and Drain Cleaning, Inc. to furnish all labor, materials, equipment, and services to construct the 2019 Manhole Rehabilitation Project (CIP 20702). On May 6, 2021, the General Manager submitted his Certificate of Completion to the Board Secretary certifying that the project was completed to his satisfaction. NapaSan is currently holding \$8,453 (5%) as retention on this project. The full retention amount will be released to the Contractor 35 days after filing of the Notice of Completion with the Recorder and after the NapaSan receives confirmation that all vendors and subcontractors have been paid in full.

The project was originally scheduled to be completed by mid-June, 2020. After the winter of 2019-20, the contract was extended to include the 2020-21 wet season. One of the methods of rehabilitation specified for this project involves injecting chemical grout into actively leaking locations within manholes observed to have certain types of defects. Proceeding with the grout injection work without active leaks being present would likely have resulted in incomplete sealing at each manhole. Unfortunately, neither the 2019-20 or 2020-21 wet seasons provided suitable groundwater saturation levels to complete rehabilitation by grout injection. Manholes with defects that could not be repaired under this project will be included in a future project.

The original contract amount was \$182,120. A change order for the project resulted in a decrease of \$13,060 which is 7.2% of the original contract amount. The change order removed all of the manholes from the project that were to receive chemical grout injection. The change order also added scope to the project that did not require active groundwater infiltration to be present at the time of rehabilitation. A total of 73 manholes were rehabilitated

under this project. The final contract amount is \$169,060.

### **FISCAL & STRATEGIC PLAN IMPACT**

Is there a Fiscal Impact? No

### **ENVIRONMENTAL IMPACT**

None.

### **BACKGROUND AND DISCUSSION**

Results from pre- and post-construction flow monitoring have shown that the cost-effectiveness of manhole rehabilitation alone can be significantly greater than full-system rehabilitation for reducing groundwater infiltration in the collection system. Infiltration in manholes can be observed and recorded relatively easily during regular maintenance activities. Furthermore, the work can be completed independently of other projects and with less impacts to residents and business owners.

NapaSan staff have developed an in-house data collection and monitoring system for manhole condition assessments. Condition assessments are performed by NapaSan Collections Division staff on an ongoing basis and entered into a database that can be queried to identify manholes with active groundwater infiltration or condition issues. Manholes are then selected for rehabilitation based on their locations and severity of the observed infiltration or condition issues. The manholes selected for rehabilitation under this project were identified as active sources of groundwater infiltration upstream of historical overflow locations. The manholes that were added to the project by change order were primarily due to structural issues and root intrusions that were identified after the project was bid. Rehabilitation of the additional manholes will extend their service life and reduce operation and maintenance costs.

NapaSan staff performed construction management and inspection for the project.

### **SUPPORTING DOCUMENTS**

- A . Certificate of Completion - CIP 20702
- B . Completion Resolution - CIP 20702

Napa Sanitation District: Approve

Reviewed By: Timothy Healy