2020 Sewer System Rehabilitation Project (CIP 19703)

Napa Sanitation District Board of Directors Meeting
October 2, 2019
Background

- Collection System Master Plan (CSMP) 2007
  - Identified capacity expansion projects
  - Recommendation of an inflow & infiltration (I&I) reduction program
- 9 major rehabilitation projects completed so far
  - I&I reduction
  - Rehabilitation/replacement
Background

Pear Tree Area

- High peaking factor (19.3)
- Phase 1 completed in 2018
- Downstream SSO history (Lake Park)
- Upcoming paving projects (City Local Streets program)
Background

Redwood Rd

- High peaking factor
- Phase 1 completed in 2018
- Upcoming paving projects (City Measure T)
Background

Browns Valley Rd

- High peaking factor
- Coordination with Browns Valley Trunk
- Upcoming paving projects (City Measure T)
Background

Old Sonoma Rd Highway Crossing

- 10” VCP installed in the 1950’s
- High consequence of failure
- Poor condition (hole in pipe)
Background

Jefferson St

- 6” and 8” ACP in poor condition
- Upcoming paving projects (City Measure T)
Pipeline Age and Condition
Within Project Areas

<table>
<thead>
<tr>
<th>Construction Date</th>
<th>Total Length (mi.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940s</td>
<td>1.2</td>
</tr>
<tr>
<td>1950s</td>
<td>1.1</td>
</tr>
<tr>
<td>1960s</td>
<td>0.8</td>
</tr>
<tr>
<td>1970s</td>
<td>1.8</td>
</tr>
<tr>
<td>1980s</td>
<td>0.5</td>
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</tbody>
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Pipe Material
- AC
- VC
Pipeline Age and Condition
Within Project Areas

VCP with cracks/fractures

ACP with surface flaking
Rehabilitation Methods

Pipe bursting

Cured-in-place pipe (CIPP)
Rehabilitation Methods

Manhole rehabilitation / replacement

Lateral connection “Top Hats”
# Project Overview

## Engineer’s Estimate:  $5,800,000

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
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</thead>
<tbody>
<tr>
<td>Sewer main rehabilitation</td>
<td>29,700 LF (5.6 miles) - 2.1% of system</td>
</tr>
<tr>
<td>Structures</td>
<td>76</td>
</tr>
<tr>
<td>Laterals</td>
<td>340</td>
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</table>
## Anticipated Schedule

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
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<tbody>
<tr>
<td>Notice Inviting Bids</td>
<td>Mid October, 2019</td>
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<tr>
<td>Bid Opening</td>
<td>Mid November 2019</td>
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<tr>
<td>Award Construction</td>
<td>December 4, 2019</td>
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<tr>
<td>Notice to Proceed</td>
<td>January 2020</td>
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<tr>
<td>Project Completion</td>
<td>October 2020</td>
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</table>
Recommendation

Approve the Project, Concur with CEQA Determination, and Authorize the General Manager to Issue Notice Inviting Bids for the 2020 Sewer System Rehabilitation Project (CIP 19703)