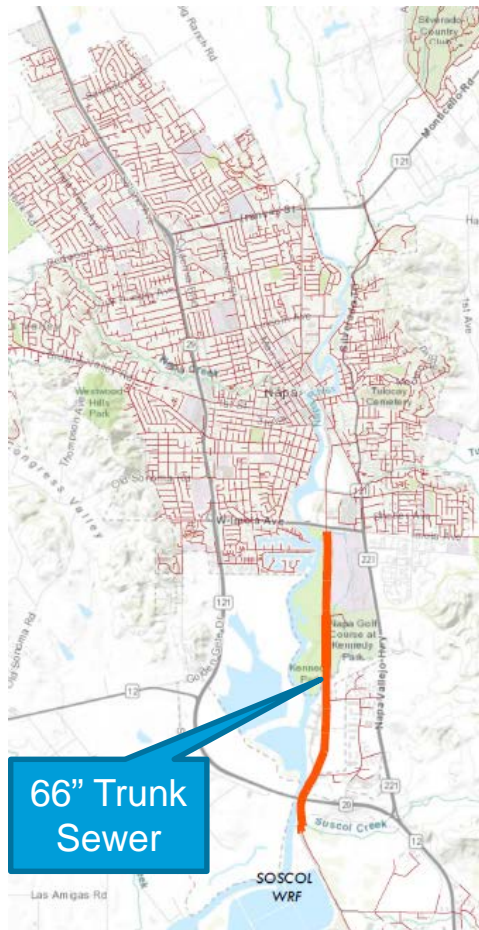




Award Task Order for 66-inch Trunk Sewer Design Services (CIP 19701)

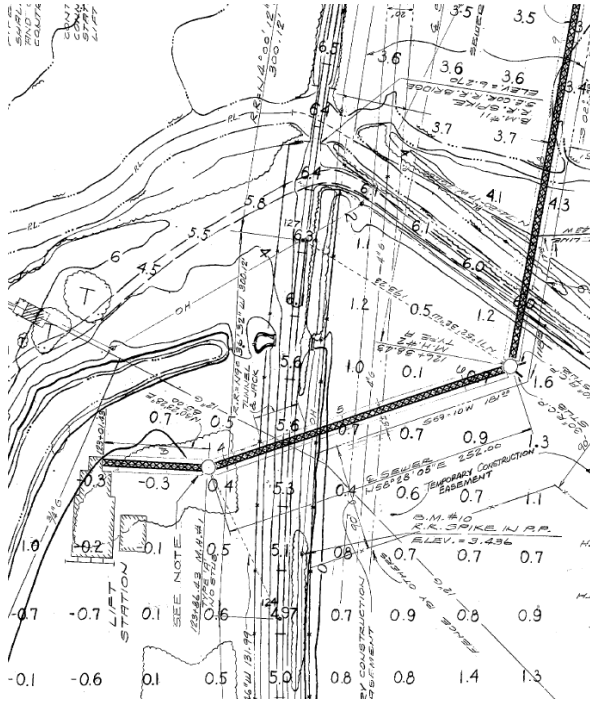
Napa Sanitation District
Board of Directors Meeting
May 15, 2019



Background

- 15,400 LF (~3mi length)
- 66" RCP - unlined
- Criticality
 - Conveys over 90% of flow to treatment plant
 - Extends along east bank of Napa River
 - No redundancy

Background



- Constructed in 1967
 - Outfall line from Imola plant to oxidation ponds
- Began conveying untreated sewage in 1998
- Inspection history: 2001, 2012, 2017 (partial)

Internal Condition

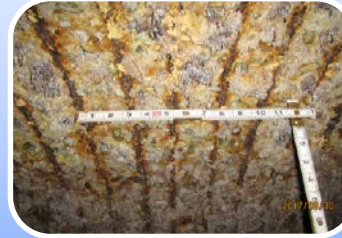


- Corrosion observed at all entries
- Structural deterioration along lower third
- Loss of concrete hardness and wall thickness



Internal Condition

Varies along alignment



Alternatives

Corrosion Protection

- Chemical injection
- Crown spraying

Structural Rehabilitation

- Sliplining
- Cured-in-place pipe (CIPP)
- Spiral wound lining
- Mechanical point repairs

Replacement

- Open-cut
- Microtunneling

Increasing capital cost, schedule, environmental considerations



Alternative Selection Factors

- Condition
 - Limits of structural deterioration
 - Continuity of wall loss
 - Sediment depths
- Hydraulics
 - Impact of sediment and wall loss
 - Long-term flow projections
 - Defining acceptable level of service

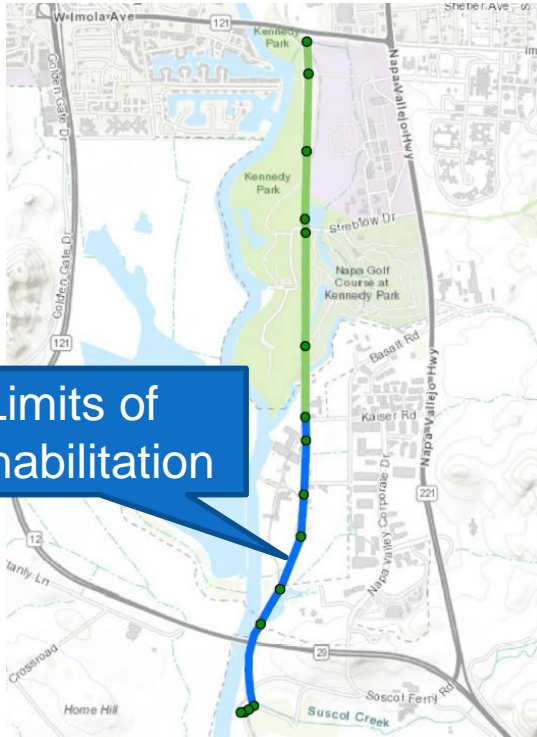
Condition
Assessment TO
Master Plan –
Phase I



Full Condition Assessment Results

- Significant corrosion throughout entire length
- Severe corrosion (exposed rebar) downstream of Napa Pipe
- Remaining useful life of pipe upstream of Napa Pipe is estimated at 10-15 years
- Average sediment depth of 5-7 inches

Recommended Near-Term Project



- Structural rehabilitation (CIPP) of downstream ~6500' of trunk main (south of Kaiser Road)
- Manhole construction replacements to facilitate liner installation



Design Services Task Order

Services include:

- Alternatives Evaluation
- Preliminary Design Report
- Permitting and CEQA
- Design Documents (Plans, Specifications, and Estimate)
- Services During Bidding



Anticipated Schedule

Milestone	Date
Conduct CCTV Inspection	Complete
Condition and Prioritization Reports	Complete
Preliminary Design Report	July 2019
Permitting and CEQA	Fall 2020
Final Plans	Fall 2020*
Bidding	Fall/Winter 2020
Construction	Summer 2021

* Schedule dependent upon permitting and CEQA process



Recommendation

Authorize the Purchasing Agent to execute Task Order 2 with Woodard & Curran to provide engineering design services for the 66-inch Trunk Sewer Rehabilitation Project (CIP 19701) in the amount of \$475,352.