

2018 MAGNOLIA FORCE MAIN RELOCATION PROJECT

City Council Presentation

May 21, 2018



Recommended Council Action

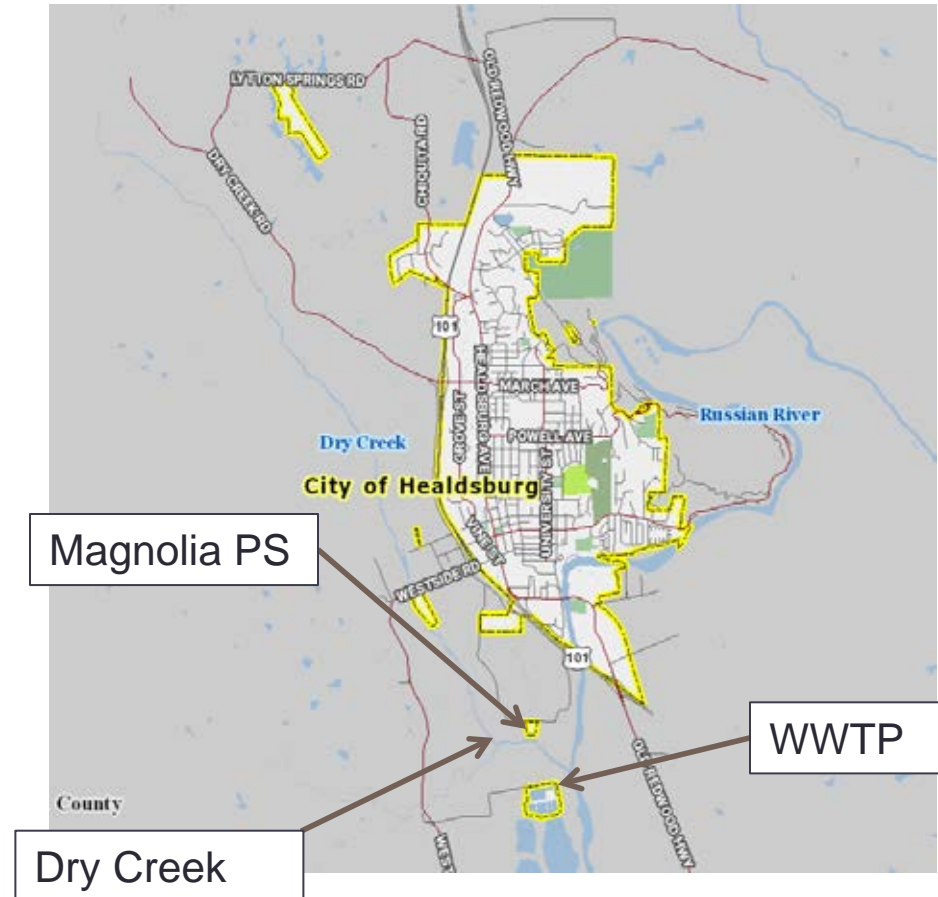
Adopt a Resolution:

- Conditionally awarding the Magnolia Force Main Relocation Project to Terracon Constructors, Inc., for an amount not to exceed \$4,381,874;
- Authorizing the City Manager to approve change orders up to 10% of the project amount;
- Delegating authority to the City Manager to execute a Professional Services Agreement for various specialized inspection services required of this project for an aggregated amount not to exceed \$246,750; and
- Increasing appropriations in the fiscal year 2017-18 budget by \$2,750,725 allowing for a total project budget of \$5,485,725



Background

- The Magnolia Pump Station was constructed in the 1970's with one force main under Dry Creek.
- A second force main was added in the 1980s.
- Both force mains were constructed using open-cut methods because Dry Creek was seasonally dry prior to Warm Springs Dam.



All of the wastewater from the City flows through the Magnolia Pump Station and its force mains to the wastewater treatment plant



Background

- During the construction of the recycled water aerial crossing of Dry Creek in 2014, one of the force mains was observed to be exposed



Exposed pipeline at streambed is vulnerable to damage and corrosion



Project Requirements

- Due to constant flows in Dry Creek an open-cut trench is not possible
- An additional aerial crossing would require on-going maintenance and reliability issues
- City engaged Miller Pacific Engineering Group to investigate a trenchless crossing of Dry Creek.
- Trenchless construction using horizontal directional drilling and micro-tunneling were both identified as feasible.

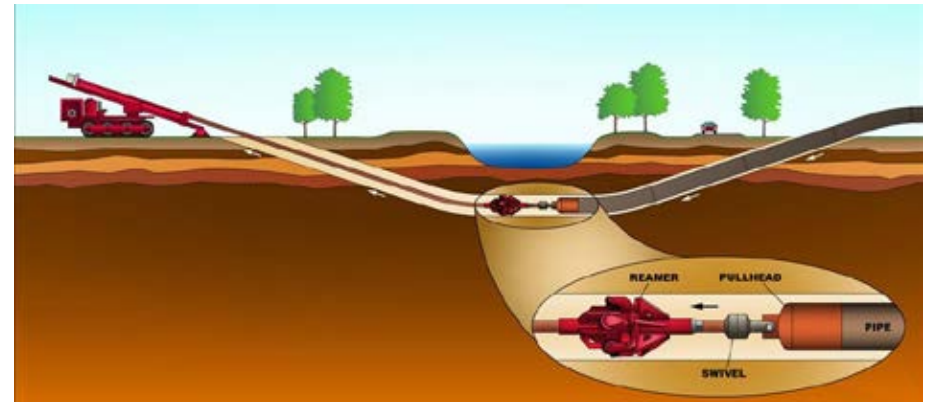


Dry Creek level rises routinely making an aerial crossing vulnerable to damage from floating debris

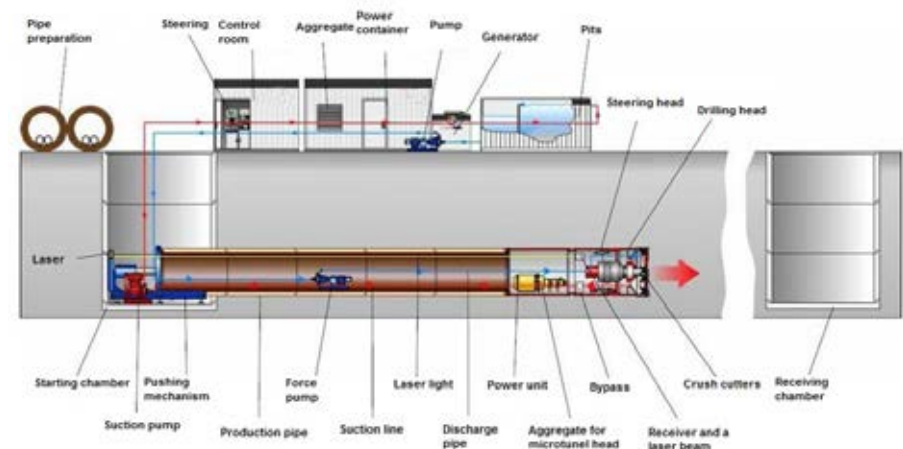


Design Process

- Horizontal direction drilling has a greater construction risk to the City.
- Micro-tunneling has lower construction risk but is more specialized.
- Because the construction risk can be controlled more effectively by micro-tunneling, micro-tunneling was selected as the construction method for design.



Horizontal Directional Drilling



Micro-tunneling



Project Bidding

- The micro-tunneling project was advertised for competitive bidding.
- Bids were opened on March 29, 2018
- One bid was received from Terracon Constructors for \$4,381,874
- Engineer's estimate was \$3,460,000



CITY OF HEALDSBURG



NOTICE TO BIDDERS, PROPOSAL, CONTRACT

FOR

CONSTRUCTION OF THE
Magnolia Force Main Relocation Project

Project PWS919

CITY OF HEALDSBURG

BID OPENING DATE:

Tuesday March 20, 2018

CITY OF HEALDSBURG
ENGINEERING DEPARTMENT
401 Grove Street

HEALDSBURG, CALIFORNIA 95448
PHONE: (707) 451-3346

The Magnolia Force Main Relocation Project was advertised for bidding consistent with City purchasing policy.

Project Bidding

Possible causes for costs above engineer's estimate include:

- Permit requirements from the State Department of Fish and Wildlife were not available at the time of preparing the estimate.
- Poor bidding climate in Northern California – general contractors are unusually busy
- Materials pricing uncertainty – new tariffs have increased steel pricing
- Limited interest in the project as much of the work is specialty subcontractor work.



Fiscal Impact

Recommended award and subsequent construction would include the following costs

• Construction Bid Price	\$4,381,874.00
• Construction Contingency	\$438,187.00
• Specialty Inspection for Micro-tunneling	\$130,120.00
• Site Staking Survey	\$16,000.00
• Soils and Materials Testing	\$35,000.00
• Permit-required Biological Monitoring	\$43,200.00
• Contingency for Services During Construction	<u>\$22,430.00</u>
Total Construction Related Costs	\$5,066,811.00
• Previously Authorized Budget Less Previous Costs (Available Authorized Budget)	\$2,316,085.55
• Total Construction Related Costs	\$5,066,811.00
Additional Budget Requested	\$2,750,725.45
Total Resulting Project Budget	\$5,485,725.45



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Questions?

