



CITY OF HEALDSBURG CITY COUNCIL AGENDA STAFF REPORT

MEETING DATE: August 1, 2016

SUBJECT: Approval of contract and material purchases related to the 2016 Recycle Water Pipeline Project expansion

PREPARED BY: Patrick Fuss, Water/Wastewater Engineer

STRATEGIC INITIATIVE(S):

Effective & Efficient Government

Fiscal Responsibility

Infrastructure & Facilities

RECOMMENDED ACTION(S):

Adopt a resolution conditionally awarding the 2016 Recycled water Pipeline Project construction contract to TerraCon in the amount of \$425,443, awarding the associated materials supply purchases to Pace Supply Corporation, for a not to exceed amount of 585,210, authorizing the City Manager to execute the construction contract and material purchases on the City's behalf, and amending the FY 2016-17 budget to increase appropriations in the Wastewater Capital Replacement Fund by \$611,717, and increase the available budget to \$1,111,717

BACKGROUND:

The City of Healdsburg operates an advanced wastewater treatment plant under a permit administered by the State of California's North Coast Regional Water Quality Control Board. The discharge permit includes a seasonal prohibition on discharge to the Russian River and requires that the City of Healdsburg develop beneficial uses for the City's tertiary-treated disinfected recycled water from May 15 to September 30. The City is under a Cease and Desist Order to comply with the discharge seasonal prohibition by July 31, 2021.

In order to comply with the discharge prohibition requirement of the permit, the City has developed a recycled water program and invested in a distribution system to convey recycled water to the end users. The first phases of the recycled water program will deliver recycled water to users near the City's Water Reclamation Facility for dust control, vineyard irrigation, and to a small extent, urban irrigation.

The City must continue to expand the recycled water program to meet the discharge prohibition

imposed by the Regional Board. This project facilitates the needed expansion by extending the pipeline to areas farther south where vineyard operators have expressed interest in receiving the City's recycled water. This southward agricultural expansion pursues the lowest cost option for water recycling without inhibiting the City's ability to expand into urban recycled water areas.

DISCUSSION/ANALYSIS:

Delivering recycled water to the vineyards around the City's wastewater treatment plant continues to be lowest cost approach for beneficial reuse of recycled water. Due to significantly lower installation costs, cost that are less than a third of installations within the City, vineyard irrigation should be maximized before considering installing recycled water within the City limits. Additionally, since most of the vineyard managers are familiar with the use and regulations surrounding recycled water, the administration of an agricultural reuse program are less intensive.

To provide recycled water to the additional area, an extension of the recycled water transmission main is required. The project to serve the expanded area includes approximately 12,000 feet of 16-inch pipe, 2,000 feet of 12-inch pipe and 12 service connections. Initial quotes for pipe materials were estimated at approximately \$250,000 for 16-inch PVC pipe. Using this information Staff estimated that installation would cost approximately \$250,000 based on labor costs for the recycled water pipeline installed in 2014 and \$500,000 was included in the fiscal year 2016-17 budget to cover the project.

After the budget was adopted, Staff negotiated with the vineyard owners and operators to establish the alignment and service point locations for the recycled water use. Staff prepared a pipeline design for the recycled water pipeline to follow the negotiated alignment and competitively bid the pipe materials supply aspect of the project.

Staff bid the material for the project separately from construction forces to reduce overall project costs. The lowest material bid was \$565,347 and adjusted to \$585,209.19 to match the quantities in the as-bid construction documents. The lowest bid for materials supply came in from Pace Supply Corporation. The materials supply cost is \$585,209.19, which is \$335,209.19 more than the initial \$250,000 estimate.

The anticipated construction labor and equipment cost was expected to be less than \$250,000 for the full project based on previous labor production of 400 feet per day and a crew assumed at one operator, one teamster, and two laborers. The bid price for construction labor came in at \$425,443, which is \$195,443 over the initial \$250,000 estimate.

The difference in the as-bid materials and the conceptual estimate are described below:

- The concept project did not include bends, fittings and restraints. The concept project assumed an alignment that was relatively straight along the base of the Russian River levee. This alignment was modified to avoid obstructions and to keep the pipe in existing previously-disturbed vineyard roads so as to not create environmental impacts.
- The concept project did not include ductile iron pipe. The concept alignment assumed all the pipe would be buried PVC pipe along the toe of the levee of the Russian River. The vineyard road at the toe of the levee does not extend the entire length of the levee. To

avoid an environmental conflict, approximately 5,000 feet of the alignment is planned to be located on the road on top of the western levee of the Russian River. Because the levee is constructed of unengineered river bed materials, it was determined that placing the pipe on concrete supports would be less risk for the City than buried construction.

In order to extend the recycled water transmission main to the new expansion area this year, the costs are:

- \$585,209 for materials
- \$425,443 for construction labor and equipment
- \$101,065 for construction contingency (10%)
- Budget requirement \$1,111,717
- Approved 2016/17 Recycled Water budget \$500,000
- Requested budget amendment \$611,717

With the lowest construction bid at \$425,443 and adjusted material costs bid at \$585,209, the combined total is \$1,010,652.20. Allowing a 10% contingency, the amount to construct the full project is estimated at \$1,111,717.40.

The 2016 Recycled Water Pipeline Project will add access to approximately 600 acres for application of recycled water. This acreage can allow for distribution of approximately 30 to 45 million gallons (depending on irrigation demand) of the approximately 138 million gallons for recycled water the City must divert from discharge to the Russian River.

The property owners are willing and active participants in developing the plan to bring this resource to the vineyards. As willing participants, granting of easements and access to privately held lands has been greatly simplified.

ALTERNATIVES:

Alternatively, Council could direct staff to remain within existing and approved annual budget of \$500,000 for FY 2016-17. In doing so, the project scope would be reduced. In order keep the project within the existing budget; the alternative materials purchase would include pipe, fittings, and valves for approximately 2,000 feet of 12-inch recycled water transmission main and 3,000 feet of 16-inch recycled water transmission main along with 8 new service connections. It is anticipated that this project will add approximately 200 acres of vineyards that can be irrigated with recycled water. The remaining acreage would be added in a subsequent fiscal year, potentially extending the time frame to comply with the Cease and Desist Order for the seasonal discharge prohibition, and increasing project costs due to escalation of labor and material costs along with incurring mobilization costs of another construction project.

This alternative is not recommended because it reduces the amount of water that can be recycled, which the City is obligated to divert from river discharge in a relatively short time. The cost to complete the deferred portion will likely be higher. Additionally, while the alternative deferred project cost will be higher, performing the entire recommended project now will limit future wastewater revenue requirements. The Utility Department has reserves sufficient to address the shortfall in the FY 2016-17 budget for the full 2016 Recycled Water Pipeline Project. Therefore, it is more advantageous to the City to take on as much of the project as early as possible.

FISCAL IMPACT:

Expansion of the vineyard irrigation aspect of the recycled water program is the lowest cost option for recycled water beneficial reuse. While there are sufficient reserves in place to accomplish the full project and the 2016 Financial Plan for the Wastewater Department conceived of funding recycled water projects of this magnitude, a budget amendment \$611,717 is proposed.

ENVIRONMENTAL ANALYSIS:

The purchase of material supplies is an administrative act and requires no further environmental review. The construction of the expanded pipeline will be entirely within the boundaries covered by the 2005 EIR, including the March 2016 addendum. The project will be constructed on existing vineyard roads. Impacts, if any, are less than significant.

ATTACHMENT(S):

Resolution

Recycled Water Pipeline Routing and Area Map