



City of Woodland

REPORT TO MAYOR AND CITY COUNCIL

AGENDA ITEM

TO: THE HONORABLE MAYOR
AND CITY COUNCIL

DATE: October 20, 2009

SUBJECT: Beamer Street pipeline, Well No. 4 electrical upgrade and Backup generator project (CIP #'s 07-49, 08-30 and 08-31), Approve Plans and Specification and Authorize Bid Advertisement

Report in Brief

In order to complete all of the work necessary to provide the appropriate water pressure for parts of Woodland, staff has merged three separate capital projects into one contract. The proposed contract comprises preplanned work occurring in a common area that has overlapping components. Merging the work in this manner is expected to save resources and complete the project in a coordinated manner.

This project consists of the installation of approximately 3,000 feet of 12-inch pipe on Beamer Street, the upgrade of the electrical panel and installation of an emergency generator at Well No. 4. The project is a planned element of the elevated water tank replacement project. The upgrade of the electrical panel is required to support the tank's operation, the well's functional operation, the use of a previously purchased backup power generator and the approved Supervisory Control and Data Acquisition System (SCADA) that will be installed on the City's water system. The emergency generator at Well No. 4 is also necessary to provide backup power during an electrical shut down in order to keep the water system running.

Council authorization is needed to obtain bids and determine actual costs. Although this work is in the approved Capital Budget, this authorization does not commit the use of the funds. Once bids are received staff will come back to the City Council with actual bid costs for authorization to award the contract.

Staff recommends that the City Council approve plans and specifications and authorize bid advertisement for the Beamer Street pipeline project; and upgrade the Well #4 electrical system, including the installation of a previously purchased backup generator. (CIP #'s 07-49, 08-30 and 08-31).

Background

In 2007 West Yost & Associates (WYA) was selected to evaluate the existing water system in relation to the present and future demands. This system evaluation is part of the process to update the City's Urban Water Management Plan as well as update existing water hydraulic model to evaluate current system capabilities and to plan for future conditions.

The WYA hydraulic model was developed utilizing previous reports, maps, plans, operating records and other valuable data. The model revealed that a new 12-inch pipeline would be required on Beamer Street to improve system flow during peak demand conditions.

When the elevated tank contract was awarded this remaining work was noted at that time. The pipe extends between Frost Drive and West Street on Beamer Street. This pipe work will enhance the rapid discharge of water out of the new elevated tank during times of peak water demand. Using the tank to supply more water into the system at a higher pressure will improve water pressure throughout Woodland and provide improved water supplies and pressure for fire protection in all buildings.

WYA also recommended the upgrade of the existing electrical panel at Well No. 4 to provide power for the new Supervisory Control and Data Acquisition (SCADA) system, the new radio system for the water meters data acquisition. Additionally, WYA recommended adding an emergency backup generator at Well No. 4 which is necessary to provide backup power during an electrical shut down in order to keep the water system running.

Discussion

The proposed new pipe line between West Street and Frost Drive on Beamer Street would provide additional capacity during peak hour of more than 1,500 gallons per minute. This additional flow rate out of the new storage tank reduces capital outlay by eliminating the need for replacing one municipal water well. This savings alone is substantially more than the cost of this project and provides significantly improved water pressures and fire flow capabilities throughout the City and especially in the downtown area. During peak water demand periods such as July and August, water pressure levels have dropped to the point that the system's ability to deliver water for a major emergency, such as a large structure fire, has been challenged. Staff believes the pipeline element meets a public safety need as well as improving pressure for the City's water customers.

In January 2008 the City almost ran out of water when a winter storm knocked out power to most of the City for an extended period of time. In response to that event the City purchased three large generators that will be used at City wells. Two generators are mobile units and are being located at Wells Sites No. 13 and No. 20. The third unit is a large fixed based generator that would be installed under this contract at Well No. 4 so that well and electrical systems can remain operational during power outages. Electrical upgrades at Well No. 4 will allow staff to use this same generator to operate several systems; including the SCADA system, the water metering data system, and power

systems at the new water tank. This work is needed to avoid having to purchase additional emergency backup power capability for the tank and the other operational systems.

It is important to proceed with this work as soon as possible so as to not delay the work for the new tank and to provide backup power to Well No. 4.

The California Environmental Quality Act determination for this project is Categorically Exempt based on Article 19, Section 15301(b) Existing Facilities and Section 15304(b) Minor Alterations to Land.

Fiscal Impact

This project is funded by the water enterprise fund from Capital Budget projects (CIP #'s 07-49, 08-30 and 08-31). Available budget for FY09/10 is \$870,000; the total estimated cost of the project is approximately \$895,000. Once bids are received, staff will come back to Council with actual bid costs for authorization to award the contract, which could require modifications to the scale of the project to fit within the authorized budget.

Public Contact

Several issues of the "Woodland Water News" have explained to the public the need for water system improvements including the tank, SCADA, and automated meter reading. These articles have been prepared by the Utility Engineering Division. These have been distributed to City water customers in their utility bills. The City Council agenda has been posted.

Alternative Courses of Action

1. Approve plans and specifications and authorize bid advertisement for the Beamer Street pipeline project; and upgrade the Well No. 4 electrical system, including installation of a previously purchased backup generator. (CIP #'s 07-49, 08-30 and 08-31).
2. Do not approve plans and specification and authorize bid advertisement and give directions to staff for changes to be made for the Beamer Street pipeline, Well No. 4 electrical upgrade and backup generator project (CIP #'s 07-49, 08-30 and 08-31).

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ITEM:

Recommendation for Action

Staff recommends that City Council approve Alternative No. 1.

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