



City of Woodland

REPORT TO MAYOR AND CITY COUNCIL

AGENDA ITEM

TO: THE HONORABLE MAYOR
AND CITY COUNCIL

DATE: September 16, 2008

SUBJECT: Final Acceptance and Notice of Completion for Water Well 25,
Phase 1, Construction of Monitoring Well, Project No. 05-34

Report in Brief

In May 2008, the City executed a construction contract with Bradley & Sons, Inc., in the amount of \$149,010 to construct a groundwater monitoring station at the storm drain detention pond located on the northwest corner of Gibson Road and Ashley Avenue. This work was done to assess and monitor groundwater quality. Three change orders were issued in the amount of \$35,282. The work was performed in accordance with the plans and specifications and is ready for acceptance by City Council.

Staff recommends City Council accept the groundwater monitoring station as complete and authorize the City Clerk to file a Notice of Completion in the Office of the County Recorder.

Background

The City of Woodland has had problems with maintaining sufficient pressure on the west side of the City. Only older wells exist on the west side of the City. To spread out our newer water supply assets it was proposed to try to locate the next new well on the west side of the City. Since the west side of the City also has a history of elevated levels of nitrate in the groundwater City staff decided to proceed with an evaluation of groundwater quality prior to finalizing a decision on the well drilling location. For these reasons this project has included a groundwater monitoring station or sampling well.

This groundwater monitoring station will also serve as a long-term groundwater monitoring well to help the City evaluate seasonal variations in nitrate levels at varying groundwater depths. Under a separate project additional monitoring wells at other locations in the City will be drilled. Collectively, these groundwater monitoring wells are part of a Citywide groundwater management plan to assess the historic trends in water quality changes. This groundwater

monitoring station at the planned site for Well 25 is also an important step forward in this assessment.

Groundwater sampling at the planned site for Well 25 is continuing from this initial groundwater monitoring station. No decision has been made yet on drilling a full production well at this site. When a sufficient number of water samples are available for analysis a decision will be made as to the suitability of proceeding with a water production well at the proposed site. If water quality at that site cannot be assured either a new well site will be located or an equivalent amount of peak hour production capacity will be built into a new booster pump station connected to new ground level storage tank(s).

If a decision is made to proceed with a production well the next phase of work will be to design and construct a test and production hole. The final phase will be to design and construct the above ground portion or site facilities, including pump, motor, building, pipes and connection to the City water system.

The production well will be designed with an anticipated minimum capacity of 1,800 gallons per minute. The site is located within close proximity to two existing water wells, #11 and #13. If one of the existing wells were to fail or go down for extended maintenance, the new well will prevent unsafe and unacceptable pressure drops in the surrounding neighborhoods. The need for additional water wells is identified in the 1999 Water System Master Plan and in analyses for the Spring Lake Specific Plan Area. This project is funded from Water Development Fees (Fund 584) and as such a hydraulic analysis confirmed that development areas could receive water from a new well drilled out side of the developed area, i.e. from the west side of the City.

Discussion

The contractor began construction of the groundwater monitoring station in June 2008, and finished in August 2008. This contract includes a groundwater monitoring station only and all of the required work for this monitoring well has been completed.

The monitoring well was initially designed to monitor four zones or aquifers. However, during drilling of the 1,500' deep hole, geophysical logs showed six aquifers needing to be monitored. The increased cost is for adding two monitoring zones.

City staff has received the initial set of water quality results. The initial results show that arsenic, manganese and nitrate concentrations exceed drinking water standards at some depths. Boron exceeds an agricultural water quality goal at all depths sampled. City staff is currently taking a second set of water quality samples to confirm the first set of results. Currently, staff is considering constructing a ground-level storage tank with booster pumps if the second set of results confirms that the site will not provide good water quality. The second set of results will help staff make a recommendation. Staff will report back to Council when the second set of results are available and provide a recommendation.

The construction contract for a quadruple (4 zones) completion monitoring well was for \$149,010. The actual cost of the six completions (6 zones) monitoring well is \$184,292.

Fiscal Impact

There is no impact to the General Fund. This project was funded from Water Development Fees (Fund 584), was approved under the Capital Budget as part of the FY08 Mid-Year Adjustment, and is within the approved Project Programming Summary Sheet dated 3/25/08.

Public Contact

Residences in the area where the groundwater monitoring well was drilled received notification of the work before the work proceeded.

Posting of the City Council agenda.

Recommendation for Action

Staff recommends City Council accept as complete the groundwater monitoring station at the northwest corner of Gibson Road and Ashley Avenue, and authorize the City Clerk to file a Notice of Completion in the Office of the County Recorder.

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