

ITEM # 15
DATE October 23, 2007

COUNCIL ACTION FORM

**SUBJECT: PHASE 1 ENGINEERING SERVICES CONTRACT FOR WATER PLANT
RAW WELL WATER LOOP LINE PROJECT**

BACKGROUND:

In the 2007-2012 Capital Improvements Plan, a raw well water loop line was scheduled to be started in Fiscal Year 2007-08. The City of Ames obtains its water from 22 alluvial wells. Currently, a single 24-inch water line delivers water from ten wells in the Southeast Well Field and the Hunziker Youth Sports Complex Well Field. With the expansion of wells in those areas over the last two decades, that line is no longer able to adequately carry the full capacity of these wells. This is particularly important during drought conditions, when all available water is needed. The City's water supply is also vulnerable to disruption with only one line to the water treatment plant from these wells. The current line has one rail crossing, one stream crossing, and three major street/road crossings which present likely locations for main breaks and service interruptions. Developing redundancy in delivering this water to the plant is very important, since these ten wells represent 65 percent of the City's current water supply capacity.

Development of a new planned well field proposed in 2010 will add an estimated six million gallons per day (mgd) of raw water that needs to be delivered through this line. This existing line was designed in the early 1980's before the full amount of future well capacity was known and is now undersized for current full production capabilities. A new line will actually increase the productivity of the Southeast and Hunziker Youth Sports Complex Well Fields by approximately one million gallons per day under peak demand simply by reducing pipeline restrictions. The new pipeline will also provide backup redundancy for this supply capacity and will extend the raw water piping system closer to a planned well field expansion.

City staff competitively solicited proposals for engineering services related to the Raw Water Well Loop Line Project from six area consulting firms. The proposals covered the entire range of engineering services necessary for this project, beginning with preliminary design through construction assistance and project closeout. Proposals were received from four firms. A qualifications-based evaluation of the responding firms was performed by a panel of seven staff members. In addition, a preliminary fee proposal was requested of each firm to allow staff to better understand the proposed scope of services and their associated costs. The top two firms were invited to make a presentation of their proposals to staff. At the conclusion of the presentations, staff identified Fox Engineering of Ames, Iowa as the preferred design firm.

While finalizing the engineering services agreement with Fox, staff concluded that a detailed description of the final design work could not be prepared without some initial preliminary study. Staff members are proposing to break the engineering services agreement into two phases. Phase 1 will include public meetings with potentially impacted property owners; the route determination for the pipeline; easement acquisition; and securing construction permits from IDNR, IDOT, the US Army Corps of Engineers, and the Union Pacific Railroad. Phase 2 will include geotechnical work, development of final plans and specifications, bidding assistance, construction phase services, and project close-out. A scope of work for Phase 2 would be developed with Fox Engineering once the details from Phase 1 emerge.

The proposal Council is asked to approve for Phase 1 is in an amount not to exceed \$70,000 by the City of Ames. Staff members estimate that the Phase 2 agreement will be approximately \$230,000. A separate Phase 2 agreement will be brought to Council for approval at a later time. The total cost for the Raw Well Water Loop Line Project is estimated at \$4,000,000.

ALTERNATIVES:

1. Approve a contract to Fox Engineering in an amount not to exceed \$70,000 for Phase 1 engineering services related to the Raw Well Water Loop Line Project.
2. Do not approve a contract at this time.

MANAGER'S RECOMMENDED ACTION:

Improving the efficiency and reliability of the City's raw water supply was identified as the top priority in the current year Capital Improvement Plan for the Water Plant. The addition of this raw water well loop line will increase the productivity of the existing wells, provide backup redundancy for our raw water supply, and extend the raw water infrastructure closer to a future well field expansion.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby awarding a contract to Fox Engineering in an amount not to exceed \$70,000 for Phase 1 engineering services related to the Raw Well Water Loop Line Project. Staff will bring the Phase 2 agreement with Fox Engineering to Council at a future date.