

COUNCIL ACTION FORM

SUBJECT: CHANGE ORDER NO. 2 TO CONTRACT FOR FIVE-YEAR WATER TREATMENT PLANT WELL REHABILITATION PROJECT

BACKGROUND:

On April 10, 2007, the Ames City Council awarded a contract to Northway Well and Pump Company of Marion, Iowa in the amount of \$51,000 for completing rehabilitation of four drinking water wells prior to June 30, 2008. At the time of contract award, staff indicated that additional well repair work may be required in conjunction with the rehabilitation work. It was also noted that the extent of the repair work would not be known until the wells were taken out of service for rehabilitation. It was anticipated that change orders would be necessary to pay for additional repair work as the need became known. On August 14, Council approved the first change order in the amount of \$19,976.80 for repair work of the casing for Well No. 16. Staff have now determined that a second change order is needed for repairs to Well No. 9.

Rehabilitation work on Well No. 9 began on March 25, 2008. Northway televised the well prior to commencing rehabilitation work and found a hole in the well casing, allowing gravel pack from outside the well casing to be pulled into the well. Corrosion of the steel casing has caused it to become very thin and unable to support the stress of pumping. Due to extensive steel corrosion, Northway is unable to repair the existing casing, leaving Well No. 9 unusable. In addition, inspection of the motor and pump bowl assembly indicated corrosion, and replacement is recommended. Well No. 9 was last rehabilitated in 1985, and a used motor was installed at that time.

One option is to abandon the well and drill a replacement well nearby at an estimated cost of \$150,000. The five-year CIP does include funds for just such a well replacement, although not in the current year. As an alternative, a new, smaller casing can be placed inside the existing casing to allow for its continued use, although at a slightly lower capacity. Northway has submitted a written quotation in the amount of \$43,961.45 for placement of a new 16-inch well casing with associated screen, gravel pack, and seals. This quotation also includes replacing the 10-inch submersible motor and pump bowl assembly. Staff recommend that a new 16-inch well casing, screen, pump assembly, and submersible motor be installed to allow continued use of the well. This option will allow the well to be returned to production as quickly as possible at the lowest cost. It also avoids the potential difficulty of obtaining regulatory permission for siting a new well.

The Water Treatment Plant operating budget for well rehabilitation includes a total of \$133,750 available for the well rehabilitation contract and additional well repairs, as

needed. The original contract amount is for \$51,000; and total repairs to Well No. 16 have totaled \$35,226.80, leaving \$47,483.20 available for repairs for Well No. 9. There is adequate funding available in the operating budget to cover the proposed repairs. Following the recasing, motor, and pump replacement of Well No. 9, \$3,522 will remain in the operating budget for repairs to the remaining two wells included in this year's rehabilitation contract.

ALTERNATIVES:

1. Approve Change Order No. 2 to the current year's Water Treatment Plant Well Rehabilitation Project in the amount of \$43,961.45 for the placement of a new 16-inch casing, screen, and associated seals in Well No. 9.
2. Do not approve Change Order No. 2 to the five-year Water Treatment Plant Well Rehabilitation Project at this time and direct staff to begin planning for replacement of Well No. 9.
3. Do not approve Change Order No. 2 to the five-year Water Treatment Plant Well Rehabilitation Project at this time and allow the capacity of the Downtown Well Field to diminish by the quantity of water available from Well No. 9.

MANAGER'S RECOMMENDED ACTION:

It is in the City's best interest to maintain the capacity of the existing wells for as long as possible and postpone the need to construct new potable supply wells. With required setbacks for well placement, it would be very difficult, if not impossible, to find a new location for a potable supply well in the Downtown Well Field. Adequate funds are available in the operating budget to cover the expense of installing a new well screen in Well No. 9, allowing the existing well to be returned to service.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving Change Order No. 2 to the five-year Water Treatment Plant Well Rehabilitation Project in the amount of \$43,961.45 for the placement of a new 16-inch casing, screen, associated seals, pump bowl assembly, and submersible motor in Well No. 9.