

Engineering Division Request
To Solicit
STATEMENTS OF QUALIFICATIONS
And
REQUESTS FOR PROPOSALS
For
Jackson Springs Water Treatment Facility

PROJECT DESCRIPTION

The City of Rapid City proposes to design and construct a new water treatment facility for the Jackson Springs water supply complex. Over the last five to six years the City has been working with the South Dakota Department of Environment and Natural Resources (SD DENR) regarding the classification of the Jackson Springs water supply. The Jackson Springs water supply historically has been classified as a groundwater source but in the near future will be reclassified as groundwater under the influence of surface water, which requires new water treatment methods for this supply.

The new treatment facility will likely consist of filtration, disinfection, distribution booster pumps, and modifications to the gallery piping to incorporate the City's newly acquired Cleghorn water supply source. Professional services are anticipated to include a facility plan to evaluate treatment alternatives and site locations for the new facility, an investigation into funding sources for the project, a preliminary design report, preliminary design, preparation of easement exhibits/ agreements, final design, bidding, and construction services.

A very preliminary cost estimate for the project is \$5,000,000 to \$7,000,000 and construction needs to be started preferably in late 2005 or early 2006. The SD DENR has indicated that they consider our complying with the new groundwater under the influence of surface water classification to be extremely time sensitive and have verbally indicated that substantial steps toward compliance should be achieved within 18 months.

PUBLIC WORKS COMMITTEE MEETING

8/10/2004

Re: Jackson Springs

Jackson Springs has been and will continue to be a very important water source for the City of Rapid City. Since 1950, this source has produced over 70 billion gallons of water for the customer of Rapid City. In 2003, this source alone produced 2.4 billion gallons of water or 50% of Rapid City's total needs. Since 1950, Jackson Springs has supplied 43% of Rapid City's needs.

This gallery has traditionally been our lowest cost water to produce when compared to all of our source production. Costs for Jackson Springs water production has been estimated at \$.05 per unit or \$.05 per 748 gallons. The average cost for all of the City's gallery production is \$.063 per unit. The cost for production of our well sources has averaged \$.115 per unit and the cost to produce surface water through the Water Treatment Plant is about \$.266 per unit. These are all 1998 estimates so costs could be slightly higher taking into account inflation.

Unfortunately, in order to stay in compliance with the Federal and State drinking water regulations, modifications to Jackson Springs will have to be done. The estimated cost for reconstruction is somewhere between \$5 million and \$7 million dollars. This source last year generated for the City \$4,545,303 dollars in revenue at the current rate of \$1.40 per unit. If all water generated from this site could be earmarked for this reconstruction project, it would take less than two years to pay for itself. Unfortunately, we all know this is not possible but I still think it is important to realize the contribution to revenue this source provides.

As we all know, source water for Rapid City is and will continue to be a very important issue. Water is the heart of our community. Because of the drought and record low inflows to reservoirs, we again are witnessing the drawdown of Pactola. As the City continues to grow we will need a reliable water source and I don't know of any other source that has been as reliable as Jackson Springs. Up to this point, even during drought conditions, this source has not wavered in production.

John Wagner
Water Superintendent
Rapid City Water Division