

Memorandum #08-24

To: *Al Viereck, Interim City Manager*
From: *John Jonas, Director of Utilities*
Subject: *HDR Proposal for Water Well Hydrogeologic Investigation*
Date: *January 23, 2008*

Staff including, Water Plant Superintendent, Jerry Busby, Civil Engineer, Brad Moser, Public Works Director, Kevin Kuhl and myself have been negotiating with HDR to determine the next course of action to be taken to address the need for source water production at the water treatment plants. Attached is an outline of a scope of work and associated costs to investigate the potential use of wells, on the Nebraska side of the river, as a source of raw water. The city is advised that there is enough of an aquifer to justify the drilling of test wells to further explore the possibility of 5 million gallons a day being generated. If the geology will allow "wells under the influence" of the river to be installed, significant savings will be provided to the treatment facilities. It could mean that new and more stringent treatment standards will be able to be met at Yankton Water Treatment Facility. This well investigation is necessary to determine which treatment processes may be used in future water treatment facility rehabilitation and to what extent the existing facilities can be used. The investigation may include test well sites beyond the city owned property.

It is recommended that the City Manager be authorized to enter an agreement with HDR for a not-to-exceed amount of \$112,635.00 as outlined by the attachment. The number of test hole borings and the amount of test pumping will depend on the field conditions encountered during the course of the work. Staff will be coordinating with HDR during the execution of the work.

Respectfully Submitted,

John Jonas
Utilities Director

Attachments

_____ I concur with the recommendation.

_____ I do not concur with the recommendation.

Al Viereck
Interim City Manager

cc: Kevin Kuhl PE

Estimated cost proposal for Yankton well site evaluation

updated: January 18, 2008

Task Series 100 - Project Management/Meetings

Task 110 - Management Plan	\$800
Task 120 - Proposed Location Review	\$1,800

Task Series 200 - Hydrogeologic Study

Task 210a - Test Hole Boring, one hole	\$17,100
Task 210b - Test Hole Boring, additional holes	\$3,100
Task 220 - Monitoring Well installation	\$9,475
Task 230 - Pumping Test	\$64,560

Task Series 300 - Conceptual Design

Task 310 - Well type, size, and quantity	\$4,700
Task 320 - River crossing conceptual design	\$4,900

Task Series 400 - City Council Presentation

Task 410 - Presentation	No Charge
-------------------------	-----------

Estimated total (through task 210) with one test hole	\$19,700
Estimated total (through task 210) with four test holes	\$29,000

Estimated total project cost range \$103,335 to \$112,635