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DRINKING WATER STATE REVOLVING LOAN FUND PROGRAM FINDING OF NO SIGNIFICANT IMPACT

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Drinking Water State Revolving Fund environmental review process, which is based on the National Environmental Policy Act, an environmental review has been performed on the proposed agency action below.

This information reviews the environmental impact likely from a project. This project is planned to be federally funded through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, please provide them at this time. The Nebraska Department of Environmental Quality encourages public input in this decision-making process.

**PROJECT NAME: New Water Tower, Replacement Well and Distribution System
Improvements
City of South Sioux City, Nebraska**

DWSRF PROJECT NUMBER: D311584

TOTAL PROJECT AMOUNT: \$3,079,555

The City of South Sioux City has applied for funding for the above-referenced project through the Drinking Water State Revolving Fund (DWSRF) program jointly administered by the Nebraska Department of Health and Human Services (DHHS) and the Nebraska Department of Environmental Quality (NDEQ). This project has South Sioux City ranked as a low priority and is included on the Funding List in the DWSRF State Fiscal Year 2015 Intended Use Plan.

South Sioux City is located in northeastern Nebraska, at the intersection of State Highways 20 and 77. The community has a population of 13,353 according to the 2010 census, which has moderately increased over the prior decade. South Sioux City has been issued a permit to operate a public water system (PWS) under the provisions of the Nebraska Safe Drinking Water Act and the Regulations Governing Public Water Supply Systems, Title 179.

The PWS consists of four active municipal wells that supply raw water to two treatment plants for the removal of iron and manganese, a fifth well that is offline, four 250,000 gallon water towers, and a distribution system. In addition, there is an interconnection with an adjacent PWS for supply to meet peak demands. In June 2014, a Preliminary Engineering Report was prepared to study the needs of the water system. It concluded that a long-term replacement to Well No. 5 is needed. While that well is not officially inactive, it has deteriorated over time that is now offline. As such, only one well is providing raw water supply to the B Street treatment plant. In addition, it was recommended that a new 500,000 Gallon

Water Tower also be constructed, as the existing towers cannot meet the present 2.8 million gallon average day system demand, a recommended design standard. Lastly, a water main in Dakota Avenue will be replaced and upsized to improve the distribution of treated water to the southern portion of the City.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. The vast majority of responses were positive in that they indicated the project would have no affect, effect, or impact. The only concern raised was from the Nebraska Department of Aeronautics in that the use of a crane, needed for the construction of the water tower, has the potential of violating the Height Restriction Zoning of any public-use airports. A review of the restrictions for the proposed location would allow the water tower to be constructed to a height of 148 feet. The anticipated tower height is 130 feet, 18 feet below the allowable height. Regardless, as part of the final project design and prior to construction it will be required that Form 7460-1 be submitted to the Federal Aviation Administration for both the temporary crane and the proposed water tower, requesting Aeronautical Studies for each to assess whether any tower construction activities or the tower itself may affect navigable airspace and what, if any, modifications would be needed to eliminate hazards.

The new well will be registered with the Nebraska Department of Natural Resources and a construction permit will be required from the Pappas-Missouri Natural Resources District. A National Pollutant Discharge Elimination System Construction Stormwater permit will be required by NDEQ if more than one acre of land is disturbed. The tower and well will be installed on land owned by the City.

The City is eligible for a 20-year loan at an interest rate of 2 percent. In addition to principal and interest payments, an administrative fee of 1 percent of the loan balance will be assessed each year. The revenues from South Sioux City's water utility will be dedicated to repay the loan. The projected annual DWSRF Debt Service (including 10% coverage) is \$237,529. South Sioux City's current water rate for a typical residential connection is approximately \$15.30 per month. Based on 4,162 active service connections, monthly household rates may need to be raised \$4.76 to address the new debt service, to just over \$20 per month.

A Public Hearing was held June 9, 2014, with 40 days advanced posted notice. No comments were made by the City residents in attendance and no other input was received from the public.

The proposed project is determined by DHHS to help the public water system maintain compliance with the Safe Drinking Water Act. The infrastructure investment in a Replacement Well and Water Mains is in line with the stated goals of the U.S. Environmental Protection Agency's Drinking Water Infrastructure Sustainability Policy. No significant environmental impacts have been identified that would result from the proposed action. All necessary permits for construction will be obtained from the appropriate agencies (i.e., NDNR, NRD, NDEQ, etc.), if necessary. Consequently, a preliminary decision has been made that an Environmental Impact Statement will not be prepared.

This action is taken on the basis of a careful review of the environmental assessment, the preliminary engineering report, and other supporting data that are on file with NDEQ. The latter are available for public review upon request and the environmental assessment is attached. The NDEQ will not take any administrative action on the project for at least 30 calendar days from the date shown below. Persons having a comment on this determination are encouraged to submit directly to Steve McNulty @ 402 471-1006 or email steve.mcnulty@nebraska.gov of DHHS, or John Danforth @ 402 471-3373 or email john.r.danforth@nebraska.gov of the Water Division of NDEQ.

Signed this 27th day of June, 2014.

Sincerely,



Patrick W. Rice
Acting Director

Attachments: Environmental Assessment
Distribution List
Map

ENVIRONMENTAL ASSESSMENT DOCUMENT

A. Project Identification:

Applicant: City of South Sioux City
Project No.: D311584
City: South Sioux City **County:** Dakota **State:** NE
Total Project Amount: \$3,079,555

B. Community Description:

Location: South Sioux City is located in northeastern Nebraska, at the intersection of State Highways 20 and 77.

Population: The community has a population of 13,353 according to the 2010 census, which has moderately increased over the prior decade.

Current Water System Facilities: The public water system consists of four active municipal wells that supply raw water to two treatment plants for the removal of iron and manganese, a fifth well that is offline, four 250,000 gallon water towers, and a distribution system. In addition, there is an interconnection with an adjacent community for supply to meet peak demands.

C. Project Description: In June 2014, a Preliminary Engineering Report was prepared which concluded that a long-term replacement to Well No. 5 is needed. In addition, it was recommended that a new 500,000 Gallon Water Tower also be constructed, and that a water main in Dakota Avenue be replaced.

D. Alternatives Considered:

Two main alternatives studied were:

1. No Project; or
2. New Water Tower, Replacement Well and Distribution System Improvements.

Evaluation and Selection of the Alternative: The Preliminary Engineering Report was prepared to study the needs of the water system. The study determined that while not officially inactive, Well No. 5 has deteriorated over time that is now offline. As such, only one well is providing raw water supply to the B Street treatment plant and the replacement well will re-establish a second plant supply to ensure that its' finished water capacity can continuously be pumped to the system. In addition, it was recommended that a new water tower be constructed, as the existing towers cannot meet the present 2.8 million gallon average day system demand, a recommended

design standard. Lastly, a water main in Dakota Avenue will be replaced and upsized to improve the distribution of treated water to the southern portion of the City.

If the project were not constructed, at times the City's water system would not operate in accordance with good practices and recommended design standards for public water systems.

E. Environmental Impact Summary:

Primary:

Construction: Temporary impacts caused by construction include noise and dust, a limited potential for soil erosion, and fuel/oil spills. The City will make application to the Papio-Missouri Natural Resources District for a well construction permit. The new well will be registered with the Nebraska Department of Natural Resources. Review and approval for a construction permit will be required from the Engineering Services Program at the DHHS.

Environmental: The construction contracts will require that the contractors return the area to its original or better condition. The wellhouse and tower will occupy a very small area of land (<10,000 square feet) and will have little, if any effect on area species. All of the land area to be disturbed during construction will be City owned.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. The vast majority of responses were positive in that they indicated the project would have no effect, or impact. The only concern raised was from the Nebraska Department of Aeronautics in that the use of a crane, needed for the construction of the water tower, has the potential of violating the Height Restriction Zoning of any public-use airports. A review of the restrictions for the proposed location would allow the water tower to be constructed to a height of 148 feet. The anticipated tower height is 130 feet, 18 feet below the allowable height. Regardless, as part of the final project design and prior to construction it will be required that Form 7460-1 be submitted to the Federal Aviation Administration for both the temporary crane and the proposed water tower, requesting Aeronautical Studies for each to assess whether any tower construction activities or the tower itself may affect navigable airspace and what, if any, modifications would be needed to eliminate hazards.

Financial: An application for a DWSRF loan has been received for \$3,079,055 to fund the system improvements. The City is eligible for a 20-year loan with an interest rate of 2% plus an administrative fee of 1% on the outstanding principal balance assessed annually. Therefore, the projected annual DWSRF Debt

Service (including 10% coverage) is estimated at \$237,529. The revenues from City's water utility will be dedicated to repay the loan. South Sioux City's current water rate for a typical residential connection is approximately \$15.30 per month. Based on 4,162 active service connections, monthly household rates may need to be raised \$4.76 to address the new debt service, to just over \$20 per month. Following construction, the City will make an assessment of revenues and cost to determine the needed rate adjustments.

Secondary:

Population Impacts: Although the City has experience a moderate growth in population, the replacement well is not needed for future growth, but rather to re-establish a redundant supply source for the B Street water treatment plant.

Land Use and Trends: The location of the proposed well is within the jurisdiction limits, while the tower site is within City limits. Both will take up little land in areas previously disturbed through farming. The well site has been approved by the DHHS. In addition, all new water mains will be placed below ground at depths that will not interrupt any planned practices. A review by the Nebraska State Historical Society indicated that the project will have no effect on archaeological, architectural, or historic properties.

Environmental: The proposed project will have no effect on the availability of water quantity in the area. The minimal amount of solid waste generated by the project will be disposed in a licensed landfill. No safety, vibration, noise or aesthetic considerations were identified other than the normal noise and disruptions associated with water main and tower construction.

Environmental Justice: The proposed project will not produce any environmental justice concerns. All structures will be placed in areas previously disturbed or on City owned property, and the services provided by the proposed project will be available to everyone in South Sioux City, equally. No segment of the community's population is impacted disproportionately from related effects.

Mitigation measures necessary to eliminate adverse environmental effect:

Proper construction techniques will be utilized to minimize soil erosion and other potential impacts of construction. Traffic flow may be affected by construction when water main construction is being done along the City road right-of-ways; however, safety control measures (i.e., signs, etc.) will be implemented. An NPDES Construction Stormwater permit for runoff associated with construction activity and a Stormwater Pollution Prevention Plan will be required by NDEQ for this project if more than one acre of land is disturbed. The Community can designate the General Contractor as the authorized representative on the stormwater permit notice of intent submitted to the

NDEQ. Authorization of stormwater runoff from the construction activity must be in place prior to commencing construction.

Irreversible and irretrievable commitment of resources: The resources committed to the project include the equipment, materials and energy used in construction.

F. Measures Taken to Insure Environmental Soundness:

Public Involvement: A Public Hearing was held June 9, 2014, with 40 days advanced posted notice.

Public Opposition or Opinions: No comments were made by the City residents in attendance and no other input was received from the public.

Coordination and Documentation with Other Agencies and Special Interest Groups:

Facility Planning: Preliminary Engineering Report, City of South Sioux City, JEO Consulting Group, Inc., June 2014

Federal: U.S. Department of Defense, Corps of Engineers, June 13, 2014 letter

State: Nebraska Department of Aeronautics, April 23 and May 13, 2014, emails
Nebraska Department of Health and Human Services, June 20, 2013, letter
Nebraska Department of Environmental Quality, April 24 and May 16, 2014, emails
Nebraska Department of Natural Resources, May 1 and June 2, 2014, memoranda
Nebraska Department of Roads, March 11, 2011, November 27, 2012 and April 8, 2013, memoranda and April 2, 2013, memorandum approval
Nebraska State Fire Marshall, May 1, 2014, email
Nebraska State Historical Society, April 16 and May 13, 2014, letters and November 1, 2012, concurrence

Other: Pawnee Nation, Office of Historic Preservation, May 14, 2014, letter

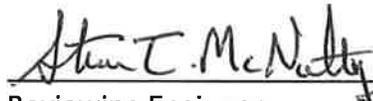
Consulting Engineers: JEO Consulting Group, Inc., Norfolk, NE

Public Groups: City of South Sioux City Residents

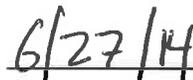
G. Positive Effects to be Realized from the Proposed Project: The project will allow South Sioux City to maintain compliance with the Safe Drinking Water Act and ensure future water availability. Test hole results show that the proposed well should meet all

drinking water standards per Title 179, Regulations Governing Public Water Supply Systems. The water well and main project phases achieve the goals of the U.S. Environmental Protection Agency's Drinking Water Infrastructure Sustainability Policy for the upgrade and/or replacement of existing infrastructure. As such, the project is considered reasonable, not contrary to conservation or the public welfare and is a beneficial use of resources by the City of South Sioux City.

- H. **Reasons for Concluding there will be no Significant Impacts:** Review of the engineering reports and supporting information indicates that the proposed project will result in no significant impact on the environment. State agencies reported no impact will result to environmental, historic or groundwater resources. All necessary permits for construction will be obtained from the appropriate agencies (i.e., NDNR, NDEQ, etc.), if necessary.



Reviewing Engineer



Date

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CONSULTING ENGINEERS:
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Ethan Joy, P.E.
1909 Dakota Avenue
South Sioux City, NE 68776-2737

LOCAL NEWSPAPER
Dakota County Star
1000 West 29th Street, #212
South Sioux City, NE 68776

PAPIO-MISSOURI NRD
8901 South 154th Street
Omaha, NE 68138-3621

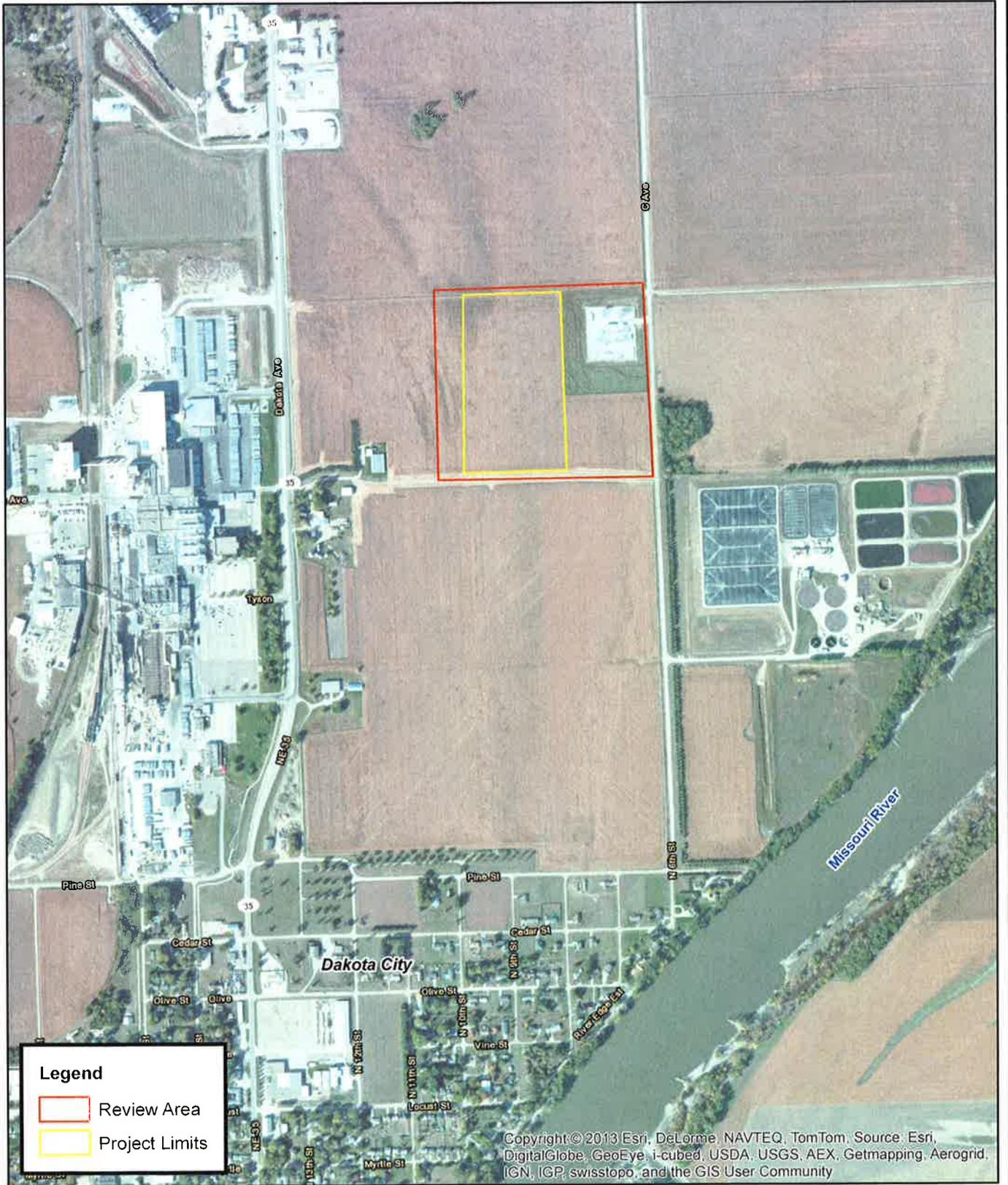
PROPOSED WELL 2013 - 2

PROJECT:
CITY OF SOUTH SIOUX CITY
WELL STUDY

PROJECT NO.
130272
FILE NAME
AERIAL.DWG
SHEET
2013-2

DATE
6/3/2013
DRAWN BY
ARS
REVISION





0 0.05 0.1 0.2
Miles

Water Tower Project
South Sioux City, NE
JEO Project No. 130047.00

Preliminary Aquatics
Resource Review

Figure 1