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STATE OF NEBRASKA

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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: Water Treatment Plant, Transmission Mains and Distribution System Improvements
City of Fairbury, Nebraska
DWSRF PROJECT NUMBER: D311601
TOTAL PROJECT AMOUNT: \$5,391,500
PROPOSED DWSRF LOAN AMOUNT: \$4,313,200
PROPOSED DWSRF LOAN FORGIVENESS AMOUNT: \$1,078,300

The City of Fairbury 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, Division of Public Health (DHHS) and the Nebraska Department of Environmental Quality (NDEQ).

This project has been ranked as a low priority project and was included on the Planning List in the DWSRF State Fiscal Year 2015 Intended Use Plan due to readiness to proceed criteria. Based on supporting documentation on file with the NDEQ, the City was determined to be eligible for a DWSRF loan with corresponding loan forgiveness capped at 20% of project costs.

Fairbury is located in the southeastern part of Nebraska, at the intersection of State Highways 15 and 136. The community has a population of 3,942 according to the 2010 census, which has slightly declined over the prior decade. Fairbury has been issued a permit to operate a public water system under the provisions of the Nebraska Safe Drinking Water Act and the Regulations Governing Public Water Supply Systems, Title 179. The City's raw water supply originates from two sources. The Crystal Springs wellfield is comprised of six wells, which feed

water to a cartridge filtration treatment plant, in combination with an infiltration gallery. The East wellfield has three vertical supply wells that directly feed the City's distribution system.

Over the past decade, levels of Nitrates detected from both sources typically ranged from 7 to 9 mg/L, consistently below the drinking water standard of 10 mg/L. Beginning in 2013 though, numerous detections from 9 to 10 mg/L were measured through routine monitoring with one result at 10.2 mg/L. Subsequent testing has shown levels below the standard, but even before the detected increases, Fairbury proactively hired an Engineer to complete a Preliminary Engineering Report (PER) of their water system.

In April 2012, the City's Engineer completed the PER which focused on the groundwater supply for the Fairbury's water system. The report evaluated centralized treatment of the Crystal Springs Wellfield for Nitrate removal, including alternatives for blending the treated supply with the East Wellfield. Ion Exchange was the apparent lowest cost alternative, but the report also recommended that a final re-evaluation of Reverse Osmosis treatment be made prior to proceeding to final design. The new transmission main will allow for blending of the City's two water supplies, while the distribution system improvements will ensure that an adequate supply of drinking water is delivered to Fairbury's residents once the primary phases of the project are completed.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. The majority of the responses were positive in that they indicated that the project would have no effect, was cleared of any significant concerns, was not subject to their jurisdiction, or they did not find that there would be any significant environmental impacts created. The Corps of Engineers, from preliminary information, identified that the project may impact jurisdictional waters of the United States (U.S.). However, a detail review showed that there may only be one small stream crossing as part of the project. Subsequently it will be verified during the engineering design that if any waters of the U.S. are present, at a minimum, those sections crossed by transmission mains will be bored in place to avoid any discharge of dredged or fill material into those waters. Lastly, the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission advised that care should be taken during construction for complying with the Migratory Bird Treaty Act, which is a mandatory requirement of all DWSRF funded projects.

The City is eligible for a 20-year loan at an interest rate of 2 percent on 80% of the estimated project costs (i.e., 20% will be forgiven). 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 Fairbury's water utility will be dedicated to repay the loan. The projected annual DWSRF Debt Service (including 10% coverage) is \$335,954. Fairbury's current water base rate for a typical residential connection is \$15.30 per month, with a \$1.044 use charge for every 100 cubic feet of water furnished. That equates to a water bill just under \$26 per month, based on a common household water use of ~7,500 gallons. In addition to debt payments, operation and maintenance (O&M) costs will increase with new treatment to remove Nitrates. Based on 1,961 active service

connections, monthly household rates may need to be raised approximately \$23 to address the new debt service (\$14.28) and O&M (\$8.78) costs, to an overall amount of \$49 per month.

A Public Hearing was scheduled for October 7, 2014 having a 40 day advertised notice. The public hearing was postponed to October 21, 2014, with 14 days advanced posted notice due to scheduling conflicts. A presentation of the project was made by the Assistant Utilities Superintendent and the Engineer, including the types of treatment, transmission main layout, availability of funding and impact to water rates. The City will hold a Public Hearing with a minimum 30-days posted notice prior to the start of construction for the project.

The proposed project is determined by DHHS to help the public water system maintain compliance with the Safe Drinking Water Act. No significant environmental impacts have been identified that would result from the proposed action. All necessary permits for construction or waste discharges will be obtained from the appropriate agencies (i.e., local floodplain, 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 at 402 471-1006 or email steve.mculty@nebraska.gov of DHHS, or John Danforth at 402 471-3373 or email john.r.danforth@nebraska.gov of the Water Division of NDEQ.

Signed this 29th day of January, 2015.

Sincerely,



Patrick W. Rice
Acting Director

Attachments: Environmental Assessment
Distribution List
Map

ENVIRONMENTAL ASSESSMENT DOCUMENT

A. Project Identification:

Applicant: City of Fairbury
Project No.: D311601
City: Fairbury **County:** Jefferson **State:** NE
Total Project Amount: \$5,391,500
Proposed DWSRF Loan Amount: \$4,313,200
Proposed DWSRF Loan Forgiveness: \$1,078,300

B. Community Description:

Location: Fairbury is located in the southeastern part of Nebraska, at the intersection of State Highways 15 and 136.

Population: The community has a population of 3,942 according to the 2010 census, which has slightly declined over the prior decade.

Current Water System Facilities: The City's raw water supply originates from two sources. The Crystal Springs wellfield is comprised of six wells, which feed water to a cartridge filtration treatment plant, in combination with an infiltration gallery. The East wellfield has three vertical supply wells that directly feed the City's distribution system. Over the past decade levels of Nitrates detected from both sources typically ranged from 7 to 9 mg/L, consistently below the drinking water standard of 10 mg/L. Beginning in 2013 though, numerous detections from 9 to 10 mg/L were measured through routine monitoring, with one result at 10.2 mg/L.

- C. Project Description:** In April 2012, the City's Engineer completed the Preliminary Engineering Report which focused on the groundwater supply for Fairbury's water system. The report evaluated centralized treatment of the Crystal Springs wellfield for Nitrate removal, including alternatives for blending the treated supply with the East wellfield, with Ion Exchange as the apparent alternative. A new transmission main will be constructed for blending of the City's two water supplies, while distribution system improvements will ensure that an adequate supply of drinking water is delivered to Fairbury's residents once all phases of the project are completed.

D. Alternatives Considered:

Three treatment alternatives were studied including Ion Exchange, Reverse Osmosis and Electrodialysis Reversal. Either of the treatment options would be coupled with blending of the two existing City water sources.

Evaluation and Selection of the Alternative: From an economic evaluation, ion exchange is the apparent lowest cost alternative. It was also recommended that reverse osmosis be re-evaluated another time to ensure the ion exchange treatment remains the best option for Fairbury. As the City already provides cartridge filtration treatment of its Crystal Springs water source, either of the two treatment options would be effective at ensuring Fairbury's water supply remains below the nitrate drinking water standard.

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. Review and approval for a construction permit will be required from the Engineering Services Program of the DHHS and NDEQ for any waste stream disposal from a nitrate removal plant.

Environmental: The construction contracts will require that the contractors return the area to its original or better condition. The new treatment plant will occupy a small area of land (<20,000 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 and was previously disturbed through normal City development practices (e.g., roadway construction, etc.). Based on a review of the available mapping, portions of the blending transmission main lie within the 100-year flood plain. A permit will be required from the local floodplain administrator prior to proceeding with construction.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. The majority of the responses were positive in that they indicated that the project would have no effect, was cleared of any significant concerns, was not subject to their jurisdiction or they did not find that there would be any significant environmental impacts created. The Corps of Engineers from preliminary information identified that the project may impact jurisdictional waters of the United States (U.S.). However, a detail review showed that there may only be one small stream crossing as part of the project. Subsequent it will be verified during the engineering design that if any waters of the U.S. are present, at a minimum those sections crossed by transmission mains will be bored in place to avoid any discharge of dredged or fill material into those waters. Lastly, the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission advised that care should be taken during construction for complying with the Migratory Bird Treaty Act, which is a mandatory requirement of all DWSRF funded projects.

Financial: An application for a SRF loan has been received for \$5,391,500 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. Further, Fairbury qualifies for 20% of loan forgiveness on all eligible project costs based on the State Fiscal Year 2015 program criteria. Therefore, the projected annual DWSRF Debt Service (including 10% coverage) is estimated at \$335,954. The revenues from City's water utility will be dedicated to repay the loan. Fairbury's current water rate for a typical residential connection is \$15.30 per month, with a \$1.044 use charge for every 100 cubic feet of water furnished. That equates to an approximate water bill just under \$26 per month, based on a common household water use of ~7,500 gallons. In addition to debt payments, operation and maintenance (O&M) costs will increase with new treatment to remove Nitrates. Based on 1,961 active service connections, monthly household rates may need to be raised approximately \$23 to address the new debt service (\$14.28) and O&M (\$8.78) costs, to an overall amount of \$49 per month. Following construction, Fairbury will make a final assessment of revenues and cost to determine what rate adjustments are necessary.

Secondary:

Population Impacts: The new treatment plant is not needed for future growth as the community has a slightly declining population, but rather to maintain compliance with the Safe Drinking Water Act.

Land Use and Trends: The treatment plant will take up a small amount of land in a previously developed area of the City. In addition, all new water mains will be placed below ground at depths that will not interrupt any planned practices. The Nebraska State Historical Society noted that the project will have no effect for archeological, 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 building and water main 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 Fairbury, 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. 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 scheduled for October 7, 2014 having a 40 day advertised notice, the public hearing was postponed to October 21, 2014, with 14 days advanced posted notice due to scheduling conflicts. A presentation of the project was made by the Assistant Utilities Superintendent and the Engineer, including the types of treatment, transmission main layout, availability of funding and impact to water rates. The City will hold a Public Hearing with a minimum 30-days posted notice prior to the start of construction for the project.

Public Opposition or Opinions: There were several questions made by City Council members and the City Attorney, which were adequately addressed by the Engineer. No other 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 – Groundwater Supply Study for Nitrates, Olsson Associates, April 2012

Federal: U.S. Department of Agriculture, Natural Resources Conservation Service, July 21, 2014, email
U.S. Department of the Army, July 24, 2014, letter
U.S. Fish and Wildlife Service, July 18, 2014, letter

State: Nebraska Game and Parks Commission, August 12, 2014, letter
Nebraska State Historical Society, July 15, 2014, letter

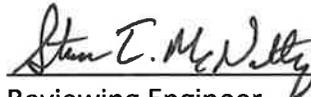
Other: Pawnee Nation, August 4, 2014, letter

Consulting Engineers: Olsson Associates, Lincoln, NE

Public Groups: City of Fairbury Residents

- G. Positive Effects to be Realized from the Proposed Project:** The project will allow Fairbury to maintain compliance with the Nebraska Safe Drinking Water Act and ensure future water availability. 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 Fairbury.

- H. Reasons for Concluding there will be no Significant Impacts:** Review of the engineering report and supporting information indicates that the proposed project will result in no significant impact to the environment. Federal and State agencies reported no impact will result to endangered or threatened species, historical or farming resources. All necessary permits for construction will be obtained from the appropriate agencies (e.g., local floodplain, etc.), if necessary.



Reviewing Engineer

1/2/15

Date

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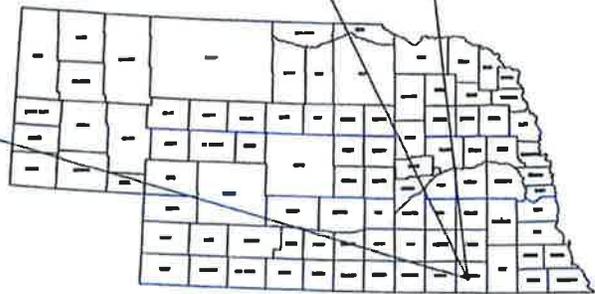
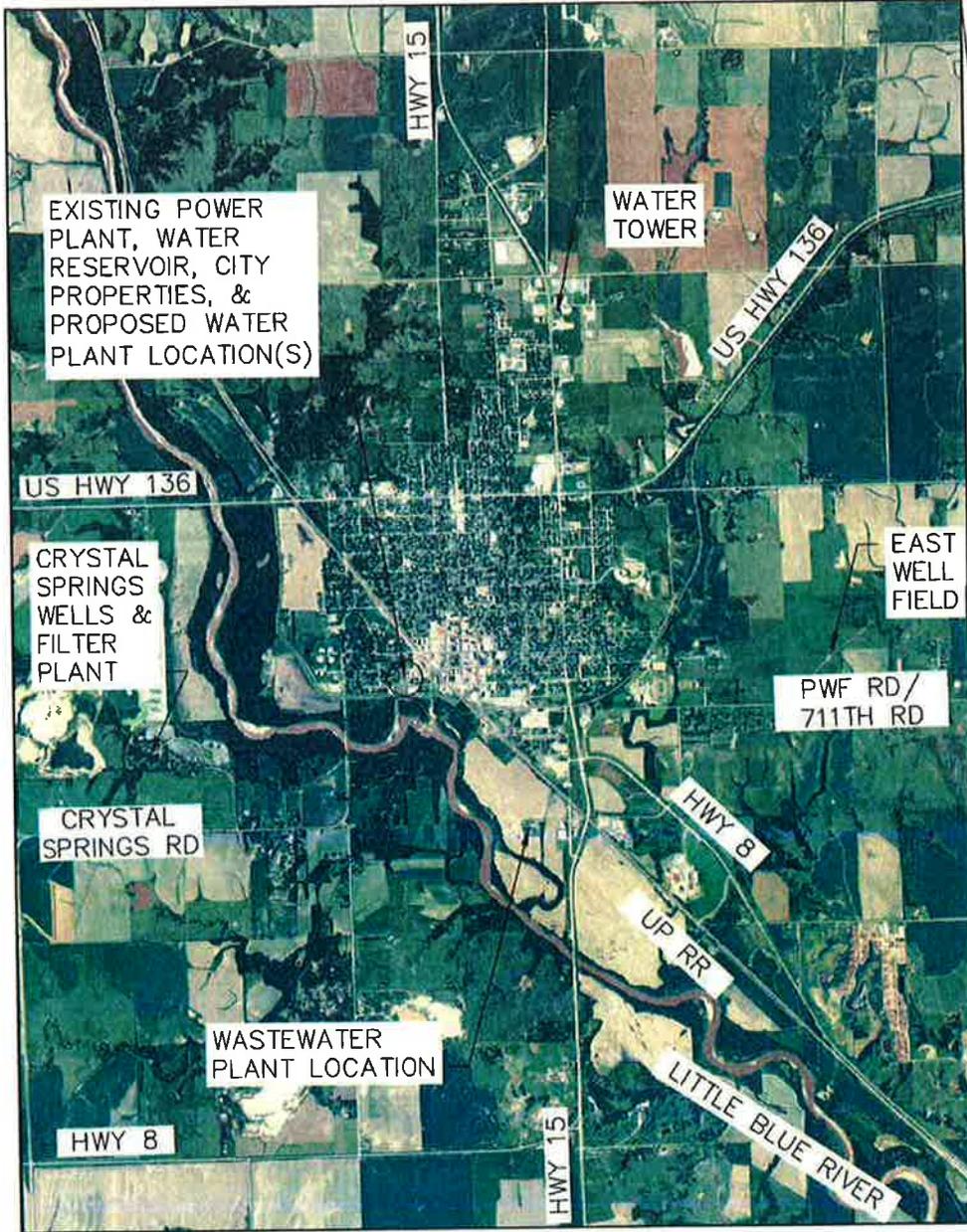
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CONSULTING ENGINEERS:
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Lincoln, NE 68508

LOCAL NEWSPAPER
The Fairbury Journal-News
516 5th Street
Fairbury, NE 68352

LITTLE BLUE NRD
PO Box 100
Davenport, NE 68335-0100



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**PROJECT LOCATION
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FIGURE
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