



**Dave Heineman**  
Governor

# STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
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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:** Horizontal Collector Well and Water Treatment Plant Upgrades  
City of Falls City, Nebraska

**DWSRF PROJECT NUMBER:** D311597

**TOTAL PROJECT AMOUNT:** \$2,615,000

**PROPOSED DWSRF LOAN AMOUNT:** \$2,092,000

**PROPOSED DWSRF LOAN FORGIVENESS AMOUNT:** \$523,000

The City of Falls 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, 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 proposed Funding 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.

Falls City is located in the southeastern part of Nebraska, along State Highway 73. The community has a population of 4,375 according to the 2010 census, which has slightly declined over the prior decade. Falls 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's raw water supply is from eleven wells ranging in capacity from 200 to 250 gallons per minute that pump to a water treatment plant for iron/manganese removal, then to clearwells provided with high service pumps. From the plant, water is pumped separately to the City, the Village of Rulo and the Richardson

County Rural Water District No. 2. The latter two are consecutive connections to the Falls City water system. At Falls City, finished water is first stored in two 500,000 gallon reservoirs before being boosted to the City's 1 MG Water Tower, which both supply the distribution system.

In January 2012, the City's Engineer completed a Technical Feasibility Report for improvements at the Falls City Wellfield and Water Treatment Plant. In 2011, the Missouri River basin experienced a flooding event that the National Weather Service characterized as extreme in terms of its spatial extent and temporal duration. Falls City's wellfield is located along the river protected by a levee. Although the wellfield did not flood, ponding of water was present, and all of the systems' wells would flood if the levee was ever topped. As no backup water source exists for the City, the need for the project was established to ensure that the City can supply a safe supply of drinking water on a continuous basis.

The project may be completed in multiple phases. A new horizontal collector well above flood elevation will be constructed to replace seven system wells that realistically cannot be elevated above the top of the levee. Up to four remaining wells will be rehabilitated and elevated, and new wellhouses installed. Lastly, the treatment plant will be upgraded for all aspects of the surface water treatment rule monitoring requirements, and a new clearwell and baffling improvements added to meet contact time requirements.

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.). Correspondence received from Falls City stated that a delineation of waters of the U.S. and special aquatic sites, including wetlands will be undertaken. 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, or if those areas cannot be avoided, a Section 404 permitting process will be completed. 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 new well will be registered with the Nebraska Department of Natural Resources and a construction permit will be required from the local 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 well and transmission mains 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 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 Falls City's water utility will be dedicated to repay the loan. The projected annual DWSRF Debt Service (including 10% coverage) is \$162,945. Falls City's current water rate for a typical residential connection is \$7 per month, with a \$3.09 use charge for every 100 cubic feet of water furnished. That equates to a water bill just over \$37 per month, based on a common household water use of ~7,500 gallons. Based on 2,143 active service connections, monthly household rates may need to be raised \$6.34 to address the new debt service, to approximately \$43.50 per month.

A Public Hearing was held October 6, 2014, with 48 days advanced posted notice. A presentation of the project was made by the Utilities Superintendent. 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 new Horizontal Collector Well, to replace seven of their existing wells, 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 or waste discharges will be obtained from the appropriate agencies (e.g., Section 404, NDNR, 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](mailto:steve.mculty@nebraska.gov) of DHHS, or John Danforth at 402 471-3373 or email [john.r.danforth@nebraska.gov](mailto:john.r.danforth@nebraska.gov) of the Water Division of NDEQ.

Signed this 28<sup>th</sup> day of October, 2014.

Sincerely,



Patrick W. Rice  
Acting Director

Attachments: Environmental Assessment  
Distribution List  
Maps

## ENVIRONMENTAL ASSESSMENT DOCUMENT

### A. Project Identification:

**Applicant:** City of Falls City  
**Project No.:** D311597  
**City:** Falls City **County:** Richardson **State:** NE  
**Total Project Amount:** \$2,615,000  
**Proposed DWSRF Loan Amount:** \$2,092,000  
**Proposed DWSRF Loan Forgiveness:** \$523,000

### B. Community Description:

**Location:** Falls City is located in the southeastern part of Nebraska, along State Highway 73.

**Population:** The community has a population of 4,375 according to the 2010 census, which has slightly declined over the prior decade.

**Current Water System Facilities:** The system's raw water supply is from eleven wells ranging in capacity from 200 to 250 gallons per minute that pump to a water treatment plant for iron/manganese removal, then to clearwells provided with high service pumps. From the plant, water is pumped separately to the City, the Village of Rulo and the Richardson County Rural Water District No. 2. The latter two are consecutive connections to the Falls City water system. At Falls City finished water is first stored in two 500,000 gallon reservoirs before being boosted to the City's 1 MG Water Tower, which both supply the distribution system.

- C. Project Description:** In January 2012, the City's Engineer completed a Technical Feasibility Report for improvements at the Falls City Wellfield and Water Treatment Plant. In 2011, the Missouri River basin experienced a flooding event that the National Weather Service characterized as extreme in terms of its spatial extent and temporal duration. Falls City's wellfield is located along the river protected by a levee. Although the wellfield did not flood, ponding of water was present, and all of the systems' wells would flood if the levee was ever topped. As no backup water source exists for the City, the need for the project was established to ensure that the city can supply a safe supply of drinking water on a continuous basis.

The project may be completed in multiple phases. A new horizontal collector well above flood elevation will be constructed to replace seven system wells that realistically cannot be elevated above the top of the levee. Up to four remaining wells will be rehabilitated and elevated, and new wellhouses installed. Lastly, the treatment plant will be upgraded for all aspects of the surface water treatment rule monitoring

requirements, and a new clearwell and baffling improvements added to meet contact time requirements.

**D. Alternatives Considered:**

Two main alternatives studied were:

1. Replacement Vertical Wells; or
2. Horizontal Collector Well.

**Evaluation and Selection of the Alternative:** The seven wells planned for replacement are at least 50, up to 75 years in age. And as noted, all would flood if the levee protecting the wellfield was topped. The wells could all be replaced individually, with the new wells elevated at least 3 feet above the highest flood level. Due in part to those design criteria, the City's engineer began to evaluate a single horizontal collector protected above that flood level. The collector well alternative evaluated is \$175,000 greater in capital costs than the vertical well alternatives evaluated. However, with a generally superior life cycle cost and expected higher capacity than vertical wells, the recommended horizontal collector well project alternative was made.

**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 local 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 of the DHHS.

**Environmental:** The construction contracts will require that the contractors return the area to its original or better condition. The well house will occupy a small area of land (<5,000 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 farming practices. Based on a review of the available mapping, no portion of the project lies within the 100-year flood plain.

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.). Correspondence received from Falls City stated that a delineation of waters of the U.S. and special aquatic sites, including wetlands will be undertaken. 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, or if those areas cannot be avoided, a Section 404 permitting process will be completed. 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 SRF funded projects.

**Financial:** An application for a SRF loan has been received for \$2,615,000 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, Falls City qualifies for 20% of loan forgiveness on all eligible project costs based on the proposed DWSRF State Fiscal Year 2015 program criteria. Therefore, the projected annual DWSRF Debt Service (including 10% coverage) is estimated at \$162,945. The revenues from City's water utility will be dedicated to repay the loan. Falls City's current water rate for a typical residential connection is \$7 per month, with a \$3.09 use charge for every 100 cubic feet of water furnished. That equates to an approximate water bill just over \$37 per month, based on a common household water use of 7,500 gallons. Based on 2,143 active service connections, monthly household rates may need to be raised \$6.34 to address the new debt service, to \$43.50 per month. Following construction, Falls City will make a final assessment of revenues and cost to determine what rate adjustments are necessary.

#### **Secondary:**

**Population Impacts:** The new horizontal collector well is not needed for future growth as the community has a slightly declining population, but rather to establish a primary water source that is flood protected without the need of the local levee.

**Land Use and Trends:** The location of the proposed well is east of the City along the Missouri River. The well house will take up a small amount of land in an area historically farmed. It will be required that the well site be approved by the DHHS. 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 Falls 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. 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 October 6, 2014, with 48 days advanced posted notice. A presentation of the project was made by the Utilities Superintendent.

**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:** Well Field and Water Treatment Plant Improvements, Technical Feasibility Report, Falls City, Kirkham Michael, January 2012

**Federal:** U.S. Department of Agriculture, Natural Resources Conservation Service, July 21, 2014, email  
U.S. Department of the Army, July 9, 2014, letter  
U.S. Fish and Wildlife Service, July 18, 2014, letter

**State:** Nebraska Department of Natural Resources, August 4, 2014, email/memorandum  
Nebraska Game and Parks Commission, July 14, 2014, email

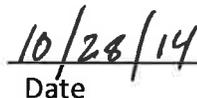
Nebraska State Historical Society, July 15, 2014, letter  
**Other:** Nemaha Natural Resources District, July 23, 2014, email

**Consulting Engineers:** Kirkham Michael, Omaha, NE

**Public Groups:** City of Falls City Residents

- G. Positive Effects to be Realized from the Proposed Project:** The project will allow Falls City to maintain compliance with the Nebraska Safe Drinking Water Act and ensure future water availability. Historical monitoring shows that the proposed horizontal collector well should meet all drinking water standards with the proposed water treatment plant improvements per Title 179, Regulations Governing Public Water Supply Systems. The well phase of achieves 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 Falls City.
- 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 on the environment. Federal and State agencies reported no impact will result to endangered or threatened species, floodplain, historical, farming or groundwater resources. All necessary permits for construction will be obtained from the appropriate agencies (i.e., Section 404, NDNR, etc.), if necessary.

  
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Reviewing Engineer

  
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Date

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LOCAL NEWSPAPER  
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