



## 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 (DWSRF) 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 Environment and Energy (NDEE) encourages public input in this decision-making process.

PROJECT NAME: Redundant Transmission Main, Replace Distribution Mains, Wellfield  
Land Acquisition and Backup Power  
APPLICANT: City of Beatrice, Nebraska  
COUNTY: Gage  
POPULATION: 12,459 (2010 census)  
DWSRF PROJECT NUMBER: D311674 and D311685  
TOTAL PROJECT AMOUNT: \$1,250,000 (D311674)  
\$6,250,000 (D311685)  
\$7,500,000 – Total DWSRF funding

The City of Beatrice has applied for funding for the above-referenced project which is ranked as a high priority and is included on the Funding List in the proposed DWSRF State Fiscal Year 2022 Intended Use Plan (IUP).

Beatrice is located in the southeastern part of Nebraska in Gage County along State Highway 77 and has a population of 12,459 as of the 2010 census. The 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 Nebraska Administrative Code, Title 179 – Public Water Systems.

In April 2021, a design summary of the project alternatives was completed by the City's engineer. The PWS consists of twelve municipal wells, the oldest drilled in 1931, which pump to reservoirs for the blending of nitrates from the wellfield supply, and then are pumped to both of the system's water towers, for supply to the distribution system. Through regular monitoring

it is documented that Beatrice's water supply is acceptable, meeting all primary drinking water standards. However, blending to reduce nitrates to levels below the drinking water standard is the form of treatment that the City relies upon and presently the transmission mains have no redundancy. Further, during the flooding events of 2019, it was observed that without a redundant transmission main, should a failure of an existing line occur, it would be possible the lower nitrate supply would be inaccessible for repair until flood conditions abated. Thus, the noted project will assure that the City will provide an adequate supply of safe drinking water on a continuous basis, a regulatory requirement.

The report also indicated there are numerous sections in the City's distribution system that are over 100 years in age, which supply multiple residential and commercial service connections. The areas noted in the attached map have been prioritized for replacement. In addition, a need was established to replace an old backup generator at the south reservoir pump station and to provide a second backup generator at the wellfield due to similar redundancy concerns.

Lastly, a parcel of land adjacent to the City's Farm Well Field was recently listed for sale. Of the City's two wellfield sources, the Farm Well Field is the lower for nitrates. Further source development of that area will only continue to ensure the City's water supply will meet drinking water standards. As part of the project, Beatrice will develop a Drinking Water Management Protection Plan for that new supply area, which upon approval by the EPA, will also result in funds being made available to the City for further protection efforts under the NDEE's Nonpoint Source Water Quality Grants (Section 319) program.

The project was also reviewed by numerous federal and state agencies for environmental impacts. The responses received included those stating they had no comments, the project posed no concerns, or where required, the City would have to make application for all necessary permits. Responses also included advisories concerning location of wells and impacts to water appropriations.

The City is eligible for two 30-year loans at interest and administrative fee rates of 0%. The revenues from Beatrice's water utility will be dedicated to repaying both loans. The combined projected annual DWSRF Debt Service (including 10% coverage) for both loans is \$275,000. From a review of estimated costs, it is projected that monthly water rates may need to be raised just over \$4. From current rates, the typical monthly residential water bill would increase to approximately \$27.50 per month based on 5,000 gallons of water use.

A Public Hearing was held on April 19, 2021 by the City on the proposed project, with 30 days advanced posted notice. A presentation was made by the City Administrator on the project. No input was received from the public.

The system last underwent a routine sanitary survey in October of 2018, wherein no deficiencies were noted. That completed the Technical, Financial, and Managerial program policy, as being a large city class entity, Beatrice has sufficient engineering and system operator staff,

which routinely demonstrates adequate capacity through the sanitary survey protocols. Also, their current Environmental Tracking Tool score is 0, well below the allowable 11 per issued U.S. Environmental Protection Agency guidance.

The proposed project is determined by NDEE to help the City maintain compliance with the Nebraska Safe Drinking Water Act. 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., NDEE, etc.), if needed. 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 project design summary and other supporting data that are on file with NDEE. The latter are available for public review upon request and the Environmental Assessment is attached. The NDEE will not take any administrative action for at least 30 calendar days from the date shown below. Persons having a comment on this determination are encouraged to submit directly to Cyril Martinmaas at (402) 471-0513 or email [cyril.martinmaas@nebraska.gov](mailto:cyril.martinmaas@nebraska.gov) in the Engineering Services Section, or John Danforth at (402) 471-3373 or email [john.r.danforth@nebraska.gov](mailto:john.r.danforth@nebraska.gov) of the SRF Section of NDEE.

Signed this 22<sup>nd</sup> day of September, 2021.

Sincerely,



Jim Macy  
Director

Attachments:            Environmental Assessment  
                                 Distribution List  
                                 Map

## ENVIRONMENTAL ASSESSMENT DOCUMENT

### A. Project Identification:

**Applicant:** City of Beatrice  
**Project No.:** D311674, D311685  
**City:** Beatrice **County:** Gage **State:** NE  
**Estimated Project Cost:** \$7,500,000

### B. Community Description:

**Location and Population:** Beatrice is located in southeastern Nebraska, on State Highway 77, in Gage County. The community has a population of 12,459 according to the 2010 census, which is stable over the prior decade.

**Current Water System Facilities:** The public water system (PWS) consists of twelve municipal wells, the oldest drilled in 1931, which pump to storage reservoirs. Those reservoirs are used for the blending of nitrates below the drinking water standard, as one of the City's two wellfield sources has elevated levels. Through high service pump stations, water is then pumped into the distribution system, with pressure maintained from two elevated water storage towers, with capacities of 1 and 0.5 million gallons. Through regular monitoring it is documented that Beatrice's water supply is acceptable, presently meeting all primary drinking water standards.

- C. Project Description:** In April 2021, a design summary of the project alternatives was completed by the City's Engineer. As blending to reduce nitrate levels below the drinking water standard is the form of treatment that the City relies upon, it was recommended to construct a redundant transmission line. The memorandum also indicated there are numerous sections in the City's distribution system that are over 100 years in age, which supply multiple residential and commercial service connections. Four areas were prioritized for replacement. In addition, a need has been established to replace an old backup generator at the south reservoir pump station, and to provide a second backup generator at the City's Farm Well Field.

Lastly, a parcel of land adjacent to that wellfield was recently listed for sale. Of the City's two wellfield sources, the Farm Well Field is the lower for nitrates. The City is planning to purchase the adjacent land for future wellfield development.

### D. Alternatives Considered:

Two alternatives were considered:

1. Redundant Transmission Main to the City; and
2. Redundant Transmission Main between the City's Wellfields.

**Evaluation and Selection of the Alternative:** The engineering assessment concluded that the redundant line into the City was larger and more expensive. By constructing a line between the City's existing wellfield sources, blending of nitrates below the drinking water standard can still occur, ensuring the sustainability of the City's water supply at a much lower cost. Further, the new line will not be subject to flooding concerns, limiting the risks which were observed during Nebraska's 2019 flood disaster.

There were no evaluations made for the remaining project phases. The areas of the distribution system identified for replacement are over 100 years in age, and thus are proactively being replaced prior to failure. The need to replace the generator at the south reservoir is also based on its age, as parts are no longer available to maintain the unit. The second generator is needed at the Farm Well Field, similar to that noted above, with observations made during the recent flood event having a second generator at a higher elevation will both ensure a minimum supply and the supply of low nitrate water to the community. In addition, with the Farm Well Field source lower in nitrates, further source development in that area will only continue to ensure the City's water supply will meet that drinking water standard. As part of the new wellfield land acquisition, Beatrice will also develop a Drinking Water Management Protection Plan for that new supply area, which, upon approval by the EPA, will result in funds being made available to the City for further protection efforts under NDEE's 319 program. Lastly, four of the systems wells are from the 1930's, thus the land acquisition will be needed in a reasonable period of time to replace aging infrastructure.

**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 Department's Engineering Services Section.

**Environmental:** The construction contracts will require that the contractors return the area to its original or better condition. The new generators will occupy a relatively small area of land (~1,000 square feet) and will have little, if any effect on area species as all infrastructure improvements are within property owned by Beatrice, situated in areas previously disturbed. Based on a review of the available mapping, the redundant transmission main as it crosses the Big Blue River will be constructed within the floodplain, requiring a permit from the local administrator.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. The Natural Resources Conservation Service had no

comment. The U.S. Army Corps of Engineers noted that a Section 404 permit would be required if fill material is placed into any waters of the United States. The Nebraska Department of Natural Resources noted public supply wells and other wells within 1000 feet of the proposed project area, and surface water appropriations appurtenant to the project location. Since no wells are constructed as part of this project, encroachment on existing wells by new wells or impact to surface water appropriations will not occur.

**Financial:** An application for a DWSRF loan has been received for \$7,500,000 to fund the noted system improvements. The City qualifies for a 30-year loan with an interest and fee rates of 0%. The projected annual DWSRF Debt Service (including 10% coverage) is estimated at \$275,000. The revenues from City's water utility will be dedicated to repay the loan. From a review of estimated costs, monthly rates may need to be raised just over \$4. From current rates, the typical residential water bill would increase to approximately \$27.50 per month based on 5,000 gallons of water use following construction. Beatrice will make a final assessment of revenues and cost to determine what rate adjustments are necessary.

**Secondary:**

**Population Impacts:** The primary purpose of the project is providing redundancy in the City's water supply and to replace significantly aged water distribution mains. While development of the new wellfield may address future growth, the land acquisition is primarily needed to ensure the low nitrate area of the City's water supply source is secured and will be documented through the development of a Drinking Water Management Protection Plan.

**Land Use and Trends:** All new water mains will be placed below ground at depths that will not interrupt any planned practices. The backup generators will be installed on property owned by the City. Based on the results of a cultural resources investigation, the Nebraska State Historic Preservation Office indicated a determination of no historic properties affected is appropriate for the proposed project.

**Environmental:** The 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 construction.

**Environmental Justice:** The project will not produce any environmental justice concerns. All improvements will be placed in areas previously disturbed or on City owned property/easements acquired through willing sellers. The services

provided by the project will be available to everyone in Beatrice, 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 temporarily affected by construction. A National Pollutant Discharge Elimination (NPDES) Construction Stormwater permit for runoff associated with construction activity and a Stormwater Pollution Prevention Plan will be required by NDEE for this project. The City can designate the General Contractor as the authorized representative on the stormwater permit notice of intent submitted to the NDEE. 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 on April 19, 2021 by the City on the proposed project, with 30 days advanced posted notice. A presentation was made by the City Administrator on an update for the project.

**Public Opposition or Opinions:** No input was received from the public.

**Coordination and Documentation with Other Agencies and Special Interest Groups:**

**Facility Planning:** Design Summary Memorandum, City of Beatrice, NE, Olsson Associates, April 2, 2021

**Federal:** U.S. Department of the Army, Corps of Engineers, April 8, 2021, email  
U.S. Natural Resources Conservation Service, undated, letter

**State:** Nebraska Department of Natural Resources, April 21, 2021,  
memorandum

Nebraska State Historical Society, August 9, 2021, letter

**Consulting Engineers:** Olsson Associates, Lincoln, NE

**Public Groups:** City of Beatrice Residents

**G. Positive Effects to be Realized from the Proposed Project:** The project will allow Beatrice 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 Beatrice.

**H. Reasons for Concluding there will be no Significant Impacts:** Review of the facility evaluation report and supporting information indicates that the project will result in no significant impact on the environment. Federal and State agencies reported no impact will result to historical resources. All necessary permits for construction will be obtained from the appropriate agencies (i.e., NDEE, etc.), if necessary.

*Cyril Martinmas*

\_\_\_\_\_  
Reviewing Engineer

September 21, 2021

Date



FNSI DISTRIBUTION LIST  
BEATRICE, NEBRASKA

DEPARTMENT OF ENVIRONMENT AND ENERGY  
Office of Public Affairs  
P.O. Box 98922  
Lincoln, NE 68509-8922

DEPARTMENT OF NATURAL RESOURCES  
Curt Inbody  
P.O. Box 94676  
Lincoln, NE 68509-4676

NEBRASKA GAME & PARKS COMMISSION  
Schuyler Sampson  
P.O. Box 30370  
Lincoln, NE 68503-0370

DIRECTOR, NEBRASKA STATE  
HISTORICAL SOCIETY  
P.O. Box 82554  
Lincoln, NE 68508-2554

STATE OFFICE OF POLICY RESEARCH  
Policy Advisor  
Rm. 1319, State Capitol  
P.O. Box 94601  
Lincoln, NE 68509-4601

DEPARTMENT OF ECONOMIC DEVELOPMENT  
Aaron Boucher  
P.O. Box 94666  
Lincoln, NE 68509

DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
Eliza Hines  
9325 South Alda Road  
Wood River, NE 68883

NATIONAL PARK SERVICE  
Christine Gabriel  
Environmental Coordinator  
Midwest Regional Office  
601 Riverfront Drive  
Omaha, NE 68102-4226

USDA RURAL DEVELOPMENT  
Ryan Brandt, P.E.  
Room 308, Federal Building  
100 Centennial Mall North  
Lincoln, NE 68508

ENVIRONMENTAL PROTECTION AGENCY  
Chris Simmons and Kelly Beard-Tittone  
11201 Renner Blvd  
Mail Code: WWPDWIMB  
Lenexa, KS 66219

STATE CONSERVATIONIST  
Natural Resources Conservation Service  
Federal Building, Room 152  
100 Centennial Mall North  
Lincoln, NE 68508-3866

DEPARTMENT OF THE ARMY  
John Moeschen  
State Program Manager  
US Army corps of Engineers  
Nebraska State Office, Suite 1  
8901 South 154<sup>th</sup> Street  
Omaha, NE 68138-3621

APPLICANT:  
Tobias Tempelmeyer, City Administrator  
City of Beatrice  
400 Ella Street  
Beatrice, NE 68310

CONSULTING ENGINEER:  
Ben Day, P.E.  
Olsson Associates  
601 P Street, Suite 200  
Lincoln, NE 68508

LOCAL NEWSPAPER  
(Public Information Only not for Public Notice)  
Beatrice Daily Sun  
200 North Seventh Street  
Beatrice, NE 68310-0847

LOWER BIG BLUE NRD  
805 Dorsey Street  
PO Box 826  
Beatrice, NE 68310-0826

