





# **DEPT. OF ENVIRONMENT AND ENERGY**

#### DRINKING WATER STATE REVOLVING LOAN FUND PROGRAM

#### FINDING OF NO SIGNIFICANT IMPACT

All Interested Citizens, Government Agencies and Public Groups TO:

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

#### DRINKING WATER SRF LOAN

2023 Water Supply Well & Piping PROJECT NAME:

City of Dakota City APPLICANT:

COUNTY: Dakota

2,081 (2020 Census) POPULATION:

D311701 DWSRF PROJECT NUMBER: IIS# 999154 \$1,339,809 **TOTAL PROJECT AMOUNT:** \$602,914 PROPOSED DWSRF 45% LOAN FORGIVENESS AMOUNT: PROPOSED DWSRF LOAN PRINCIPAL AMOUNT: \$736,895

The City of Dakota City has applied for funding through the DWSRF program administered by the NDEE to construct a new municipal well. The scope of the project proposes drilling a new submersible well approximately 1,000 feet southeast of the existing supply well and water treatment plant. During the summer of 2021, extended drought conditions and high temperatures caused high demands of the water treatment system and supply wells. Due to the high demands, the City of Dakota City implemented voluntary water restrictions due to the high number of hours each well was required to operate to service the water plant. The new well will be used to supplement the existing wells and provide additional capacity and redundancy to the system. A 1,700 LF 10-inch PVC raw-water transmission main from the proposed well will be constructed and connected to the existing 10 inch raw-water transmission main at the existing south 2017-1 well. The existing control system will be updated with VFDs to include the proposed well and allow the wells to operate alternately and concurrently depending upon water demand. This loan is to assist in the construction of the new pitless adaptor well (Well 23-1), mag meter manhole, associated piping and controls, and a backup generator.

The total estimated cost for the proposed drinking water project is \$1,339,809. A new well project for the City of Dakota City was listed on the Project Priority Funding list in the State Fiscal Year 2024 Intended Use Plan (IUP), and ranked at 60 priority points. Based on supporting documentation on file with the NDEE, this

project was determined to be eligible for a 30-year loan with an annual interest rate of 0.5 percent and an annual administrative fee of 0.5 percent. The City is eligible for 45.0% DWSRF loan forgiveness due to being found in a persistent poverty county (i.e. that 20% poverty rate for consecutive SRF program ACS MHI five-year estimates) and being found in a county with a Social Vulnerability Index score indicating a high level of vulnerability per the Center for Disease Control and Prevention mapping, for the State of Nebraska. For an estimated cost of \$1,339,809, this would equate to a forgiveness amount of \$602,914.

The City of Dakota City's water use fees would be pledged to repay the DWSRF loan. For a typical residential connection, the current monthly base rate is \$16.50, with an added consumption charge of \$3.75 per 1,000 gallons of water used, resulting in an average monthly water bill of \$35.25 for a typical 5,000-gallon monthly household water use. The first year annual DWSRF Debt Service (including 10% coverage, and interest and admin payments) would be \$33,151.86. Based on 662 active service connections, water rates may need to be raised approximately by an additional \$4.17 to address the new debt service on the drinking water loan. This estimate includes the noted loan forgiveness. In addition to the debt service requirement for the DWSRF loan, monthly operation and maintenance and equipment replacement funds add an additional \$33.54 per user as the Community operates an iron and manganese removal water treatment facility.

The City has a permit to operate a public water system NE3104301 under the provisions of the Nebraska Safe Drinking Water Act and the Regulations Governing Public Water Supply Systems, Title 179. The proposed project is determined by the NDEE to help the public water system maintain compliance with the Safe Drinking Water Act. The system last underwent a routine sanitary survey by the NDEE on December 6, 2023 wherein no deficiencies were noted. That completed survey is the first step of the Technical, Managerial and Financial (TMF) program policy. Dakota City will still be required to undergo a TMF Assessment by the NDEE to ensure that their capabilities meet the requirements of the Safe Drinking Water Act. Also, Dakota City's current Environmental Targeting Tool score is 0, below the allowable 11 per issued U.S. Environmental Protection Agency guidance.

The proposed project was reviewed by several Federal and State agencies for environmental impacts. All indicated that the project would either have no affect or iterated their basic program permit requirements. To the permitting requirements, the new well will be registered with the Nebraska Department of Natural Resources and a new well construction permit will be required from the Papio-Missouri River Natural Resources District. A National Pollutant Discharge Elimination System Construction Stormwater permit will be required by NDEE if more than one acre of land is disturbed.

A Public Hearing was held March 7, 2024, to discuss the proposed project and the potential impacts to existing water rates, with 37 days advanced posted notice and newspaper advertisement. No comments were made by the public.

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 (e.g., NRD, etc.), if necessary. Consequently, a preliminary decision has been made that an Environmental Impact Statement will not be prepared.

The NDEE shall revoke the finding of no significant impact and shall require a full environmental review if, subsequent to the granting of finding of no significant impact, the state determines that the proposed project no longer meets the requirements for a finding of no significant impact due to changes in the proposed project; or new evidence reveals that serious local or environmental issues exist; or federal, state, local or tribal laws are being violated.

This action is taken on the basis of a careful review of the environmental assessment, the engineering report 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 on the project for at least 30 calendar days from the date shown below. Persons having a comment on this finding of no significant impact determination are encouraged to submit such comments directly to the NDEE State Revolving Fund Program at ndee.srf@nebraska.gov. Should additional funding become necessary, amended amounts applied for by the City of Dakota City may be provided if funding is available.

Sincerely

Sarah Starostka, Administrator

Planning and Aid Division

Attachments: Environmental Assessment

**Distribution List** 

Maps

## **ENVIRONMENTAL ASSESSMENT DOCUMENT**

## A. Project Identification:

**Applicant:** City of Dakota City

**Project No.:** D311701

City: Dakota City County: Dakota State: NE

**Total Project Amount:** \$1,339,809

Proposed DWSRF Loan Amount: \$736,895

**Proposed DWSRF Loan Forgiveness Amount:** \$602,914

# B. Community Description:

Location: Dakota City is in northeastern Nebraska, at the intersection of State Highways 75 and 20.

Population: The 2020 census population of Dakota City is 2,081.

Current Water System Facilities: The City's public water system (PWS) consists of two 800 gal/min municipal wells, a lime softening water treatment plant, 300,000-gallon water storage clear well and a 57,500 gallon elevated tank shared with Dakota County Rural Water District (RWD), and an in-town distribution system. Both wells were drilled in 1977, and thus exceed the average life of a supply well in the State's PWSs. The City utilizes a water treatment plant (lime softening) to condition the water prior to entering the distribution system for public use. The plant was constructed in 1979 along with the placement into to service the two existing supply wells and water transmission/distribution main improvements. The plant has a design capacity of approximately 1,500 gal/min. The major components at the WTP consist of an aerator, a solids contact tank, dual media gravity filters, a clearwell/high service pump station, chemical feed systems (hydrated lime, chlorine gas and carbon dioxide), sludge and backwash management facilities (blow-down pumps & storage lagoons). The system utilizes a PLC/SCADA system control system. Flow rates and water use are metered at the well pumps, the water treatment plant (high service pump discharge), the individual water meters at the residential/commercial service connections throughout the City's distribution system, and a 12" "Master" meter serving the Dakota County RWD. The distribution system consists of approximately 78,000 linear feet of distribution mains; with the majority of the mains being 6" and 4" in diameter.

C. Project Description: In July 2012, the City's Engineer completed a design report and subsequent Technical Memorandum prepared by JEO Consulting Group, in November 2021 that evaluated the siting of a new well with transmission main. The new well will be drilled along the south edge of Dakota City, and test hole data has shown acceptable water quality by a full well scan with non-detect of Nitrates, but above secondary standards for iron and manganese which is addressed by the water treatment plant. New Variable Frequency Drives will be added to the proposed well and the north well (Well 77-2) along with a standby generator for the new well designated as 23-1.

## D. Alternatives Considered:

Eight improvement alternatives were studied in the 2012 Preliminary Engineering Report as follows:

- 1. Repair or replace the existing solids contact unit.
- 2. Rehabilitation of existing gravity filter.

- 3. Updates to High Service Pumping Facilities.
- 4. Update the automatic controls for the water system.
- 5. General Water System Improvements and deferred maintenance.
- 6. Additional Water supply source.
- 7. Construction of a water storage tank.
- 8. Expansion of water system capacity.

The new well, alternative number 6, was designated a short-term priority improvement, one to five years, to provide water supply redundancy. A test well was drilled in 2023 and found two adequate layers of fine, medium, and course sand and gravel at depths of 124 ft. to 165 ft. and then again at 200 ft. to 236 ft depth. The top lense was paired with a 100 slot stainless steel screen 30 ft in length. The bottom was paired with 30 slot stainless steel screen of 30 ft length. The aquifer for Dakota City is known as the Missouri River Lowlands which large yields of water can be obtained from the Quaternary alluvial sand and gravel. The water quality from the full well scan show levels of iron, manganese, and total dissolved solids (hardness) that are significantly high. Dakota City's lime softening water treatment plant does achieve hardness and iron removal to under EPA's secondary maximum contaminant level (MCL) levels. Manganese is dropped by 80% but remains 0.2 mg/l where the secondary MCL from EPA is 0.05 mg/l. The natural elements of Iron (Fe) and manganese (Mn) are abundantly found in the earth's crust and routinely present a problem for communities using groundwater as their source of drinking water in areas of Nebraska. When found in drinking water, iron and manganese are not considered a health risk, but rather an aesthetic concern. These elements in public water supplies may discolor water, stain plumbing fixtures and laundry, and cause undesirable taste and odor problems.

#### 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 is required to make an application to the Papio-Missouri River Natural Resources District for a well construction permit. The new well will be registered with the Nebraska Department of Natural Resources (NDNR). Approval of the new well and transmission main construction permit has been issued from the Engineering Section of the Nebraska Department of Environment and Energy (NDEE).

Environmental: Nebraska Game and Parks Commission indicated that the Migratory Bird Treaty Act covers the proposed project. No trees will be cleared for the project but migratory bird ground nesting activity in Nebraska occurs during the period of April 1 to July 15. No bird takes are anticipated as the disturbed area is approximately 3,000 square foot, edge of town, mowed grass City lot. U.S. Fish and Wildlife Service indicated a Federal and State listed threatened and endangered species of the northern long-ear bat could be located within the range of the general area and roost between April 1 to October 31. No effect is anticipated as no trees will be cleared for this project by the approved plans and the area disturbed for the new well is estimated at 3,000 square feet of current grassland. The Engineer assured, if necessary, tree removal occurs during construction such would occur outside of the northern long-eared bat maternity roosting season (June 1 -July 31). Therefore, the NE Game and Parks Commission determined in a January 24, 2024 letter from Ruby Rolland, that the proposed project "may affect, but is not likely to adversely affect" the northern long-eared bat. The proposed project

will have no effect on the availability of water quantity in the area. No wetlands are located on the site; therefore, no Section 404 Permit from the Corp of Engineers will be needed.

Financial: An application for a DWSRF loan has been received for \$1,339,809 to fund the system improvements. The City is eligible for a 30-year loan with an interest rate of 0.5% plus an administrative fee of 0.5% on the outstanding principal balance assessed annually. Further, Dakota City qualifies for 45% of loan forgiveness State Fiscal Year 2024 DWSRF program criteria. Therefore, the projected annual DWSRF Debt Service (including 10% coverage) is estimated at \$33,151.86. Dakota City 's 2024 water rate for a typical residential connection is a base rate of \$16.50 per month, with an additional \$3.75 use charge for every 1,000 gallons of water furnished thereafter. That equates to a water bill of \$35.25 per month, based on a common household water use of 5,000 gallons. Dakota City has 662 active service connections. An additional \$4.17 monthly debt service charge per user has been estimated to address the new debt service plus coverage.

#### **Secondary:**

**Population Impacts:** The new well is not primarily needed for future growth, but will be used to supplement the existing wells and provide additional capacity and redundancy to the system. However, the improvements will be reasonably sized to accommodate for population growth of 4% per decade.

Land Use and Trends: The location of the well is on land owned by the City. The well site has been approved by the NDEE on November 9, 2022, and reinspected on December 15, 2023 as acceptable. In addition, all new water mains will be placed in City right-of-way and below ground at depths that will not interrupt any other infrastructure.

**Environmental:** The construction contracts will require that the contractors return the area to its original or better condition. The well with pitless adaptor, meter manhole, and blow off hydrant will occupy a very small area of previously developed land (3,000 square feet) and will have little, if any effect on area habitat. 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 well building and water main construction.

The proposed project was reviewed by Federal and State agencies for environmental impacts. Three indicated the project would have no effect. The Department of the Army noted the applicability of their Section 404 permit requirements if wetlands are present. However, the final plans were reviewed by NDEE and there are no Waters of the U.S., wetlands or floodplain in the immediate project vicinity. The Natural Resource Conservation Service noted that the project does not involve areas of Prime Farmland. The Papio-Missouri River Natural Resource District had no comment.

**Environmental Justice:** The project will not produce any environmental justice concerns. All structures will be placed in areas on City owned property, and the services provided by the proposed project will be available to everyone in Dakota 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 Maple and S. 23<sup>rd</sup> Street rights-of-way; however, traffic control safety 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 NDEE 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 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 March 7, 2024, to discuss the proposed project and the potential impacts to existing water rates, with a 37 day advanced posted notice and local newspaper notice.

Public Opposition or Opinions: No comments were made by the public.

Coordination and Documentation with Other Agencies and Special Interest Groups:

**Facility Planning:** 2012 Preliminary Engineering Report and a 2021 Technical Memorandum for the 2023 Water Supply Improvements, City of Dakota City, JEO Consulting Group.

Federal: Department of the Army, January 18, 2024, email

Natural Resources Conservation Service, December 5, 2023, letter

U.S. Fish and Wildlife Service, December 9, 2023, email

State: Papio-Missouri River Natural Resource District, Dec. 12, 2023 email

NDEE, January 2, 2024, letter

Nebraska Game and Parks Commission, Environmental Review Report, December

14, 2023, December 26, 2023, letter and January 24, 2024 letter

Consulting Engineers: JEO Consulting Group, South Sioux City, NE

Public Groups: City of Dakota City Residents

G. Positive Effects to be Realized from the Proposed Project: The project will allow Dakota City to maintain compliance with the Nebraska Safe Drinking Water Act and ensure future water availability. Test hole data shows that the proposed well should meet all primary drinking water standards per Title 179, Regulations Governing Public Water Supply Systems. 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 Dakota City.

| н. | 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. Federal and State agencies reported the endangered species of the northern long-eared       |
|    | bat could be in the range of tree habitat. No impact is anticipated as only three mature trees are found |
|    | on the proposed well property which will not be disturbed. All necessary permits for construction will   |
|    | be obtained from appropriate State agencies (e.g., NRD, NDEE).   |
|    |  |

| Thomas Fuenning PE |  |
|--------------------|--|
| Review Engineer    |  |
| May 6, 2024        |  |
| Date               |  |

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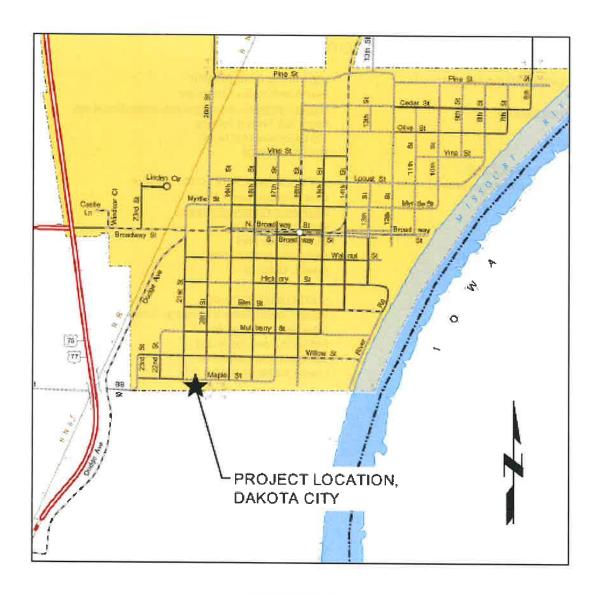
LOCAL NEWSPAPER:

**Dakota County Star** 

1000 W 29th Street, #212

Sioux City, NE 68776

(Public Information Only not for Public Notice)



**LOCATION MAP** 

