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DEPT. OF WATER, ENERGY, AND ENVIRONMENT

Jim Pillen, Governor

CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM

FINDING OF NO SIGNIFICANT IMPACT (FNSI)

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Clean 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 Water, Energy and Environment (NDWEE) encourages public input in this decision-making process.

PROJECT NAME: Complete Retention Lagoon System and Collection System Improvements
APPLICANT: City of Hebron, NE
COUNTY: Thayer County
POPULATION: 1,458 (2020 Census)
CWSRF PROJECT NUMBER: C318083
TOTAL PROJECT AMOUNT: $8,208,860
PROPOSED CWSRF LOAN AMOUNT: $8,208,860

The City of Hebron is located in Thayer County in Southern Nebraska. Industry in the area is limited to agricultural related activities. US Highway 81 runs to the east of the City and US Highway 136 are directly south. The population was 1,397 at the 2024 census.

The City of Hebron is currently planning improvements to replace the WWTF and collection system. Systems with inadequate hydraulic capacity, blockages and damaged pipe can release untreated sewage to receiving water, disturbing environmental quality. The City of Hebron has sewer mains that are cracked and damaged, root intrusions protruding laterals, and sags, and crushed piping was observed in the CCTV footage. Based on the observed flow and precipitation events it is indicated the system is getting infiltration and exfiltration due to the condition of the sewer mains. The lift station, although in acceptable working condition, needs reliable backup power and an alarm/SCADA system for better response times and monitoring. The current condition of the City's WWTF is meeting current standards, but the 47-year-old WWTF is showing signs of its age. The WWTF needs mechanical replacement parts, upgrade to the sludge system and consideration of future discharge limits. After reviewing the life cycle costs and the ease of use, the complete retention lagoon alternative was selected as it does not require discharge nor cooperation with adjacent landowner for the irrigation of treated effluent. A complete retention lagoon

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with zero discharge is considered a mechanically simple, low maintenance solution for the City's wastewater treatment needs. A complete retention lagoon system would keep the screenings at the existing wastewater pump station, keep the grit removal at the WWTF and require a new lift station and force main to convey wastewater to the lagoon site. Wastewater lagoons rely on a combination of natural aerobic, anoxic and anaerobic processes that all occur within the lagoon liquid volume. Aerobic processes near the lagoon surface oxidize wastewater organics with the use of atmospheric oxygen near the lagoon surface oxidize wastewater organics with the use of atmospheric oxygen that is transferred into the lagoon liquid across its large surface area. Solids entering with wastewater and biomass eventually settle to the lagoon bottom where an anaerobic area exists. Solids are slowly broken down by anaerobic processes.

Several federal, state, and local agencies were asked to review the project for environmental impacts. The following is a collection of responses:

- **USDA Natural Resources Conservation Service:** December 10th, 2024: Commented that the proposed sites for the wastewater improvement project lagoons contain areas of Prime Farmland and the combined rating of the CAM lagoon site (Site A on the AD-1006) is 167. The combined rating of the first alternative site (Site B on the AD-1006) is 178. The combined rating of the Hubbell Road alternative (Site C on the AD-1006) is 158. If the total of point is between 160 and 220, at least two other alternatives need to be evaluated and the one with the lowest number of points selected unless there are other overriding considerations. In these cases, documentation should clearly show why the alternative with higher total of points was selected and explain any other overriding considerations. On October 2nd, 2025, another alternative Site D was evaluated since it was selected with an option to purchase. The combined rating of Site D is 104. The installation of buried water lines is exempt from the provisions of Farmland Protection Policy Act (FPPA) and is encouraged the use of accepted erosion control methods during the construction of this project.

- **United States Army Corps of Engineers:** December 9th, 2024: Commented that if the work involves modifications to structures or work that previously existed in waters of the US, a Corps permit will likely be required.

- **Nebraska State Historical Society (NeSHPO):** December 3rd, 2024: Provided comment that the proposed undertaking is unlikely to affect any cultural resources listed on the National Register of Historic Places or eligible for such a listing. Therefore, a determination that there will be no historic properties affected is appropriate for this undertaking and the project may proceed as planned.

- **Nebraska Game and Parks Commission (NGPC):** November 27th, 2024: Commented that this project is within the range of the state and federally listed endangered Northern long-eared bat (NLEB). No removal of suitable trees or roosting structures between May 15 and July 31 (maternity roosting season). This project is within the range of the state and federally listed endangered whooping crane and may also be within federally designated critical habitat for whooping crane. Therefore, conservation measure WC CM-2 or WC CM-3 are required. WC CM-2 requires if project or management actions must occur during the spring (March 6 – April 29) or fall (October 9 – November 15) migration periods, then a survey must be conducted according to the standard

protocol. WC CM-3 requires project or management actions will not be implemented during the spring (March 6 – April 29) or fall (October 9 – November 15) whooping crane migration periods. In response, the engineer firm agrees to implement and incorporate the conservation measures for those species as indicated. By agreeing to implement and incorporate the conservation measures for those species as indicated, no further consultation with the Nebraska Game and Parks Commission is required.

- **Little Blue Natural Resources District**: December 23rd, 2024: Commented that as long as the improvement is not within the 100 year floodplain, there are no objections to the proposed project.

As required by the NDWEE's State Revolving Fund program, and other funding agencies, a Public Hearing was held July 7, 2025, at the City of Hebron Activity Center and convened at 6:30 PM. The purpose of this public hearing was to discuss the preliminary engineering report, impact on rates, and any mitigation measures needed. All local citizens and any other interested parties, governmental agencies, or groups were encouraged to comment. During the Public Hearing, the engineer from Miller and Associates gave a presentation for the public and council to explain the findings of the report and the details of the proposed projects. All public comments were resolved during the hearing.

The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is included on the Priority Funding List in the State Fiscal Year 2026 Intended Use Plan. The total estimated project cost is $8,208,860. The City is eligible for a 30-year loan at an annual interest rate of 0.75 percent. In addition to principal and interest payments, an administrative fee of 0.75 percent of the principal balance will be assessed each year. The revenues from City of Hebron's wastewater utility will be dedicated to repaying the loan. The projected annual CWSRF Debt Service for the project (including 10% debt-service coverage) is $403,902. For a typical residential connection, the current monthly rate is $32.37. Based on an estimated 753 of active service connections, an additional monthly increase of $44.70 to residential user rates may be needed to pay for the new debt service. It is worth noting that there will be over $115,000 in O&M reduction, so the final user rate will likely be less than what was mentioned above.

The review did not indicate a significant environmental impact will result from the proposed action. Based on analyses completed by the consulting engineer, different federal, state & local agencies, no adverse impacts are anticipated to wetlands, the floodplain, prime farmland or historical resources. The project was planned to ensure that no segment of the community's population is impacted disproportionately from related effects. Consequently, a preliminary decision has been made that an Environmental Impact Statement (EIS) will not be prepared.

This action is taken based on a careful review of the engineering reports and other supporting data that are on file with NDWEE. All are available for public review upon request. A copy of the environmental assessment is attached. The NDWEE 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 such comments to the NDWEE State Revolving Fund Program at dwee.srf@nebraska.gov, or by phone at (402) 471-4200.

Signed this 7th day of October, 2025.

Sincerely,

Sarah Starostka
Division Administrator
Planning & Aid Division

Attachments: Environmental Assessment
Distribution List
Map

ENVIRONMENTAL ASSESSMENT DOCUMENT

A. Project Identification:

Applicant: City of Hebron

Project No.: C318083

City: City of Hebron **County:** Thayer County **State:** NE

Estimated Project Cost: $8,208,860

B. Community Description:

Location: The City of Hebron is in Thayer County in Southern Nebraska.

Population: According to the 2020's census, the current population of City of Hebron is 1,458.

Project Description: The City of Hebron is currently planning improvements to replace the WWTF and collection system. Systems with inadequate hydraulic capacity, blockages and damaged pipe can release untreated sewage to receiving water, disturbing environmental quality. The City of Hebron has sewer mains that are cracked and damaged, root intrusions protruding laterals, and sags, and crushed piping was observed in the CCTV footage. Based on the observed flow and precipitation events it is indicated the system is getting infiltration and exfiltration due to the condition of the sewer mains. The lift station, although in acceptable working condition, needs reliable backup power and an alarm/SCADA system for better response times and monitoring. The current condition of the City's WWTF is meeting current standards, but the 47-year-old WWTF is showing signs of its age. The WWTF needs mechanical replacement parts, upgrade to the sludge system and consideration of future discharge limits. After reviewing the life cycle costs and the ease of use, the complete retention lagoon alternative was selected as it does not require discharge nor cooperation with adjacent landowner for the irrigation of treated effluent. A complete retention lagoon with zero discharge is considered a mechanically simple, low maintenance solution for the City's wastewater treatment needs. A complete retention lagoon system would keep the screenings at the existing wastewater pump station, keep the grit removal at the WWTF and require a new lift station and force main to convey wastewater to the lagoon site. Wastewater lagoons rely on a combination of natural aerobic, anoxic and anaerobic processes that all occur within the lagoon liquid volume. Aerobic processes near the lagoon surface oxidize wastewater organics with the use of atmospheric oxygen near the lagoon surface oxidize wastewater organics with the use of atmospheric oxygen that is transferred into the lagoon liquid across its large surface area. Solids entering with wastewater and biomass eventually settle to the lagoon bottom where an anaerobic area exists. Solids are slowly broken down by anaerobic processes.

Alternatives Considered:

1. No Action Alternative

   The "No Action" alternative is continued operation of the wastewater treatment system without any modifications or improvements. This alternative would have limited cost

impact to the City but it could result in violations of the discharge permit and the continued failure and emergency repair of aging equipment. The frequency of failures would increase with time as the equipment continues to age. Spare parts of equipment would become more difficult to locate as manufacturers discontinue support for obsolete products. This alternative would eventually have a negative impact on the environment because of age infrastructure and future regulations. The age of the plant will become an issue at the end of its current lifespan when equipment and processes begin to fail. As new regulations come into effect the facility may struggle to achieve treatment standards. This would result in increasing enforcement efforts by the NDWEE to address deficiencies in the WWTF. Therefore, "No Action" alternative is not considered to be viable solution.

2. Action Alternative – Wastewater Treatment Facility Expansion

    a) Upgrading Existing Wastewater Treatment Facility

    An upgrade of the existing system would need to expand its treatment capacity to account for the eventual introduction of nutrient limits on Total Nitrogen and Total Phosphorus to the discharge permit. An upgrade to the existing oxidation ditch would provide additional treatment. In addition, sludge handling capabilities need to be improved for additional treatment.

    b) Complete Retention Lagoon

    There would be limited construction considerations for this option. The lift station improvements, lagoon and appurtenances could be built without disturbing the existing plant processes. The skills, labor, and equipment required for lagoon construction are readily available in the region.

    c) Annual Discharge Lagoon (Land Application)

    An annual discharge lagoon using land application was considered as an alternative to the complete retention lagoon. The treatment process employed for an annual discharge lagoon is fundamentally the same as the process employed in a complete retention lagoon; the only difference is the provision of a seasonal discharge to land which reduces the required volume and area of the lagoon because inflow is balanced by both evaporation and discharge outflow. This treatment option would have similar land impacts for treatment lagoon construction. A total of 25 acres of land that could be used for productive agriculture would be permanently lost for crop production.

    d) Sequencing Batch Reactors (SBR)

    The SBR alternative for Hebron would include reuse of current grit removal and screenings; construction of two 10,625 gallon SBR reactors that would operate in parallel with one filling while the second is treating; package SBR systems typically include influent valves, transfer pumps, mixers, decanter and controls; additional equipment/construction would include the concrete basins, blowers, diffusers and discharge valves; reuse of current UV process for seasonal disinfection and reuse of current solid handling structures and equipment with the necessary

improvements. Under this alternative, the existing treatment plant would be demolished once the new treatment process was operational.

e) Wastewater Regionalization

Regionalization is the act of combining small, rural communities' water and wastewater systems so they can draw upon the resources of one another to strengthen their community. This alternative is to regionalize wastewater facilities with a neighboring community so that the City of Hebron can economically treat their wastewater and share the cost of operation. The nearby communities that would be able to potentially handle the addition of a community the size of Hebron with upgrades would be Fairbury or Superior.

Evaluation and Selection of the Alternative:

The alternative which the city wants to pursue is one of the lowest lift cycle cost analyses. When reviewing the lift cycle costs, the Complete Retention Lagoon System and the Discharging Lagoon with Land Application are effectively equal over the cost of construction and the 20-year cost of operation. Both these alternatives would require land purchase, would decrease the cost of Operation and Maintenance, and would allow for growth in the future. In terms of ease of use, the Complete Retention Lagoon alternative would be the selected option for the 20-year study period as it does not require discharge or cooperation with an adjacent landowner for the irrigation of treated effluent. Additionally, collection system repairs and inspections are recommended based on the evaluated condition of the reviewed CCTV footage.

Environmental Impact Summary:

Primary:

Construction: Temporary impacts caused by construction include noise and dust, a limited potential for soil erosion, and fuel/oil spills. All demolition, grading, and construction activities will comply with Fugitive Dust Title 129, Chapter 32 regulations. No wastewater bypasses are expected during construction. A construction permit will be obtained from the NDWEE in accordance with Title 123.

Environmental: Several federal, state, and local agencies were asked to review the project for environmental impacts. The following is a collection of responses:

- **USDA Natural Resources Conservation Service:** December 10th, 2024: Commented that the proposed sites for the wastewater improvement project lagoons contain areas of Prime Farmland and the combined rating of the CAM lagoon site (Site A on the AD-1006) is 167. The combined rating of the first alternative site (Site B on the AD-1006) is 178. The combined rating of the Hubbell Road alternative (Site C on the AD-1006) is 158. If the total of point is between 160 and 220, at least two other alternatives need to be evaluated and the one with the lowest number of points selected unless there are other overriding considerations. In these cases, documentation should clearly show why the alternative with higher total of points was selected and explain any other overriding considerations. On October 2nd, 2025, another alternative Site D was evaluated since it was selected with an option to purchase. The combined rating of Site D is 104. The installation of buried water lines is exempt from the provisions of Farmland Protection Policy Act (FPPA) and is encouraged the use of accepted erosion control methods during the construction of this project.

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- **Nebraska Game and Parks Commission (NGPC):** November 27th, 2024: Commented that this project is within the range of the state and federally listed endangered Northern long-eared bat (NLEB). No removal of suitable trees or roosting structures between May 15 and July 31 (maternity roosting season). This project is within the range of the state and federally listed endangered whooping crane and may also be within federally designated critical habitat for whooping crane. Therefore, conservation measure WC CM-2 or WC CM-3 are required. WC CM-2 requires if project or management actions must occur during the spring (March 6 – April 29) or fall (October 9 – November 15) migration periods, then a survey must be conducted according to the standard protocol. WC CM-3 requires project or management actions will not be implemented during the spring (March 6 – April 29) or fall (October 9 – November 15) whooping crane migration periods. In response, the engineer firm agrees to implement and incorporate the conservation measures for those species as indicated. By agreeing to implement and incorporate the conservation measures for those species as indicated, no further consultation with the Nebraska Game and Parks Commission is required.
- **Little Blue Natural Resources District**: December 23rd, 2024: Commented that as long as the improvement is not within the 100 year floodplain, there are no objections to the proposed project.

Financial: The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is included on the Priority Funding List in the State Fiscal Year 2026 Intended Use Plan. The total estimated project cost is $8,208,860. The City is eligible for a 30-year loan at an annual interest rate of 0.75 percent. In addition to principal and interest payments, an administrative fee of 0.75 percent of the principal balance will be assessed each year. The revenues from City of Hebron's wastewater utility will be dedicated to repaying the loan. The projected annual CWSRF Debt Service for the project (including 10% debt-service coverage) is $403,902. For a typical residential connection, the current monthly rate is $32.37. Based on an estimated 753 of active service connections, an additional monthly increase of $44.70 to residential user rates may be needed to pay for the new debt service. It is worth noting that there will be over $115,000 in O&M reduction, so the final user rate will likely be less than what was mentioned above.

Secondary:

Population Impacts: The design for the proposed wastewater improvement project has taken into consideration the population trends.

Environmental: Minimal solid waste generated by the project will be disposed of in a licensed landfill. No safety, vibration, noise, or aesthetic considerations were identified other than the normal noise and disruptions associated with sewer and wastewater treatment facility construction.

Environmental Justice: The proposed project will not produce any environmental justice concerns. All structures will be placed in areas already disturbed through agriculture, and the services provided by the wastewater improvements will be available to everyone in the city, equally. No segments of City of Hebron's population are 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 Storm Water General Permit for stormwater runoff associated with construction activity and a Storm Water Pollution Prevention Plan will be required by NDWEE since more than one acre of land will be disturbed. The community can designate the General Contractor as the authorized representative on the Storm Water Permit Notice of Intent submitted to the NDWEE. Authorization of storm water runoff from the construction activities 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.

C. Measures Taken to Ensure Environmental Soundness:

Public Involvement: As required by the NDWEE's State Revolving Fund program, and other funding agencies, a Public Hearing was held July 7, 2025, at the City of Hebron Activity Center and convened at 6:30 PM. The purpose of this public hearing was to discuss the preliminary engineering report, impact on rates, and any mitigation measures needed. All local citizens and any other interested parties, governmental agencies, or groups were encouraged to comment.

Public Opposition or Opinions: During the Public Hearing, the engineer from Miller and Associates gave a presentation for the public and council to explain the findings of the report and the details of the proposed projects. All public comments were resolved during the hearing.

Coordination and Documentation with Other Agencies and Special Interest Groups:

Federal:	U.S. Department of Agriculture, NRCS, December 2024
	U.S. Army Corps of Engineers, December 2024
State:	Nebraska Department of Natural Resources, December 2024
	NE Game and Parks Commission, November 2024,
	NE State Historical Society, December 2024.
Consulting Engineers:	Chris Miller, Kearney, Nebraska
Public Groups:	City of Hebron Residents

D. **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 to the environment. No adverse impacts are anticipated to wetlands, the floodplain, prime farmland or historical resources. All necessary permits for construction have been or will be obtained from the appropriate agencies (i.e., NDWEE, the Corps of Engineers, etc.), if necessary.

Reviewing Engineer

10/07/2025

Date

FNSI Distribution List
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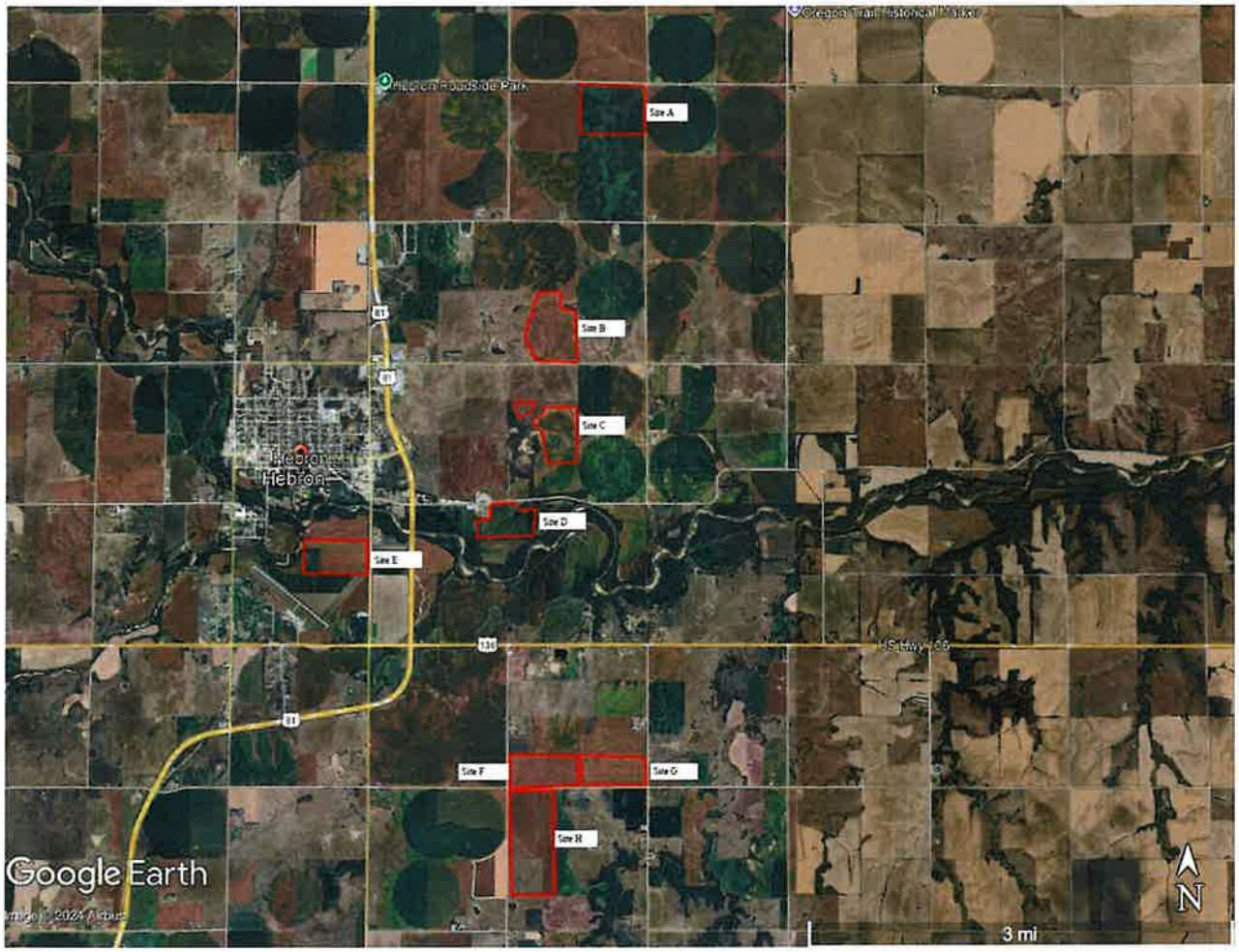

Proposed Alternative Lagoon Sites