



**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:** Water Treatment Plant for Arsenic Removal, Replacement Water Tower and Distribution System Improvements  
Village of North Loup, Nebraska

**DWSRF PROJECT NUMBER:** D311565

**TOTAL PROJECT AMOUNT:** \$2,199,700

**PROPOSED DWSRF LOAN AMOUNT:** \$1,202,305

**PROPOSED DWSRF LOAN FORGIVENESS AMOUNT:** \$647,395

**OTHER FUNDING:** COMMUNITY DEVELOPMENT BLOCK GRANT – \$350,000

The Village of North Loup 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 and the Nebraska Department of Environmental Quality (NDEQ).

This project has North Loup ranked as a high priority and is included on the Funding List in the DWSRF State Fiscal Year 2013 Intended Use Plan. Based on supporting documentation on file with the NDEQ, the Village was determined to be eligible for a DWSRF loan with corresponding loan forgiveness capped at 35% of project costs. The project will be funded in conjunction with the Community Development Block Grant program administered through the Nebraska Department of Economic Development (NDED).

North Loup is located in the central part of Nebraska, situated southwest of the City of Ord along Highway 11 in Valley County. The community has a population of 297 according to the 2010 census, which has slightly declined over the past decade. North Loup has been issued 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.

In February 2011, a Water System Evaluation was completed by the Village's engineer. The PWS consists of two municipal wells, an elevated 42,000 gallon water storage tower, and a distribution system. The Village's wells No. 91-1 and No. 82-1 have similar pumping capacities at 360 and 380 gallons per minute (gpm), respectively. Through routine monitoring, elevated levels of Arsenic have been detected at both wells, with results ranging up to 13.6 µg/L. As those results on a running annual average have exceeded the Maximum Contaminant Level in Well No. 91-1, the Village has been issued an Administrative Order to return into compliance with Arsenic drinking water standard.

Several alternatives were evaluated including constructing a new well(s), several options for treating the existing well supplies and interconnecting to the North Loup with the City of Ord or the Village of Scotia. New wells were recommended by the engineer as part of the Water System Evaluation. Subsequent, constructing a new well(s) without treatment and interconnecting with Ord or Scotia were eliminated by the Village Board as they determined that the treatment alternative had the lowest capital cost and achieved permanent compliance with the Arsenic drinking water standard, even though treatment will result in higher annual operation and maintenance costs. In addition, recommended as part of the evaluation was the replacement of the Village's water tower that was originally constructed in 1915 and is noted to have heavy corrosion and delamination, generally in a state of poor condition. Further, replacement of sections of the distribution system due to age, deterioration and undersized piping was recommended, as well as replacing numerous inoperable hydrants and valves.

In order to receive a release of block grant funds, NDED requires an Environmental Record Review with a Finding of No Significant Impact. Thus the proposed project was reviewed by Federal and State agencies for environmental impacts. The majority of responses indicated that the project would have no effect, would not pose a conflict, was cleared of any significant concerns or issues, or offered no objection to the project. Subsequent, a FNSI statement was issued by the Village in November of 2012, and all related documents are incorporated as attachments. The FNSI was based primarily on an assessment of all mitigation and project modification measures adopted by the Village to eliminate or minimize adverse environmental impacts, of which though, only noted the minor impact of construction noise that will be kept to a minimum by construction only taking place during daylight hours. Further, a National Pollutant Discharge Elimination System Construction Stormwater permit will be required by NDEQ if more than one acre of land is disturbed and a general permit for the disposal of any hydrostatic testing water.

The Village is eligible for a 30-year loan at an interest rate of 2 percent on 65% of the estimated project costs (i.e., 35% will be forgiven), after the block grant is applied to project costs. 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 North Loup's water utility will be dedicated to repay the loan. The projected annual DWSRF Debt Service (including 10% coverage) is \$71,982. North Loup's current water rate for a typical residential connection is \$10 per month, with a minor consumptive use charge. Based on 231 active service connections, monthly household rates will need to be raised to approximately \$45 per month for the projected debt repayment and increased operational and maintenance expense costs associated with water treatment.

An extensive public participation process was held during the development of the project. On November 22, 2012, the Village posted notice of the FNSI for block grant funding and a request for release of funds from NDED. Those documents were made available for public review and comment through December 7, 2012. A Public Hearing was held on June 18, 2012, with 32 days advanced posted notice. A presentation of the proposed project was made by Reed Miller, the Village's engineer, where the cost of the project and impacts to user rates were also discussed. No comments were made or written testimony received during the hearing.

The proposed project is determined by Nebraska Department of Health and Human Services, Division of Public Health to help the Village return into compliance with the Arsenic drinking water standard. The infrastructure investment in water tower and water main replacements 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 will be obtained from the appropriate agencies (i.e., 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 Record Report, the Water System Evaluation 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 @ 402 471-1006 or email [steve.mcnulty@nebraska.gov](mailto:steve.mcnulty@nebraska.gov) of Nebraska Department of Health and Human Services, or John Danforth @ 402 471-3373 or email [john.r.danforth@nebraska.gov](mailto:john.r.danforth@nebraska.gov) of the Water Division of NDEQ.

Signed this 15<sup>th</sup> day of March, 2013.

Sincerely,



Michael J. Linder  
Director

Attachments:           CDBG Environmental Assessment  
                                  Distribution List  
                                  Map

FNSI DISTRIBUTION LIST  
NORTH LOUP, NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Office of Public Affairs  
P.O. Box 98922  
Lincoln, NE 68509-8922

DEPARTMENT OF HEALTH AND HUMAN SERVICES -  
REGULATION AND LICENSURE  
Steve McNulty  
P.O. Box 95026  
Lincoln, NE 68509-5026

DEPARTMENT OF NATURAL RESOURCES  
John Callen  
P.O. Box 94676  
Lincoln, NE 68509-4676

NEBRASKA GAME & PARKS COMMISSION  
Craig Wacker/Carey Grell  
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  
Mark Matulka  
Rm. 1319, State Capitol  
P.O. Box 94601  
Lincoln, NE 68509-4601

DEPARTMENT OF ECONOMIC DEVELOPMENT  
Merci Suarez  
P.O. Box 94666  
Lincoln, NE 68509

DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
Michael George  
203 West Second Street  
Grand Island, NE 68801

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

USDA RURAL DEVELOPMENT  
Ken Shaw  
Room 308, Federal Building  
100 Centennial Mall North  
Lincoln, NE 68508

ENVIRONMENTAL PROTECTION AGENCY  
Rao Surampalli  
11201 Renner Blvd  
Lenexa, KS 66219

ENVIRONMENTAL PROTECTION AGENCY  
Joe Cothorn  
Federal Agency & NEPA Coordinator  
11201 Renner Blvd  
Lenexa, KS 66219

STATE CONSERVATIONIST  
Natural Resources Conservation Service  
Federal Building, Room 345  
100 Centennial Mall North  
Lincoln, NE 68508

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:  
Carrie Hansen, Clerk  
Village of North Loup  
PO Box 280  
North Loup, NE 68859-0280

CONSULTING ENGINEER:  
Reed Miller, P.E.  
Miller and Associates  
1111 Central Avenue  
Kearney, NE 68847

LOCAL NEWSPAPER  
(Public Information Only not for Public Notice)  
The Greeley Citizen  
PO Box 268  
Greeley, NE 68842-0268

LOCAL NATURAL RESOURCE DISTRICT  
LOWER LOUP NRD  
PO Box 210  
Ord, NE 68862-0210



# ENVIRONMENTAL ASSESSMENT

VILLAGE OF NORTH LOUP

WATER SYSTEM IMPROVEMENTS

FUNDING AGENCIES: NDEQ-SRF, CDBG

**ENVIRONMENTAL ASSESSMENT  
for HUD-funded Projects**

[HUD recommended format per 24 CFR 58.40]

Project Name: North Loup Water System Improvements

Responsible Entity: Village of North Loup

Certifying Officer Name & Title: Jim Goodrich, Chairperson

Environmental Review Record (ERR) File # CDBG Grant #12-WW-001

## DETERMINATION OF LEVEL OF REVIEW

ERR GRANT# 12-WW-001

Project Name: North Loup Water System Improvements Program Year: 2012

Project Location: The project is located within the Village limits of the Village of North Loup.

Project Description (*Attach additional descriptive information, as appropriate to the project, including narrative, maps, photographs, site plans, budgets and other information.*):

The proposed project is the construction of water system improvements for the Village of North Loup. The CDBG eligible portion of the project is the construction of the water storage facility, a treatment facility, and distribution main improvements. The project service area is the entire Village of North Loup. The project would benefit 100% of the residents of the targeted area, of which 67.6% of the persons in the target area are Low to Moderate-Income (LMI) persons. A project location map of the improvements is shown. See ATTACHMENT 1.

*The subject project has been reviewed pursuant to HUD regulations 24 CFR Part 58, "Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities," and the following determination with respect to the project is made:*

- Exempt** from NEPA review requirements per 24 CFR 58.34(a)(\_\_\_\_)
- Categorically Excluded NOT Subject** to §58.5 authorities per 24 CFR 58.35(b)(\_\_\_\_)
- Categorically Excluded SUBJECT** to §58.5 authorities per 24 CFR 58.35(a)(1)  
(A Statutory Checklist for the §58.5 authorities is attached.)
- An **Environmental Assessment (EA)** is required to be performed. (An Environmental Assessment performed in accordance with subpart E of 24 CFR Part 58 is attached.)
- An **Environmental Impact Statement (EIS)** is required to be performed.

The ERR (see §58.38) must contain all the environmental review documents, public notices and written determinations or environmental findings required by Part 58 as evidence of review, decision making and actions pertaining to a particular project. Include additional information including checklists, studies, analyses and documentation as appropriate.

<b>Jacque Haupt</b> Preparer Name	
<b>Grant Administrator</b> Title	<b>Signature</b>
	11-15-12
	Date

<b>Jim Goodrich</b> Responsible Entity Certifying Officer	
<b>Chairman</b> Title	<b>Signature</b>
	11-15-12
	Date

# ENVIRONMENTAL ASSESSMENT

Project Location: Village of North Loup

Estimated Total Project Cost (all sources): \$2,050,670

Amount of HUD Assistance: \$350,000 HUD Grant Program: CDBG

Grant Recipient (if different from Responsible Entity): \_\_\_\_\_  
[24 CFR 58.2(a)(5)]

Recipient Address & Phone: P.O. Box 280, North Loup, NE 68859 (308) 496-4362

RE Project Contact Name & Phone: Jim Goodrich, Chairperson (308) 496-4362

**Conditions for Approval:** (List all mitigation and project modification measures adopted by the Responsible Entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as required.) [24 CFR 58.40(d), 40 CFR 1505.2(c)]

The only mitigation measures will be that construction noise will be kept to a minimum and construction will take place only during daylight hours.

## **FINDING:** [24 CFR 58.40(g)]

**Finding of No Significant Impact (FONSI)**  
(The project will not result in a significant impact on the quality of the human environment.)

**Finding of Significant impact**  
(The project may significantly affect the quality of the human environment.)

PREPARER SIGNATURE: Jacque Haupt DATE: 11-15-12

PREPARER NAME & TITLE: Jacque Haupt, Grant Administrator

PREPARER'S AGENCY (If Different from RE): Miller & Associates, Consulting Engineers, P.C.

RE CERTIFYING OFFICER SIGNATURE: Jim Goodrich DATE: 11-19-12

**Purpose of the Project:** ["Statement of Purpose and Need for the Proposal" -40 CFR 1508.9(b)]  
The purpose of the proposed water system improvement project is to bring the Village of North Loup into compliance with the requirements of the Safe Drinking Water Act and potential future regulations.

**Description of the Project:** Include all contemplated actions that are logically either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25] As appropriate, attach maps, site plans, renderings, photographs, budgets, and other descriptive information.

The project consists of locating a 100,000 gallon Elevated Storage Facility & Centralized Treatment Facility and water distribution improvements within the Village limits of the Village of North Loup. The Village Project Area map may be seen in ATTACHMENT 1. The new Elevated Storage Facility and Centralized Treatment Facility will be constructed next to the existing storage facility. Approximately 7,600 linear feet of water mains will be replaced in areas of the Village that were determined by Village staff to be weak and in need of replacement. See ATTACHMENT 2. Additionally, 14 fire hydrants and 57 gate valves will be replaced as they are failing or in need of repair. The proposed Arsenic treatment facility will utilize methods to recycle backwash and reduce arsenic levels, to a safe level. A Pressure Vessel Filtration Process was selected as the lowest cost option.

**Existing Conditions and Trends:** Describe the existing conditions of the project area and its surroundings, and the trends likely to continue in the absence of the project. [24 CFR 58.40(a)]

The Village of North Loup's municipal water system consists of a 42,000-gallon elevated water storage tank, two active registered groundwater wells and a distribution system. These components make up the water system, which supplies potable water to the community. As distribution and storage systems age, the risk of deterioration, contamination, and reliability become a major concern. If nothing is done to the existing infrastructure, the Village will likely be required by the Nebraska Department of Health and Human Services to require the Village to bring the source water back into compliance with the requirements of the Safe Drinking Water Act. The two Village wells are denoted by their location, North and South. The North Well (DNR registration # G-03066B) was constructed in 1982. The well is registered as producing 500 gallons per minute, but is currently down to 380 gpm. The arsenic level has been high since 1995 and exceeded Arsenic Concentrations of (µg/L) of 10 in 1995, 2001 and is just under this limit in 2009. The South Well (DNR registration #G-074030) was constructed in 1991. The well is registered as producing 600 gpm, but is now down to 360 gpm.

Total depth of the well is 258 feet with a static water level of 11 feet and a pumping level of 57 feet. Water quality samples for the South Well indicate that it exceeds the 10 µg/L arsenic MCL. The arsenic level has been increasing since 1995, when the level was 8 µg/L. The Nebraska Department of Health and Human Services has issued four violations for the South Well because arsenic level has exceeded MCL. If the arsenic level continues to exceed the MCL, the Village will be issued an Administrative Order (A.O.) that will require the Village to bring the source water back into compliance with the requirements of the Safe Drinking Water Act. The distribution is comprised of approximately 6.4 miles of water main varying from 2 inches to 8 inches. Currently when a main is to be repaired, a large section of the water distribution system is removed from service until repairs have been completed. North Loup recently completed the process of installing water service meters on all services. The Village has 231 services that supply water within the Village. The distribution system has some water mains that are recommended to be replaced due to age and condition. Several water main valves need to be either replaced or installed as well. The elevated storage tank was constructed in 1915 and the style of construction is riveted steel with lattice legs. The overflow is approximately 106 feet above ground. The capacity of the tank is 42,000 gallons. The riser pipe is 6 foot diameter and approximately 82 feet high. In April 2008, a comprehensive inspection of the storage facility was completed. Notes of that inspection included heavy corrosion and delamination was observed, interior ceiling is in very poor condition, and should be replaced immediately, and several rust grades of 5 or more were noted over all of the facility. A summary of the underwater inspection done by Liquivision Technology of the current elevated storage facility may be seen in ATTACHMENT 3. It shows several areas of deficiency in the current structure that are in poor condition.

**PART I: STATUTORY CHECKLIST** [24 CFR 58.5]

**DIRECTIONS – For each authority, check either Box “A” or “B” under “Status.”**

**“A box”** The project is in compliance, either because: (1) the nature of the project does not implicate the authority under consideration, or (2) supporting information documents that project compliance has been achieved. In either case, information must be provided as to WHY the authority is not implicated, or HOW compliance is met; OR

**“B box”** The project requires an additional compliance step or action, including, but not limited to, consultation with or approval from an oversight agency, performance of a study or analysis, completion of remediation or mitigation measure, or obtaining of license or permit.

**IMPORTANT:** Compliance documentation consists of verifiable source documents and/or relevant base data. Appropriate documentation must be provided for each law or authority. Documents may be incorporated by reference into the ERR provided that each source document is identified and available for inspection by interested parties. Proprietary material and studies that are not otherwise generally available for public review shall be included in the ERR. Refer to HUD guidance for more information.

Statute, Authority, Executive Order, Regulation, or Policy cited at 24 CFR §58.5	STATUS		Compliance Documentation
	A	B	
<b>1. Air Quality</b> [Clean Air Act sections 176(c) & (d), and 40 CFR 6, 51, 93]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The Village is not located in any EPA-designated non-attainment area or maintenance areas. Source: <a href="http://www.epa.gov/oaqps001/greenbk/map/mapnmpoll.pdf">http://www.epa.gov/oaqps001/greenbk/map/mapnmpoll.pdf</a> See also <b>ATTACHMENT 4.</b>
<b>2. Airport Hazards</b> (Clear Zones and Accident Potential Zones) [24 CFR 51D]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is no public-use airport in the immediate vicinity of North Loup; the nearest such is the Ord Airfield, approximately 12.2 miles northwest of the project. An email received from the Nebraska Dept. of Aeronautics, dated November 13 <sup>th</sup> , 2012 states “has no objection to the improvements.” See <b>ATTACHMENT 5.</b>
<b>3. Coastal Zone Management</b> [Coastal Zone Management Act sections 307(c) & (d)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No coastal zone management programs exist in the States of HUD Region VII, as established by Nat’l Oceanic & Atmospheric Administration, Office of Ocean and Coastal Resource Management. ( <a href="http://www.coastalmanagement.noaa.gov/mystate/welcome.html">http://www.coastalmanagement.noaa.gov/mystate/welcome.html</a> ) See also <b>ATTACHMENT 6.</b>
<b>4. Contamination and Toxic Substances</b> [24 CFR 58.5(i)(2)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A review of the known underground storage tank list from the Fuels Division of the Nebraska State Fire Marshal shows 7 Underground Storage Tank facilities that are still in use in North Loup. The project will not be located where existing tanks are located. Therefore, no contamination of toxic substances will be encountered during the construction of the project. See also <b>ATTACHMENT 7.</b>

<b>5. Endangered Species</b> [50 CFR 402]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Per a letter dated 12/5/11 from the US Fish & Wildlife Service, they stated "No objection". See <b>ATTACHMENT 8</b> .
<b>6. Environmental Justice</b> [Executive Order 12898]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The Water Improvement project will serve the entire community of the Village of North Loup. Environmental justice will not be affected.
<b>7. Explosive and Flammable Operations</b> [24 CFR 51C]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	According to the email dated 11-5-11 from the Nebraska State Fire Marshal-Fuels Division, "there are no known AST's (above ground storage tanks), either Petroleum or Hazardous in this area." See <b>ATTACHMENT 7</b> .
<b>8. Farmland Protection</b> [7 CFR 658]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The project is cleared of the Farmland Protection Policy Act based on correspondence with the Natural Resource Conservation Service. See <b>ATTACHMENT 9</b> .
<b>9. Floodplain Management</b> [24 CFR 55, Executive Order 11988]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Per an email dated 1/4/12 from the Department of Natural Resources, "there is no floodplain in the vicinity of the project area and found no significant issues". See <b>ATTACHMENT 10</b> . See also FIRMette Panel O285, Map Number 31175C0285C in <b>ATTACHMENT 11</b> . The Lower Loup NRD, in a 12/13/11 letter stated, "First Street serves as a primary overflow channel. We hope that water main improvements will not in any way raise the street grade thereby becoming an obstruction to flood flows". See <b>ATTACHMENT 17</b> . Engineering design will mitigate this issue.
<b>10. Historic Preservation</b> [36 CFR 800]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Per a letter dated 12/13/10 from the Nebraska State Historical Society; Concurrence: NE SHPO, the project does not contain recorded historic resources. See <b>ATTACHMENT 12</b> .
<b>11. Noise Control</b> [24 CFR 51B]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The noise will only be temporary during construction during the daylight hours. This project does not involve a nursing home, day care or community center, as it is a water improvement project; therefore the project is not a noise sensitive development.
<b>12. Water Quality (Sole Source Aquifers)</b> [40 CFR 149]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are no designated Sole Source Aquifers in EPA Region VII. See <b>ATTACHMENT 13</b> .
<b>13. Wetland Protection</b> [24 CFR 55, Executive Order 11990]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Per a letter dated 12/15/11 from the U.S. Army Corps of Engineers, "the project does not appear to be located within Corps owned or operated lands". See <b>ATTACHMENT 15</b> . In addition, the project is located within the Village limits.
<b>14. Wild and Scenic Rivers</b> [36 CFR 297]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No wild and scenic rivers are located near North Loup as noted on the website: <a href="http://www.rivers.gov/rivers/nebraska.php">http://www.rivers.gov/rivers/nebraska.php</a> See also <b>ATTACHMENT 14</b> .

## **PART II: ENVIRONMENTAL ASSESSMENT CHECKLIST**

[Environmental Review Guide HUD CPD-782, 24 CFR 58.40; 40 CFR 1508.8 & 1508.27]

For each impact category, evaluate the significance of the effects of the proposal on the character, features, and resources of the project area. Enter relevant base data and credible, verifiable source documentation to support the finding. Note names, dates of contact, telephone numbers, and page references. Then enter the appropriate determination of impact: None Anticipated, Potentially Adverse, or Potentially Beneficial. Attach additional material as appropriate. Note conditions or mitigation measures required.

<b>Impact Categories</b>	<b>Anticipated or Potential Impact</b> <ul style="list-style-type: none"> <li>• Adverse</li> <li>• Beneficial</li> <li>• No Impact</li> </ul>	<b>Source Documentation and Mitigation or Modification Required</b>
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### **Land Development**

Conformance with Comprehensive and Neighborhood Plans	No Impact	The Village has a Comprehensive Plan at this time. The project is in conformance with Village plans. The new Elevated Storage Facility and treatment building will be both be built on a site the Village owns and where its currently existing Elevated Storage Facility is located.
Land Use Compatibility and Conformance with Zoning	No Impact	No impact will be made to land use. The land at this time is used for water storage purposes and will continue the use with construction of the new water storage facility and treatment facility.
Urban Design-Visual Quality and Scale	No Impact	The project will be built inside the Village limits, adjacent to the existing elevated storage facility, so it will have no impact to the visual quality of the community.
Slope	No Impact	The area will be returned to pre-construction elevations and vegetation.
Erosion	No Impact	Disturbed areas will be seeded to prevent erosion.
Soil Suitability	No Impact	A geotechnical report will be completed prior to construction of the Elevated Storage Facility and treatment facility to insure soils are appropriate for the project being constructed in that vicinity.

Hazards and Nuisances, Including Site Safety	No Impact	Contractor will be responsible for providing any necessary barricades to prevent accidental injury adjacent to the site.
Noise-Effects of Ambient Noise on Project & Contribution to Community Noise Levels	No Impact	No impact to community noise levels as all construction will take place during daylight hours and the finished project will not increase noise levels.
Air Quality-Effects of Ambient Air Quality on Project & Contribution to Community Pollution Levels	No Impact	Air quality will not be compromised. Construction equipment will not negatively contribute to the air quality. The project is not located in a non-attainment area.
Energy Conservation	No Impact	The project will not aid in energy conservation efforts of the community. The project will be designed as to utilize any energy conservation materials as possible without compromising the budget or the design of the project.

**Socioeconomic Factors**

Demographic Character Changes	No Impact	No changes will occur to demographics as a result of the project. The project is to construct a water treatment facility to aid in the safety of the Village residents.
Displacement	No Impact	No displacement will occur as a result of this project.
Employment and Income Patterns	Beneficial	Employment opportunities may arise for local residents seeking employment in the construction field during the bidding phase of the project.

**Community Facilities and Services**

Educational Facilities	No Impact	There is no school located in the community, therefore no impact to educational facilities.
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Commercial Facilities	No Impact	Downtown businesses will be affected by the water main construction as it is located in the area. The potential elevated storage facility and treatment facility improvements will not negatively affect downtown businesses as any construction traffic will be routed around the downtown area to alleviate any potential traffic concerns. Local businesses may have an increase in foot traffic due to the construction workers being on site.
Health Care	No Impact	Phone numbers of local police, ambulance, and fire departments will be available at the project staging area. The job supervisor will be provided with instructions for the most direct route to the hospital in case of an injury.
Social Services	No Impact	No social services entities are located in North Loup; therefore there will be no impact.
Solid Waste	No Impact	The contractor will haul away all construction debris.
Waste Water	No Impact	Municipal wastewater will not be affected during the project.
Storm Water	No Impact	Storm water systems will not be affected. A storm water prevention pollution plan will be completed to mitigate any potential storm water runoff in the area of the project, as the project area is more than 1.0 acre. NDEQ may require a Construction Storm Water Permit or a NPDES General Permit for construction dewatering and disposal of hydrostatic testing water. See <b>ATTACHMENT 18</b> .
Water Supply	Beneficial	Upon completion, the project will improve the Water Supply of the Village of North Loup. It will bring the Village into compliance with the Safe Drinking Water Act.
Public Safety <ul style="list-style-type: none"> <li>• Police</li> </ul>	No Impact	The project will not affect the ability of public safety agencies to operate as usual.
<ul style="list-style-type: none"> <li>• Fire</li> </ul>	Beneficial	The project will improve the Fire Department's ability to protect the public through new water hydrants and a new Elevated Storage Facility that will improve the Village's storage capacities and Village water pressures.

<ul style="list-style-type: none"> <li>• Emergency Medical</li> </ul>	No Impact	The project will not affect the ability of public safety agencies to operate as usual.
<ul style="list-style-type: none"> <li>• Open Space &amp; Recreation</li> <li>• Open Space</li> </ul>	No Impact	Open space will not be affected by the project. The project is located on land inside of the Village limits, adjacent to the existing storage facility. The National Park Service Midwest Regional Office was contacted; however no response was received to date.
<ul style="list-style-type: none"> <li>• Recreation</li> </ul>	No Impact	Recreational facilities will not be affected.
<ul style="list-style-type: none"> <li>• Cultural Facilities</li> </ul>	No Impact	No cultural activities will be affected because of this project.
Transportation	No Impact	Although water main construction will occur near Highway 11, it should only impede traffic for a short time during construction. The contractor will be required to have appropriate signage and detour routes will be established if necessary.

#### Natural Features

Water Resources	No Impact	No affect will be made on natural resources in the project area.
Surface Water	No Impact	No affect will be made on natural resources in the project. See <b>ATTACHMENT 10</b> .
Unique Natural Features & Agricultural Lands	No Impact	The land where the project will take place is located within the Village limits of North Loup. NRCS concurred that the project will not adversely affect farmland. See <b>ATTACHMENT 9</b> .
Vegetation and Wildlife	No Impact	No adverse impacts will be made on vegetation and wildlife. The area will be seeded after construction is complete. The USF&W do not anticipate any impacts as seen in <b>ATTACHMENT 8</b> . The NE G&PC were contacted; however no comment has been received from their office to date.

## **PART III: 58.6 CHECKLIST**

### **1. AIRPORT RUNWAY CLEAR ZONES AND CLEAR ZONES NOTIFICATION [24 CFR Part 51.303(a)(3)]**

Does the project involve the sale or acquisition of property located within a Civil Airport Runway Clear Zone or a Military Airfield Clear Zone?

**No.** Cite or attach Source Documentation: There is no public-use airport in the immediate vicinity of North Loup; the nearest such is the Ord Airfield, approximately 12.2 miles northwest of the project. An email received from the Nebraska Dept. of Aeronautics, dated November 13, 2012 states "has no objection to the improvements".

(See **ATTACHMENT 5.**) Project complies with 24 CFR 51.303(a)(3).]

**Yes.** Notice must be provided to the buyer. The notice must advise the buyer that the property is in a Runway Clear Zone or Clear Zone, what the implications of such a location are, and that there is a possibility that the property may, at a later date, be acquired by the airport operator. The buyer must sign a statement acknowledging receipt of this information, and a copy of the signed notice must be maintained in the ERR.

### **2. COASTAL BARRIERS RESOURCES ACT [Coastal Barrier Improvement Act of 1990 (16 USC 3501)]**

Is the project located in a coastal barrier resource area?

**No.** Cite or attach Source Documentation: No CBRA's in Nebraska according to <http://www.coastalmanagement.noaa.gov/mystate/welcome.html> (See also **ATTACHMENT 6**) [Proceed with project.]

**Yes.** Federal assistance may not be used in such an area.

### **3. FLOOD DISASTER PROTECTION ACT [Flood Disaster Protection Act of 1973, as amended (42 USC 4001-4128)]**

Does the project involve acquisition, construction, or rehabilitation of structures located in a FEMA-identified Special Flood Hazard Area (SFHA)?

**No.** Cite or attach Source Documentation: There is no Floodplain in the area of this project per FIRMette Panel 0285C, Map Number 31175CINDOA. (See **ATTACHMENT 11**) The Department of Natural Resources also stated there is no floodplain in the vicinity of the project area and their Department has no further comment. (See also **ATTACHMENT 10**) [Proceed with project.]

**Yes.** Cite or attach Source Documentation: \_\_\_\_\_  
Is the community participating in the National Insurance Program (or has less than one year passed since FEMA notification of Special Flood Hazards)?

**Yes. Flood Insurance under the National Flood Insurance Program must be obtained.** If HUD assistance is provided as a grant, insurance must be maintained for the economic life of the project and in the amount of the total project cost (or up to the maximum allowable coverage, whichever is less). If HUD assistance is provided as a loan, insurance must be maintained for the term of the loan and in the amount of the loan (or up to the maximum allowable coverage, whichever is less). A copy of the flood insurance policy declaration must be kept on file in the ERR.

**No. Federal assistance may not be used in the Special Flood Hazard Area.**

## Summary of Findings and Conclusions

**Project Alternatives Considered:** [24 CFR 58.40(e), 40 CFR 1508.9] (As appropriate, identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment for each alternative and the reasons for rejecting it. Include consideration of the No Action Alternative, which is, not implementing the preferred alternative.)

Four basic treatment alternatives were evaluated; consolidation with nearby communities, blending existing wells, a new source alternative and a centralized treatment facility. First, a new source alternative that some communities in Nebraska have recently used to solve their water quality issues is consolidation with nearby communities. To consolidate with the nearby community, one alternative that has been used is to construct a transmission main to the nearby community and then purchase water. A second alternative that has been used is to develop a common water source with surrounding communities that have source water issues. This regional solution requires sharing the capital construction costs for the new well field and required transmission main. The closest water system to North Loup is Scotia with is estimated to be approximately 4.14 miles. Scotia does not appear to have the source capacity to allow connection to North Loup without improvements to their wells and water system. The connection to Scotia would also require boring under the North Loup River, crossing Highway 11, and constructing a booster pump to lift the water up to elevations necessary at North Loup. Greeley is located approximately 13.1 miles northeast of North Loup; however due to this distance it was not further evaluated as a potential source. Ord is located approximately 10.88 northwest of North Loup, and the Ord ethanol facility is located approximately 7 miles away and is supplied water by the City of Ord. There is a 16-inch transmission main with wells located near the ethanol plant. It appeared that a transmission main could be installed without a booster pump station. The route could have been along Highway 11, which was the shortest route, or possibly a route could be identified utilizing County roads. The concern of following Highway 11 on the whole route is if the Nebraska Department of Roads determines a need to work on the highway and the transmission main would need to be relocated, then the Village would be responsible for the cost of moving their transmission main. The second treatment alternative was blending of existing wells. Another possible alternative for the Village is to utilize the existing wells and attempt to blend the water from both wells in order to achieve a concentration of arsenic below the MCL. In order to

blend the two wells, a dedicated line would need to be constructed from the North to the South Well. No service connections could be made to this line prior to blending. Blending of existing wells would yield an estimated arsenic level of 10 µg/L using the current organic concentrations. Based on the blended water quality, blending is not being considered as a long-term solution to the Village's water quality issues. The third treatment alternative is a new source alternative. An integral part of the PER was to investigate potential new well field locations. It was anticipated that only one well would be needed to replace the South Well. Engineers utilized a 110 square mile study area to compile data on registered well locations, well spacing requirements, pump rate analysis, saturated thickness, groundwater flow direction, existing nitrate concentrations, transmissivity, and change in groundwater level for analysis of potential new Village well sites. The fourth treatment alternative available to the Village for the reduction of arsenic concentrations was the construction of a centralized water treatment facility. The selected option for treatment was the adsorption filtration type of treatment. Centralized treatment will require the erection of an elevated storage facility. The "No-Action" plan was not evaluated. The Village is currently under mandates by the NHHS to improve the water system so "No-Action" is not an alternative. However, taking no action on a system with known deficiencies only prolongs the solution and possibly increases the costs to remedy the deficiencies. Therefore, it was the Engineer's recommendation to drill a new well and construct a ground level storage facility for the Village of North Loup. The Village's decision to construct an elevated storage facility and centralized treatment facility involved an economic approach. Although the engineer's recommendation included a new well and storage facility, it required a higher capital cost, but with less ongoing annual maintenance. The Village opted for a plan that had a reduction in capital cost, but with slightly higher ongoing annual maintenance costs. That plan included the construction of a new centralized treatment facility, a new elevated storage facility, and water distribution improvements throughout the community.

**Mitigation and Project Modification Measures Recommended:** [24 CFR 58.40(d), 40 CFR 1508.20]  
(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)  
The only mitigation measures will be that construction noise will be kept to a minimum and construction will take place only during daylight hours. The project occurs within the Village limits of North Loup and no environmental mitigation is necessary.

**Additional Studies Performed:** (List the reports, studies, or analyses performed for this assessment, and attach studies or summaries.)

**List of Agencies and Persons Consulted:** [40 CFR 1508.9(b)] (List agencies and persons consulted for this assessment.)  
Agencies and/or persons consulted for this assessment are listed below and copies of the letters sent to them may be seen as **ATTACHMENT 16**.

National Park Service, Midwest Region  
US Army Corp of Engineers  
US Fish & Wildlife  
Nebraska Department of Health and Human Services  
Nebraska Department of Natural Resources  
Nebraska Game & Parks Commission (Realty & Environmental Services Division)  
Nebraska State Historical Society  
Natural Resources Conservation Services  
Nebraska Game & Parks Commission (Heritage Division)  
Nebraska Department of Environmental Quality  
Nebraska Department of Aeronautics  
Nebraska State Fire Marshal  
Lower Loup NRD

