

**Pete Ricketts**  
Governor

# STATE OF NEBRASKA

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Jim Macy**  
Director

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## CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM

### CATEGORICAL EXCLUSION

**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 wholly or in part 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:** Superior Sanitary Sewer Slip Lining  
**APPLICANT:** Superior, Nebraska  
**COUNTY:** Nuckolls  
**POPULATION:** 1,957 (2010 census)  
**CWSRF PROJECT NUMBER:** C317818  
**TOTAL PROJECT AMOUNT:** \$214,000  
**ESTIMATED CWSRF LOAN AMOUNT:** \$114,000  
**ESTIMATED CWSRF PRINCIPAL FORGIVENESS:** \$100,000

The City of Superior, Nebraska, is planning to slip line approximately 4,000 linear feet of their existing sanitary sewer collection system. The City has applied for financial assistance through the Clean Water State Revolving Fund (CWSRF) loan program to construct the project. The City's original collection system was installed in the early 1900's and was composed of vitrified clay pipe (VCP). There are several locations in the sewer collection system where recent TV inspections have found root intrusions, cracked or broken pipes. These deficiencies are the likely source of unwanted groundwater infiltration into the municipal wastewater system. Superior's sanitary sewer system is composed of the following sizes and approximate lengths:

City of Superior Existing Sanitary Sewer Sizes and Length	
Sanitary Sewer Diameter	Approximate Length
16 inch diameter	2,700 linear feet
12 inch diameter	7,000 linear feet
10 inch diameter	16,500 linear feet
8 inch diameter	65,800 linear feet
6 inch diameter	1,600 linear feet
4 inch diameter	300 linear feet

Approximately 92 percent of the sanitary sewer system is VCP, 6 percent is plastic (PVC) and the remaining 2 percent is ductile iron. The City currently uses PVC pipe for the installation of new sewer mains. There are a total of 297 manholes, 9 cleanouts, and 3 lift stations. The majority of the

collection system flows by gravity to their Mechanical Wastewater Treatment Facility before discharging to the Republican River.

The project will install a liner in the damaged 8", 10", and 12" sewers in North Dakota Street and North Kansas Street from 1<sup>st</sup> Street to 15<sup>th</sup> Street. The liner will function as a structural replacement for the existing pipe. The construction will slip line the pipe and not require excavation to replace the existing pipe. Work will be accomplished from existing manholes and existing service line connections will be cut into the new liner once the liner is in place. Only temporary interruption of service will occur for sewer users affected as the liner pipe is installed.

The project will have a positive impact on the environment. The project will result in continued wastewater treatment of Superior's sewage flows with a lower risk of blockage or high infiltration and inflow, which could result in backups of untreated sewage into City homes.

The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is currently listed on the CWSRF SFY2016 Intended Use Plan and ranked at 87 points on the CWSRF priority list. Superior's 2012 median household income is \$31,739, with an AWIN score of 24 (high sustainability risk) which qualifies Superior for 50.0 percent CWSRF principal forgiveness with a matching 20-year loan at a current program Green interest rate of 1.25 percent. In addition to principal and interest payments, an administrative fee of 1 percent of the loan balance would be assessed each year

Sewer use fees would be pledged to repay the loan. Current residential sewer use rates are a metered rate of \$22.50 base plus \$1.90 per thousand gallons winter water use per month. The City of Superior has approximately 1,035 residential and commercial sewer connections. Sewer rates would need to be raised by \$0.67 per month to cover the proposed CWSRF debt service and 10 percent coverage requirement. This would equate to residential sewer rate of \$36.47 per month for a typical winter household water use of 7,000 gallons per month.

The proposed project was reviewed for eligibility for a categorical exclusion from National Environmental Policy Act review specified in 40 CFR (Code of Federal Regulations) Part 6.204. The project meets all criteria described in the above reference and the Department has determined that this project is eligible for a categorical exclusion. Consequently, a preliminary decision has been made that a Finding of No Significant Impact will not be prepared. The project as proposed is solely directed toward rehabilitation of the existing sanitary sewer. Justification for categorical exclusion includes:

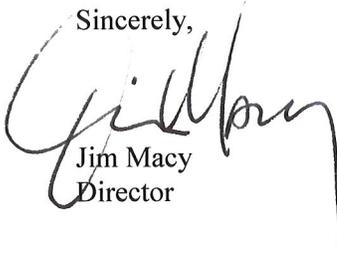
- The proposed action is not known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time;
- The proposed action is not known or expected to significantly affect federally listed threatened or endangered species or their critical habitat;
- The proposed action is not known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric archeological or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places;
- The proposed action is not known or expected to significantly affect environmentally important natural resource areas as wetlands, floodplains, prime farmland, wild and scenic rivers, and significant fish or wildlife habitat;
- The proposed action is not known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, or may not be consistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans;
- The proposed action is not known or expected to cause significant public controversy.

The Nebraska Department of Environmental Quality shall revoke the categorical exclusion and shall require a full environmental review if, subsequent to the granting of exclusion, the state determines that the proposed project no longer meets the requirements for a categorical exclusion 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 careful review of the application and other supporting data, which are on file in the office of the NDEQ. These are available for public review upon request. Persons having a comment on this categorical exclusion determination are encouraged to submit such comments directly to Tom Fuenning, Review Engineer, of the Technical Assistance Section of NDEQ, who can be reached at (402) 471-4989 or email: [tom.fuenning@nebraska.gov](mailto:tom.fuenning@nebraska.gov).

Signed this 17<sup>th</sup> day of January, 2016.

Sincerely,



Jim Macy  
Director

JM/tsf

Attachments: Distribution List  
Maps  
Green Business Case Determination

CATEGORICAL EXCLUSION DISTRIBUTION LIST

SUPERIOR, NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Lincoln, NE 68509-8922

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DIRECTOR, NEBRASKA STATE HISTORICAL SOCIETY

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Lincoln, NE 68508-2554

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Policy Advisor  
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Lincoln, NE 68509-4601

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Lincoln, NE 68509

DEPARTMENT OF THE INTERIOR  
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Grand Island, NE 68801

NATIONAL PARK SERVICE

Nick Chevance  
Environmental Coordinator  
Midwest Regional Office  
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Omaha, NE 68102-4226

USDA RURAL DEVELOPMENT

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

ENVIRONMENTAL PROTECTION AGENCY

Christopher Simmons/Kelly Beard-Tittone  
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Mail Code: WWPDWIMB  
Lenexa, KS

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:

Sonia Schmidt, Mayor  
City of Superior  
135 W. 4<sup>th</sup> Street  
P.O. Box 160  
Superior, NE 68978-0160

CONSULTING ENGINEER:

Michael Schultes, P.E.  
JEO Consulting Group  
308 W. 3<sup>rd</sup> Street, Ste. 1  
Grand Island, NE 68801-5941

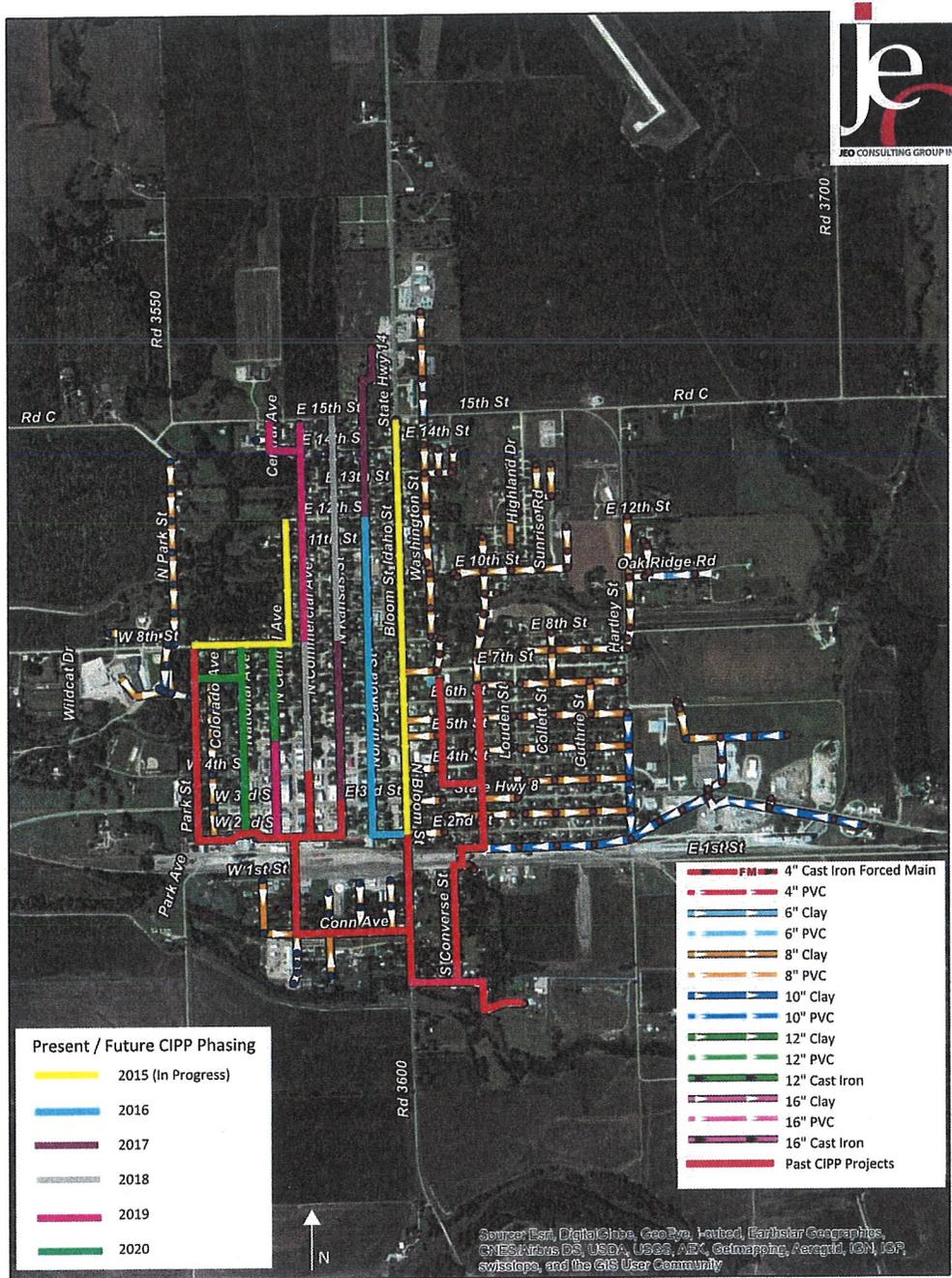
LOCAL NEWSPAPER

Superior Express  
148 E. Third Street  
Superior, NE 68978  
(Public Information Only not for Public Notice)

LOWER REPUBLICAN NRD

706 2<sup>nd</sup> Street  
P.O. Box 618  
Alma, NE 68920-0618

Figure 6-1: Phasing Plan for CIPP Improvements

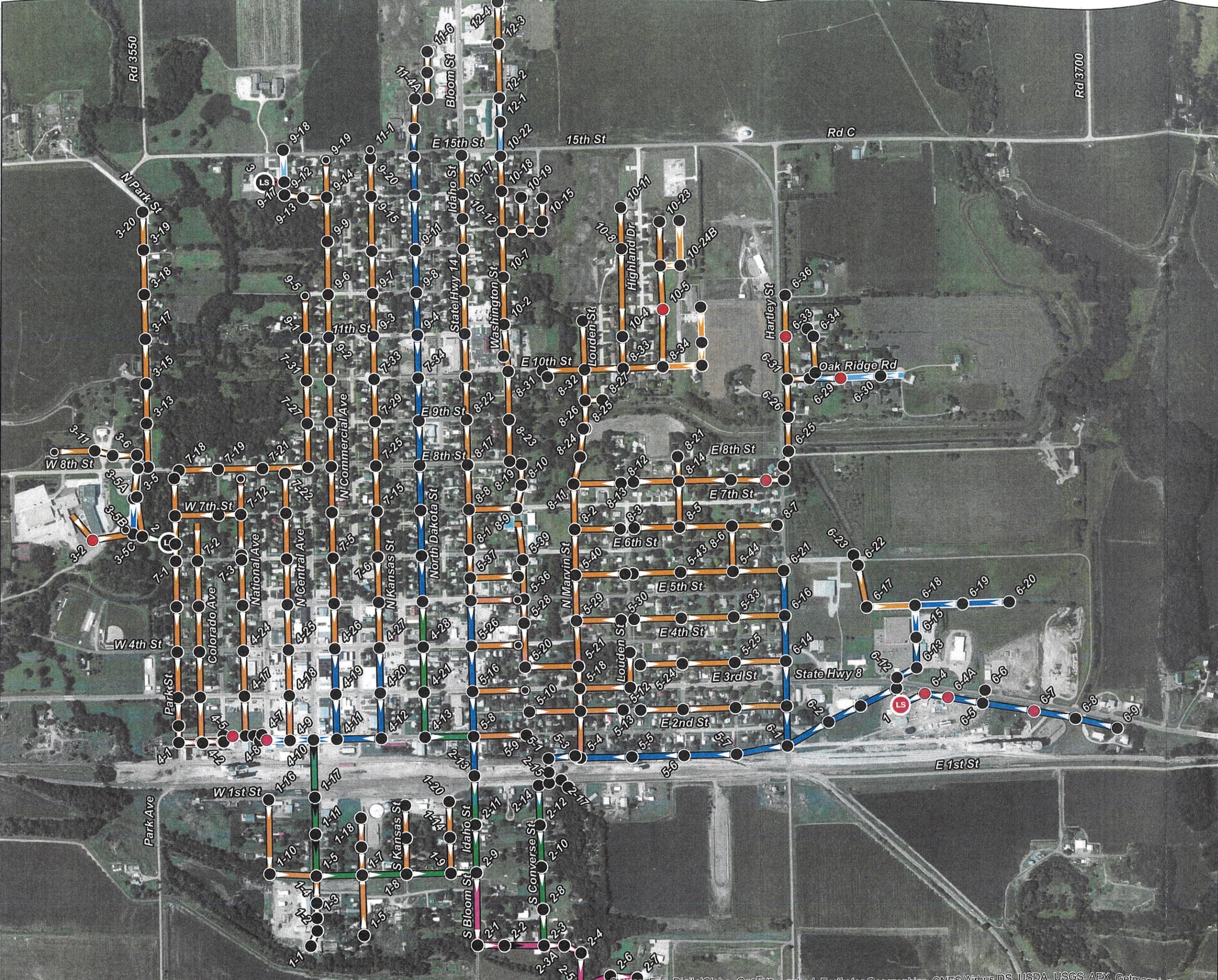


# City of Superior, Nebraska

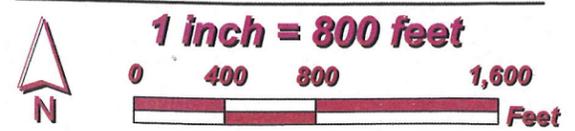
## Manhole Inspection Map

### Legend

- Clean Out
- Manhole
- LS Lift Station
- Manhole (Not GPS)
- LS Lift Station (Not GPS)
- FM 4" Cast Iron Forced Main
- 4" PVC
- 6" Clay
- 6" PVC
- 8" Clay
- 8" PVC
- 10" Clay
- 10" PVC
- 12" Clay
- 12" PVC
- 12" Cast Iron
- 16" Clay
- 16" PVC
- 16" Cast Iron



Note:(Nebraska State plane zone 2600 projection) Elevations are referenced to NAVD 1988.



Created By: A. Hamilton  
Date: February, 2015  
Software: ArcGIS 10  
File: 130070

This map was created using data collected by JEO surveying crews equipped with Trimble R8 GNSS survey equipment, Record drawings and other information provided by City officials. The aerial imagery used in this drawing is provided by ESRI, as well as other sources, listed in the bottom right-hand corner of this map.



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**BUSINESS CASE FOR ENERGY EFFICIENCY QUALIFICATION FOR A GREEN  
PROJECT RESERVE DESIGNATION FOR CWSRF PROJECT NO. C317818  
INFILTRATION AND INFLOW CORRECTION PROJECT FOR SUPERIOR, NEBRASKA**

Synopsis: The City of Superior, Nebraska, is planning to slip line approximately 4,000 linear feet of their existing sanitary sewer. In accordance with EPA’s 2010 Clean Water and Drinking Water State Revolving Fund 20% Green Project Reserve: Guidance for Determining Project Eligibility under Energy Efficiency Category qualifies Infiltration and Inflow (I &I) correction projects that save energy from pumping and reduced treatment costs or I&I correction projects where excessive groundwater infiltration is requiring otherwise unnecessary treatment processes are eligible for Green Project Reserve (GPR) designation using a “Business Case” justification.

The City of Superior performed a televised inspection of selected sanitary sewer lengths and specifically 4,000 linear feet of sanitary sewer running from 1<sup>st</sup> to 15<sup>th</sup> Street on North Dakota Street and North Kansas Street. The televised inspection showed that there were multiple areas along the route with root intrusion, cracked or broken pipes. These deficiencies are the likely source of unwanted groundwater infiltration into the municipal wastewater system.

The project will install a liner in the damaged sanitary sewer, which will function as a structural replacement for the existing pipe. The construction will slip line the pipe and not require excavation to replace the existing pipe. Work will be accomplished from existing manholes and existing service line connections will be cut into the new liner once the liner is in place. Only temporary interruption of service will occur for sewer users affected as the liner pipe is installed. The project cost estimate is as follows:

Description	Estimated Costs
Engineering and Inspection fees	\$32,000
Installation of CIPP Liner, 4,000 LF	\$164,000
Contingency	\$18,000
<b>TOTAL</b>	<b>\$214,000</b>

The project will result in continued wastewater treatment of Superior’s sewage flows with a lower risk of blockage or high infiltration and inflow, which could result in backups of untreated sewage into City homes. The goal of the proposed I&I correction would be to remove the I&I from Superior’s sanitary sewer and move their overall I&I toward the 120 gpcd I&I threshold (EPA’s nonexcessive I&I target) for their dry weather influent flows. The City of Superior maximum flow day is currently 690,000 gpd or 353 gpcd (EPA’s target for wet weather flow would be 275 gpcd). Energy savings should be achieved from reduced flows to their trickling filter mechanical wastewater treatment facility. The proposed I&I correction project for Superior should save energy from reduced pumping costs from their main lift station and thereby qualify for the Green Project Reserve Funding.