State Water Commission Pre-Commission Meeting
Bank of North Dakota (SWC Staff Only)
1200 Memorial Hwy., Bismarck, ND
Thursday, July 11, 2024 – 1:00 p.m. CT
A QUORUM OF THE COMMISSION MAY BE PRESENT

Microsoft Teams meeting
Join on your computer, mobile app or room device
Click here to join the meeting
Or call in (audio only)
+1 701-328-0950,,708182138# United States, Fargo
Phone Conference ID: 708 182 138#

AGENDA

1:00 – 1:03 A. Roll Call/Pledge of Allegiance

1:03 – 1:07 B. SWC Secretary Update (no attachment)

1:07 – 1:15 C. 2025 SWC Meeting Schedule (Pat Fridgen)

1:15 – 1:20 D. Northwest Area Water Supply (NAWS) (Sindhuja S.Pillai-Grinolds)
1. Contract for Pressurization of Main Transmission Line

1:20 – 1:30 E. Flood Control (Abigail Franklund)

1.	Grand Forks County WRD	Drain 4 Reconstruction & Extension Project	$270,000	PC
2.	City of Lisbon	Rose Street Property Acquisition	$104,376	C

1:30 – 1:45 F. General Water (Abigail Franklund)

1.	Barnes County WRD	Clausen Springs Dam Safety Evaluation	$150,000	PC
2.	Walsh County WRD	Walsh County Dams Emergency Action Plans	$182,800	PC
3.	Dept of Water Resources	USGS Collaboration FFA Tasks 2-4	$650,000	CI

1:45 – 2:15 G. Water Supply (Municipal/Regional) (Julie Prescott)

1.	WAWSA	NWRWD Trenton Area Expansion	$747,000	PC
2.	City of Mandan	Collins Reservoir Replacement	$1,464,934	C
3.	City of Aneta	Water and Sewer Improvements 2023	$289,004	CI
4.	City of Mandan	Water Treatment Plant Phase 3 Optimization	$123,000	CI
5.	City of New Town	Improvements – Phase 1	$492,330	CI
6.	GDCD	Red River Valley Water Supply Project 23-25	$0	O

2:15 – 2:25 H. Water Supply (Rural) (Julie Prescott)

1.	McLean Sheridan RWD	Water Treatment Plant Expansion Phase 3	$983,092	C
2.	Greater Ramsey Water Dist.	2024 User Expansion	$375,750	CI

2:25 – 2:30 I. Southwest Pipeline Project (SWPP) (Sindhuja S.Pillai-Grinolds) (Andrea)(No Attachment)
1. West Zone Expansion

PC	Pre-Construction
C	Construction
L	Legislative
CI	Cost Increase
O	Other

C

2025 State Water Commission Meeting Dates

February 13, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
1:00 PM CT

April 10, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
1:00 PM CT

June 12, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
1:00 PM CT

August 14, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
1:00 PM CT

October 9, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
1:00 PM CT

December 12, 2025
Bank of North Dakota
1200 Memorial Highway, Room #238
Bismarck, North Dakota
9:00 AM CT

2025 Commission and Pre-Commission Meeting Dates with Deadlines

Thursday, February 13, Commission Meeting - 1:00 pm - BND, #238 Lewis and Clark Room	
Monday, December 30:	Projects due to DWR staff for February Commission meeting
Tuesday, January 14:	Material due by noon to Shana for Pre-Commission meeting
Friday, January 17:	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, January 23:	Pre-Commission meeting, via phone/BND #238 Lewis and Clark Room, 1:00-5:00 p.m.
Thursday, January 30:	Final memos/material to Andrea for review and approval
Thursday, February 6:	Send final agenda and Commission meeting material to Commissioners

Thursday, April 10, Commission Meeting - 1:00 pm - BND, #238 Lewis and Clark Room	
Monday, February 24:	Projects due to DWR staff for April Commission meeting
Wednesday, March 12:	Material due by noon to Shana for Pre-Commission meeting
Monday, March 17:	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, March 20:	Pre-Commission meeting, via phone/#238 Lewis and Clark Room, 1:00-5:00 p.m.
Thursday, March 27:	Final memos/material to Andrea for review and approval
Thursday, April 3:	Send final agenda and Commission meeting material to Commissioners

Thursday, June 12, Commission Meeting - 1:00 pm - BND, #238 Lewis and Clark Room	
Monday, April 28:	Projects due to DWR staff for June Commission meeting
Wednesday, May 14:	Material due by noon to Shana for Pre-Commission meeting
Monday, May 19:	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, May 22:	Pre-Commission meeting, via phone/#238 Lewis and Clark Room, 1:00-5:00 p.m.
Thursday, May 29:	Final memos/material to Andrea for review and approval
Thursday, June 5:	Send final agenda and Commission meeting material to Commissioners

2025 Commission and Pre-Commission Meeting Dates with Deadlines

Thursday, August 14, Commission Meeting - 1:00 pm - BND, #238 Lewis and Clark Room	
Monday, June 30:	Projects due to DWR staff for August Commission meeting
Wednesday, July 16:	Material due by noon to Shana for Pre-Commission meeting
Monday, July 21:	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, July 24:	Pre-Commission meeting, via phone/#238 Liews and Clark Room, 1:00-5:00 p.m.
Thursday, July 31:	Final memos/material to Andrea for review and approval
Thursday, August 7:	Send final agenda and Commission meeting material to Commissioners

Thursday, October 9, Commission Meeting - 1:00 pm - BND, #238 Lewis and Clark Room	
Monday, August 25:	Projects due to DWR staff for October Commission meeting
Wednesday, September 10:	Material due by noon to Shana for Pre-Commission meeting
Monday, September 15:	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, September 18:	Pre-Commission meetings, via phone/#238 Lewis and Clark Room, 1:00-5:00 p.m.
Thursday, September 25:	Final memos/material to Andrea for review and approval
Thursday, October 2:	Send final agenda and Commission meeting material to Commissioners

Friday, December 12, Commission Meeting - BND, #238 Lewis and Clark Room	
Tuesday, October 28:	Projects due to DWR staff for December Commission meeting
Wednesday, November 12:	Material due by noon to Shana for Pre-Commission meeting
Monday, November 17	Send Pre-Commission material to Commissioners for review prior to meeting
Thursday, November 20:	Pre-Commission meeting, via phone/#238 Lewis and Clark Room, 1:00-5:00 p.m.
Tuesday, November 25:	Final memos/material to Andrea for review and approval
Friday, December 5:	Send final agenda and Commission meeting material to Commissioners

D

NORTH Dakota | Water Resources
Be Legendary.

TO: Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: NAWS – Contract for pressurization of main transmission line
DATE: June 28, 2024

Two leaks developed in the Northwest Area Water Supply (NAWS) main transmission line between the South Prairie reservoir and Minot in the fall of 2023 during the filling of the South Prairie reservoir. This line had been pressure tested previously under NAWS Contract SA 80 in 2019-2021. The leaks developed on the main transmission line in fall of 2023 were repaired and the pipeline was used to fill the South Prairie reservoir for leak testing. The water used for leak testing the South Prairie Reservoir was drained back to Minot through the main transmission line in January, leaving 6 ft of water in the reservoir per the contractor's recommendation for winterization. The South Prairie contract also included flushing and pressure testing the line between the South Prairie reservoir, Hydraulic Control structure, and Biota water treatment plant.

Given the failures encountered, additional efforts are under development to further assess the condition of the main transmission pipeline prior to being put into service when the Lake Sakakwea water becomes available. Pressure testing of the portion of the pipeline between Minot and Highway 23 is the highest priority, but numerous other efforts will be required including close interval surveys along the raw water line for corrosion evaluation, disinfection, and flushing prior to the delivery of Lake Sakakwea water to Minot.

The effort of pressurizing the main transmission line doesn't strictly fit the criteria laid out in North Dakota Century Code (NDCC) §48 as a public improvement. Based on the discussion between North Dakota State Procurement Office staff, Department of Water Resources staff, legal counsel, and consultant engineer it was decided to develop an invitation for sealed bids for procurement of services under NDCC §54. The invitation for bid will also solicit bidders to include a unit price for required pipeline repairs if needed. Requirements for construction plans stamped by a professional engineer required under NDCC §48 would not apply as the repair of pipeline if needed at each location is not expected to be in excess of the of $200,000 threshold that requires stamped plans from professional engineer.

The plan to award this contract at the June, 2024 State Water Commission (SWC) meeting was delayed due to the need for using the pipeline for Sundre water delivery to the Biota Water Treatment plant for the partial commissioning and startup. The current schedule from the contractor indicates that effort will be completed by August 2nd, 2024 allowing this work to proceed. We expect recommendation of award of this contract at the August SWC meeting.

AT:SSP:/237-4

E 1

Water Development Plan: No

1083545 - Drain 4 Reconstruction and Extension Project - Preconstruction Engineering, Permitting and Economic Analysis

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 21, 2024 9:29 AM

Initially Submitted By: Nick Pribula

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Nick First Name
Middle Name Pribula Last Name

Title:

Email*: npribula@gmail.com

Organization Information

Status*: Approved

Name*:
Grand Forks County Water Resource District

Organization Type*: Political Subdivision

Tax Id:

Organization Website:

Address*:	208 3rd Ave NW	**Address*:**	151 South 4th Street #348
	East Grand Forks City		Grand Forks North Dakota City State/Province
Minnesota	56721	58201-0000	
State/Province	Postal Code/Zip	Postal Code/Zip	
Phone*:	701-772-7058 Ext. Phone ###-###-####	**Phone*:**	(701) 780-8312 Ext. ###-###-####
Fax:	###-###-####	**Fax:**	###-###-####
Comments:		**Vendor ID:**	
		PeopleSoft Supplier ID:	
		Comments:	
		Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:

Drain 4 Reconstruction and Extension - Preliminary Engineering, Permitting and Economic Analysis

Sponsor(s)*:	Grand Forks County Water Resource District
County*:	Grand Forks
City*:	Grand Forks
Description of Request*:	New
If Study, What Type:	
If Project/Program, What Type:	Flood Control
Jurisdictions/Stakeholders Involved*:	

Grand Forks County Water Resource District, Walle Township property owners, Allendale Township property owners, Grand Forks County Highway Department, City of Grand Forks

Describe the Problem*:

Legal Drain 4 was reconstructed in 2005 by Army CORP of Engineers in conjunction with the Grand Forks City flood control project. The Army CORP project utilized Legal Drain 4 as the south side interceptor ditch to channel water easterly along the south side of the city to the Red River. The CORP project did not modify an existing concrete spillway drop structure. The Army CORP constructed channel was constructed with very little slope. The grade averages approximately 1.2 feet per mile. The existing channel cannot deliver the flow needed to provide adequate drainage to the agricultural area outside of the CORP project resulting in ponding, flooding and crop damage in a wide area within the assessment area of Legal Drain 4.

Provide Project Details, Objectives and Solutions to Address Problem*:

To increase capacity of the existing channel the petitioner's proposed project is to increase channel grade and modify the existing outlet to a grade that would allow for greater slope on the ditch channel bottom. The existing channel would be extended 3.25 miles further to the west along the south side of County Road 6 in Allendale Township. The proposed project is intended to not only provide adequate agricultural drainage but also to continue to be utilized by the City of Grand Forks as a south side diversion flood control channel. Because of this Legal Drain 4 is not a typical agricultural drain and therefore needs to have a higher capacity than a typical agricultural drain. Because the proposed project is a modification to a CORP constructed project permitting will require a more detailed set of plans before the project can go to a landowner vote.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	50000

For this project,

What is the Benefited Population?*:	50000
Have Assessment Districts Been Formed?*:	Yes
Date Formed:	03/14/2011
Have Land or Easements Been Acquired?*:	No

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	Yes
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	Yes

If Yes, Please Explain:

Permitting of this project will be very difficult, time consuming, and will require a detailed set of plans and lengthy review. The project may be considered to have statewide implications due to project outlet to the Red River. It is anticipated that the project will be reviewed by multiple state and federal agencies and the City of Grand Forks. We do not anticipate land acquisition problems however land acquisition costs will be high due to current agricultural land valuations.

Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *: No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: June 2025

Design Completion*: June 2026

Bid*: March 2027

Construction Start*: May 2027

Construction Completion*: July 2028

Explain Additional Timeline Issues*:

Timeline may be affected by the project review process which is expected to be extensive. Economic analysis by an outside entity may require additional time.

Consulting Engineer*: Pribula Engineering, PLLC

Engineer Telephone Number*: 701-772-7058

Engineer Email*: npribula@gmail.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Tom (First Name) Perdue (Last Name) 06/21/2024 (Date)

Address*: 151 South 4th Street, Suite 348
Address Line 1

Address Line 2

Grand Forks (City) North Dakota (State) 58201-0000 (Zip Code)

Telephone Number*: 701-780-8312

Sponsor Email*: pdue11@yahoo.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Tom Perdue 06/21/2024 First Name Last Name Date
Title/Position/Authority*:	Chairman, Grand Forks County Water Resource District

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No
CLICK HERE **to see examples.**	
Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	LOCATION MAP 6-20-24.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

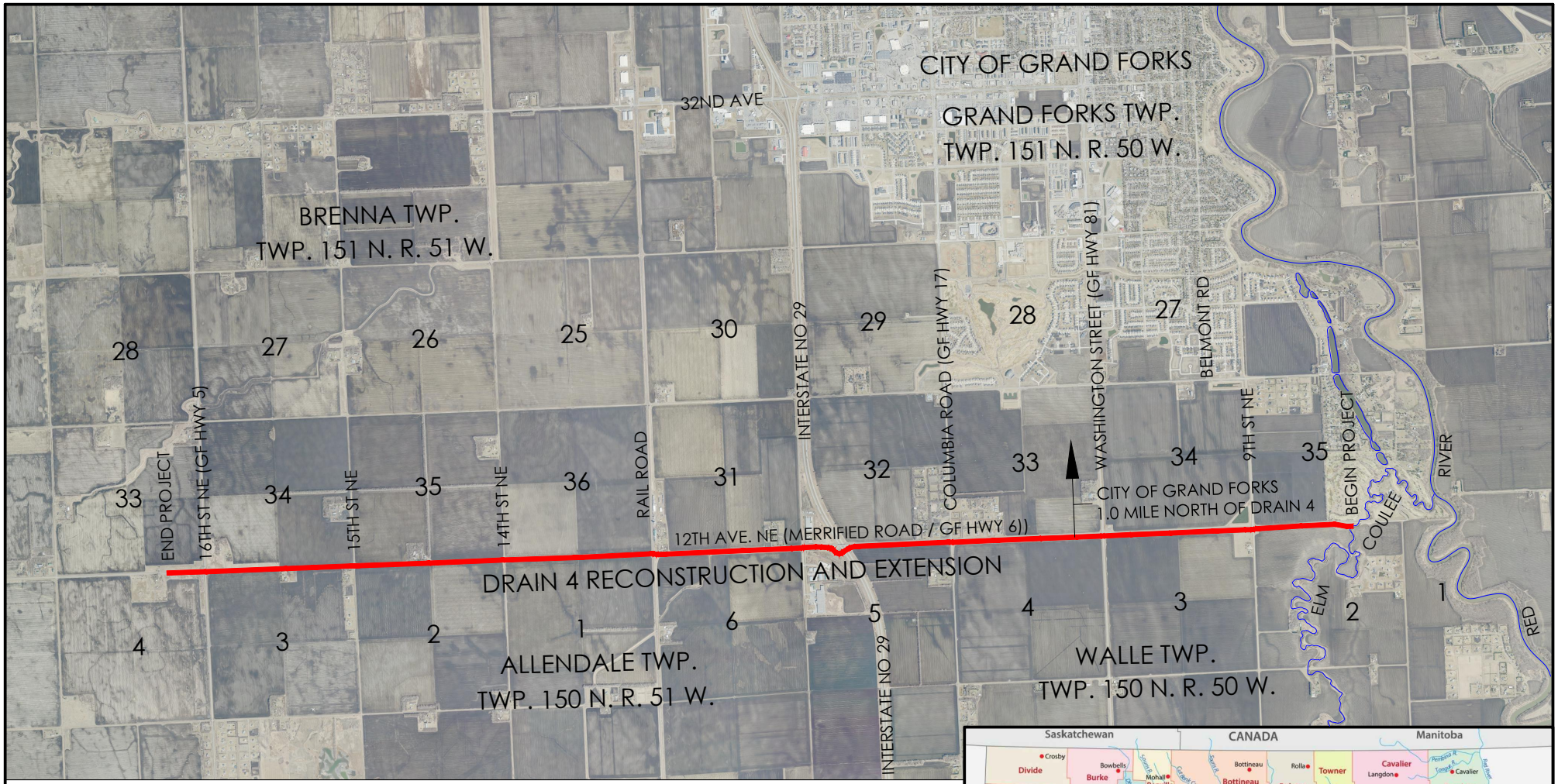
Delineation of Costs SFN 61801:	LD 4 FUNDING COST SHARE.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	
Other Applicable Document:	
Other Applicable Document:	

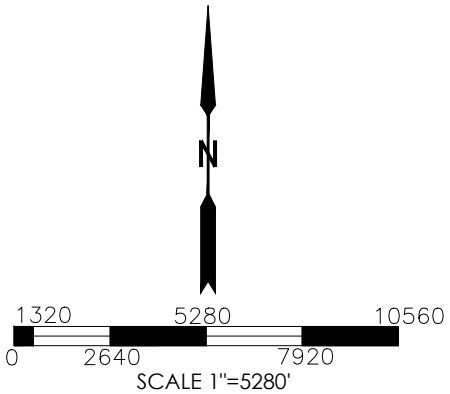
Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Current Request	$270,000.00	$0.00	$0.00	$270,000.00		0.00	0.00
Other	Local GFCWRD		$330,000.00	$0.00	$0.00	$330,000.00		0.00	0.00
			$600,000.00	**$0.00**	**$0.00**	**$600,000.00**			





DRAIN 4 RECONSTRUCTION AND EXTENSION
GRAND FORKS COUNTY, NORTH DAKOTA

PROJECT LOCATION MAP

PRIBULA ENGINEERING, PLLC
208 3RD AVENUE NW
EAST GRAND FORKS, MN 56721
701-772-7058

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received :

Project:	Drain 4 Reconstruction and Extension - Preconstruction
Sponsor:	Grand Forks County Water Resource District
Contact:	Tom Purdue, Chariman GFCWRD
Phone:	701-330-2413
Engineer:	Jerry Pribula, Pribula Engineering, PLLC
Phone:	701-772-7058

Total Cost :	$ 600,000
Ineligible Cost :	$ -
Eligible Cost :	$ 600,000
Local Cost :	$ 330,000

Date: June 10, 2024

	Cost-Share $
	$ 270,000
Preconstruction :	$ 270,000
Construction :	$ -

Project Type:	**Cost-share %**
Rural Flood Control - Drains, Channel, Diversion	45%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	#DIV/0!	Mobilization	1	LS	-	$ -	45%	$ -
2	#DIV/0!	Bonding	0		-	$ -	45%	$ -
3	#DIV/0!	Insurance	0		-	$ -	45%	$ -
4	#DIV/0!		0		-	$ -	45%	$ -
5	#DIV/0!		0		-	$ -	45%	$ -
6	#DIV/0!		0		-	$ -	45%	$ -
7	#DIV/0!		0		-	$ -	45%	$ -
8	#DIV/0!		0		-	$ -	45%	$ -
9	#DIV/0!		0		-	$ -	45%	$ -
10	#DIV/0!		0		-	$ -	45%	$ -
11	#DIV/0!		0		-	$ -	45%	$ -
12	#DIV/0!		0		-	$ -	45%	$ -
13	#DIV/0!		0		-	$ -	45%	$ -
14	#DIV/0!		0		-	$ -	45%	$ -
15	#DIV/0!		0		-	$ -	45%	$ -
16	#DIV/0!		0		-	$ -	45%	$ -
17	#DIV/0!		0		-	$ -	45%	$ -
18	#DIV/0!		0		-	$ -	45%	$ -
19	#DIV/0!		0		-	$ -	45%	$ -
20	#DIV/0!		0		-	$ -	45%	$ -
21	#DIV/0!		0		-	$ -	45%	$ -
22	#DIV/0!		0		-	$ -	45%	$ -
23	#DIV/0!		0		-	$ -	45%	$ -
24	#DIV/0!		0		-	$ -	45%	$ -
25	#DIV/0!		0		-	$ -	45%	$ -
26	#DIV/0!		0		-	$ -	45%	$ -
		Construction Sub-Total				$ -	45%	$ -
	0.0%	**Contingency**				$ -	45%	$ -
	0.0%	**Construction Total**				$ -	45%	$ -
		Preconstruction Costs						
27	#DIV/0!	Preliminary Design	1		460,000.00	$ 460,000	45%	$ 207,000
28	#DIV/0!	Hydraulic Models	1		60,000.00	$ 60,000	45%	$ 27,000
29	#DIV/0!	Geotechnical Investigations	1		20,000.00	$ 20,000	45%	$ 9,000
30	#DIV/0!	Other Preconstruction Engineering	1		60,000.00	$ 60,000	45%	$ 27,000
31	#DIV/0!		0		-	$ -	45%	$ -
	100.0%	**Preconstruction Total**				$ 600,000	45%	$ 270,000
		Construction Engineering Costs						
32	#DIV/0!		0		-	$ -	45%	$ -
33	#DIV/0!		0		-	$ -	45%	$ -
34	#DIV/0!		0		-	$ -	45%	$ -
35	#DIV/0!		0		-	$ -	45%	$ -
36	#DIV/0!		0		-	$ -	45%	$ -
	0.0%	**Construction Engineering Total**				$ -	45%	$ -
		Other Eligible Costs						
37	0.0%		0		-	$ -	45%	$ -
38	0.0%		0		-	$ -	45%	$ -
39	0.0%		0		-	$ -	45%	$ -
40	0.0%		0		-	$ -	45%	$ -
41	0.0%		0		-	$ -	45%	$ -
	0.0%	**Other Eligible Total**				$ -	45%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 600,000		
		Eligible Total				$ 600,000	45%	$ 270,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 600,000	45%	$ 270,000

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Water Development Plan: No
E 2

1083510 - Rose St property acquisition

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 21, 2024 12:37 PM

Initially Submitted By: Kristina Dick

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Kristina First Name
Middle Name Dick Last Name

Title: Auditor

Email*: kristina@cityoflisbon.net

Address*: 423 Main St

Organization Information

Status*: Approved

Name*: City of Lisbon

Organization Type*: Political Subdivision

Tax Id: 45-600213

Organization Website:

Address*: PO Box 1079

	Lisbon North Dakota City State/Province
58054 Postal Code/Zip	
Phone*:	701-683-4140 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

	Lisbon North Dakota City State/Province
58054-0000 Postal Code/Zip	
Phone*:	(701) 683-4140 Ext. ###-###-####
Fax:	###-###-####
Vendor ID:	
PeopleSoft Supplier ID:	
Comments:	
Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Rose St Property Acquisition
Sponsor(s)*:	City of Lisbon
County*:	Ransom
City*:	Lisbon
Description of Request*:	New
If Study, What Type:	
If Project/Program, What Type:	Flood Control

Jurisdictions/Stakeholders Involved*:

City of Lisbon

Describe the Problem*:

See attached.

Provide Project Details, Objectives and Solutions to Address Problem*:

See attached.

For this project,

Choose City, County, Water District or Other*:	City
What is the Current Estimated Population?*:	2200

For this project,

What is the Benefited Population?*:	2200
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	N/A
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *: No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: N/A

Bid*: N/A

Construction Start*: August 2024

Construction Completion*: December 2024

Explain Additional Timeline Issues*:

N/A

Consulting Engineer*: Moore Engineering, Inc. - Tracy Eslinger, PE

Engineer Telephone Number*: 701-499-5860

Engineer Email*: tracy.eslinger@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Janna (First Name) Miller (Last Name) 06/18/2024 (Date)

Address*:	423 Main Street Address Line 1 Address Line 2 Lisbon North Dakota 58054-4143 City State Zip Code
Telephone Number*:	701-683-4140
Sponsor Email*:	janna@cityoflisbon.net
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Janna Miller 06/17/2024 First Name Last Name Date
Title/Position/Authority*:	Deputy Auditor

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No

CLICK HERE **to see examples.**

Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	Rose St property.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost 1.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	Yes
Acquisition Plan:	Rose St property acquisition 2024.docx
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

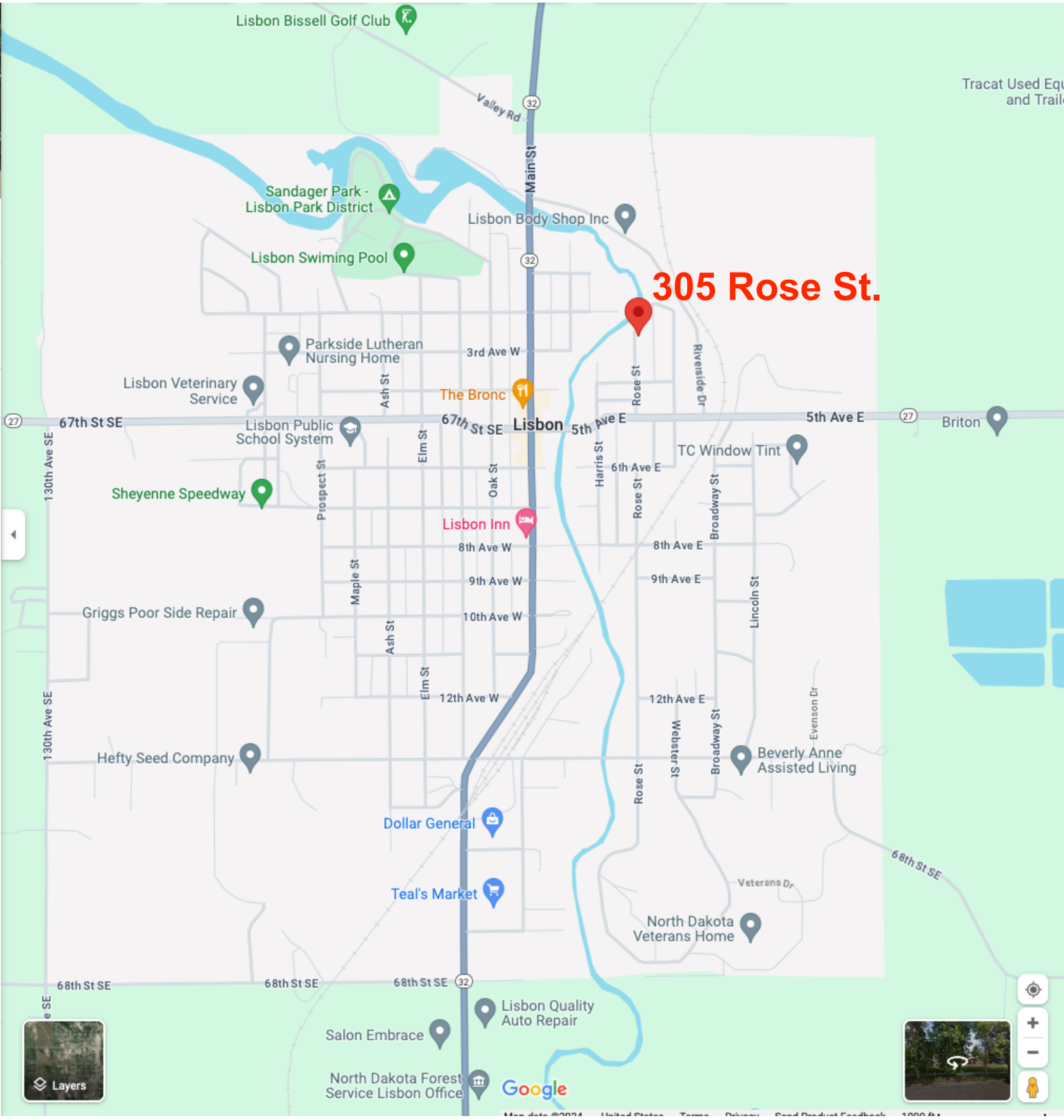
Photos of Problem/Issue:

Other Applicable Document(s): No

Sources

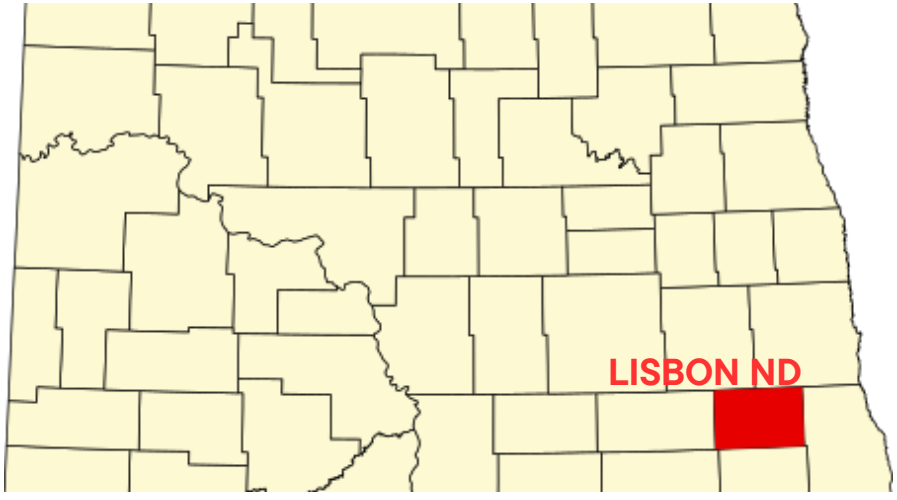
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

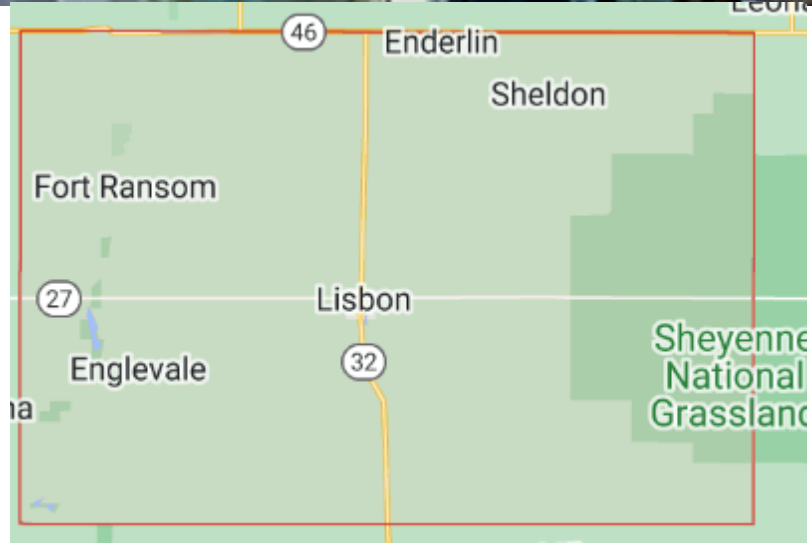
Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Current Request	$104,376.00	$0.00	$0.00	$104,376.00		0.00	0.00
			$104,376.00	**$0.00**	**$0.00**	**$104,376.00**			


305 Rose St.
Lisbon Bissell Golf Club
Valley Rd
32
Main St
Sandager Park - Lisbon Park District
Lisbon Body Shop Inc
Lisbon Swiming Pool
Parkside Lutheran Nursing Home
3rd Ave W
Lisbon Veterinary Service
Ash St
The Bronc
Rose St
Riverside Dr
27
67th St SE
Lisbon Public School System
Elm St
Lisbon
5th Ave E
Briton
TC Window Tint
130th Ave SE
Prospect St
Oak St
Harris St
6th Ave E
Broadway St
Sheyenne Speedway
Lisbon Inn
8th Ave W
8th Ave E
Maple St
9th Ave W
9th Ave E
Lincoln St
Griggs Poor Side Repair
10th Ave W
12th Ave W
12th Ave E
Webster St
Evenson Dr
Hefty Seed Company
Beverly Anne Assisted Living
Dollar General
68th St SE
Veterans Dr
Teal's Market
North Dakota Veterans Home
Lisbon Quality Auto Repair
Salon Embrace
North Dakota Forest Service Lisbon Office
Google
Layers

CITY OF LISBON
ROSE ST PROPERTY ACQUISITION

March





DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received :

Project:	Rose Street Property Acquisition
Sponsor:	City of Lisbon
Contact:	Kristina Dick, Auditor
Phone:	701-683-4140
Engineer:	
Phone:	000_000_0000

Total Cost :	$ 173,960
Ineligible Cost :	$ -
Eligible Cost :	$ 173,960
Local Cost :	$ 69,560

Date: June 21, 2024

	Cost-Share $
	$ 104,400
Preconstruction :	$ -
Construction :	$ 104,376

Project Type:	**Cost-share %**
Flood Related Property Acquisition	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	0.0%	Mobilization	1	LS	-	$ -	60%	$ -
2	0.0%	Bonding	0		-	$ -	60%	$ -
3	0.0%	Insurance	0		-	$ -	60%	$ -
4	68.4%	Demolition	1		16,382.00	$ 16,382	60%	$ 9,829
5	16.7%	Other Services Provided By Contractor	1		4,000.00	$ 4,000	60%	$ 2,400
6	5.8%	Other	1		1,400.00	$ 1,400	60%	$ 840
7	0.0%		0		-	$ -	60%	$ -
8	0.0%		0		-	$ -	60%	$ -
9	0.0%		0		-	$ -	60%	$ -
10	0.0%		0		-	$ -	60%	$ -
11	0.0%		0		-	$ -	60%	$ -
12	0.0%		0		-	$ -	60%	$ -
13	0.0%		0		-	$ -	60%	$ -
14	0.0%		0		-	$ -	60%	$ -
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 21,782	60%	$ 13,069
	10.0%	**Contingency**				$ 2,178	60%	$ 1,307
	13.8%	**Construction Total**				$ 23,960	60%	$ 14,376
		Preconstruction Costs						
27	0.0%		0		-	$ -	60%	$ -
28	0.0%		0		-	$ -	60%	$ -
29	0.0%		0		-	$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	0.0%	**Preconstruction Total**				$ -	60%	$ -
		Construction Engineering Costs						
32	0.0%		0		-	$ -	60%	$ -
33	0.0%		0		-	$ -	60%	$ -
34	0.0%		0		-	$ -	60%	$ -
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	0.0%	**Construction Engineering Total**				$ -	60%	$ -
		Other Eligible Costs						
37	86.2%	Property / Land (Flood Protection)	1		150,000.00	$ 150,000	60%	$ 90,000
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	86.2%	**Other Eligible Total**				$ 150,000	60%	$ 90,000
		In-eligible Costs						
42	0.0%	Legal Expenses	0		4,037.50	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 173,960		
		Eligible Total				$ 173,960	60%	$ 104,376
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 173,960	60%	$ 104,376

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

CITY OF LISBON
NORTH DAKOTA

June 21, 2024

PLAN: The City of Lisbon has previously worked on permanent flood protection within the area of this property. This property has recently been put up for sale and due to the area and proximity to the Sheyenne riverbank instability and threat to infrastructure or in the event of a major flood event, having this house removed gives us the ability to move infrastructure back put in levee in the future as necessary.

Description – 305 Rose St; Lot 3 American Legion 1st addition, South 27' Lot 4 American Legion 1st addition, City of Lisbon
Parcels – 28-6482030, 28-6482040
Map – attached

Est cost of acquisition – Offer $150,000
Est Legal fees - $4,037.50
Removal Estimate – $16,382
Estimated dump fees - $4000
Estimated asbestos testing - $1400
Possible asbestos removal - unknown
Benefits – Service connection expense deterioration of riverbank

423 Main Street ~ PO Box 1079 ~ Lisbon, ND 58054
Phone (701) 683-4140 Fax (701) 683-9710
TDD: 1-800-366-6888

1083506 - Clausen Springs Dam Safety Evaluation

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 17, 2024 2:05 PM

Initially Submitted By: Mike Opat

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Mike First Name
Middle Name Opat Last Name

Title: Senior Engineer

Email*: mopat@houstoneng.com

Address*: 1401 21st Ave N

Organization Information

Status*: Approved

Name*:
Barnes County Water Resource District

Organization Type*: Political Subdivision

Tax Id: 45-6002198

Organization Website:

Address*: PO Box 306

	Fargo, ND 58102 City		Valley City North Dakota City State/Province
North Dakota 58102 State/Province Postal Code/Zip		58072-0306 Postal Code/Zip	
Phone*:	701-499-9473 Ext. Phone ###-###-####	**Phone*:**	701-845-0683 Ext. ###-###-####
Fax:	###-###-####	**Fax:**	###-###-####
Comments:		**Vendor ID:**	
		PeopleSoft Supplier ID:	0000042386
		Comments:	
		Location Code:	MAIN

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Clausen Springs Dam Safety Evaulation
Sponsor(s)*:	Barnes County Water Resource District
County*:	Barnes
City*:	Kathryn
Description of Request*:	New
If Study, What Type:	Other
If Project/Program, What Type:	DAM Safety/EAP

Jurisdictions/Stakeholders Involved*:

Bares County Water Resource District
Barnes County
North Dakota Game & Fish Department
Barnes County Park Board

Describe the Problem*:

Clausen Springs Dam was built in the 1960s and is at or near the end of its design life. While improvements have been made to the auxiliary spillway within the past 15 years, the dam embankment and principal spillway have not been analyzed or upgraded. Recent dam inspections completed by DWR staff continue to note wet areas near the embankment, the cause of which is not certain.

Provide Project Details, Objectives and Solutions to Address Problem*:

The proposed evaluation will involve a geotechnical investigation of the dam that analyze the stability of the existing dam embankment and identify any seepage issues that may causing the wet areas that are visible. The principal spillway conduit will be evaluated in closer detail to verify that the current gaps in the joints are not of concern. Based on what is found, proposed modifications will be proposed.

For this project,

Choose City, County, Water District or Other*:	County
What is the Current Estimated Population?*:	11000

For this project,

What is the Benefited Population?*:	11000
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	Yes
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*:	7/1/2025
Design Completion*:	7/1/2026
Bid*:	9/1/2026
Construction Start*:	9/21/2026
Construction Completion*:	7/1/2027
Explain Additional Timeline Issues*:	

None anticipated.

Consulting Engineer*:	Mike Opat, Houston Engineering

Engineer Telephone Number*:	701-499-9473
Engineer Email*:	mopat@houstoneng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Heather Manson 06/17/2024 First Name Last Name Date
Address*:	PO Box 306 Address Line 1 Address Line 2 Valley City North Dakota 58072-0000 City State Zip Code
Telephone Number*:	701-840-8508
Sponsor Email*:	hmanson@barnescounty.us
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Heather Manson 06/17/2024 First Name Last Name Date
Title/Position/Authority*:	Secretary-Treasurer

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No

CLICK HERE **to see examples.**

Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	Pages from Clausen_Springs_Dam_EAP_MASTER 2023.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No

Attach Completed Comprehensive Plan:

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost_Clausen Springs Dam.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

Other Applicable Document:

Other Applicable Document:

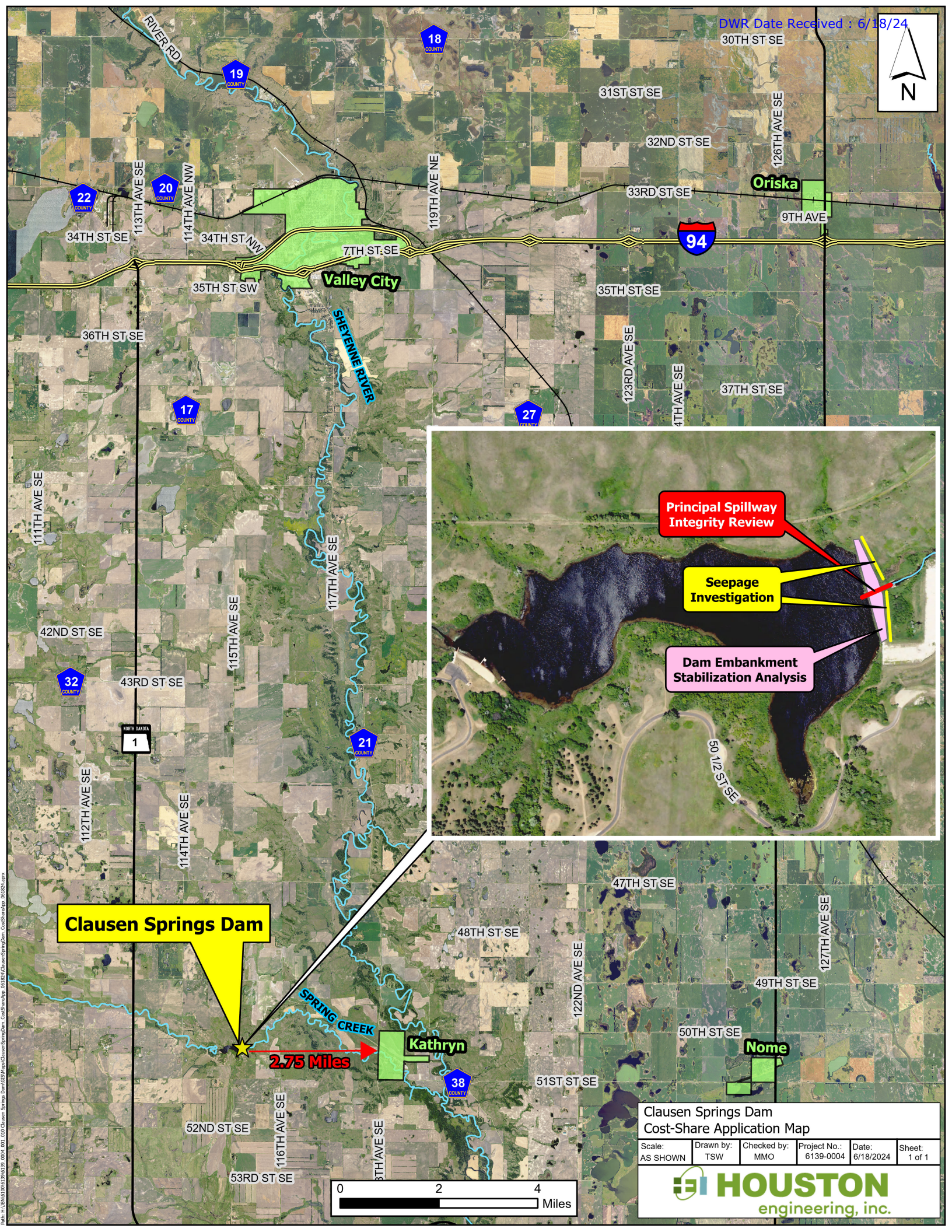
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Current Request	$150,000.00	$0.00	$0.00	$150,000.00	Grant	0.00	0.00
Other	Red River Joint WRD	Future Request	$65,000.00	$0.00	$0.00	$65,000.00	Grant	0.00	0.00

Other	Barnes County	Already Approved	$35,000.00	$0.00	$0.00	$35,000.00	Grant	0.00	0.00
			$250,000.00	**$0.00**	**$0.00**	**$250,000.00**			

DWR Date Received : 6/18/24



Clausen Springs Dam
Cost-Share Application Map

Scale:	Drawn by:	Checked by:	Project No.:	Date:	Sheet:
AS SHOWN	TSW	MMO	6139-0004	6/18/2024	1 of 1

HOUSTON engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 17, 2024

Project:	Clausen Springs Dam Safety Evaluation
Sponsor:	Barnes County Water Resource District
Contact:	Heather Manson
Phone:	701-840-8508
Engineer:	Mike Opat, Houston Engineering
Phone:	701-499-9473

Total Cost :	$ 250,000
Ineligible Cost :	$ -
Eligible Cost :	$ 250,000
Local Cost :	$ 100,000

Date: June 17, 2024

	Cost-Share $
Preconstruction :	$ 150,000
Construction :	$ -

Project Type:	**Cost-share %**
Dam - Deficiencies and Repairs	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	#DIV/0!	Mobilization	1	LS	-	$ -	60%	$ -
2	#DIV/0!	Bonding	0		-	$ -	60%	$ -
3	#DIV/0!	Insurance	0		-	$ -	60%	$ -
4	#DIV/0!		0		-	$ -	60%	$ -
5	#DIV/0!		0		-	$ -	60%	$ -
6	#DIV/0!		0		-	$ -	60%	$ -
7	#DIV/0!		0		-	$ -	60%	$ -
8	#DIV/0!		0		-	$ -	60%	$ -
9	#DIV/0!		0		-	$ -	60%	$ -
10	#DIV/0!		0		-	$ -	60%	$ -
11	#DIV/0!		0		-	$ -	60%	$ -
12	#DIV/0!		0		-	$ -	60%	$ -
13	#DIV/0!		0		-	$ -	60%	$ -
14	#DIV/0!		0		-	$ -	60%	$ -
15	#DIV/0!		0		-	$ -	60%	$ -
16	#DIV/0!		0		-	$ -	60%	$ -
17	#DIV/0!		0		-	$ -	60%	$ -
18	#DIV/0!		0		-	$ -	60%	$ -
19	#DIV/0!		0		-	$ -	60%	$ -
20	#DIV/0!		0		-	$ -	60%	$ -
21	#DIV/0!		0		-	$ -	60%	$ -
22	#DIV/0!		0		-	$ -	60%	$ -
23	#DIV/0!		0		-	$ -	60%	$ -
24	#DIV/0!		0		-	$ -	60%	$ -
25	#DIV/0!		0		-	$ -	60%	$ -
26	#DIV/0!		0		-	$ -	60%	$ -
		Construction Sub-Total				$ -	60%	$ -
	0.0%	**Contingency**				$ -	60%	$ -
	0.0%	**Construction Total**				$ -	60%	$ -
		Preconstruction Costs						
27	#DIV/0!	Geotechnical Investigations	1		135,000.00	$ 135,000	60%	$ 81,000
28	#DIV/0!	Hydraulic Models	1		115,000.00	$ 115,000	60%	$ 69,000
29	#DIV/0!		0		-	$ -	60%	$ -
30	#DIV/0!		0		-	$ -	60%	$ -
31	#DIV/0!		0		-	$ -	60%	$ -
	100.0%	**Preconstruction Total**				$ 250,000	60%	$ 150,000
		Construction Engineering Costs						
32	#DIV/0!		0		-	$ -	60%	$ -
33	#DIV/0!		0		-	$ -	60%	$ -
34	#DIV/0!		0		-	$ -	60%	$ -
35	#DIV/0!		0		-	$ -	60%	$ -
36	#DIV/0!		0		-	$ -	60%	$ -
	0.0%	**Construction Engineering Total**				$ -	60%	$ -
		Other Eligible Costs						
37	0.0%		0		-	$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 250,000		
		Eligible Total				$ 250,000	60%	$ 150,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 250,000	60%	$ 150,000

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Water Development Plan : No

1083379 - Walsh County Dams Emergency Action Plans

Application Details

Funding Opportunity:	1083251-State Fiscal Year 2024-2025 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2025 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Submitted
Stage:	Final Application
Initial Submit Date:	May 30, 2024 4:38 PM
Initially Submitted By:	Jacob Wognum
Last Submit Date:	Jun 20, 2024 9:05 AM
Last Submitted By:	Sarah Johnston

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Jacob (First Name) Middle Name Wognum (Last Name)
Title:	
Email*:	jwognum@houstoneng.com
Address*:	1401 21st Ave North
	Fargo (City) North Dakota (State/Province) 58102 (Postal Code/Zip)
Phone*:	(701) 237-5065 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	Walsh County Water Resource District
Organization Type*:	Political Subdivision
Tax Id:	45-6007239
Organization Website:	
Address*:	600 Cooper Ave

	Grafton North Dakota 58237-0000 City State/Province Postal Code/Zip
Phone*:	(701) 352-0081 Ext. ###-###-####
Fax:	###-###-####
Vendor ID:	
PeopleSoft Supplier ID:	
Comments:	
Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Walsh County Dams Emergency Action Plans
Sponsor(s)*:	Walsh County Water Resource District
County*:	Walsh
City*:	Grafton
Description of Request*:	New
If Study, What Type:	
If Project/Program, What Type:	DAM Safety/EAP

Jurisdictions/Stakeholders Involved*:

Walsh County Water Resource District Board

Describe the Problem*:

Walsh County is in need of updating Emergency Action Plans (EAP) for its medium and high hazard dam structures. The need to update the EAPs was evident during the spring 2022 flood event where various dams were near maximum flood pool and several activated their auxiliary spillways.

Provide Project Details, Objectives and Solutions to Address Problem*:

This project will update Walsh County's Emergency Action Plans (EAP) for ten dams that currently have medium or high hazard designation. Breach analysis and inundation mapping will be performed for each dam's EAP following North Dakota Dam Safety Standards along with updates to the EAP document. A tabletop exercise will be completed to identify any additional modifications before finalizing.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	10305

For this project,

What is the Benefited Population?*:	10305
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	No
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No

Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*:	06/2025
Design Completion*:	Not Applicable
Bid*:	Not Applicable
Construction Start*:	Not Applicable
Construction Completion*:	Not Applicable

Explain Additional Timeline Issues*:

Approximate completion timeline will be dependent on date of cost-share approvals.

Consulting Engineer*:	Jacob Wognum
Engineer Telephone Number*:	701-499-2052
Engineer Email*:	jwognum@houstoneng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Sarah (First Name) Johnston (Last Name) 05/30/2024 (Date)
Address*:	600 Cooper Ave (Address Line 1) (Address Line 2) Grafton (City) North Dakota (State) 58237-1535 (Zip Code)
Telephone Number*:	701-352-0081
Sponsor Email*:	wcwrb@nd.gov

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Sarah (First Name) Johnston (Last Name) 05/30/2024 (Date)
Title/Position/Authority*:	Administrative Assistant

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	Yes
CLICK HERE to see examples.	
Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community ***:**	NDDWR_LocationMap Walsh Dams EAPs 2024-06-19.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	
CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.	
Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost Walsh Dam EAPs 2024-06-19.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	

Other Applicable Document(s): Yes

Other Applicable Document: 6.20.2024 NDDWR Cost Share Letter - Walsh County WRD EAPs.pdf

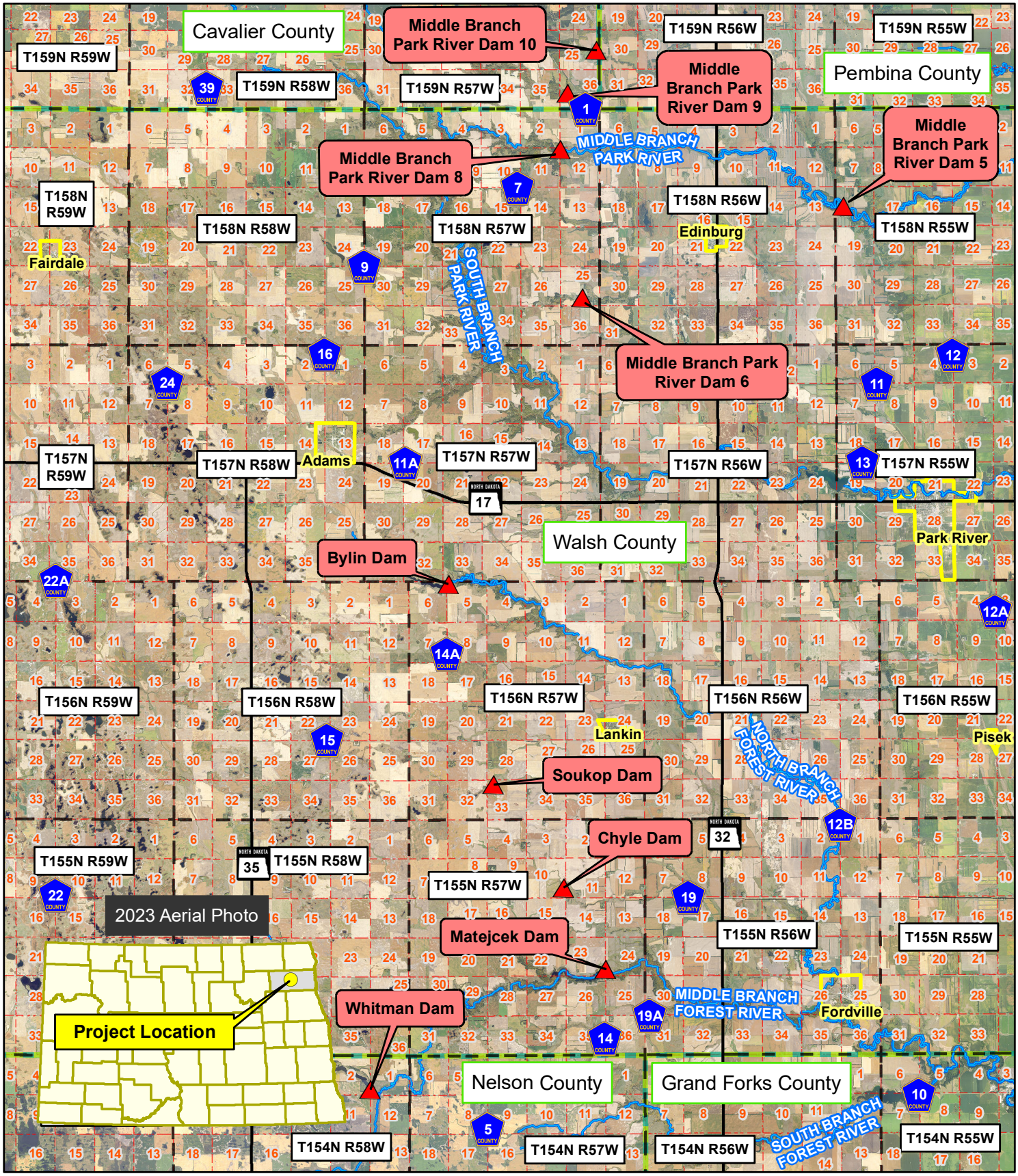
Other Applicable Document:

Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Current Request	$182,800.00	$0.00	$0.00	$182,800.00	Grant	0.00	0.00
Other	Red River Joint Water Resource District	Future Request	$29,705.00	$0.00	$0.00	$29,705.00	Grant	0.00	0.00
Other	Local		$15,995.00	$0.00	$0.00	$15,995.00		0.00	0.00
			$228,500.00	**$0.00**	**$0.00**	**$228,500.00**			



Houston Engineering Inc.
Date: 6/19/2024
Prepared by: TSW

Walsh County Dams Emergency Action Plans

Walsh County Water Resource District

N
W E
S

0 0.5 1 2 Miles

Multiple Townships
Walsh, Nelson,Pembina, and Cavalier Counties, ND

H:\JBN\7100\71357135_0063\GIS\Map's\WalshCounty\DamEAP_CostShareMap_061924.mxd

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received :

Project:	Walsh County Dams Emergency Action Plans
Sponsor:	Walsh County Water Resource District
Contact:	Sarah Johnston, Administrative Assistant
Phone:	701-352-0081
Engineer:	Jacob Wognum, Houston Engineering, Inc.
Phone:	701-499-2052

Total Cost :	$ 228,500
Ineligible Cost :	$ -
Eligible Cost :	$ 228,500
Local Cost :	$ 45,700

Date: June 19, 2024

	Cost-Share $
	$ 182,800
Preconstruction :	$ 182,800
Construction :	$ -

Project Type:	**Cost-share %**
Dam - Emergency Action Plan	80%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	#DIV/0!	Mobilization	1	LS	-	$ -	80%	$ -
2	#DIV/0!	Bonding	0		-	$ -	80%	$ -
3	#DIV/0!	Insurance	0		-	$ -	80%	$ -
4	#DIV/0!		0		-	$ -	80%	$ -
5	#DIV/0!		0		-	$ -	80%	$ -
6	#DIV/0!		0		-	$ -	80%	$ -
7	#DIV/0!		0		-	$ -	80%	$ -
8	#DIV/0!		0		-	$ -	80%	$ -
9	#DIV/0!		0		-	$ -	80%	$ -
10	#DIV/0!		0		-	$ -	80%	$ -
11	#DIV/0!		0		-	$ -	80%	$ -
12	#DIV/0!		0		-	$ -	80%	$ -
13	#DIV/0!		0		-	$ -	80%	$ -
14	#DIV/0!		0		-	$ -	80%	$ -
15	#DIV/0!		0		-	$ -	80%	$ -
16	#DIV/0!		0		-	$ -	80%	$ -
17	#DIV/0!		0		-	$ -	80%	$ -
18	#DIV/0!		0		-	$ -	80%	$ -
19	#DIV/0!		0		-	$ -	80%	$ -
20	#DIV/0!		0		-	$ -	80%	$ -
21	#DIV/0!		0		-	$ -	80%	$ -
22	#DIV/0!		0		-	$ -	80%	$ -
23	#DIV/0!		0		-	$ -	80%	$ -
24	#DIV/0!		0		-	$ -	80%	$ -
25	#DIV/0!		0		-	$ -	80%	$ -
26	#DIV/0!		0		-	$ -	80%	$ -
		Construction Sub-Total				$ -	80%	$ -
	0.0%	**Contingency**				$ -	80%	$ -
	0.0%	**Construction Total**				$ -	80%	$ -
		Preconstruction Costs						
27	#DIV/0!	Emergency Action Plan Updates	1	NA	58,500.00	$ 58,500	80%	$ 46,800
28	#DIV/0!	Breach Analysis	1	NA	160,700.00	$ 160,700	80%	$ 128,560
29	#DIV/0!	Emergency Action Plan Tabletop Test/Ex	1	NA	9,300.00	$ 9,300	80%	$ 7,440
30	#DIV/0!		0		-	$ -	80%	$ -
31	#DIV/0!		0		-	$ -	80%	$ -
	100.0%	**Preconstruction Total**				$ 228,500	80%	$ 182,800
		Construction Engineering Costs						
32	#DIV/0!		0		-	$ -	80%	$ -
33	#DIV/0!		0		-	$ -	80%	$ -
34	#DIV/0!		0		-	$ -	80%	$ -
35	#DIV/0!		0		-	$ -	80%	$ -
36	#DIV/0!		0		-	$ -	80%	$ -
	0.0%	**Construction Engineering Total**				$ -	80%	$ -
		Other Eligible Costs						
37	0.0%		0		-	$ -	80%	$ -
38	0.0%		0		-	$ -	80%	$ -
39	0.0%		0		-	$ -	80%	$ -
40	0.0%		0		-	$ -	80%	$ -
41	0.0%		0		-	$ -	80%	$ -
	0.0%	**Other Eligible Total**				$ -	80%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 228,500		
		Eligible Total				$ 228,500	80%	$ 182,800
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 228,500	80%	$ 182,800

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

WALSH COUNTY
WATER RESOURCE DISTRICT

600 Cooper Avenue
Grafton, ND 58237

Phone: (701) 352-0081
Email: wcwrb@nd.gov

June 20, 2024

North Dakota Department of Water Resources
SWC Cost-Share Program
1200 Memorial Highway
Bismarck, ND 58504-5262

Subject: Walsh County Dams- Emergency Action Plans

To Whom It May Concern,

The Walsh County Water Resource District (WCWRD) respectfully requests consideration for cost-share funding with the North Dakota Department of Water Resources (DWR) for updates to our county's Emergency Action Plans (EAPs). The need to update to our current EAPs was evident during the Spring 2022 flood event where various dams were near maximum flood pool, and several activated their auxiliary spillways. This resulted in the activation of several of our existing EAPs where deficiencies were noted including insufficient breach extents and downstream hazards mapping. While we were successful in the spring 2022 flood event, much of this was due to our Board's local knowledge of the area. The proposed work within this application will address these deficiencies and use current technology and data to aid a more streamlined response to future emergency situations.

EAP updates would be completed for ten dams, which are either medium or high hazard designation structures. New hydrologic models would be created for our eight medium hazard dams: Chyle Dam, Soukop Dam, Whitman Dam, and the Middle Branch Park River Dams- #5, #6, #8, #9, and #10. Please see the enclosed location map. To address EAP deficiencies on high hazard Bylin and Matejcek dams, breach analysis and mapping would be updated, leveraging recently completed hydrology and hydraulic models, developed in the on-going NRCS rehabilitation planning studies. All work will be completed to meet the ND DWR's North Dakota Dam Safety Standards that went into effect January 10, 2024. Upon completion of the EAPs, a tabletop exercise will be completed to identify any additional modifications before finalizing.

Cost share for the EAPs would be categorized as *Dams and Emergency Action Plans* and, therefore, the maximum cost-share percentage applicable is 80%. We request that these EAP updates be considered under the current cost-share policy at 80% of the $228,500 total project cost, which equals a total cost share request of $182,800.

Thank you in advance for your consideration. If you have any questions, feel free to contact our office at (701) 352-0081.

Sincerely,

Sarah B. Johnston

Sarah B. Johnston
Administrative Assistant

1083548 - USGS Collaboration: FFA Tasks 2 through 4 to develop and update decision-making data - Cost Increase

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 23, 2024 11:52 PM

Initially Submitted By: Aaron Carranza

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. (Salutation) Aaron (First Name) Carranza (Last Name)

Middle Name

Title:
DWR Regulatory Division Director

Email*: acarranza@nd.gov

Organization Information

Status*: Approved

Name*:
ND Department of Water Resources

Organization Type*: State Government

Tax Id:

Organization Website:

Address*:	900 E Boulevard Avenue	**Address*:**	900 E Boulevard Ave
	Bismarck North Dakota City State/Province		Bismarck North Dakota City State/Province
58505 Postal Code/Zip		58505-____ Postal Code/Zip	
Phone*:	701-328-4813 Ext. Phone ###-###-####	**Phone*:**	701-328-4952 Ext. ###-###-####
Fax:	###-###-####	**Fax:**	###-###-####
Comments:		**Vendor ID:**	
		PeopleSoft Supplier ID:	
		Comments:	
		Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	USGS FFA Collaboration - Cost Increase
Sponsor(s)*:	Department of Water Resources - Regulatory Division
County*:	Statewide
City*:	Bismack
Description of Request*:	Updated (previously submitted)
If Study, What Type:	Hydrologic
If Project/Program, What Type:	Other

Jurisdictions/Stakeholders Involved*:

In preparation of Task 3 tied to the project, USGS notified the DWR that innovative technological

advancements have come online that would enable the remote identification of culverts statewide. This would elevate the original effort by enhancing the accurate representation of water connectivity statewide.

Describe the Problem*:

The USGS process of "hydro-enforcing" culvert identification is a new method recently developed. The process involves the automatic detection of culvert locations through the analytics of existing terrain data. It is estimated this effort will more than double the amount of known culverts in the existing NDDOT culvert inventory. Without advancing this enhancement for this study, the data used to generate Tasks 3 and 4 of the original effort would be based on knowingly incomplete data, putting in to questions the certainty of the ultimate results.

Provide Project Details, Objectives and Solutions to Address Problem*:

This effort would be accomplished as new Task 3A, with renamed Task 3B being the original Task 3. A more comprehensive culvert and connectivity depiction of the state would pay dividends on all future projects looking to accurately represent the surface flow of water across the state.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	774948

For this project,

What is the Benefited Population?*:	774948
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	N/A
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No

Have You Applied For Any Federal Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	N/A
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	Yes
Explain the Source, Timing and Amount of Federal Funds:	

20% USGS cost-share on the project.

Federal Funding Contact:	Tara	WIlliams-Sether
	First Name	Last Name
Federal Funding Contact Number:	701-250-7413	
Federal Funding Email:	tjsether@usgs.gov	

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 10/2028

Design Completion*: 10/2028

Bid*: 10/2024

Construction Start*: 10/2024

Construction Completion*: 10/2028

Explain Additional Timeline Issues*:

There is still no design/construction tied to this project. The projects generates and updates data only. Task 3 is scheduled to begin October 2024. This cost-increase related effort would be completed as a portion of Task 3.

Consulting Engineer*: Karen Ryberg

Engineer Telephone Number*: 701-250-7422

Engineer Email*: kryberg@usgs.gov

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Aaron (First Name) Carranza (Last Name) 06/23/2024 (Date)

Address*: 1200 Memorial Highway
Address Line 1

Address Line 2

Bismarck (City) North Dakota (State) 58504-5262 (Zip Code)

Telephone Number*: 701-328-4813

Sponsor Email*: acarranza@nd.gov

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Aaron Carranza 06/23/2024 First Name Last Name Date
Title/Position/Authority*:	Regulatory Division Director

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No
CLICK HERE **to see examples.**	
Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	USGS timeline and costs.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost 4.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	No
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	Yes
Other Applicable Document:	Cost Increase Supporting DWR Memo_StreamStats.pdf
Other Applicable Document:	ND_SS_data_refresh_proposal.pdf

Other Applicable Document: Memo_of_supporting_info1.pdf

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Current Request	$0.00	$650,000.00	$0.00	$650,000.00	Grant	0.00	0.00
			$0.00	**$650,000.00**	**$0.00**	**$650,000.00**			

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 24, 2024

Project:	USGS FFA Task 3 Cost Increase
Sponsor:	Department of Water Resources
Contact:	Aaron Carranza, DWR Regulatory Division Director
Phone:	701_328_4813
Engineer:	Karen Ryberg
Phone:	701_250_7422

Total Cost :	$ 650,000
Ineligible Cost :	$ -
Eligible Cost :	$ 650,000
Local Cost :	$ -

Date: June 23, 2024

	Cost-Share $
	$ 650,000
Preconstruction :	$ -
Construction :	$ 650,000

Project Type:	**Cost-share %**
Other (100%)	100%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	#DIV/0!	Mobilization	0		-	$ -	100%	$ -
2	#DIV/0!	Bonding	0		-	$ -	100%	$ -
3	#DIV/0!	Insurance	0		-	$ -	100%	$ -
4	#DIV/0!					$ -	100%	$ -
5	#DIV/0!		0		-	$ -	100%	$ -
6	#DIV/0!		0		-	$ -	100%	$ -
7	#DIV/0!		0		-	$ -	100%	$ -
8	#DIV/0!		0		-	$ -	100%	$ -
9	#DIV/0!		0		-	$ -	100%	$ -
10	#DIV/0!		0		-	$ -	100%	$ -
11	#DIV/0!		0		-	$ -	100%	$ -
12	#DIV/0!		0		-	$ -	100%	$ -
13	#DIV/0!		0		-	$ -	100%	$ -
14	#DIV/0!		0		-	$ -	100%	$ -
15	#DIV/0!		0		-	$ -	100%	$ -
16	#DIV/0!		0		-	$ -	100%	$ -
17	#DIV/0!		0		-	$ -	100%	$ -
18	#DIV/0!		0		-	$ -	100%	$ -
19	#DIV/0!		0		-	$ -	100%	$ -
20	#DIV/0!		0		-	$ -	100%	$ -
21	#DIV/0!		0		-	$ -	100%	$ -
22	#DIV/0!		0		-	$ -	100%	$ -
23	#DIV/0!		0		-	$ -	100%	$ -
24	#DIV/0!		0		-	$ -	100%	$ -
25	#DIV/0!		0		-	$ -	100%	$ -
26	#DIV/0!		0		-	$ -	100%	$ -
		Construction Sub-Total				$ -	100%	$ -
	0.0%	**Contingency**				$ -	100%	$ -
	0.0%	**Construction Total**				$ -	100%	$ -
		Preconstruction Costs						
27	#DIV/0!		0		-	$ -	100%	$ -
28	#DIV/0!		0		-	$ -	100%	$ -
29	#DIV/0!		0		-	$ -	100%	$ -
30	#DIV/0!		0		-	$ -	100%	$ -
31	#DIV/0!		0		-	$ -	100%	$ -
	0.0%	**Preconstruction Total**				$ -	100%	$ -
		Construction Engineering Costs						
32	#DIV/0!		0		-	$ -	100%	$ -
33	#DIV/0!		0		-	$ -	100%	$ -
34	#DIV/0!		0		-	$ -	100%	$ -
35	#DIV/0!		0		-	$ -	100%	$ -
36	#DIV/0!		0		-	$ -	100%	$ -
	0.0%	**Construction Engineering Total**				$ -	100%	$ -
		Other Eligible Costs						
37	100.0%	Other	1	LS	650,000.00	$ 650,000	100%	$ 650,000
38	0.0%		0		-	$ -	100%	$ -
39	0.0%		0		-	$ -	100%	$ -
40	0.0%		0		-	$ -	100%	$ -
41	0.0%		0		-	$ -	100%	$ -
	100.0%	**Other Eligible Total**				$ 650,000	100%	$ 650,000
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 650,000		
		Eligible Total				$ 650,000	100%	$ 650,000
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 650,000	100%	$ 650,000

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

A Refresh of North Dakota StreamStats using Lidar Data

Background and Problem

StreamStats, a USGS web-based application (Ries and others, 2017), became available for North Dakota in 2013. StreamStats can solve regression equations for flow statistics and compute explanatory variables using digital data layers that model topography, stream network, and basin characteristics. StreamStats also serves as a database of at-site statistics computed from streamflow data at gaging stations.

Hydraulic engineers use regression equations to estimate peak streamflows in the hydraulic design of bridges and culverts at ungauged stream locations. Regression equations currently available in North Dakota were developed by the United States Geological Survey (USGS) using historical data from stream gages in rural watersheds (Williams-Sether, 2015). Estimates of the magnitudes of peak streamflow discharge for the annual exceedance probabilities of 0.5, 0.2, 0.1, 0.04, 0.02, 0.01, and 0.002 (equivalent to recurrence intervals of 2-, 5-, 10-, 25-, 50-, 100-, and 500-years, respectively) can be calculated with the regression equations. The USGS updates the regression equations, in cooperation with multiple ND state agencies and Water Resources Boards, approximately every 10-15 years using all available USGS peak-flow data from gages in rural unregulated settings that have at least ten years of annual peaks.

StreamStats is used to compute explanatory variables for the North Dakota regression equations. The editing and processing to develop the underlying base layers was initiated in 2008. The best available data (10-meter Digital Elevation Model [DEM]) was utilized as it was becoming available in North Dakota and portions of adjacent states, and later as harmonization efforts with Canada began. The DEM was derived from 1:24,000 scale topographic data that were processed to create a raster with a 10-meter (32.81 feet) cell size. The elevation data was subsequently preprocessed to hydroenforce 1:24,000 scale streamlines to create the StreamStats base layer. It is that base layer that facilitates rapid delineation of watersheds and determination of basin characteristics when using StreamStats.

Engineers utilizing StreamStats for hydraulic design and water resources staff making management decisions in North Dakota have experienced instances where drainage areas and associated basin characteristics determined by StreamStats are inaccurate. These inaccuracies are caused by subtle topographic features that cannot be captured in adequate detail in a 10-meter resolution elevation raster, the lack of hydroenforcement of artificial routing structures, such as culverts, or changes in topography and/or the stream network that have occurred since the original base layer was created. This lack of detail can be especially problematic in low-relief areas in North Dakota. These same low-relief areas tend to be more flood prone and are where accurate watershed determinations are most critically needed. Development of new, higher resolution base layers derived from existing and upcoming lidar datasets would help eliminate inaccurate delineations in StreamStats and improve its overall functionality. Improvements in the accuracy of delineations are expected to be most improved in the Red River of the North Basin and in areas where prairie potholes exist.

Lidar-based DEMs are typically provided as a “bare-earth” product that represents the ground surface. Data returns from vegetation and buildings are typically removed from lidar data before constructing a DEM. Often data returns from bridge decks are also removed, which provides a continuous channel for

modeling surface drainage networks. However, smaller flow conveyances such as culverts are typically not removed. Extra effort is needed to identify culvert locations so that they can be hydroenforced into a lidar-based DEM. This hydroenforcement will allow modeled flow networks to pass through roadbeds and railroad trackbeds at locations coincident with culverts. While culvert inventories have been completed in some areas and along some road networks, a comprehensive statewide culvert inventory has not been completed. This is a crucial factor to consider in StreamStats data processing, since culverts need to be identified and hydroenforced before data processing can begin. It should be noted that all culverts with a drainage area of 40 acres or greater have already been identified and hydroenforced into a DEM for the Red River of the North Basin by the International Water Institute, https://iwinst.org/. In that basin, only culverts with drainage areas less than 40 acres still need to be identified.

Goals and Objectives

The proposed 4-year update effort will create a new StreamStats base layer for North Dakota, using updated topography created from high quality DEMs derived from lidar, higher resolution streamline data (where available) and basin characteristics, and additional basin characteristics layers. To create the new StreamStats base layer, a high-quality 3-meter (9.8 feet) DEM (created from lidar data) will be used. Where available, streamlines developed from lidar will be used, and where not available, streamlines will be developed based on flow paths determined from lidar. Similarly, culverts in existing inventories will be hydroenforced to ensure flow networks best represent field conditions, and where culvert inventories are not available, culverts will be identified and hydroenforced. Identification of culvert locations and subsequent development of the new base layers will comprise a substantial portion of this work. Because most culverts have already been identified in the Red River of the North Basin (International Water Institute, written communication), that area will be processed first and used as a pilot basin for North Dakota StreamStats.

The switch to a higher-resolution StreamStats base layer is expected to result in changes in the magnitudes of computed basin characteristics. For example, channel lengths computed from higher resolution streamlines will likely increase, which will in turn will affect basin characteristics like channel slope. Additional basin characteristics layers, such as ecoregions (Bryce and others, undated), will be reviewed and considered for inclusion within StreamStats. Existing regression equations (Williams-Sether, 2015) were developed using basin characteristics computed from lower-resolution data and so substituting basin characteristics computed using the higher-resolution base layer may not produce accurate estimates. Consequently, new regression equations for estimating flood-frequency statistics, using explanatory variables computed from the new higher-resolution base layers, will need to be developed following this research effort.

The at-site flood-frequency statistics (i.e., flood-frequency statistics computed from peak streamflow data measured at a gaged stream) are currently being updated and the resulting at-site flood frequency statistics will be uploaded to the StreamStats database.

Benefits and Relevance

A higher resolution StreamStats application for North Dakota will provide the cooperator and other StreamStats users with improvements to delineations and basin characteristics computations and enable more improved performance, with the greatest increase in accuracy expected in smaller watersheds. The exploration of additional and more accurate basin characteristics will potentially result

in improved performance of future regression equations for the estimation of peak flow magnitude and other flow statistics.

This proposal also addresses the USGS Water Mission Area (WMA) Memorandum No. 12.01 by "…being the principal Federal provider of water-resources data, assessments, research, and new technology for the Nation. As such, the WMA intends to maintain its competence through hydrologic research and methods development; distributed data-collection and resource-assessment programs; and continuous stakeholder input." And this project meets the USGS WMA broader goals which are listed below:

- advancing knowledge of the regional hydrologic system;
- advancing field or analytical methodology;
- advancing understanding of hydrologic processes;
- providing data or results useful to multiple parties in potentially contentious inter-jurisdictional conflicts over water resources;
- furnishing hydrologic data required for interstate and international compacts, Federal law, court decrees, and congressionally mandated studies;
- furnishing hydrologic data or information that contribute to protection of life and property; and
- providing standardized, quality-assured data to national data bases available to the public that can be used to advance the understanding of regional and temporal variations in hydrologic conditions.

Approach

Data layer preparation and processing will utilize established workflows and toolsets as recommended by the USGS National StreamStats Development Team. Data layers will utilize the ArcHydro data model, which requires that flow networks be dendritic, and do not contain loops or braids. Built channels or ditches and natural loops and braids will be edited where necessary to form a dendritic network. In such edits, preference will be given to natural flowpaths over constructed conveyances. Flowpaths must also flow only in one direction. Streams that undergo flow reversals will either be assigned a primary flow direction or placed under an exclusion polygon to prevent delineations on that stream reach.

Data development and processing will cover an extent that differs from the existing North Dakota StreamStats application (figure 1). Due to limitations in Canadian data availability when data preparation for the existing ND StreamStats began, some areas in the headwaters of the Souris River Basin could not be included. Lidar was flown for the Souris River Basin in 2018 (Manitoba Lidar Tracker, 2024), so ND StreamStats can now include the Souris River Basin upstream from where it exits North Dakota (figure 1). The existing ND StreamStats application also did not include the mainstem of the Red River of the North or its tributaries in Minnesota because those areas were already available within Minnesota's StreamStats application. However, since lidar data now allows a higher resolution product, the Red River of the North Basin will be included (up to its confluence with the Assiniboine River) in Manitoba (figure 1). Other smaller changes in the extent of ND StreamStats may occur because of different processing units being chosen, or from watershed boundaries shifting slightly due to boundary improvements with more accurate elevation data.

Proposed Tasks

1. Utilize existing lidar-based DEMs and their corresponding elevation-derived streamlines to develop a pilot StreamStats application for the Red River of the North Basin upstream from Winnipeg, Manitoba, Canada. The pilot will include basin areas in North Dakota, South Dakota and Minnesota, as well as Manitoba, Canada (figure 1). Although culverts with drainage areas 40 acres or greater have already been identified and hydroenforced in this part of the Red River of the North Basin, Geographic Information System (GIS) software tools (and other tools that may become available) will be used to identify culverts with drainage areas less than 40 acres and any other culverts that are not already hydroenforced. Once data preparation and processing are complete, the Red River of the North Pilot Basin StreamStats application will be placed on an internal StreamStats Development server for testing.
2. Utilize other existing lidar datasets to develop a DEM for the remaining parts of North Dakota, and selected upstream areas in South Dakota, Wyoming, and Montana. Where available, lidar data from upstream areas in the Canadian Provinces of Manitoba and Saskatchewan will be included. Where lidar data is not available in upstream areas within Canada, best available DEM data will be resampled to match the resolution of the lidar-based DEM in North Dakota. GIS tools (and other tools that may become available) will be used to identify culverts not in existing culvert inventories. These culverts will be used to hydroenforce flow networks and ensure the drainage network appropriately passes through roadbeds, railroad trackbeds, and other built topographic features. It is expected that identification of culverts in areas outside the Red River of the North Basin will be a substantial effort, but completeness of the culvert inventory will be essential to accurate delineations in North Dakota StreamStats. Once base layer datasets have all been prepared and processed, the remaining areas will be placed on the StreamStats Development server (with the Red River of the North Pilot Basin) for testing and quality assurance/quality control checks. Given that parts of eastern North Dakota are in the Prairie Pothole and Drift Prairie Regions, some areas may be noncontributing or contribute only under wet conditions. The flow network will be processed to allow for maximum contributions of these areas, but the intent is to use GIS software and techniques to develop basin characteristics layers that quantify areas that are less than fully contributing.
3. Assemble and prepare additional GIS data layers that are potentially valuable as explanatory variables regression equations used to estimate flow statistics. Such layers may include land cover and use, climate, geologic, and soils information. Due to limitations in availability of Canadian data layers that are equivalent to US-based data layers, some basin characteristics may not be available for watersheds in Canada.

Products

The data layers processed and developed for a high-resolution North Dakota StreamStats study will made available as the following products:

1. A ScienceBase data release documenting and publishing the foundational layers necessary for ND StreamStats to be able to delineate watersheds. The specific layers will include a culverts layer, the DEM (with culverts hydroenforced), and the resulting flow direction, flow accumulation, and stream rasters. A streamgrid, which is used as a visual guide for delineation in StreamStats, will also be included.

2. A ScienceBase data release documenting and publishing the various layers used to compute basin characteristics within ND StreamStats. These may include land use, climatic, geologic, soils, and other data.
3. The high-resolution North Dakota StreamStats application will be made available to the public online at https://streamstats.usgs.gov/ss/.

Personnel

Project staffing will come from the Dakota Water Science Center, with possible assistance from qualified staff from other USGS Water Science Centers.

Timeline

Work will begin when the USGS receives a signed Joint Funding Agreement from the cooperator(s). It is anticipated that the work will take four fiscal years to complete. It may be possible to accelerate the timeline if enough qualified staff are available to assist in the earlier years of the effort. The timeline is also dependent on the remaining lidar datasets becoming available prior to the third quarter of FY 2026.

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Task 1																				
Task 2																				
Task 3																				

Funding

This effort will be conducted at a fixed cost, based on the budget shown below and the scope of work described above.

Fiscal Year	Tasks	Cooperator funding	USGS match funding	Total funding
2024	1, 2	$149,395	$37,349	$186,744
2025	1, 2, 3	$421,397	$105,349	$526,746
2026	2, 3	$445,761	$111,440	$557,201
2027	2, 3	$501,367	$125,342	$626,709
2028	3	$269,675	$67,419	$337,094
Total		$1,787,595	$446,899	$2,234,494

It may be possible to reduce the anticipated funding levels by having another (non-USGS) group complete the culvert identification. This could potentially reduce the total costs by up to $400,000. However, we cannot anticipate another group's timelines and how this might affect the timeline of USGS work. StreamStats data preparation is a sequential process. Determination of culvert locations is one of the earliest steps, and subsequent steps cannot begin until the culverts layer is complete. Completeness of the culvert layer is also paramount. If some culverts are missed initially, but noticed later, they cannot simply be added to the culverts layer. All of the subsequent processing steps would need to be repeated after the new culverts are added. If the added culverts result in changes to the exterior watershed boundary of a processing unit, then processing steps for the adjacent unit(s) would

also need to be repeated. For these reasons, USGS would still need to verify completeness of the culverts layer.

References

Bryce, S.A., Omernik, J.M., Pater, D.E., Ulmer, M., Schaar, J., Johnson, R., Kuck, P., and Azevedo, S.H., undated, Ecoregions of North Dakota and South Dakota, accessed February 26, 2024, at Ecoregions of North Dakota and South Dakota at https://gaftp.epa.gov/EPADataCommons/ORD/Ecoregions/nd/ndsd_front.pdf.

Manitoba Lidar Tracker, accessed online at https://mli.gov.mb.ca/dems/index_external_lidar.html on February 23, 2024.

Ries, K.G., III, Newson J.K., Smith, M.J., Guthrie, J.D., Steeves, P.A., Haluska, T.L., Kolb, K.R., Thompson, R.F., Santoro, R.D., and Vraga, H.W., 2017, StreamStats, version 4: U.S. Geological Survey Fact 2017–3046, 4 p., https://doi.org/10.3133/fs20173046. [Supersedes USGS Fact Sheet 2008–3067.]

Williams-Sether, T., 2015, Regional regression equations to estimate peak-flow frequency at sites in North Dakota using data through 2009: U.S. Geological Survey Scientific Investigations Report 2015-5096, 12 p.

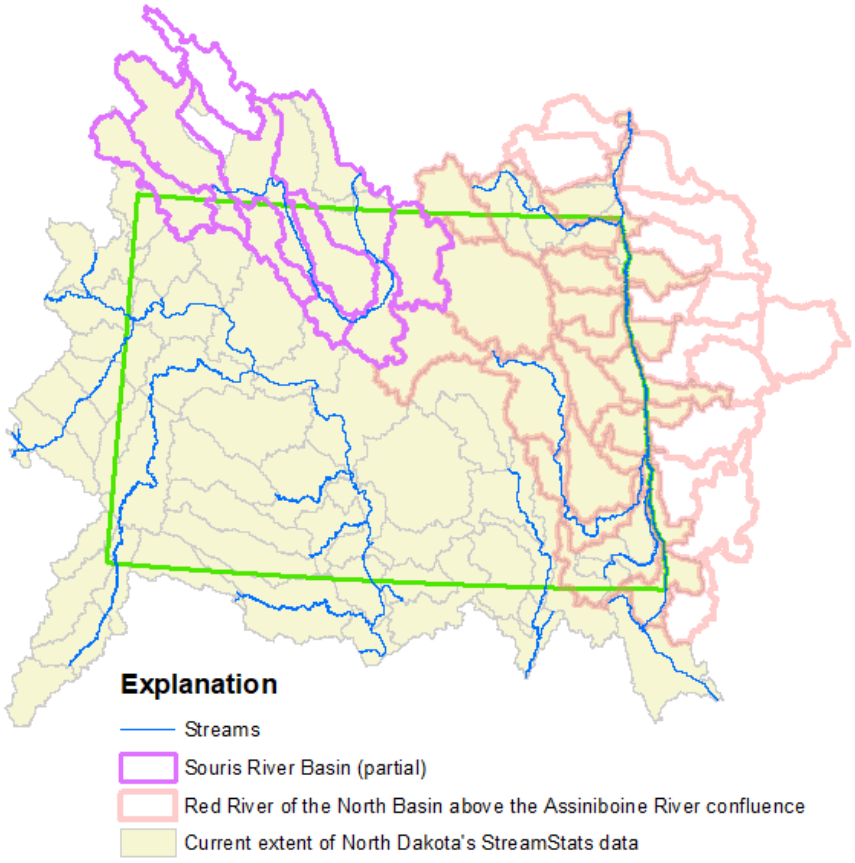


Figure 1. Current extent of North Dakota StreamStats and selected areas of the Souris River and Red River of the North basins to be included in the proposed North Dakota StreamStats data refresh.

Supporting information for a data refresh of ND StreamStats using Lidar elevation data

In recent years, the acquisition of Lidar data has provided a much higher-resolution elevation dataset than was previously available. Although this dataset can be used to derive more accurate watershed boundaries and surficial flow networks, lidar data collection typically does not include flow conveyances, such as culverts, that allow water to pass under roadbeds, railroad grades, and other human-built infrastructure that would otherwise act as dams in modeling surface-flow networks. These virtual dams cause modeled surface flow networks to incorrectly route flow (often in road ditches), causing longer flowpaths. Flow networks may cross roads in locations far from the actual culvert. This affects watershed boundaries, drainage areas, and other basin characteristics, which can result in inaccurate estimates of streamflow. The potential errors caused by not hydroenforcing culverts into an elevation model are likely to be greatest in flat areas with low topographic relief, such as the Souris River, Red River of the North, and James River Basins in North Dakota. In areas with uniformly high topographic relief, modeled surficial flow networks may still cross roads close to culverts even without hydroenforcing.

To accurately represent real-world surface-flow networks, culverts must be hydroenforced into lidar-based digital elevation models. Where culverts have not already been inventoried, various tools and geographic information system (GIS) software can be used to help identify potential culvert locations, but use of these tools still takes time, interpretation, and quality assurance. Where culverts are known to exist and have already been inventoried, they can be hydroenforced into the elevation model using GIS tools. The North Dakota Department of Transportation provided USGS with an inventory of culverts on State and Federal highways only. This culvert layer contains over 22,500 features stored as points, but they will need to be digitized as lines before they can be used for hydroenforcing. This inventory also does not cover upstream areas outside ND that are planned to be included in ND StreamStats. The data are also somewhat old, with some known inconsistencies. This culvert inventory will still be helpful, but the data need to be verified as part of the update process. Likewise, some counties within North Dakota have initiated culvert inventory efforts. Figure 1 shows a subset of a map of inventoried culverts for Burleigh County (accessed at https://www.burleigh.gov/media/4mwdm21j/culvert_inventory_map_26x30.pdf on March 28, 2024). County culvert inventories generally include only culverts under County-maintained roads. They are not expected to duplicate or overlap the ND DOT culvert inventory, which covers State and Federal highways. Their coverages are complementary, yet still do not provide a comprehensive inventory because culverts under Township-maintained roads and private roads (such as driveways and field approaches) are not included.

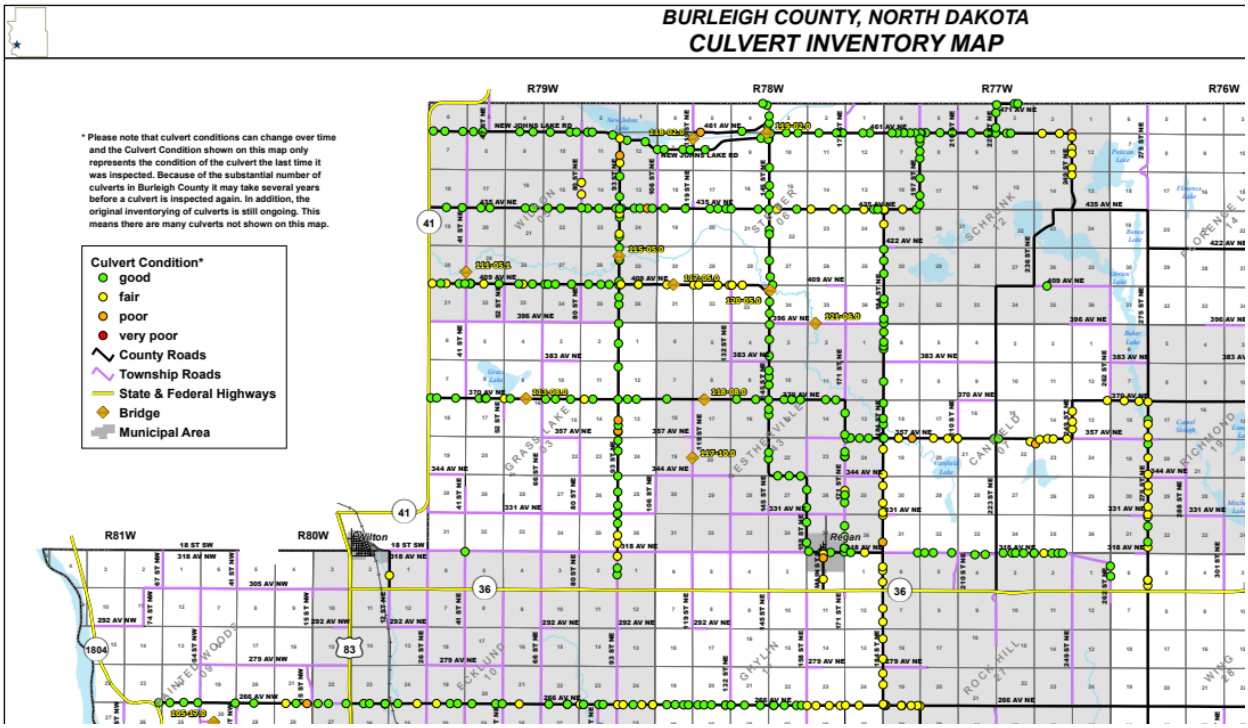


Figure 1. A portion of a map showing inventoried culverts in Burleigh County, North Dakota (from https://www.burleigh.gov/media/4mwdm21j/culvert_inventory_map_26x30.pdf)

Note that the inventoried roads in Figure 1 often have multiple culverts per mile. It can be expected that similar culvert densities exist on county- and township-maintained roads that have not yet been inventoried. Culverts also exist under private roads, such as driveways and field approaches. Culverts in such locations also need to be hydroenforced to enable accurate mapping of surface flow networks.

Failure to hydroenforce culverts can cause inaccuracies in surface flow networks and drainage areas. Figure 2 shows a small sample area southwest of Grand Forks, ND. In the left panel of Figure 2, the purple lines represent an incorrect flow network where the central area drains to the northeast, as a result of culverts not being hydroenforced. In the right panel of figure 2, the aqua lines show the correct surface flow networks that results when the culverts from ND DOT's inventory (green dots) and other culverts identified by GIS tools (red lines) have been hydroenforced, allowing Elm Coulee to properly drain to the southeast.

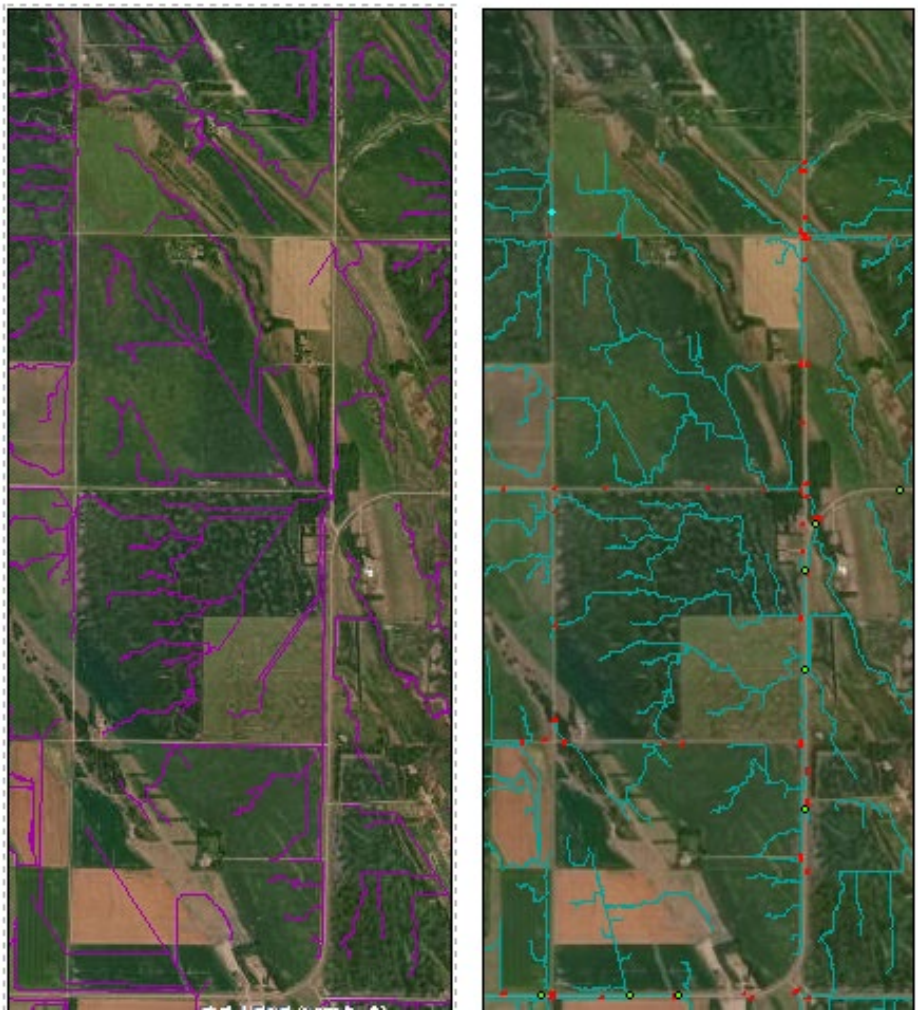


Figure 2. Left panel shows incorrect surface flow network that results if no culverts are hydroenforced. Right panel shows a correct surface flow network that results when culverts from the ND DOT culvert inventory (green dots) and other culverts identified by GIS tools (red lines) have been hydroenforced.

The International Water Institute (IWI) has built a map portal of the Red River of the North Basin (https://iwinst.org/). This map portal utilizes geographic information system layers in a similar way to StreamStats. IWI has used tools to identify culverts draining 40 acres or more and has hydroenforced those culverts into the digital elevation model used in their map portal. So far IWI has not shared their culverts layer with USGS. If they elect not to share this information, USGS can still infer many culvert locations by noting where their map portal shows surface flow networks crossing roads. However, this would take substantially longer than if the culvert layer is shared with USGS. Culverts draining areas less than 40 acres, and any culverts that can't be inferred from the flow network displayed in the iwi map portal will still need to be identified by USGS.

The culvert inventory shared by ND DOT for the state and federal highways network includes attribute information for culverts. This attribute information includes the number, size, material, and end conditions for culverts. It is possible that the culvert inventories completed for county roads include some or all of the same information. The GIS tools planned for use in identifying culvert locations on township and private roads do not have the functionality to determine these additional attributes. If these attributes are determined to be important, it may be possible conduct a follow-up study to field-collect that data or compile it from plans (where available) from ND DOT or County road offices. For the purposes of StreamStats, only the culvert location is needed to hydroenforce the digital elevation model. At this point, culvert attributes are not utilized in hydroenforcement. StreamStats is able to model hydrology, but not necessarily hydraulic conditions specific to an individual culvert. A hydroenforced digital elevation model can yield a correct flow path but does not determine flow capacity for channels or culverts. However, it would be possible to display these culverts as a supplemental layer within StreamStats, if desired. If a follow-up study is conducted to assign attributes to all culverts hydroenforced for StreamStats, it may be possible to make the culvert attributes display within StreamStats, or users could go to a data release that could include the compiled culvert attributes. An example of a supplemental layer being displayed in StreamStats is the bridge layer that is displayed within Minnesota's StreamStats application.

Despite having tools to identify potential culverts, the process to quality assure the hydroenforcement is expected be time-consuming and considerably raises the cost of updating StreamStats. Given the State's excellent lidar data and low relief, particularly in the eastern part of North Dakota, hydroenforcement of culverts is expected to improve StreamStats substantially. There are two options for this work:

Update StreamStats with identification and hydroenforcement of culverts in the Souris, Red, and James River Basins only, the lower relief area of the State, at a cost of $1,942,446 (less $388,489 in USGS cooperative match).

> This option provides full hydroenforcement of culverts in the areas that would most benefit from it but would not identify un-inventoried culverts in the remaining basins within the North Dakota StreamStats study area. Culverts in existing inventories would still be hydroenforced.

Update StreamStats with identification and hydroenforcement of culverts across the State, at a cost of $2,229,129 (less $445,826 in USGS cooperative match).

> This is the most time-consuming and accurate option and the option that also provides the most advantages for streamflow routing across the State.

If it is determined that ND StreamStats does not need to include functionality for as much upstream area beyond the ND state line, this could be explored as a mechanism to reduce the data processing costs of the effort. For example, if the upstream areas of the Souris River in Canada and/or Red River of the North in Minnesota and Canada are not needed, less time would be required for data preparation and processing. However, this means that it would not be possible to compute some basin characteristics for delineations on the mainstems of these major rivers.

Water Development Plan: Yes (2023)
Plan Priority: High

G 1

1083547 - WAWSA - NWRWD - Trenton Area Expansion Project

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 24, 2024 2:35 PM

Initially Submitted By: Abby Ritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Tami First Name
Middle Name Madsen Last Name

Title: Executive Director

Email*: tami.madsen@wawsp.com

Address*: 1117 E. Broadway

Organization Information

Status*: Approved

Name*:
Western Area Water Supply Authority

Organization Type*: Municipal Government

Tax Id: 45-2909916

Organization Website:

Address*: PO Box 2343

	Williston North Dakota City State/Province		Williston North Dakota City State/Province
58801 Postal Code/Zip		58802-2343 Postal Code/Zip	
Phone*:	701-609-0450 Ext. Phone ###-###-####	**Phone*:**	(701) 774-6605 Ext. ###-###-####
Fax:	###-###-####	**Fax:**	###-###-####
Comments:		**Vendor ID:**	
		PeopleSoft Supplier ID:	
		Comments:	
		Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	WAWSA- NWRWD-Trenton Area Expansion Project
Sponsor(s)*:	WAWSA
County*:	Williams
City*:	Williston
Description of Request*:	New
If Study, What Type:	
If Project/Program, What Type:	Rural Water Supply

Jurisdictions/Stakeholders Involved*:

WAWSA, Northwest Rural Water District

Describe the Problem*:

Continued expansion of rural water distribution for NWRWD to serve new customers in Williams County. This area has a limited quantity of water and suffers from poor quality water when it is available.

Provide Project Details, Objectives and Solutions to Address Problem*:

This project will bring water service to 60 new service locations. Included in these service locations is a bulk service to a proposed 50 home subdivision, a proposed 20-unit apartment building, and service to the Marley Crossing industrial development area with two proposed bulk service connections. A 12.0-inch transmission line along highway 1804 through Trenton and to the Marley Crossing area is proposed to service all the new rural water members listed above.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	29160

For this project,

What is the Benefited Population?*:	175
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	No
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *: No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 12/06/2022

Design Completion*: 02/01/2025

Bid*: 03/01/2025

Construction Start*: 05/01/2025

Construction Completion*: 10/01/2026

Explain Additional Timeline Issues*:

No timeline issues anticipated.

Consulting Engineer*: Weston McGruder, PE

Engineer Telephone Number*:	701-774-3080
Engineer Email*:	Weston.McGruder@AE2S.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Tami Madsen 06/24/2024 First Name Last Name Date
Address*:	1117 E. Broadway Address Line 1 Address Line 2 Williston North Dakota 58801-0000 City State Zip Code
Telephone Number*:	701-609-0450
Sponsor Email*:	tami.madsen@wawsp.com
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Tami Madsen 06/24/2024 First Name Last Name Date
Title/Position/Authority*:	Executive Director

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No

CLICK HERE **to see examples.**

Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	02 NWRWD Trenton Area Expansion Map.pdf
Are You Seeking SRF or IRLF Funding?*:	Yes
Engineer's Estimate of Probable Cost Separate Project Components by Type (Storm Sewer, Sanitary Sewer and Associated Roads, Drinking Water and Associated Roads, and Roads) :	03_sfn_61801_delineation_of_cost.xlsx
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	03_sfn_61801_delineation_of_cost.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.**

Life Cycle Cost Analysis:	04_life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE **for SFN 62417 Basic Asset Inventory Tool and Current Version.**

Asset Inventory Assessment:

Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	Yes

Other Applicable Document:

01_WAWSA _NWRWD_Trenton_Rural_Area_PreConstruction_Funding_Cost_Request_Letter_6.24.24.pdf

Other Applicable Document:

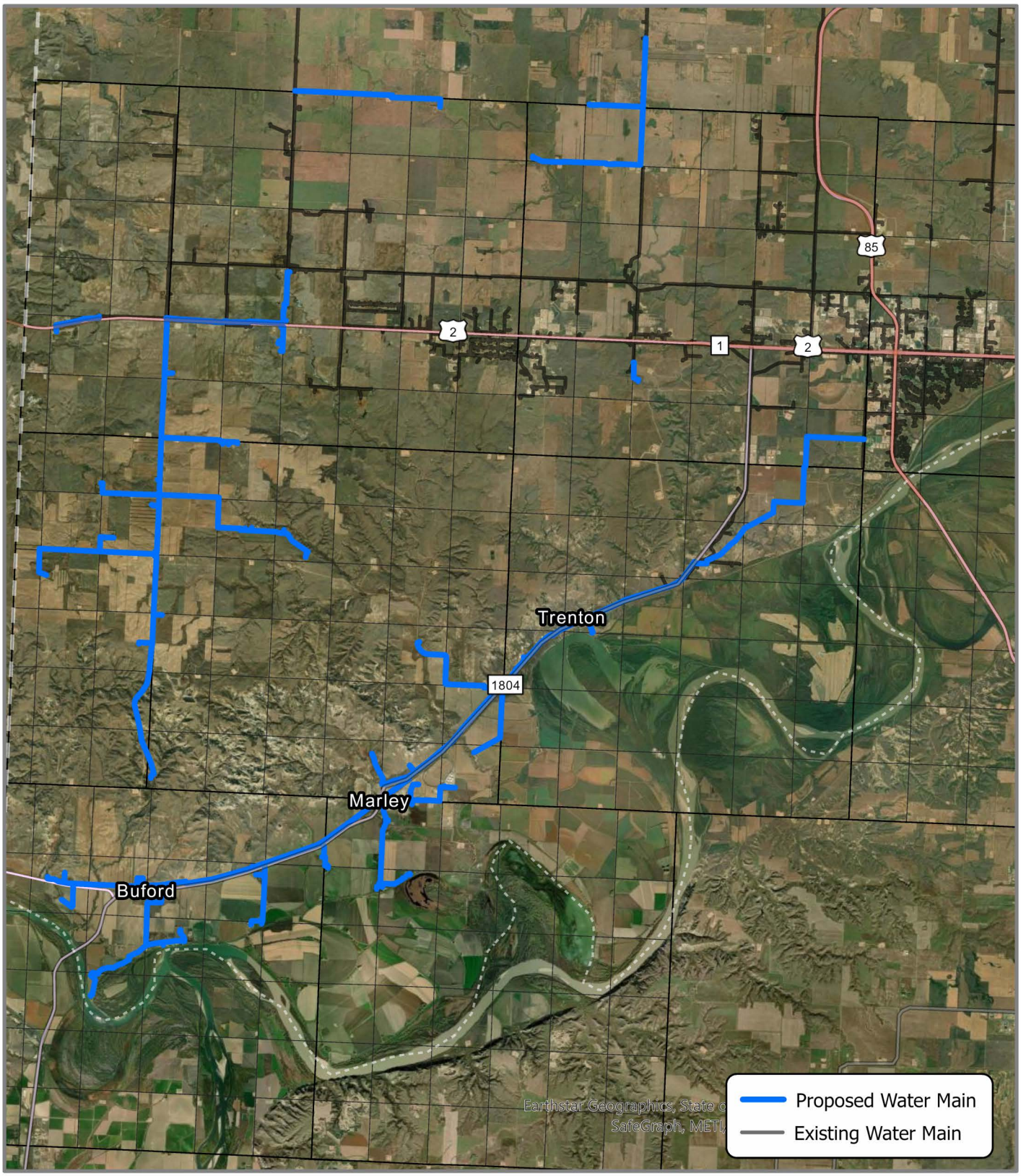
Other Applicable Document:

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

	State Fiscal

Source	If Other, Specify Funding Source	Source Status	Year 1 State Fiscal July to June	Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Drinking Water State Revolving Fund			$0.00	$249,000.00	$3,687,900.00	$3,936,900.00		0.00	0.00
Department of Water Resources Cost Share Pre-Construction		Current Request	$0.00	$747,000.00	$0.00	$747,000.00		0.00	0.00
Department of Water Resources Cost Share Construction		Future Request	$0.00	$0.00	$10,403,700.00	$10,403,700.00		0.00	0.00
			$0.00	**$996,000.00**	**$14,091,600.00**	**$15,087,600.00**			



Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Intl | Edited by: BOlson | W:\N\Northwest RWD\00553-2022-003\GIS\P00553-2022-003 NWRWD Treton and Rural Area - Engineering Staff.aprx| Portrait 8.5x11

N

Locator Map Not to Scale

0 1 2 Miles

1 inch = 2 miles

NWRWD TRENTON AREA EXPANSION PROPOSED PROJECT

WAWSA-NWRWD

Trenton | Williams County, ND

AE2S

Date: 6/18/2024

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 24, 2024

Project:	WAWSA-NWRWD Trenton Area Expansion
Sponsor:	Western Area Water Supply Authority
Contact:	Tami Madsen
Phone:	701-774-6605
Engineer:	Cory Chorne, Advanced Engineering and Environmental Services
Phone:	701-221-0530

Total Cost :	$ 15,087,627
Ineligible Cost :	$ 220,000
Eligible Cost :	$ 14,867,627
Local Cost :	$ 3,936,927

Date: June 21, 2024

	Cost-Share $
Preconstruction :	$ 747,000
Construction :	$ 10,403,720
	$ 11,150,700

Project Type:	**Cost-share %**
Rural Water Supply	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	6.2%	Mobilization	1	LS	790,000.00	$ 790,000	75%	$ 592,500
2	1.6%	Bonding	1	LS	200,000.00	$ 200,000	75%	$ 150,000
3	1.5%	Insurance	1	LS	195,000.00	$ 195,000	75%	$ 146,250
4	22.9%	Water Main 2 in	217700	LF	13.30	$ 2,895,410	75%	$ 2,171,558
5	6.7%	Water Main 4 in	42000	LF	20.14	$ 845,880	75%	$ 634,410
6	3.8%	Water Main 6 in	16000	LF	30.31	$ 484,960	75%	$ 363,720
7	37.9%	Water Main 12 in	65800	LF	72.90	$ 4,796,820	75%	$ 3,597,615
8	3.2%	Pipeline Appurtenances	1	LS	400,000.00	$ 400,000	75%	$ 300,000
9	2.6%	Meter - Frost Free	60	EA	5,500.00	$ 330,000	75%	$ 247,500
10	2.0%	Meter - Master	1	EA	250,000.00	$ 250,000	75%	$ 187,500
11	1.2%	Bulk Meter Service	2	EA	75,000.00	$ 150,000	75%	$ 112,500
12	0.3%	Connection to Existing Line	8	EA	5,000.00	$ 40,000	75%	$ 30,000
13	1.0%	Seeding	175	AC	700.00	$ 122,500	75%	$ 91,875
14	0.0%		0		-	$ -	75%	$ -
15	0.0%		0		-	$ -	75%	$ -
16	0.0%		0		-	$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 11,500,570	75%	$ 8,625,428
	10.0%	**Contingency**				$ 1,150,057	75%	$ 862,543
	83.8%	**Construction Total**				$ 12,650,627	75%	$ 9,487,970
		Preconstruction Costs						
27	1.9%	Preliminary Design	1	NA	242,000.00	$ 242,000	75%	$ 181,500
28	4.4%	Final Design	1	NA	557,000.00	$ 557,000	75%	$ 417,750
29	0.3%	Bidding / Negotiations	1	NA	38,000.00	$ 38,000	75%	$ 28,500
30	0.7%	Archeological Study	1	NA	84,000.00	$ 84,000	75%	$ 63,000
31	0.6%	Right-of-Way Survey	1	NA	75,000.00	$ 75,000	75%	$ 56,250
	6.6%	**Preconstruction Total**				$ 996,000	75%	$ 747,000
		Construction Engineering Costs						
32	1.9%	Construction Contract Management	1	NA	246,000.00	$ 246,000	75%	$ 184,500
33	6.8%	Project Inspection	1	NA	866,000.00	$ 866,000	75%	$ 649,500
34	0.5%	Post-Construction / Warranty	1	NA	68,000.00	$ 68,000	75%	$ 51,000
35	0.2%	I&C System Services	1	NA	20,000.00	$ 20,000	75%	$ 15,000
36	0.0%		0		-	$ -	75%	$ -
	8.0%	**Construction Engineering Total**				$ 1,200,000	75%	$ 900,000
		Other Eligible Costs						
37	0.1%	Permit Fees	1	LS	20,000.00	$ 20,000	75%	$ 15,000
38	0.0%	Ads For Construction	1	LS	1,000.00	$ 1,000	75%	$ 750
39	0.0%		0		-	$ -	75%	$ -
40	0.0%		0		-	$ -	75%	$ -
41	0.0%		0		-	$ -	75%	$ -
	0.1%	**Other Eligible Total**				$ 21,000	75%	$ 15,750
		In-eligible Costs						
42	0.9%	Easement (Water Supply - Payment to L	1	LS	140,000.00	$ 140,000	0%	$ -
43	0.1%	Legal Expenses	1	LS	20,000.00	$ 20,000	0%	$ -
44	0.4%	Crop Damage	1	LS	60,000.00	$ 60,000	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	1.5%	**Other Ineligible Total**				$ 220,000	0%	$ -
	100.0%				**Total**	$ 15,087,627		
					Eligible Total	$ 14,867,627	75%	$ 11,150,720
					Federal or State Funds That Supplant Costs	$ -		
					Eligible Cost Total	$ 14,867,627	75%	$ 11,150,720

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Western Area Water Supply Authority
Project Title: Trenton Area Expansion Project **Date:** July 1, 2024

Explanation of Alternatives:

Trenton Area Expansion (Preferred) - Install 64 miles of rural distribution line to serve 60 rural users between Trenton and Buford. These services include: a bulk service to a proposed 50 home subdivision, a proposed 20-unit apartment building, and service to the Marley Crossing industrial development area.

Do Nothing - The Do Nothing alternative would prevent water service from being provided to the 60 users that have signed up as part of this phased project.

Inputs:

New Connections Served	60
Future Connections Served	0
Current Connections Served	0
Net Connections (New + Current)	60

Current CIF Balance	NA
Annual CIF Contribution	NA
Cash Funding Target (Percentage %) New Assets	NA
Cash Funding Target (Percentage %) Existing Assets	NA
Annual CIF Contribution suggested from CIP	NA

	Trenton Area	Do Nothing		
Construction Cost	$15,087,700	$0		
Annual O & M	$25,000	$0		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Trenton Area	Do Nothing		
Capital Costs	$14,886,000	$0		
O&M	$645,000	$0		
Repair, Rehab, Replacement	$1,304,000	$0		
Salvage Value	$93,000	$0		
Total PVC	**$16,742,000**	**$0**		
PV Cost Per User	**$279,033**	**$0**		

Current Water Rate (Cost Per 5000g)		**$89**			
Comparable Water Rate		**$47**			
Net Connections (New + Current)		60	60		
Cost-Share Percent		75%	75%		
	Local Share	$3,721,500	$0		
	Other Funding	$0	$0		
	Total Local	$3,721,500	$0		
Payment Per User With Cost-Share		**$313.77**	**$0.00**		
	Local Share	$14,886,000	$0		
	Other Funding	$0	$0		
	Total Local	$14,886,000	$0		
Payment Per User Without Cost-Share		**$1,255.10**	**$0.00**		

Explanation of Results:

The sponsor preferred project is the “Trenton Area Expansion” option. The present value cost of the preferred alternative is $16,742,000 and $0 for the “Do Nothing” alternative for comparison. The present value cost per user for the preferred alternative is $279,033. The monthly user cost of the local share for water infrastructure with DWR 75% cost-share participation is $313.77 per month and $1,255.10 without DWR participation.

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18

WESTERN AREA WATER SUPPLY AUTHORITY

June 24, 2024

Ms. Andrea Travnicek, Ph. D., Director
North Dakota Department of Water Resources
900 E Boulevard Ave #770
Bismarck ND 58505-0850

Re: Western Area Water Supply Authority (WAWSA)
Northwest Rural Water District (NWRWD)
Trenton Area Expansion Project
Pre-Construction Cost Share Request

Dear Dr. Travnicek:

Over the past decade, WAWSA and its member entities have successfully used North Dakota Department of Water Resources (DWR) cost share funding to bring rural water service to over 2,500 new rural customers and to a majority of the Cities throughout northwestern North Dakota. WAWSA, in cooperation with the NWRWD, continues working to expand rural service in Williams County through an expansion project that would initially bring water service to 60 new service locations.

Included in these service locations, is a bulk service to a proposed 50 home subdivision, a proposed 20-unit apartment building, and service to the Marley Crossing industrial development area with two proposed bulk service connections. A 12.0-inch transmission line along highway 1804 through Trenton and to the Marley Crossing area is proposed to service all the new rural water members listed above. Outdoor recreation will also benefit from this project with the Williams County Water Resource District requesting a service at the Missouri-Yellowstone Confluence recreation area.

The costs for the project are estimated at $15,087,627.00 with a 10% contingency as provided in the detailed cost estimate. **Currently, WAWSA is requesting approval of 75 percent of eligible pre-construction and other eligible project costs equal to $762,750.00 for this project.**

Thank you very much for your assistance with this important project for northwest North Dakota. If you have any questions, please do not hesitate to contact me at 701-774-6605.

Respectfully submitted,

Tami Madsen

Tami Madsen, Executive Director
WAWSA

DWR Date Received : 6/24/24
Water Development Plan: Yes (2023)
Plan Priority: Low
G 2

1083432 - Mandan Collins Reservoir Replacement Project

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 24, 2024 1:30 PM

Initially Submitted By: Abby Ritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Abby
First Name
Middle Name Ritz
Last Name

Title:

Email*: abby.ritz@ae2s.com

Address*: 1815 Schafer Street, Suite 301

Organization Information

Status*: Approved

Name*: City of Mandan

Organization Type*: Political Subdivision

Tax Id:

Organization Website:

Address*: 205 2nd Avenue NW

AE2S

Bismarck North Dakota
City State/Province

58501
Postal Code/Zip

Phone*: 701-221-0530 Ext.
Phone
###-###-####

Fax: ###-###-####

Comments:

Mandan North Dakota
City State/Province

58554-3125
Postal Code/Zip

Phone*: (701) 667-3215 Ext.
###-###-####

Fax: ###-###-####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

DUNS 058261421

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Collins Reservoir Replacement

Sponsor(s)*: City of Mandan

County*: Morton

City*: Mandan

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Mandan

Describe the Problem*:

The existing reservoir has reached end of its useful life and does not have adequate to meet the City's

growing demand.

Provide Project Details, Objectives and Solutions to Address Problem*:

The proposed project will build a new reservoir, providing additional capacity and redundancy. An engineering study from 2017 found that the existing reservoir would require significant rehabilitation to address roof and wall issues, making it more cost effective to replace rather than rehabilitate. In addition, rehabilitation requires that the reservoir be taken offline for 5 to 6 months. This is a significant impact to distribution operations and this reservoir is critical during high demand periods.

For this project,

Choose City, County, Water District or Other*:	City
What is the Current Estimated Population?*:	24206

For this project,

What is the Benefited Population?*:	14524
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	N/A
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No

If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*:	2017
Design Completion*:	06/2024
Bid*:	07/2024 8/1/2024
Construction Start*:	09/2024
Construction Completion*:	08/2026
Explain Additional Timeline Issues*:	None anticipated.
Consulting Engineer*:	Tyler Fode
Engineer Telephone Number*:	701-221-0530

Engineer Email*: tyler.fode@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Jarek (First Name) Wigness (Last Name) 06/20/2024 (Date)

Address*: 205 Second Ave NW
Address Line 1
Address Line 2
Mandan (City) North Dakota (State) 58554-9998 (Zip Code)

Telephone Number*: 701-667-3227

Sponsor Email*: Jarek.Wigness@cityofmandan.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*: Yes

Authorized Individual*: Jarek (First Name) Wigness (Last Name) 06/20/2024 (Date)

Title/Position/Authority*: City Engineer

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

CLICK HERE **to see examples.**

Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	Mandan Collins Reservoir Location Map.pdf
Are You Seeking SRF or IRLF Funding?*:	Yes
Engineer's Estimate of Probable Cost Separate Project Components by Type (Storm Sewer, Sanitary Sewer and Associated Roads, Drinking Water and Associated Roads, and Roads) :	sfn_61801_delineation_of_costApril2024.xlsx
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_costApril2024.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	Mandan Collins Reservoir Plans-Specs.pdf
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.**

Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet_202405Update.xlsx

CLICK HERE **for SFN 62417 Basic Asset Inventory Tool and Current Version.**

Asset Inventory Assessment:	sfn_62417_basic_asset_inventory_tool_Mandan.xlsx

Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	No

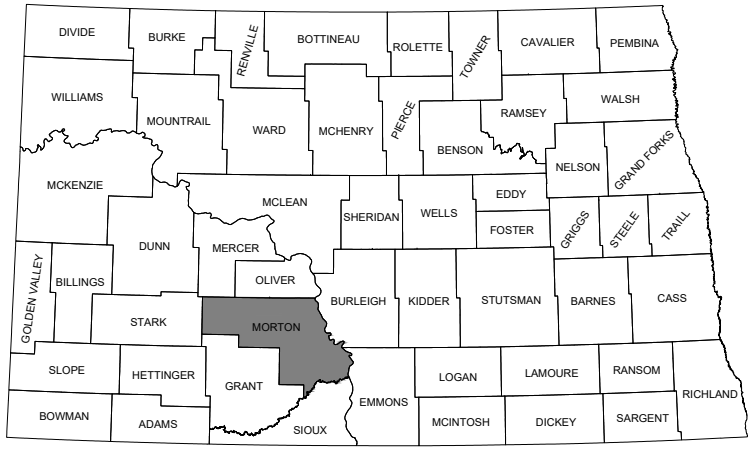
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Already Approved	$93,420.00	$0.00	$0.00	$93,420.00		0.00	0.00

Department of Water Resources Cost Share Construction	Current Request	$0.00	$1,464,980.00	$0.00	$1,464,980.00	0.00	0.00
Drinking Water State Revolving Fund		$249,030.00	$3,964,250.00	$0.00	$4,213,280.00	0.00	0.00
		$342,450.00	**$5,429,230.00**	**$0.00**	**$5,771,680.00**		

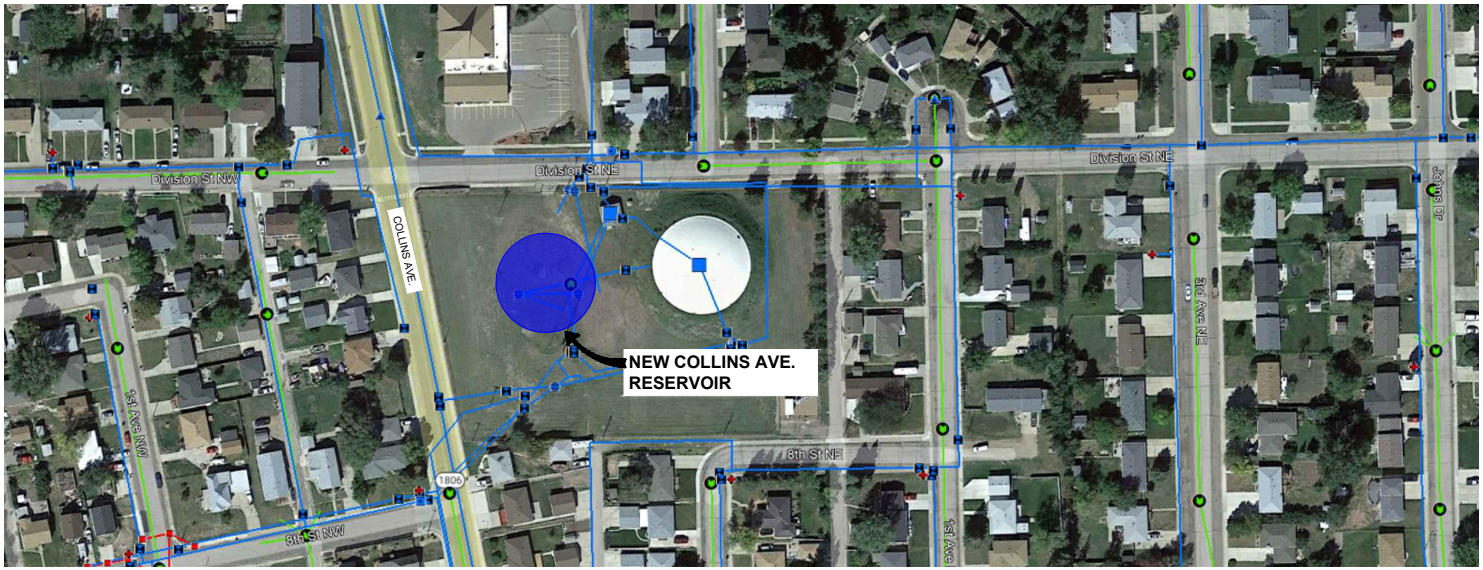
DWR Date Received : 6/24/24



STATE OF NORTH DAKOTA

1 / 001 **PROJECT LOCATION MAP**
MORTON COUNTY

2 / 001 **PROJECT VICINITY MAP**
MORTON COUNTY



3 / 001 **PROJECT AERIAL MAP**
MORTON COUNTY

AE2S
Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

STATUS: PRELIMINARY - NOT FOR CONSTRUCTION

SYM	DATE	APPR

PROJECT TITLE:
COLLINS RESERVOIR REPLACEMENT PROJECT

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE:
COLLINS RESERVOIR REPLACEMENT PROJECT

CLIENT:
CITY OF MANDAN
MANDAN, NORTH DAKOTA

PREPARED BY: TRK
CHECKED BY: LDH
APPROVED BY: LDH

PROJECT NO: 00510-2022-002
DATE: JUNE 2023
ALT. PROJECT NO: XXX-XXXX

SHEET DESIGNATOR: **EX**

SHEET NO: **001**

File: W:\Mandan\00510-2022-002\CAD Dwg\01-Cover & Plan Sheets\Location Mapping.dwg
Plotted By: Tait Kemp Date: Thursday, June 22, 2023

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 24, 2024

Project:	Collins Reservoir Replacement Project
Sponsor:	City of Mandan
Contact:	Jarek Wigness, City Engineer
Phone:	701-667-3227
Engineer:	Tyler Fode, AE2S
Phone:	701-221-0530

Total Cost :	$ 5,771,680
Ineligible Cost :	$ -
Eligible Cost :	$ 5,771,680
Local Cost :	$ 4,213,280

Date: June 7, 2024

	Cost-Share $
	$ 1,558,400
Preconstruction :	$ 92,462
Construction :	$ 1,465,892

Project Type:	**Cost-share %**
Other (27%)	27%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	2.6%	Mobilization	1	LS	132,000.00	$ 132,000	27%	$ 35,640
2	1.3%	Bonding	1	LS	65,300.00	$ 65,300	27%	$ 17,631
3	0.4%	Insurance	1	LS	22,000.00	$ 22,000	27%	$ 5,940
4	9.5%	Earthwork	1	LS	480,000.00	$ 480,000	27%	$ 129,600
5	0.3%	Building	1	LS	15,000.00	$ 15,000	27%	$ 4,050
6	1.1%	Re-Routing	1	LS	55,000.00	$ 55,000	27%	$ 14,850
7	0.4%	Re-Routing	1	LS	20,000.00	$ 20,000	27%	$ 5,400
8	23.3%	Site Work	1	LS	1,180,000.00	$ 1,180,000	27%	$ 318,600
9	44.4%	Reservoir and Storage - Concrete	1	LS	2,250,000.00	$ 2,250,000	27%	$ 607,500
10	3.7%	Electrical	1	LS	190,000.00	$ 190,000	27%	$ 51,300
11	3.9%	Demolition	1	LS	200,000.00	$ 200,000	27%	$ 54,000
12	0.0%		0			$ -	27%	$ -
13	0.0%		0		-	$ -	27%	$ -
14	0.0%		0		-	$ -	27%	$ -
15	0.0%		0		-	$ -	27%	$ -
16	0.0%		0		-	$ -	27%	$ -
17	0.0%		0		-	$ -	27%	$ -
18	0.0%		0		-	$ -	27%	$ -
19	0.0%		0		-	$ -	27%	$ -
20	0.0%		0		-	$ -	27%	$ -
21	0.0%		0		-	$ -	27%	$ -
22	0.0%		0		-	$ -	27%	$ -
23	0.0%		0		-	$ -	27%	$ -
24	0.0%		0		-	$ -	27%	$ -
25	0.0%		0		-	$ -	27%	$ -
26	0.0%		0		-	$ -	27%	$ -
		Construction Sub-Total				$ 4,609,300	27%	$ 1,244,511
	10.0%	**Contingency**				$ 460,930	27%	$ 124,451
	87.8%	**Construction Total**				$ 5,070,230	27%	$ 1,368,962
		Preconstruction Costs						
27	0.3%	Geotechnical Investigations	1	LS	16,450.00	$ 16,450	27%	$ 4,442
28	5.7%	Final Design	1	LS	290,000.00	$ 290,000	27%	$ 78,300
29	0.7%	Bidding / Negotiations	1	LS	36,000.00	$ 36,000	27%	$ 9,720
30	0.0%					$ -	27%	$ -
31	0.0%					$ -	27%	$ -
	5.9%	**Preconstruction Total**				$ 342,450	27%	$ 92,462
		Construction Engineering Costs						
32	6.1%	Construction Contract Management	1	LS	310,000.00	$ 310,000	27%	$ 83,700
33	0.5%	Post-Construction / Warranty	1	LS	27,000.00	$ 27,000	27%	$ 7,290
34	0.4%	I&C System Services	1	LS	22,000.00	$ 22,000	27%	$ 5,940
35	0.0%		0		-	$ -	27%	$ -
36	0.0%		0		-	$ -	27%	$ -
	6.2%	**Construction Engineering Total**				$ 359,000	27%	$ 96,930
		Other Eligible Costs						
37	0.0%		0	LS		$ -	27%	$ -
38	0.0%		0		-	$ -	27%	$ -
39	0.0%		0		-	$ -	27%	$ -
40	0.0%		0		-	$ -	27%	$ -
41	0.0%		0		-	$ -	27%	$ -
	0.0%	**Other Eligible Total**				$ -	27%	$ -
		In-eligible Costs						
42	0.0%	Other	1	LS		$ -	0%	$ -
43	0.0%		0			$ -	0%	$ -
44	0.0%		0			$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 5,771,680		
		Eligible Total				$ 5,771,680	27%	$ 1,558,354
		Federal or State Funds That Supplant Costs						
		Eligible Cost Total				$ 5,771,680	27%	$ 1,558,354

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Mandan
Project Title: Collins Reservoir Replacement Project **Date:** July 1, 2024

Explanation of Alternatives:

Reservoir Replacement (Preferred) - This alternative will replace the existing reservoir and increase capacity to serve the growing system.
Rehabilitate Existing Reservoir – This alternative will rehabilitate the existing reservoir. This has a significant disruption during rehabilitation to distribution operations and is not preferred.
Do Nothing - If the City does nothing, eventually the existing reservoir will fail, disrupting water supply to approximately 60 percent of Mandan's residents.

Inputs:

New Connections Served	0
Future Connections Served	TBD
Current Connections Served	9418
Net Connections (New + Current)	9418

Current CIF Balance	$0
Annual CIF Contribution	$0
Cash Funding Target (%) New Assets	35%
Cash Funding Target (%) Existing Asets	50%
Suggested Annual CIF Contribution	$2,171,319

	Reservoir Replacement (Preferred)	Rehabilitate Existing Reservoir		
Construction Cost	$5,771,700	$3,611,100		
Annual O & M	$15,000	$5,000		

Details:

Mandan does not have the ability to demonstrate a Capital Improvement Fund as required by DWR policy. Mandan's Water & Sewer Utility Fund does maintain the following required cash reserves:
•25% operations & maintenance cash reserve, and
•Revenue bonds cash reserve.
The remaining cash balance in the Water & Sewer Utility Fund that exceeds the required cash reserves above are considered to be unreserved and may be used to fund non-operating (capital, debt, transfers) expenses or to be designated by the Board of City Commissioners to fund certain water and sewer related projects. Since the City has yet to adopt a comprehensive Capital Improvement Program for the Water & Sewer Utility Fund, the City at this time does not maintain a formal capital improvement cash reserve in the Water & Sewer Utility Fund.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Reservoir Replacement (Preferred)	Rehabilitate Existing Reservoir		
Capital Costs	$5,695,000	$3,563,000		
O&M	$384,000	$129,000		
Repair, Rehab, Replacement	$260,000	$1,053,000		
Salvage Value	$10,000	$387,000		
Total PVC	**$6,329,000**	**$4,358,000**		
PV Cost Per User	**$672**	**$463**		

Current Water Rate (Cost Per 5000g)		**$37**			
Comparable Water Rate		**$47**			
Net Connections (New + Current)		9,418	9,418		
Cost-Share Percent		60%	60%		
	Local Share	$2,278,000	$1,425,200		
	Other Funding	$0	$0		
	Total Local	$2,278,000	$1,425,200		
Payment Per User With Cost-Share		**$1.22**	**$0.77**		
	Local Share	$5,695,000	$3,563,000		
	Other Funding	$0	$0		
	Total Local	$5,695,000	$3,563,000		
Payment Per User Without Cost-Share		**$3.06**	**$1.91**		

Explanation of Results:

The sponsor preferred project is the "Reservoir Replacement" option. The present value cost of the preferred alternative is $6,329,000, which is a $1,367,000 increase in capital cost from the original estimate and $4,358,000 for the "Rehabilitate Existing Reservoir" alternative, which is an increase of $357,000 in capital cost from the original estimate as a comparison. The present value cost per user for the preferred alternative is $672. The monthly user cost of the local share with DWR 60% cost-share participation is $1.22 per month and $3.06 without DWR participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	18,331	24,206	3.2%	588

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18

Water Development Plan: Yes (2023)
Plan Priority: Low

DWR Date Received: 5/10/24
Date Resubmitted: 6/5/24

G 3

1083304 - Water and Sewer Improvements 2022 Water Replacement and Sewer Rehabilitation - Copy

Application Details

Funding Opportunity:	1083251-State Fiscal Year 2024-2025 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2025 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Submitted
Stage:	Final Application
Initial Submit Date:	May 10, 2024 11:59 AM
Initially Submitted By:	Brad Muscha
Last Submit Date:	Jun 5, 2024 3:10 PM
Last Submitted By:	Brad Muscha

Contact Information

Primary Contact Information

Active User*:	yes
Type:	External User
Name:	Salutation Brad Middle Name Muscha First Name Last Name
Title:	Sr. Professional Engineer
Email*:	brad.muscha@mooreengineeringinc.com
Address*:	Moore Engineering, Inc. 925 10th Ave E West Fargo North Dakota 58078 City State/Province Postal Code/Zip
Phone*:	701-282-4692 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Aneta
Organization Type*:	Political Subdivision
Tax Id:	45-6002636
Organization Website:	

Address*:	PO Box 195
	Aneta North Dakota 58212-0000 City State/Province Postal Code/Zip
Phone*:	(701) 797-7101 Ext. ###-###-####
Fax:	###-###-####
Vendor ID:	
PeopleSoft Supplier ID:	
Comments:	
Location Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Water and Sewer Improvements 2022
Sponsor(s)*:	City of Aneta
County*:	Nelson
City*:	Aneta
Description of Request*:	Updated (previously submitted)
If Study, What Type:	
If Project/Program, What Type:	Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Aneta

Describe the Problem*:

The original water distribution system was installed in 1955 consisting of 15,200 LF of cast iron pipe (CIP). The water mains, gate valves and service lines are all nearing the end of their design life and are in need of replacement. Cast iron pipe can become brittle over time, causing leaks and breaks. It can also accumulate buildup inside of the pipe reducing flow volume. Aneta has experienced several water main breaks each year for the last several years and completed a Emergency Water Main Replacement project in 2020 to replace 3 blocks of existing CIP water main.

The sanitary collection system was installed in 1960-1961 consisting of 18,800 LF of vitrified clay pipe. Televising was completed Summer 2022 and several deficiencies were identified including cracking and broken pipe, offset joints and sags in the profile. If not addressed, pipe deterioration will continue and can lead to the possibility of pipe collapse and sewer backup into homes and businesses.

Provide Project Details, Objectives and Solutions to Address Problem*:

The existing water mains will be replaced along with gate valves, services and non-working curb stops. A few new hydrants will also be installed. The sanitary and storm sewer mains will be relined with cured-in-place pipe (CIPP). Spot repairs will be completed for sections of pipe with severe damage prior to relining with CIPP. Manhole will be rehabilitated to extend their service life. Asphalt pavement and concrete curb, sidewalk, valley gutter and driveway replacement will take place above the utility improvements along with site restoration and seeding.

For this project,

Choose City, County, Water District or Other*:	City
What is the Current Estimated Population?*:	234

For this project,

What is the Benefited Population?*:	234
Have Assessment Districts Been Formed?*:	N/A

Have Land or Easements Been Acquired?*: N/A

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: No

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: Ongoing

If Yes or Ongoing, Please Explain (include type/number):

The project will require a North Dakota Pollutant Discharge Elimination System (NDPDES) General Construction Permit NDR11-0000 for construction related stormwater discharges, The project will also require a utility permit for work withing ND State Highway 32 right-of-way.

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: Ongoing

If Yes or Ongoing, Please Explain (include type/number):

The project will need a Burlington Northern Santa Fe (BNSF) Application for Pipeline Crossing and Agreement for new water main installation across BNSF right-of-way and tracks on the northern side of the City.

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding?
(Example: Hazard Mitigation Grant Program)
***:** Yes

Explain the Source, Timing and Amount of Federal Funds:

The City of Aneta has been offered grant funding from the US Army Corps of Engineers (USACE) Section 594 program of 75% reimbursement of eligible project expenses up to the maximum amount $4,887,500.

Federal Funding Contact: Michelle Prosser
First Name Last Name

Federal Funding Contact Number: 651-290-5373

Federal Funding Email: michelle.e.prosser@usace.army.mil

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Fall 2022

Design Completion*: January 2024

Bid*: April 2024

Construction Start*: July 2024

Construction Completion*: November 2025

Explain Additional Timeline Issues*:

The Environmental Assessment (EA) was approved by USACE on December 20, 2023.

Consulting Engineer*: Brad Muscha, PE - Moore Engineering, Inc.

Engineer Telephone Number*: 701-793-7867

Engineer Email*: brad.muscha@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Michelle (First Name) Middlestead (Last Name) 05/13/2024 (Date)

Address*: PO Box 195
Address Line 1

219 Main Ave
Address Line 2

Aneta (City) North Dakota (State) 58212-____ (Zip Code)

Telephone Number*: 701-797-7101

Sponsor Email*: cityofaneta@gmail.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate*: Yes

Authorized Individual*: Michelle (First Name) Middlestead (Last Name) 05/13/2024 (Date)

Title/Position/Authority*: City Auditor

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

CLICK HERE to see examples.

Project Specific Map
Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*: 22393_Exhibit_20230309_ProposedImp.pdf

Are You Seeking SRF or IRLF Funding?*: No

Are You Seeking Department of Water Resources Cost-Share?*: Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.

Delineation of Costs SFN 61801: 22393_DelineationOfCost_20240604.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 22393_Aneta Bidding Documents.pdf

Water Supply Projects?: Yes

CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.

Life Cycle Cost Analysis:	22393_LifeCycleCostAnalysis20240513.xlsx

CLICK HERE for SFN 62417 Basic Asset Inventory Tool and Current Version.

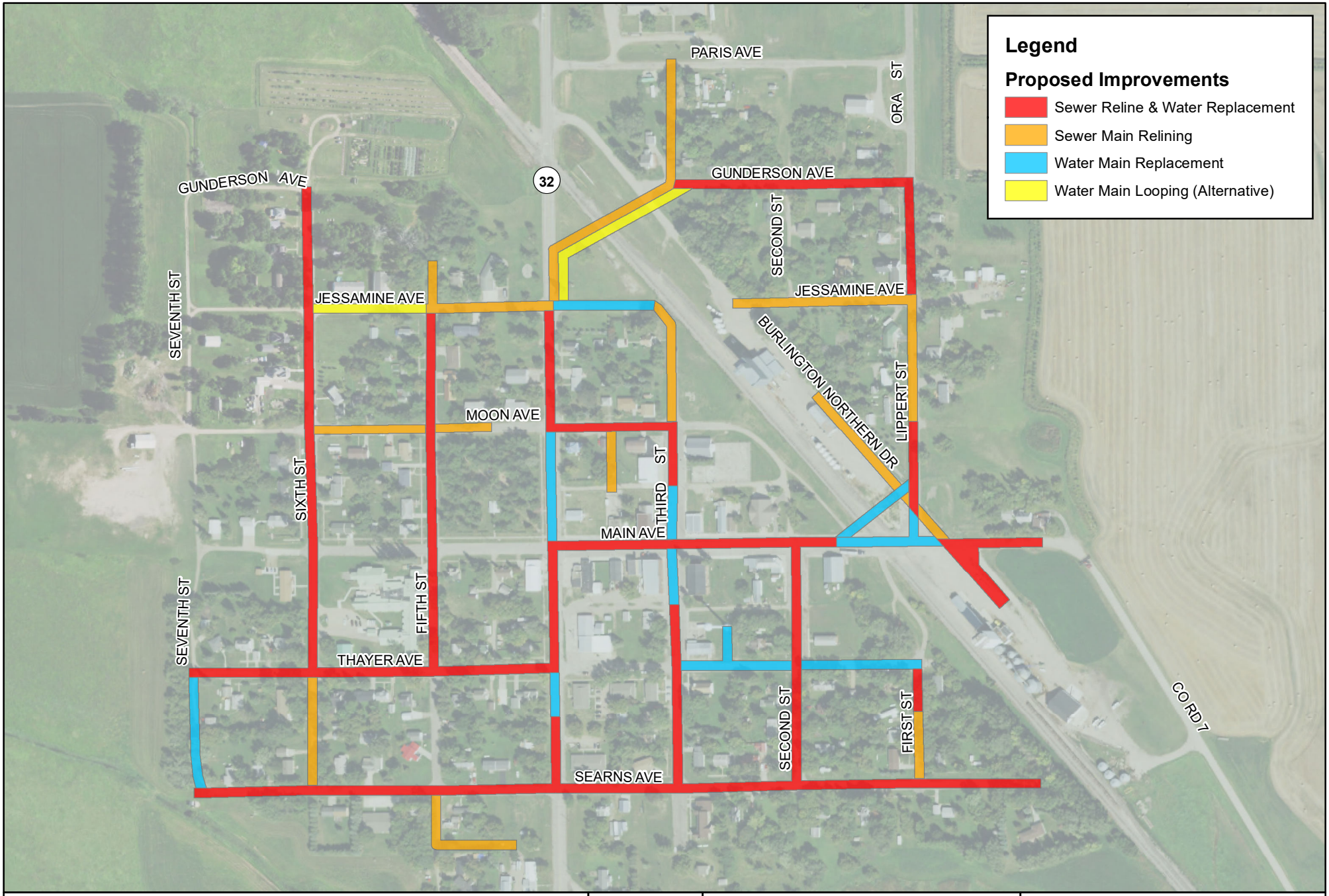
Asset Inventory Assessment:	22393_BasicAssetInventory20240514.xlsx
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	Yes
Feasibility/Engineering Study Material:	22393_FacilityPlan20231106_FINAL.pdf
Photos of Problem/Issue:	
Other Applicable Document(s):	Yes
Other Applicable Document:	22393_Aneta_BidTab.pdf
Other Applicable Document:	22393_EngStatementEstCost20240605.pdf
Other Applicable Document:	22393_Aneta_FundingBreakdown20240604.xlsm

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Other	USACE Section 594	Already Approved	$1,400,000.00	$3,400,000.00	$87,500.00	$4,887,500.00	Grant	0.00	0.00
Clean Water State Revolving Fund		Already Approved	$195,000.00	$335,000.00	$20,000.00	$550,000.00	Loan	30.00	2.00
Drinking Water State Revolving Fund		Already Approved	$450,000.00	$770,000.00	$58,264.00	$1,278,264.00	Loan	30.00	2.00
Department of Water Resources Cost Share Construction		Already Approved	$0.00	$545,232.00	$0.00	$545,232.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		Current Request	$0.00	$289,004.00	$0.00	$289,004.00	Grant	0.00	0.00
			$2,045,000.00	**$5,339,236.00**	**$165,764.00**	**$7,550,000.00**			

DWR Date Received : 5/10/24



PROPOSED IMPROVEMENTS
ANETA, NORTH DAKOTA

Created By: TJS Date Created: 07/10/19 Date Saved: 03/09/23 Date Plotted: NEVER Date Exported: 03/09/23
Plotted By: Tanner.Schmidt Parcel Date: N/A Aerial Image: 2018 County NAIP SIDS Elevation Data: Lidar
Horizontal Datum: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet Vertical Datum: NAVD1988
T:\Projects\22300\22393\22393_Aneta_Infra_Improv.mxd

N W E S

0 200 400 800 Feet

1 in = 400 feet

moore engineering, inc.

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (02/2023)

DWR Date Received : June 10, 2024

Project:	Water and Sewer Improvements 2022
Sponsor:	City of Aneta
Contact:	Todd Whitman
Phone:	701-797-7958
Engineer:	Brad Muscha - Moore Engineering, Inc.
Phone:	701-282-4692

Total Cost :	$ 7,550,000
Ineligible Cost :	$ 6,159,607
Eligible Cost :	$ 1,390,393
Local Cost :	$ 6,715,764

Date: June 5, 2024

	Cost-Share $
	$ 834,236
Preconstruction :	$ -
Construction :	$ 2,954,027

Project Type:	**Cost-share %**
Municipal Water Expansion/Improvement	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	8.1%	Mobilization	1	LS	361,084.66	$ 361,085	60%	$ 216,651
2	0.0%	Bonding	1	LS	-	$ -	60%	$ -
3	0.0%	Insurance	1	LS	-	$ -	60%	$ -
4	0.4%	Removals - Utility	1	LS	18,715.00	$ 18,715	60%	$ 11,229
5	1.9%	Removals - Surface	1	LS	86,299.23	$ 86,299	60%	$ 51,780
6	7.0%	Gate Valves	1	EA	312,050.00	$ 312,050	60%	$ 187,230
7	1.6%	Hydrants	1	EA	69,000.00	$ 69,000	60%	$ 41,400
8	6.5%	Water Main - Open Cut	1	LF	289,900.00	$ 289,900	60%	$ 173,940
9	32.9%	Water Main - Trenchless	1	LF	1,458,960.00	$ 1,458,960	60%	$ 875,376
10	4.7%	Water Service Lines	1	LF	209,900.00	$ 209,900	60%	$ 125,940
11	3.7%	Corporations	1	EA	163,800.00	$ 163,800	60%	$ 98,280
12	3.4%	Curb Stops	1	EA	151,200.00	$ 151,200	60%	$ 90,720
13	16.7%	Surface Restoration	1	LS	739,696.37	$ 739,696	60%	$ 443,818
14	3.9%	General	1	LS	173,002.88	$ 173,003	60%	$ 103,802
15	0.0%		0		-	$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 4,033,608	60%	$ 2,420,165
	10.0%	**Contingency**				$ 403,361	60%	$ 242,016
	58.8%	**Construction Total**				$ 4,436,969	60%	$ 2,662,181
		Preconstruction Costs						
27	0.0%				-	$ -	60%	$ -
28	0.0%				-	$ -	60%	$ -
29	0.0%				-	$ -	60%	$ -
30	0.0%				-	$ -	60%	$ -
31	0.0%				-	$ -	60%	$ -
	0.0%	**Preconstruction Total**				$ -	60%	$ -
		Construction Engineering Costs						
32	4.5%	Construction Engineering	1	LS	199,318.73	$ 199,319	60%	$ 119,591
33	5.3%	Resident Project Representative	1	LS	233,982.86	$ 233,983	60%	$ 140,390
34	0.7%	Construction Surveying	1	LS	28,886.77	$ 28,887	60%	$ 17,332
35	0.4%	Construction Funding Admin - DWR	1	LS	17,000.00	$ 17,000	60%	$ 10,200
36	0.2%	Railroad Permit & Insurance	1	LS	7,221.69	$ 7,222	60%	$ 4,333
	6.4%	**Construction Engineering Total**				$ 486,410	60%	$ 291,846
		Other Eligible Costs						
37	0.0%				-	$ -	60%	$ -
38	0.0%				-	$ -	60%	$ -
39	0.0%				-	$ -	60%	$ -
40	0.0%				-	$ -	60%	$ -
41	0.0%				-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	10.7%	Engineering	1	LS	806,641.32	$ 806,641	0%	$ -
43	1.8%	Mobilization	1	LS	138,915.00	$ 138,915	0%	$ -
44	0.9%	General	1	LS	66,557.00	$ 66,557	0%	$ -
45	4.2%	Surface Restoration	1	LS	317,774.00	$ 317,774	0%	$ -
46	13.6%	Construction	1	LS	1,028,550.85	$ 1,028,551	0%	$ -
47	2.0%	Contingencies	1	LS	154,504.18	$ 154,504	0%	$ -
48	1.5%	Miscellaneous	1	LS	113,678.62	$ 113,679	0%	$ -
	34.8%	**Other Ineligible Total**				$ 2,626,621	0%	$ -
	100.0%	**Total**				$ 7,550,000		
		Eligible Total				$ 4,923,379	60%	$ 2,954,027
		Army Corps of Engineers 594 Grant - Federal Funds That Supplement Costs				$ 3,532,986		
		Eligible Cost Total				$ 1,390,393	60%	$ 834,236

* The Cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Aneta
Project Title: Water and Sewer Improvements 2022 **Date:** June 27, 2024

Explanation of Alternatives:

Do Nothing – No city-wide improvements would be made to the existing water system and would be maintained as it is today.

Trenchless & Open Cut Water Main Replacement [Preferred] - Both trenchless installation and minimal open cut installation of new water main would be used. The trenchless method requires less surface restoration.

Open Cut Water Main Replacement - Open cut installation of new water mains.

Inputs:

New Connections Served	0
Future Connections Served	0
Current Connections Served	116
Net Connections (New + Current)	116

Current CIF Balance	$30,000
Annual CIF Contribution	$10,000
Cash Funding Target (Percentage %) New Assets	35%
Cash Funding Target (Percentage %) Existing Asets	50%
Suggested Annual CIF Contribution	$12,139

	Do Nothing	Trenchless & Open Cut Water Main Replacement [Preferred]	Open Cut Water Main Replacement	
Construction Cost	$0	$7,550,000	$11,500,000	
Annual O & M	$30,000	$5,000	$5,000	

Details:

O & M for the alternative at $30,000, which is significantly more than recently budgeted repairs as identified in the infrastructure report at $7,000 per year. The report states it is difficult to estimate a future repair cost on aging systems.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	Trenchless & Open Cut Water Main Replacement [Preferred]	Open Cut Water Main Replacement	
Capital Costs	$0	$7,550,000	$11,500,000	
O&M	$832,000	$134,000	$134,000	
Repair, Rehab, Replacement	$0	$0	$0	
Salvage Value	$0	$0	$0	
Total PVC	**$832,000**	**$7,684,000**	$11,634,000	
PV Cost Per User	**$7,172**	**$66,241**	**$100,293**	

Current Water Rate (Cost Per 5000g)		**$90**			
Comparable Water Rate		**$50**			
Net Connections (New + Current)		116	116	116	
Cost-Share Percent		60%	60%	60%	
	Local Share	$0	$1,828,264	$4,600,000	
	Loan DWSRF		$1,278,264	$2,566,800	
	Loan CWSRF		$550,000	$2,033,200	
	Other Funding USACE	$0	$4,887,500	$4,887,500	
	Total Local	$0	$1,828,264	$4,600,000	
Payment Per User With Cost-Share		**$0.00**	**$79.73**	**$200.61**	
	Local Share	$0	$2,662,500	$6,612,500	
	Other Funding	$0	$4,887,500	$4,887,500	
	Total Local	$0	$2,662,500	$6,612,500	
Payment Per User Without Cost-Share		**$0.00**	**$116.11**	**$288.38**	

Explanation of Results:

The sponsor preferred project is the "Trenchless & Open Cut Water Main Replacement" option. The present value cost of the preferred alternative is $7,684,000 and $832,000 for the "Do Nothing" alternative for comparison. The present value cost per user for the preferred alternative is $66,241. The monthly user cost of the local share with DWR 60% cost-share participation is $79.73 per month and $116.11 without DWR participation. This includes a USACE grant of $4,887,500 for the project and DWSRF loan participation for the local portion. $1,354,514 of the USACE grant is applied to in-eligible costs included in the Local Share along with DWSRF and CWSRF funding. The net local share of eligible items is $556,157 which are funded through the DEQ loans. If these loans are converted to foregivness grants the DWR share need to be adjusted.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	222	234	0.5%	1

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18

DWR Date Received : 6/24/24
DWR Date Resubmitted: 6/26/24

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1083531 - Mandan Water Treatment Plant Phase III Optimization Project - Additional Scope

Application Details

Funding Opportunity:	1083251-State Fiscal Year 2024-2025 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2025 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jun 24, 2024 2:39 PM
Initially Submitted By:	Abby Ritz
Last Submit Date:	Jun 26, 2024 3:28 PM
Last Submitted By:	Abby Ritz

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Abby (First Name) Middle Name Ritz (Last Name)
Title:	
Email*:	abby.ritz@ae2s.com
Address*:	1815 Schafer Street, Suite 301 AE2S Bismarck (City) North Dakota (State/Province) 58501 (Postal Code/Zip)
Phone*:	701-221-0530 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of Mandan
Organization Type*:	Political Subdivision
Tax Id:	
Organization Website:	

Address*: 205 2nd Avenue NW

Mandan North Dakota 58554-3125
City State/Province Postal Code/Zip

Phone*: (701) 667-3215 Ext.
###-###-####

Fax: ###-###-####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

DUNS 058261421

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Water Treatment Plant: Phase III Optimization

Sponsor(s)*: City of Mandan

County*: Morton

City*: Mandan

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Mandan

Describe the Problem*:

Original Scope:
Additional lime storage capacity is needed and slakers are nearing the end of their useful life. The existing CO2 storage tank is at the end of its useful life and more capacity and redundancy are needed. CO2 feed systems are also nearing the end of their useful life. More storage is needed for the chlorine room along with safety system improvements. The existing equipment is at risk of failure, leaving the city open to accidents and disruptions in treatment.

Additional Scope:
Select utility transformers, high service pump drives, SCADA system, and other electrical components are near the end of their useful life. In addition, liquid chemical feed and storage systems are at the end of their useful life and need additional capacity. Fluoride system storage improvements are needed to improve operator safety. Also includes select building and minor process improvements.

Provide Project Details, Objectives and Solutions to Address Problem*:

Original Scope:
The proposed project will upgrade the CO2, lime, and chlorine systems, addressing the safety concerns and providing treatment resiliency.

Additional Scope:
Additional scope items will upgrade select electrical components, liquid chemical feed and storage systems, fluoride feed and storage system, select building improvements, and minor process improvements to address safety concerns and provide treatment resiliency.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?*:	24206
For this project,	
What is the Benefited Population?*:	24206
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	N/A
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	No
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*:	N/A
Design Completion*:	12/2024
Bid*:	01/2025
Construction Start*:	01/2025
Construction Completion*:	06/2026

Explain Additional Timeline Issues*:

None anticipated.

Consulting Engineer*:	Laith Hintz, PE
Engineer Telephone Number*:	701-221-0530
Engineer Email*:	Laith.Hintz@AE2S.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Jarek	Wigness	06/24/2024
	First Name	Last Name	Date

Address*:	205 2nd Ave NW Address Line 1 Address Line 2 Mandan North Dakota 58554-0000 City State Zip Code
Telephone Number*:	701-667-3227
Sponsor Email*:	jarek.wigness@cityofmandan.com
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Jarek Wigness 06/24/2024 First Name Last Name Date
Title/Position/Authority*:	City Engineer

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: CLICK HERE to see examples.	No
Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	Mandan WTP Phase III Location Map.pdf
Are You Seeking SRF or IRLF Funding?*:	Yes
Engineer's Estimate of Probable Cost Separate Project Components by Type (Storm Sewer, Sanitary Sewer and Associated Roads, Drinking Water and Associated Roads, and Roads) :	sfn_61801_delineation_of_cost_Mandan_WTP-PhIII - Revised.xlsx
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	
CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.	
Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost_Mandan_WTP-PhIII - Revised.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	Yes
CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.	
Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet_Mandan_WTP-PhIII - Revised.xlsx
CLICK HERE for SFN 62417 Basic Asset Inventory Tool and Current Version.	

Asset Inventory Assessment:	sfn_62417_basic_asset_inventory_tool_Mandan.xlsx
Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	No

Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		Already Approved	$347,400.00	$0.00	$0.00	$347,400.00		0.00	0.00
Department of Water Resources Cost Share Pre-Construction		Current Request	$123,000.00	$0.00	$0.00	$123,000.00		0.00	0.00
Department of Water Resources Cost Share Construction		Future Request	$0.00	$6,989,700.00	$0.00	$6,989,700.00		0.00	0.00
Drinking Water State Revolving Fund			$313,600.00	$4,659,800.00	$0.00	$4,973,400.00		0.00	0.00
			$784,000.00	**$11,649,500.00**	**$0.00**	**$12,433,500.00**			

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 26, 2024

Project:	Water Treatment Plant Phase III Optimization
Sponsor:	City of Mandan
Contact:	Jarek Wigness, City Engineer
Phone:	701-667-3227
Engineer:	Laith Hintz, AE2S
Phone:	701-221-0530

Total Cost :	$ 12,433,500
Ineligible Cost :	$ -
Eligible Cost :	$ 12,433,500
Local Cost :	$ 4,973,400

Date: June 20, 2024

	Cost-Share $
	$ 7,460,100
Preconstruction :	$ 470,400
Construction :	$ 6,989,700

Project Type:	**Cost-share %**
Municipal Water Supply	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	9.3%	Mobilization	1	LS	985,000.00	$ 985,000	60%	$ 591,000
2	0.0%	Bonding	0	LS	-	$ -	60%	$ -
3	0.0%	Insurance	0	LS	-	$ -	60%	$ -
4	32.5%	Lime Feed and Storage Improvements	1	LS	3,432,000.00	$ 3,432,000	60%	$ 2,059,200
5	19.5%	CO2 Feed and Storage Improvements	1	LS	2,057,000.00	$ 2,057,000	60%	$ 1,234,200
6	6.9%	Filter Equipment	1	LS	730,000.00	$ 730,000	60%	$ 438,000
7	2.9%	Chlorine Room Expansion	1	LS	304,000.00	$ 304,000	60%	$ 182,400
8	0.7%	Exterior Sump Improvements	1	LS	73,000.00	$ 73,000	60%	$ 43,800
9	1.2%	Supervisory Control and Data Acquisitio	1	LS	122,000.00	$ 122,000	60%	$ 73,200
10	6.2%	Electrical	1	LS	657,000.00	$ 657,000	60%	$ 394,200
11	3.6%	Chemical Feed Equipment	1	LS	377,000.00	$ 377,000	60%	$ 226,200
12	1.4%	Supervisory Control and Data Acquisitio	1	LS	152,000.00	$ 152,000	60%	$ 91,200
13	6.0%	Building	1	LS	633,000.00	$ 633,000	60%	$ 379,800
14	0.7%	Process Pipes, Values, Fittings	1	LS	73,000.00	$ 73,000	60%	$ 43,800
15	0.0%					$ -	60%	$ -
16	0.0%		0		-	$ -	60%	$ -
17	0.0%		0		-	$ -	60%	$ -
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 9,595,000	60%	$ 5,757,000
	10.0%	**Contingency**				$ 959,500	60%	$ 575,700
	84.9%	**Construction Total**				$ 10,554,500	60%	$ 6,332,700
		Preconstruction Costs						
27	0.1%	Geotechnical Investigations	1	LS	15,000.00	$ 15,000	60%	$ 9,000
28	6.8%	Final Design	1	LS	719,000.00	$ 719,000	60%	$ 431,400
29	0.5%	Bidding / Negotiations	1	LS	50,000.00	$ 50,000	60%	$ 30,000
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	6.3%	**Preconstruction Total**				$ 784,000	60%	$ 470,400
		Construction Engineering Costs						
32	3.8%	Construction Contract Management	1	LS	400,000.00	$ 400,000	60%	$ 240,000
33	3.8%	Project Inspection	1	LS	400,000.00	$ 400,000	60%	$ 240,000
34	2.1%	I&C System Services	1	LS	225,000.00	$ 225,000	60%	$ 135,000
35	0.7%	Post-Construction / Warranty	1	LS	70,000.00	$ 70,000	60%	$ 42,000
36	0.0%		0		-	$ -	60%	$ -
	8.8%	**Construction Engineering Total**				$ 1,095,000	60%	$ 657,000
		Other Eligible Costs						
37	0.0%		0		-	$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.0%		0		-	$ -	0%	$ -
43	0.0%		0		-	$ -	0%	$ -
44	0.0%		0		-	$ -	0%	$ -
45	0.0%		0		-	$ -	0%	$ -
	0.0%	**Other Ineligible Total**				$ -	0%	$ -
	100.0%	**Total**				$ 12,433,500		
		Eligible Total				$ 12,433,500	60%	$ 7,460,100
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 12,433,500	60%	$ 7,460,100

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of Mandan
Project Title: Water Treatment Plant Phase III Optimization **Date:** July 2, 2024

Explanation of Alternatives:

WTP Phase III Optimization (Preferred) - This alternative will provide lime feed and storage improvements, CO2 feed and storage improvements, filter rehabilitation, chlorine building expansion for additional storage, chemical feed system improvements, SCADA improvements, building improvements, and miscellaneous other WTP improvements. Much of this equipment is nearing the end of its useful life and will be replaced with new equipment with increased capacities.
Do Nothing - This alternative does not improve the WTP or provide additional capacity. Existing equipment is at risk of failure, leaving the city vulnerable to accidents and disruptions in water supply.
WTP Phase III Optimization (Original Scope) - Improve lime feed and storage, CO2 feed and storage, filter rehabilitation, chlorine building expansion for additional storage, and other miscellaneous WTP improvements. Much of the targeted improvements include equipment that are nearing the end of their useful lives and will be replaced with new equipment.

Inputs:

New Connections Served	0
Future Connections Served	TBD
Current Connections Served	9418
Net Connections (New + Current)	9418

Current CIF Balance	$0
Annual CIF Contribution	$0
Cash Funding Target (%) New Assets	35%
Cash Funding Target (%) Existing Asets	50%
Suggested Annual CIF Contribution	$2,171,319

	WTP Phase III Optimization (Preferred)	Do Nothing	WTP Phase III Optimization (Original Scope)	
Construction Cost	$12,433,500	$0	$7,330,000	
Annual O & M	$0	$0	$0	

Details:

Mandan does not have the ability to demonstrate a Capital Improvement Fund as required by DWR policy. Mandan's Water & Sewer Utility Fund does maintain the following required cash reserves:
•25% operations and maintenance cash reserve, and
•Revenue bonds cash reserve.
The remaining cash balance in the Water & Sewer Utility Fund that exceeds the required cash reserves above are considered to be unreserved and may be used to fund non-operating (capital, debt, transfers) expenses or to be designated by the Board of City Commissioners to fund certain water and sewer related projects. Since the City has yet to adopt a comprehensive Capital Improvement Program for the Water & Sewer Utility Fund, the City at this time does not maintain a formal capital improvement cash reserve in the Water & Sewer Utility Fund.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	WTP Phase III Optimization (Preferred)	Do Nothing	WTP Phase III Optimization (Original Scope)	
Capital Costs	$12,267,000	$0	$7,232,000	
O&M	$0	$0	$0	
Repair, Rehab, Replacement	$7,539,000	$0	$4,649,000	
Salvage Value	$930,000	$0	$540,000	
Total PVC	**$18,876,000**	**$0**	$11,341,000	
PV Cost Per User	**$2,004**	**$0**	**$1,204**	

Current Water Rate (Cost Per 5000g)		**$37**			
Comparable Water Rate		**$47**			
Net Connections (New + Current)		9,418	9,418	9,418	
Cost-Share Percent		60%	60%	60%	
	Local Share	$4,906,800	$0	$2,892,800	
	Other Funding	$0	$0	$0	
	Total Local	$4,906,800	$0	$2,892,800	
Payment Per User With Cost-Share		**$2.64**	**$0.00**	**$1.55**	
	Local Share	$12,267,000	$0	$7,232,000	
	Other Funding	$0	$0	$0	
	Total Local	$12,267,000	$0	$7,232,000	
Payment Per User Without Cost-Share		**$6.59**	**$0.00**	**$3.88**	

Explanation of Results:

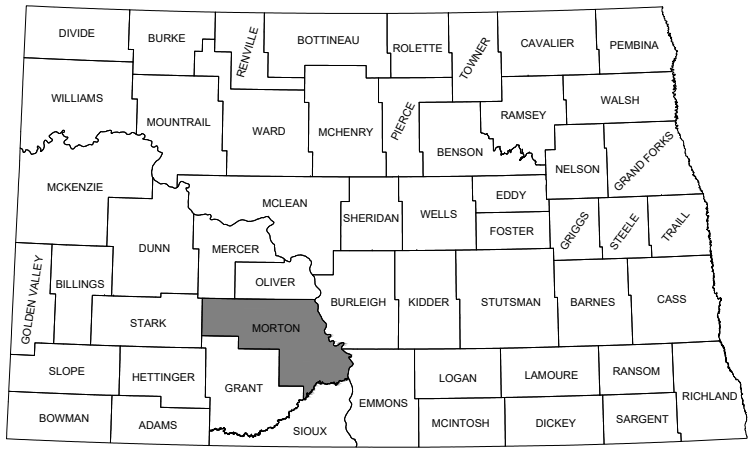
The sponsor preferred project is the "WTP Phase III Optimization" option. The present value cost of the preferred alternative is $18,876,000 and $11,341 for the "Original Scope" alternative as a comparison. The present value cost per user for the preferred alternative is $2,004. The monthly user cost of the local share with DWR 60% cost-share participation is $2.64 per month and $6.59 without DWR participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease	
ND Dept. of Commerce	2010	2020			
Population & Trends	18,331	24,206	3.2%	588	

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18

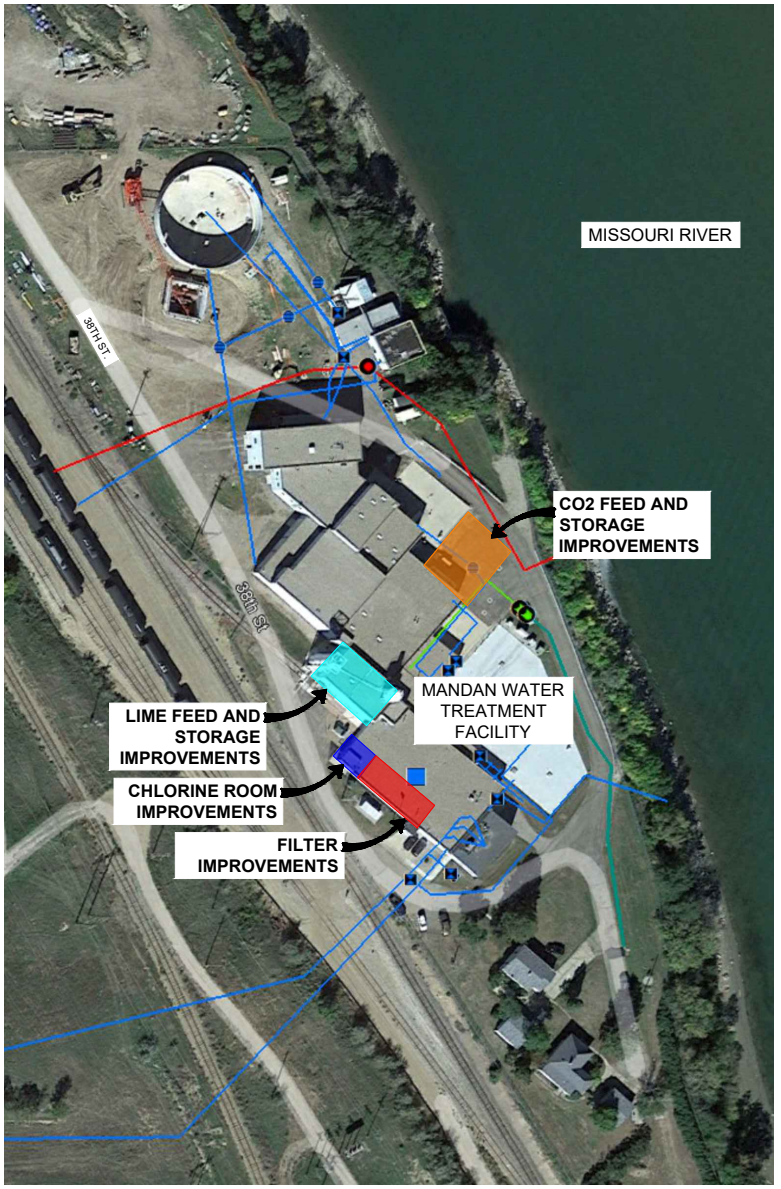
DWR Date Received : 6/24/24



STATE OF NORTH DAKOTA

1 / 001 **PROJECT LOCATION MAP**
MORTON COUNTY

2 / 001 **PROJECT VICINITY MAP**
MORTON COUNTY



3 / 001 **PROJECT AERIAL MAP**
MORTON COUNTY

AE2S

Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

STATUS: PRELIMINARY - NOT FOR CONSTRUCTION

APPR | DATE | SYM

PROJECT TITLE: PHASE III OPTIMIZATION

Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: PHASE III OPTIMIZATION

CLIENT: CITY OF MANDAN
MANDAN, NORTH DAKOTA

PREPARED BY: TRK
CHECKED BY: LDH
APPROVED BY: LDH

PROJECT NO: 00510-2022-002
DATE: JUNE 2023
ALT. PROJECT NO: XXX-XXXX

SHEET DESIGNATOR: EX

SHEET NO: 001

Water Development Plan: Yes (2023)
Plan Priority: Low

1083488 - New Town Utility Improvements - Phase I

Application Details

Funding Opportunity:	1083251-State Fiscal Year 2024-2025 Infrastructure Request
Funding Opportunity Due Date:	Jun 30, 2025 3:00 PM
Program Area:	Funding for Infrastructure in ND - FIND
Status:	Under Review
Stage:	Final Application
Initial Submit Date:	Jun 19, 2024 5:22 PM
Initially Submitted By:	Abby Ritz
Last Submit Date:	Jun 25, 2024 4:46 PM
Last Submitted By:	Abby Ritz

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Abby (First Name) Middle Name Ritz (Last Name)
Title:	
Email*:	abby.ritz@ae2s.com
Address*:	1815 Schafer Street, Suite 301 AE2S Bismarck (City) North Dakota (State/Province) 58501 (Postal Code/Zip)
Phone*:	701-221-0530 Ext. Phone ###-###-####
Fax:	###-###-####
Comments:	

Organization Information

Status*:	Approved
Name*:	City of New Town
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	
Address*:	PO Box 309

103 Soo Place

New Town North Dakota 58763-0309
City State/Province Postal Code/Zip

Phone*: 701-627-4812 Ext.
###-###-####

Fax: ###-###-####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: New Town Utility Improvements - Phase I

Sponsor(s)*: City of New Town

County*: Mountrail

City*: New Town

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of New Town

Describe the Problem*:

The City of New Town's watermains were built in the 1950s, shortly after the City of New Town was founded. As such, these utilities have reached the end of their design life. Over recent years, there have been many breaks in the watermains, resulting in numerous pipe materials and patches throughout the systems. Continued failure of these watermains will result in loss of service to the residents and escalating repair costs to the City of New Town.

In addition to the deterioration of the existing infrastructure, the City also wants to address anticipated growth. Due to oil activity in the surrounding region, the City of New Town has seen its population and commercial activity grow in the last decade. As the heart of the Mandan, Hidatsa, and Arikara (MHA) Nation, New Town is planning for continued growth in the upcoming years.

Provide Project Details, Objectives and Solutions to Address Problem*:

Under the proposed project, all watermain within the phase 1 project area will be replaced with the new 8" PVC pipe, ductile fittings and valves, and new poly services from the main to the boulevard. This will address the existing deterioration and increase capacity to support the City's anticipated future growth.

Due to project bids coming in higher than the engineer's estimate, the city is submitting this request for additional cost-share.

For this project,

Choose City, County, Water District or Other*: City

What is the Current Estimated Population?*: 2764

For this project,

What is the Benefited Population?*: 700

Have Assessment Districts Been Formed?*: N/A

Have Land or Easements Been Acquired?*: N/A

Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*: No

Are There Any Road Improvements Included as Part of the Project?*: Yes

If Yes, Describe the Condition and Last Improvements Made to Any Underground Infrastructure.:

The existing water mains, sanitary sewer mains, and storm sewer infrastructure to be replaced under this project were all constructed in the 1950s, shortly after the town was founded. This infrastructure has not been replaced since the original installation. The plan is to replace all underground infrastructure eat the time of this project to avoid unnecessary repaving in the future.

Have You Applied For Any Federal Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding?
(Example: Hazard Mitigation Grant Program)
***:** No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 09/2022

Design Completion*: 03/2023

Bid*: 11/2023

Construction Start*: 05/2024

Construction Completion*: 10/2024

Explain Additional Timeline Issues*:

No issues anticipated.

Note that this project was originally submitted for the 2023-2025 Water Development Plan under "New Town 2025-2026". The City accelerated implementation of this project following the initial feasibility study.

Consulting Engineer*: Jason Strand, AE2S

Engineer Telephone Number*: 701-852-4048

Engineer Email*: jason.strand@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Eileen (First Name) Zaun (Last Name) 06/18/2024 (Date)
Address*:	PO Box 309 (Address Line 1) (Address Line 2) New Town (City) North Dakota (State) 58763-0309 (Zip Code)
Telephone Number*:	701-627-4812
Sponsor Email*:	ezaun@cityofnewtown.net
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Eileen (First Name) Zaun (Last Name) 06/18/2024 (Date)
Title/Position/Authority*:	City Auditor

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No
CLICK HERE to see examples.	
Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	New Town_SWC_Map.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	
CLICK HERE for SFN 61801 Delineation of Costs Instructions and Current Version.	
Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost.xlsx
Type of Request:	Construction
Signed Plans and Specifications For Bidding:	New Town 2023 Street Utility Improvements Plans Stamp 03.29.23.pdf
Water Supply Projects?:	Yes
CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.	
Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet.xlsx
CLICK HERE for SFN 62417 Basic Asset Inventory Tool and Current Version.	
Asset Inventory Assessment:	New Town Water System Asset Inventory 6.19.24.xlsx

Rural Flood Control?:	No
Drain Reconstructions?:	No
Flood Recovery Property Acquisition?:	No
Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?:	No
Sovereign Land Permit, if Required:	
DWR Construction Permit, if Required:	
Conditional Letter of Map Revision (CLOMR), if Required:	
Feasibility/Engineering Study for the Proposed Project:	No
Photos of Problem/Issue:	
Other Applicable Document(s):	Yes
Other Applicable Document:	Estimate of Probable Costs - Post Bid.pdf
Other Applicable Document:	New Town Construction and Mobilization Supplemental.pdf
Other Applicable Document:	

Sources

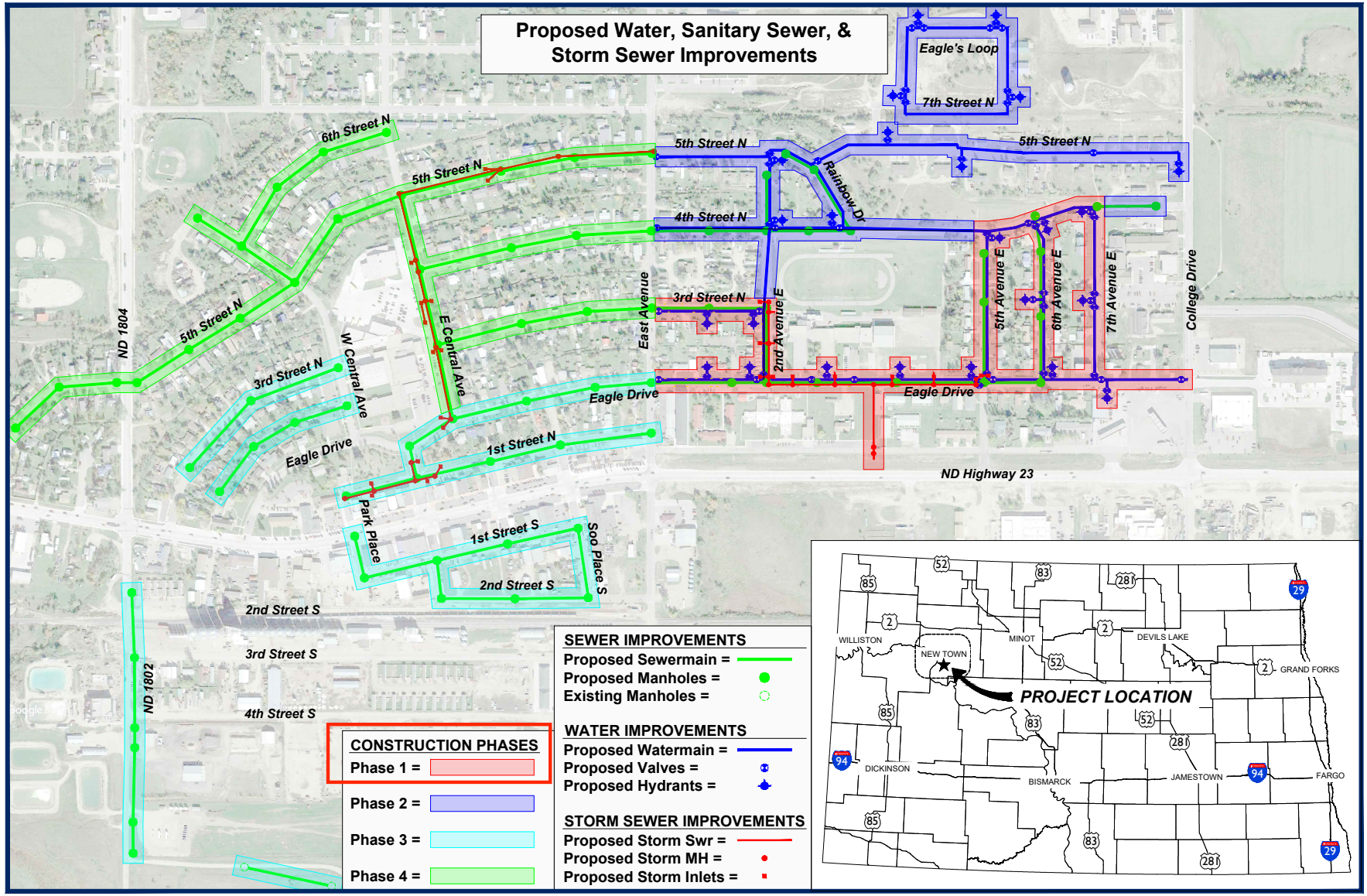
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Construction		Already Approved	$0.00	$2,279,637.00	$0.00	$2,279,637.00		0.00	0.00
Department of Water Resources Cost Share Construction		Current Request	$0.00	$492,330.00	$0.00	$492,330.00		0.00	0.00
Clean Water State Revolving Fund		Already Approved	$0.00	$3,638,000.00	$0.00	$3,638,000.00		0.00	0.00
Drinking Water State Revolving Fund		Already Approved	$0.00	$1,437,000.00	$0.00	$1,437,000.00		0.00	0.00
Other	City Cash Reserves	Already Approved	$0.00	$4,090,227.62	$0.00	$4,090,227.62		0.00	0.00
			$0.00	**$11,937,194.62**	**$0.00**	**$11,937,194.62**			

NEW TOWN UTILITY IMPROVEMENTS
NEW TOWN, NORTH DAKOTA

ZOOM

AE2S



File: W:\N\New Town\00534-2022-005 Water&Sewer\SWC Funding Application\New Town_SWC_Project_Map.dwg

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 25, 2024

Project:	New Town Utility Improvements - Phase I
Sponsor:	City of New Town
Contact:	Eileen Zaun, City Auditor
Phone:	701-627-4812
Engineer:	Jason Strand, AE2S
Phone:	701-852-4048

Total Cost :	$ 11,937,195
Ineligible Cost :	$ 7,317,250
Eligible Cost :	$ 4,619,945
Local Cost :	$ 9,165,228

Date: June 25, 2024

	Cost-Share $
Preconstruction :	$ -
Construction :	$ 2,771,967
Previously Approved:	$ 2,279,637
Current Request:	$ 492,330

Project Type:	**Cost-share %**
Municipal Water Supply	60%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	10.0%	Mobilization	1	LS	440,521.90	$ 440,522	60%	$ 264,313
2	0.2%	Bonding	1	LS	9,706.28	$ 9,706	60%	$ 5,824
3	0.0%	Insurance	1	LS	-	$ -	60%	$ -
4	0.1%	Erosion Control	1	LS	4,947.27	$ 4,947	60%	$ 2,968
5	0.1%	Traffic Control	1	LS	6,061.74	$ 6,062	60%	$ 3,637
6	0.0%	Other Services Provided By Contractor	1	LS	-	$ -	60%	$ -
7	28.5%	Paving	1	LS	1,249,727.64	$ 1,249,728	60%	$ 749,837
8	0.2%	Water Main 4 in	1	LS	8,712.00	$ 8,712	60%	$ 5,227
9	2.6%	Water Main 6 in	1	LS	111,939.00	$ 111,939	60%	$ 67,163
10	22.3%	Water Main 8 in	1	LS	977,816.00	$ 977,816	60%	$ 586,690
11	0.2%	Water Main 10 in	1	LS	8,586.00	$ 8,586	60%	$ 5,152
12	0.1%	Water Main 12 in	1	LS	3,900.00	$ 3,900	60%	$ 2,340
13	6.9%	Water Service Line	1	LS	302,220.00	$ 302,220	60%	$ 181,332
14	8.2%	Valves	1	LS	358,400.00	$ 358,400	60%	$ 215,040
15	4.2%	Hydrant	1	LS	183,400.00	$ 183,400	60%	$ 110,040
16	2.8%	Fittings	1	LS	122,600.00	$ 122,600	60%	$ 73,560
17	4.6%	Connection to Existing Line	1	LS	200,800.00	$ 200,800	60%	$ 120,480
18	0.0%		0		-	$ -	60%	$ -
19	0.0%		0		-	$ -	60%	$ -
20	0.0%		0		-	$ -	60%	$ -
21	0.0%		0		-	$ -	60%	$ -
22	0.0%		0		-	$ -	60%	$ -
23	0.0%		0		-	$ -	60%	$ -
24	0.0%		0		-	$ -	60%	$ -
25	0.0%		0		-	$ -	60%	$ -
26	0.0%		0		-	$ -	60%	$ -
		Construction Sub-Total				$ 3,989,338	60%	$ 2,393,603
	10.0%	**Contingency**				$ 398,934	60%	$ 239,360
	36.8%	**Construction Total**				$ 4,388,272	60%	$ 2,632,963
		Preconstruction Costs						
27	0.0%		0	NA		$ -	60%	$ -
28	0.0%		0	NA		$ -	60%	$ -
29	0.0%		0	NA		$ -	60%	$ -
30	0.0%		0		-	$ -	60%	$ -
31	0.0%		0		-	$ -	60%	$ -
	0.0%	**Preconstruction Total**				$ -	60%	$ -
		Construction Engineering Costs						
32	1.6%	Construction Contract Management	1	NA	70,355.39	$ 70,355	60%	$ 42,213
33	3.1%	Project Inspection	1	NA	137,380.35	$ 137,380	60%	$ 82,428
34	0.5%	Post-Construction / Warranty	1	NA	23,937.49	$ 23,937	60%	$ 14,362
35	0.0%		0		-	$ -	60%	$ -
36	0.0%		0		-	$ -	60%	$ -
	1.9%	**Construction Engineering Total**				$ 231,673	60%	$ 139,004
		Other Eligible Costs						
37	0.0%		0		-	$ -	60%	$ -
38	0.0%		0		-	$ -	60%	$ -
39	0.0%		0		-	$ -	60%	$ -
40	0.0%		0		-	$ -	60%	$ -
41	0.0%		0		-	$ -	60%	$ -
	0.0%	**Other Eligible Total**				$ -	60%	$ -
		In-eligible Costs						
42	0.3%	Legal Expenses	1	NA	30,000.00	$ 30,000	0%	$ -
43	6.0%	Mobilization, Bonding, Insurance	1	NA	716,012.81	$ 716,013	0%	$ -
44	7.4%	Sewer Related Paving	1	NA	888,720.64	$ 888,721	0%	$ -
45	4.1%	Storm Related Paving	1	NA	487,479.79	$ 487,480	0%	$ -
46	16.1%	Sewer Related Improvements	1	NA	1,918,774.84	$ 1,918,775	0%	$ -
47	8.8%	Storm Related Improvements	1	NA	1,055,580.79	$ 1,055,581	0%	$ -
48	11.0%	Street Related Improvements	1	NA	1,318,354.14	$ 1,318,354	0%	$ -
49	2.8%	Other Preconstruction Engineering	1	NA	337,084.38	$ 337,084	0%	$ -
49	2.0%	Water Preconstruction Not Requested	1	NA	240,416.00	$ 240,416	0%	$ -
50	2.7%	Other Construction Engineering	1	NA	324,826.77	$ 324,827	0%	$ -
	17.8%	**Other Ineligible Total**				$ 7,317,250	0%	$ -
	56.5%	**Total**				$ 11,937,195		
		Eligible Total				$ 4,619,945	60%	$ 2,771,967
		Federal or State Funds That Supplant Costs				$ -		
		Eligible Cost Total				$ 4,619,945	60%	$ 2,771,967

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: City of New Town
Project Title: Utility Improvements Phase I **Date:** July 1, 2024

Explanation of Alternatives:

Do Nothing - This alternative would result in continued deterioration of underground infrastructure, increasing expenses for short-term remedies such as pipeline repairs and street patching. The city believes that this alternative is unacceptable, leaving an unreliable water system that does not support a high quality of life for its residents.

Watermain Open-Cut Replacement (Preferred) – Estimate - Water utilities within the project area will be open-cut and replaced with new 8-inch C900 PVC pipe, ductile fittings and valves, and new poly services from the main to the boulevard. Hot bituminous pavement will be patched in a 10-foot-wide strip over the top of the utilities that are being replaced, where necessary.

Watermain Pipe Bursting Replacement - The City is already digging up the road to replace sanitary sewer and storm sewer infrastructure in the project area and pipe bursting will not save a significant amount of money for the city. Open cut is the easiest and preferred alternative. This alternative was not bid.

Watermain Open-Cut Replacement – Bid – Costs based on bid from preferred project above.

Inputs:

New Connections Served	0
Future Connections Served	0
Current Connections Served	830
Net Connections (New + Current)	830

Current CIF Balance	$559,400
Annual CIF Contribution	$100,000
Cash Funding Target (Percentage %) New Assets	40%
Cash Funding Target (Percentage %) Existing Asets	40%
Suggested Annual CIF Contribution	$1,469,414

	Do Nothing	Watermain Open-Cut Replacement - Original Estimates	Pipe Bursting (N/A) not bid)	**Watermain Open-Cut Replacement - Bid Costs**
Construction Cost	$0	$9,734,100	$0	$11,937,100
Annual O & M	$40,000	$0	$0	$0

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	Watermain Open-Cut Replacement - Original	Pipe Bursting (N/A) not bid)	Watermain Open-Cut Replacement - Bid Costs
Capital Costs	$0	$9,734,000	$0	$11,937,000
O&M	$1,219,000	$0	$0	$0
Repair, Rehab, Replacement	$0	$706,000	$0	$985,000
Salvage Value	$0	$116,000	$0	$148,000
Total PVC	**$1,219,000**	**$10,324,000**	$0	$12,774,000
PV Cost Per User	**$1,469**	**$12,439**	**$0**	**$15,390**

Current Water Rate (Cost Per 5000g)		**$91**			
Comparable Water Rate		**$50**			
Net Connections (New + Current)		830	830	830	830
Cost-Share Percent		60%	60%	60%	60%
	Local Share	$0	$3,893,600	$0	$4,774,800
	Other Funding	$0	$0	$0	$0
	Total Local	$0	$3,893,600	$0	$4,774,800
Payment Per User With Cost-Share		**$0.00**	**$23.73**	**$0.00**	**$29.10**
	Local Share	$0	$9,734,000	$0	$11,937,000
	Other Funding	$0	$0	$0	$0
	Total Local	$0	$9,734,000	$0	$11,937,000
Payment Per User Without Cost-Share		**$0.00**	**$59.33**	**$0.00**	**$72.76**

Explanation of Results:

The sponsor preferred project is the "Watermain Open-Cut Replacement" option. The present value cost of the now bid for the preferred alternative is $12,774,000. The present value cost per user for the updated bid is $15,390. The monthly user cost of the local share with DWR 60% cost-share participation is $29.10 per month and $72.76 without DWR participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
ND Dept. of Commerce	2010	2020		
Population & Trends	1,925	2,764	4.4%	84

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2022.07.08

GARRISON DIVERSION
CONSERVANCY DISTRICT
P.O. BOX 140
CARRINGTON, N.D. 58421
(701) 652-3194
gdcd@gdcd.org
www.garrisondiversion.org

May 30, 2024

Kylee Merkel, CPA
Bank of North Dakota
P.O. Box 5509
Bismarck ND, 58506-5509

Re: Series D Small Systems Financing – Request for Loan Draw Extension

Dear Kylee:

Thank you for your assistance with our most recent inquiry regarding the Series D financing of the small systems share of the Red River Valley Water Supply Project (RRVWSP). Per our discussions, Garrison Diversion Conservancy District and Lake Agassiz Water Authority are currently engaging with potential project participants to secure commitments for the remainder Series D financing amount of $11,302,440.

Discussions with small systems are proceeding positively, but as you can imagine, the process of securing approvals from nearly 30 rural water boards, city councils, and city commissions is a large undertaking. Therefore, we do not expect we will have the ability to draw on this portion of the approved financing within the required 1-year period from the loan approval date of August 17, 2023. For this reason, we are respectfully requesting a 6-month extension, allowing us to finalize commitments for the remaining systems.

We appreciate your consideration of this request. Should you have any questions or require additional clarification, please feel free to contact me via email (merrim@gdcd.org) or my cell phone (701-320-1904).

Sincerely,

Merri Mooridian

Merri Mooridian
Deputy Program Manager - RRVWSP

BND
Bank of North Dakota

PO BOX 5509, 1200 Memorial Hwy.
Bismarck, ND 58506-5509

800.472.2166
800.366.6888 TTY
701.328.5600

bnd.nd.gov

TO: Governor Doug Burgum
Members of the State Water Commission

FROM: Kylee Merkel, Bank of North Dakota

SUBJECT: Water Infrastructure Revolving Loan Fund Request (Extension)
Garrison Diversion Conservancy District

DATE: June 18, 2024

At the August 2023 meeting of the State Water Commission, the Commission approved two loans to the Garrison Diversion Conservancy District (District). The two loans totaled $60,000,000, with a 40-year repayment term, from the Water Infrastructure Revolving Loan Fund. Proceeds of the loans are to be used for the 25% local cost share of the Red River Valley Water Supply project.

The total loan amount requested by the district is the amount of local cost share for the 2023-2025 biennium. The local share will be funded as two separate loans, with each evidenced by a Financiang Resolution. The Series D1 Resolution will be executed by the District, Lake Agassiz Water Authority, and the Cities of Fargo and Grand Forks. The Series D1 Resolution will cover the amount allocated to the Cities of Fargo and Grand Forks, based on their current nomination percentages. The Series D1, in the amount of $48,697,560, has closed and the District is requested funds as the projected is constructed.

The Cities of Fargo and Grand Forks requested that the District meet with all the small systems to determine their definitive nomination percentages. Following meeting with the small systems, the District will reclalculate the nomination percentages for all systems, including the Cities of Fargo and Grand Forks. The Series D2 Resolution will cover these new nomination percentages. Each system will execute this resolution and be responsible to service the debt based on their respective nomination percentage. The Series D2, in the amount of $11,302,440, will be closed on second. At the time of loan approval, the estimated timeframe of closing this loan was the end of 2023 or beginning of 2024.

Following allocation of a loan from the State Water Commission, loans from the Water Infrastructure Revolving Loan Fund are formally approved by BND, and have a one-year commitment expiration. Loans are to close and take an initial advance within the one-year timeframe, or BND reserves the right to withdraw the commitment.

The Series D2 loan has not yet closed. The District is currently engaging with the project participants to secure the commitments, to allow for the recalculation of the nomination percentages. The discussions are proceeding positively, but are taking time to secure approvals from the respective boards, councils and commissions of the participants. The District is requesting a 6-month commitment extension, to allow them to finalize the commitments of these participants.

BND
Bank of North Dakota

PO BOX 5509, 1200 Memorial Hwy.
Bismarck, ND 58506-5509

800.472.2166
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701.328.5600

bnd.nd.gov

This correspondence should not be considered an approval of the extension. Following the recommendation for the 6-month extension by the State Water Commisison, the Bank of North Dakota will proceed with formally reviewing and approving the extension in accordance with BND loan policy.

The Water Infrastructure Revolving Loan Fund currently has cash on hand of $19.1 million and access to a $100 million line of credit. There are currently $65.5 million of outstanding loan commitments. There is currently $53.6 million of capacity available for new loan commitments.

DWR Date Received : 6/17/24

Water Development Plan: Yes (2023)
Plan Priority: Moderate

H 1

1083431 - Phase 3 Water Treatment Plant Improvements

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 14, 2024 1:30 PM

Initially Submitted By: Abby Ritz

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Ann
First Name
Middle Name Broussard
Last Name

Title: Manager

Email*: msrwater@westriv.com

Address*: 987 17th Ave NW

Organization Information

Status*: Approved

Name*:
McLean Sheridan Rural Water District

Organization Type*: Political Subdivision

Tax Id: McLean Sheridan Rura

Organization Website:

Address*: 987 17th Ave NW

	Turtle Lake (City)	North Dakota (State/Province)	
58575 (Postal Code/Zip)			
Phone*:	(701) 448-2686 Ext. Phone ###-###-####		
Fax:	(701) 448-2315 ###-###-####		
Comments:			

	Turtle Lake (City)	North Dakota (State/Province)	
58575-____ (Postal Code/Zip)			
Phone*:	701-448-2686 Ext. ###-###-####		
Fax:	###-###-####		
Vendor ID:			
PeopleSoft Supplier ID:			
Comments:			
Location Code:			

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	Phase 3 Water Treatment Plant Improvements
Sponsor(s)*:	McLean Sheridan Rural Water District
County*:	Multiple
City*:	Turtle Lake
Description of Request*:	Updated (previously submitted)
If Study, What Type:	
If Project/Program, What Type:	Rural Water Supply

Jurisdictions/Stakeholders Involved*:

McLean Sheridan Rural Water District

Describe the Problem*:

The MSRWD water treatment plant near Turtle Lake is reaching the end of its useful life and needs additional treatment capacity.

Provide Project Details, Objectives and Solutions to Address Problem*:

The WTP expansion will add a second treatment train consisting of a pressure filter and dosing tanks. This expansion will double the plant treatment capacity through a second treatment train. The project will also replace and upgrade nearly all the process pipe, electrical components, and instrumentation and controls systems within the plant, which are nearing the end of their useful life. The well field electrical systems will be upgraded to VFD and expanded to support adding a new well in the future. The project also includes construction of a new larger office space and garage to support additional staff.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	3573

For this project,

What is the Benefited Population?*:	3573
Have Assessment Districts Been Formed?*:	No
Have Land or Easements Been Acquired?*:	N/A
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	Yes
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	

Have You Applied for any State Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Have You Applied for any Local Permits?*: No

If Yes or Ongoing, Please Explain (include type/number):

Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*: No

Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *: No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 09/2021

Design Completion*: 05/2023

Bid*: 07/2024

Construction Start*: 09/2024

Construction Completion*: 11/2026

Explain Additional Timeline Issues*:

No timeline issues anticipated.

Consulting Engineer*: Tyler Fode

Engineer Telephone Number*:	701-221-0530
Engineer Email*:	tyler.fode@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*:	Ann Broussard 06/14/2024 First Name Last Name Date
Address*:	987 17th Avenue NW Address Line 1 Address Line 2 Turtle Lake North Dakota 58575-9998 City State Zip Code
Telephone Number*:	701-448-2654
Sponsor Email*:	ann@msrwd.com
I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*:	Yes
Authorized Individual*:	Ann Broussard 06/14/2024 First Name Last Name Date
Title/Position/Authority*:	General Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: No

CLICK HERE **to see examples.**

Project Specific Map
Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*: MSRWD Phase 3 Project Location Map.pdf

Are You Seeking SRF or IRLF Funding?*: Yes

Engineer's Estimate of Probable Cost
Separate Project Components by Type (Storm Sewer, Sanitary Sewer and Associated Roads, Drinking Water and Associated Roads, and Roads)
: sfn_61801_delineation_of_costApril2024.xlsx

Are You Seeking Department of Water Resources Cost-Share?*: Yes

Are You Seeking Cost-Share for a Main Street Initiative Related Project?: No

Attach Completed Comprehensive Plan:

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801: sfn_61801_delineation_of_costApril2024.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding:

MSRWD Phase 3 WTP Improvement - Combined Plans and Specs.pdf

Water Supply Projects?: Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.**

Life Cycle Cost Analysis: life_cycle_cost_analysis_worksheet_202405Update.xlsx

CLICK HERE **for SFN 62417 Basic Asset Inventory Tool and Current Version.**

Asset Inventory Assessment: sfn_62417_basic_asset_inventory_tool_MSRWD_202406.xlsx

Rural Flood Control?: No

Drain Reconstructions?: No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s): Yes

Other Applicable Document: MSRWD 2024 WTP Const Request_Signed.pdf

Other Applicable Document:

Other Applicable Document:

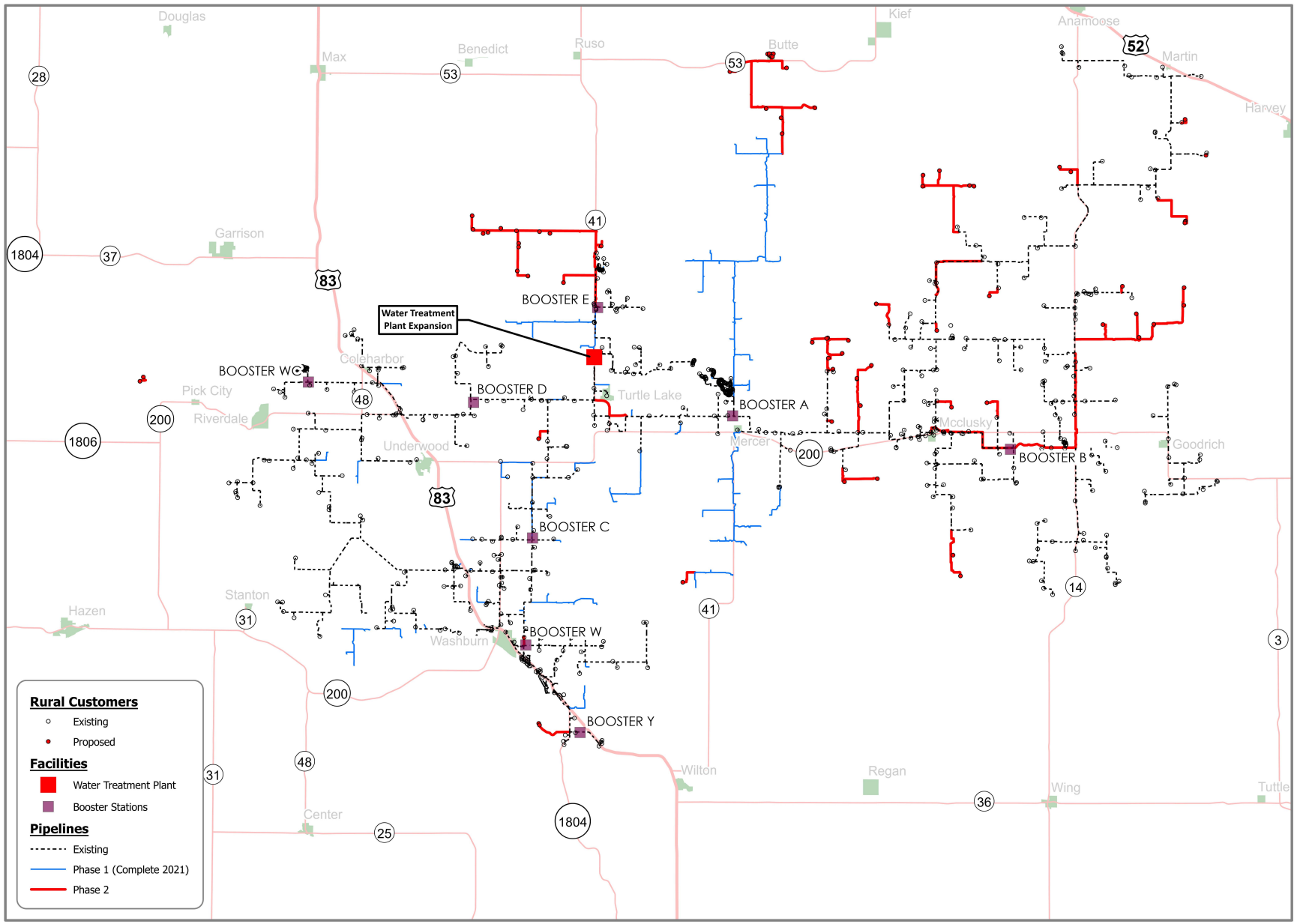
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

	If Other,	State Fiscal

Source	Specify Funding Source	Source Status	Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Drinking Water State Revolving Fund			$0.00	$8,159,000.00	$0.00	$8,159,000.00		0.00	0.00
Department of Water Resources Cost Share Pre-Construction		Already Approved	$456,750.00	$0.00	$0.00	$456,750.00		0.00	0.00
Department of Water Resources Cost Share Construction		Current Request	$0.00	$983,092.00	$0.00	$983,092.00		0.00	0.00
			$456,750.00	**$9,142,092.00**	**$0.00**	**$9,598,842.00**			

DWR Date Received : 6/17/24



N

0 3 6
Miles

1 inch equals 6 Miles

Locator Map Not to Scale

Turtle Lake
McLean County, ND

Overall System Map
Phase II Expansion Areas

MSRWD - PHASE II SYSTEM EXPANSION AND IMPROVEMENTS

MSRWD

Date: 1/6/2022

AE2S

www.ae2s.com | Advanced Engineering and Environmental Services, Inc.

Information depicted may include data unverified by AE2S. Any reliance upon such data is at the user's own risk. AE2S does not warrant this map or its features are either spatially or temporally accurate.

Coordinate System: NAD 1983 StatePlane North Dakota North FIPS 3301 Feet | Edited by: ASchlagel | C:\Users\ASchlagel\AE2S\MSRWD - 2019 Rural Water - 00215-2016-002 - Documents\GIS\Overall System Map\MSRWD Overall Map\MSRWD Overall Map.aprx | MSWD_Overall_Phase 2 Update

DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 17, 2024

Project:	MSRWD Phase 3 WTP Improvements
Sponsor:	McLean Sheridan Rural Water District
Contact:	Ann Broussard, System Manager
Phone:	701-448-2686
Engineer:	Tyler Fode, AE2S
Phone:	701-221-0530

Total Cost :	$ 9,598,950
Ineligible Cost :	$ 7,099,213
Eligible Cost :	$ 2,499,737
Local Cost :	$ 7,724,150

Date: June 7, 2024

	Cost-Share $
	$ 1,874,800
Preconstruction :	$ 456,750
Construction :	$ 6,345,345
90% Grant Limit	$ 1,439,842
Construction Limit:	$ 983,092

Project Type:	**Cost-share %**
Rural Water Supply	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	7.1%	Mobilization	1	LS	544,000.00	$ 544,000	75%	$ 408,000
2	2.2%	Bonding	1	LS	171,000.00	$ 171,000	75%	$ 128,250
3	1.5%	Insurance	1	LS	114,000.00	$ 114,000	75%	$ 85,500
4	24.9%	Building	1	LS	1,900,000.00	$ 1,900,000	75%	$ 1,425,000
5	2.2%	Chemical Feed Equipment	1	LS	170,000.00	$ 170,000	75%	$ 127,500
6	0.8%	Demolition	1	LS	60,509.00	$ 60,509	75%	$ 45,382
7	18.2%	Electrical	1	LS	1,390,909.00	$ 1,390,909	75%	$ 1,043,182
8	5.8%	Mechanical	1	LS	440,000.00	$ 440,000	75%	$ 330,000
9	4.1%	Well Field Improvements	1	LS	310,000.00	$ 310,000	75%	$ 232,500
10	2.6%	Site Work	1	LS	200,000.00	$ 200,000	75%	$ 150,000
11	15.7%	Filter Equipment	1	LS	1,200,000.00	$ 1,200,000	75%	$ 900,000
12	5.9%	Process Pipes, Values, Fittings	1	LS	450,000.00	$ 450,000	75%	$ 337,500
13	0.0%		0		-	$ -	75%	$ -
14	0.0%		0		-	$ -	75%	$ -
15	0.0%		0		-	$ -	75%	$ -
16	0.0%		0		-	$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 6,950,418	75%	$ 5,212,814
	10.0%	**Contingency**				$ 695,042	75%	$ 521,281
	79.6%	**Construction Total**				$ 7,645,460	75%	$ 5,734,095
		Preconstruction Costs						
27	4.7%	Final Design	1	LS	359,000.00	$ 359,000	75%	$ 269,250
28	1.0%	Final Design	1	LS	75,000.00	$ 75,000	75%	$ 56,250
29	0.9%	Bidding / Negotiations	1	LS	69,200.00	$ 69,200	75%	$ 51,900
30	0.7%	Electrical and I&C Design	1	LS	50,000.00	$ 50,000	75%	$ 37,500
31	0.7%	Final Design	1	LS	55,800.00	$ 55,800	75%	$ 41,850
	6.3%	**Preconstruction Total**				$ 609,000	75%	$ 456,750
		Construction Engineering Costs						
32	6.5%	Project Inspection	1	LS	500,000.00	$ 500,000	75%	$ 375,000
33	3.7%	Construction Contract Management	1	LS	285,000.00	$ 285,000	75%	$ 213,750
34	0.4%	Post-Construction / Warranty	1	LS	30,000.00	$ 30,000	75%	$ 22,500
35	0.0%		0		-	$ -	75%	$ -
36	0.0%		0		-	$ -	75%	$ -
	8.5%	**Construction Engineering Total**				$ 815,000	75%	$ 611,250
		Other Eligible Costs						
37	0.0%					$ -	75%	$ -
38	0.0%		0		-	$ -	75%	$ -
39	0.0%		0		-	$ -	75%	$ -
40	0.0%		0		-	$ -	75%	$ -
41	0.0%		0		-	$ -	75%	$ -
	0.0%	**Other Eligible Total**				$ -	75%	$ -
		In-eligible Costs						
42	3.7%	Office Space	1	LS	351,000.00	$ 351,000	0%	$ -
43	0.9%	Garage	1	LS	84,900.00	$ 84,900	0%	$ -
44	0.5%	Ineligible Contingency	1	LS	43,590.00	$ 43,590	0%	$ -
45	0.5%	Other Preconstruction Engineering	1	LS	50,000.00	$ 50,000	0%	$ -
	5.5%	**Other Ineligible Total**				$ 529,490	0%	$ -
	100.0%				**Total**	$ 9,598,950		
					Eligible Total	$ 9,069,460	75%	$ 6,802,095
					DEQ Emerging Contaminants Loan Forgiveness - Funds That Supplant Costs	$ 6,569,723		
					Eligible Cost Total	$ 2,499,737	75%	$ 1,874,803

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: McLean Sheridan Rural Water District (MSRWD)
Project Title: MSRWD Phase 3 WTP Improvements **Date:** July 1, 2024

Explanation of Alternatives:

WTP Filter Expansion (Preferred) - Add second pressure filter to double treatment capacity. Add a new well and update well field electrical to variable frequency drives. Increase administrative and garage space for staff.
Pipeline from Washburn - Install new 12" pipeline from NW Washburn to Turtle Lake Tower. Add a 1,200-gpm booster station. Expand current office for staff needs.

Inputs:

New Connections Served	0
Future Connections Served	0
Current Connections Served	700
Net Connections (New + Current)	700

Current CIF Balance	$1,955,000
Annual CIF Contribution	$350,000
Cash Funding Target (Percentage %) New Assets	25%
Cash Funding Target (Percentage %) Existing Asets	50%
Suggested Annual CIF Contribution	$547,195

	WTP Filter Expansion	Pipeline from Washburn		
Construction Cost	$9,598,900	$11,528,700		
Annual O & M	$15,000	$5,000		

Details:

These are upgrades to the WTP and facility.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	WTP Filter Expansion	Pipeline from Washburn		
Capital Costs	$9,470,000	$11,374,000		
O&M	$384,000	$129,000		
Repair, Rehab, Replacement	$3,721,000	$2,351,000		
Salvage Value	$894,000	$387,000		
Total PVC	**$12,681,000**	**$13,467,000**		
PV Cost Per User	**$18,116**	**$19,239**		

Current Water Rate (Cost Per 5000g)		**$121**			
Comparable Water Rate		**$47**			
Net Connections (New + Current)		700	700		
Cost-Share Percent		75%	75%		
	Local Share	$2,367,500	$2,843,500		
	Other Funding	$0	$0		
	Total Local	$2,367,500	$2,843,500		
Payment Per User With Cost-Share		**$17.11**	**$20.55**		
	Local Share	$9,470,000	$11,374,000		
	Other Funding	$0	$0		
	Total Local	$9,470,000	$11,374,000		
Payment Per User Without Cost-Share		**$68.44**	**$82.20**		

Explanation of Results:

The sponsor preferred project is the “WTP Filter Expansion” option. The present value cost of the preferred alternative is $12,681,000 and $13,467,000 for the “Pipeline from Washburn” alternative as a comparison. The present value cost per user for the preferred alternative is $8,504. The monthly user cost of the local share with DWR 75% cost-share participation is $17.11 per month and $68.44 without DWR participation.

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18

McLean-Sheridan Water District

987 17th Avenue NW
Turtle Lake, ND 58575-9649
E-mail ann@msrwd.com
Phone: 701-448-2686
Fax: 701-448-2315

June 7, 2024

Andrea Travnicek, Ph. D., Secretary
North Dakota State Water Commission
900 E Boulevard Ave
Bismarck ND 58505-0850

Re: McLean Sheridan Rural Water District (MSRWD)
–Phase 3 WTP Improvements
Construction Cost Share Request for 2023-2025 Biennium

Dear Ms.Travnicek:

The McLean Sheridan Rural Water District (MSRWD) is requesting construction funding for the Water Treatment Plant (WTP) expansion. Preconstruction for this design was authorized by the State Water Commission (SWC) at the August 2021 meeting.

The WTP design is complete and will advertise for bids on July 1st with a bid opening planned for July 31st, before the August 8th SWC Meeting. Based on the bid results received, we will update the funding request to match the actual bid price.

The Phase 3 WTP Improvements Project budget is $9,598,950 as shown in the detailed cost breakdown. The project is eligible for Emerging Contaminants Loan Forgiveness through DWSRF up to 75% of the project cost or $7,199,213. We are requesting SWC cost-share for the remaining 25% up to 90% of the total project cost which is outlined as follows:

- 90% of Total Project Costs: $8,639,055
- DWSRF Loan Forgiveness (75%): $7,199,213
- SWC Cost-Share request (15%): $1,439,842
- Local Portion (10%): $959,895

Of the SWC cost-share portion, $456,750 has been previously approved by the SWC. Currently, we are requesting approval of the remaining construction cost share totaling $983,092.

Thank you very much for your assistance with this important project for the McLean Sheridan Rural Water District. If you have any questions, please do not hesitate to contact me at 701-448-2686 or Tyler Fode with Advanced Engineering and Environmental Services, Inc. at 701-221-0530.

Respectfully submitted,

Ann Broussard
Manager

Water Development Plan: No (2023)
DWR Date Received: H 2

1083438 - GRWD: 2024 User Expansion

Application Details

Funding Opportunity:
1083251-State Fiscal Year 2024-2025 Infrastructure Request

Funding Opportunity Due Date: Jun 30, 2025 3:00 PM

Program Area:
Funding for Infrastructure in ND - FIND

Status: Submitted

Stage: Final Application

Initial Submit Date: Jun 14, 2024 12:24 PM

Initially Submitted By: Brian Aafedt

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Brian First Name
Middle Name Aafedt Last Name

Title: Project Engineer

Email*: brian.aafedt@ae2s.com

Address*: 4050 Garden View Dr.

Organization Information

Status*: Approved

Name*: Greater Ramsey Water District

Organization Type*: Political Subdivision

Tax Id: 45-0428798

Organization Website:

Address*: 113 Shamrock Ln SE

	Grand Forks	North Dakota
	City	State/Province
58201		
Postal Code/Zip		
Phone*:	701-213-7470	Ext.
	Phone	
	###-###-####	
Fax:	###-###-####	
Comments:		

	Devils Lake	North Dakota
	City	State/Province
58301-0000		
Postal Code/Zip		
Phone*:	(701) 662-5781	Ext.
	###-###-####	
Fax:	###-###-####	
Vendor ID:		
PeopleSoft Supplier ID:		
Comments:		
Location Code:		

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*:	GRWD: 2024 User Expansion
Sponsor(s)*:	Greater Ramsey Water District
County*:	Ramsey
City*:	Devils Lake
Description of Request*:	Updated (previously submitted)
If Study, What Type:	Water Supply
If Project/Program, What Type:	Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Greater Ramsey Water District

Describe the Problem*:

Significant numbers of residences in the Devils Lake Basin currently supplied by well water have shown interest in connecting to rural water. Canvassing of district boundaries has shown more than 200 interested parties, of which 150 are expected to sign up for the project. Well users are experiencing

problems with alarming levels of emerging contaminants such as arsenic and manganese (as much as 5-10x greater than EPA safety thresholds), as well as elevated levels of nitrates and iron. This was discovered through well sampling performed in the fall of 2023. Additional concerns expressed by well owners have included reliability, groundwater taste and smell, rising costs of new well drilling, and lack of well drilling contractors. Greater Ramsey Water District's (GRWD) is looking to move forward with project final design after initial results of a project study showed the system capabilities and financials are sufficient to meet project requirements.

Provide Project Details, Objectives and Solutions to Address Problem*:

GRWD is proposing a user expansion effort to provide these interested parties with treated, potable water to remediate water quality and reliability concerns. This will involve distribution pipeline construction to new users who can feasibly be served by GRWD. This pre-construction request will include an archeological review of the project area, easement and permit acquisition, final design, and bidding of the proposed project.

For this project,

Choose City, County, Water District or Other*:	Water District
What is the Current Estimated Population?*:	8000
For this project,	
What is the Benefited Population?*:	375
Have Assessment Districts Been Formed?*:	N/A
Have Land or Easements Been Acquired?*:	Ongoing
Are There Any Properties with Wells, Drain Fields, or Holding Tanks Within the Project Area That Will Benefit from the Project?*:	Yes
Are There Any Road Improvements Included as Part of the Project?*:	No
Have You Applied For Any Federal Permits?*:	N/A

If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any State Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Have You Applied for any Local Permits?*:	No
If Yes or Ongoing, Please Explain (include type/number):	
Do You Expect Any Obstacles to Implementation (i.e. Problems with Land Acquisition, Permits, Funding, Local Opposition, Environmental Concerns, etc.)?*:	No
Have You Received, or Do You Anticipate Receiving Federal Funding? (Example: Hazard Mitigation Grant Program) *:	No

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*:	07/2024
Design Completion*:	01/2025
Bid*:	02/2025
Construction Start*:	06/2025
Construction Completion*:	11/2026

Explain Additional Timeline Issues*:

None anticipated at this time.

Consulting Engineer*: AE2S

Engineer Telephone Number*: 701-746-8087

Engineer Email*: brian.aafedt@ae2s.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Lonnie (First Name) Lacina (Last Name) 06/14/2024 (Date)

Address*: 113 Shamrock Lane SE
Address Line 1

Address Line 2

Devils Lake (City) North Dakota (State) 58301-0000 (Zip Code)

Telephone Number*: 701-662-5781

Sponsor Email*: lonniel@grwdnd.com

I Certify That, to the Best of My Knowledge, the Provided Information is True and Accurate, and in Execution of This Project, the Sponsor Will Follow All Applicable Laws and Permitting Requirements. I Further Certify Assurance of Sustainable Operation, Maintenance, and Replacement of The Assets For Which We Are Requesting Cost-Share.*: Yes

Authorized Individual*: Lonnie (First Name) Lacina (Last Name) 06/14/2024 (Date)

Title/Position/Authority*: Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*:	No

CLICK HERE **to see examples.**

Project Specific Map Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community *:	GRWD User Expansion June 2024.pdf
Are You Seeking SRF or IRLF Funding?*:	No
Are You Seeking Department of Water Resources Cost-Share?*:	Yes
Are You Seeking Cost-Share for a Main Street Initiative Related Project?:	No
Attach Completed Comprehensive Plan:	

CLICK HERE **for SFN 61801 Delineation of Costs Instructions and Current Version.**

Delineation of Costs SFN 61801:	sfn_61801_delineation_of_cost 5.xlsx
Type of Request:	Preconstruction
Water Supply Projects?:	Yes

CLICK HERE **for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.**

Life Cycle Cost Analysis:	life_cycle_cost_analysis_worksheet.xlsx

CLICK HERE **for SFN 62417 Basic Asset Inventory Tool and Current Version.**

Asset Inventory Assessment:	
Rural Flood Control?:	No
Drain Reconstructions?:	No

Flood Recovery Property Acquisition?: No

Community Flood Control, Rural Flood Control, Bank Stabilization, or Snag & Clear Project With Total Cost of $200,000 or More?: No

Sovereign Land Permit, if Required:

DWR Construction Permit, if Required:

Conditional Letter of Map Revision (CLOMR), if Required:

Feasibility/Engineering Study for the Proposed Project: No

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

Other Applicable Document:

Other Applicable Document:

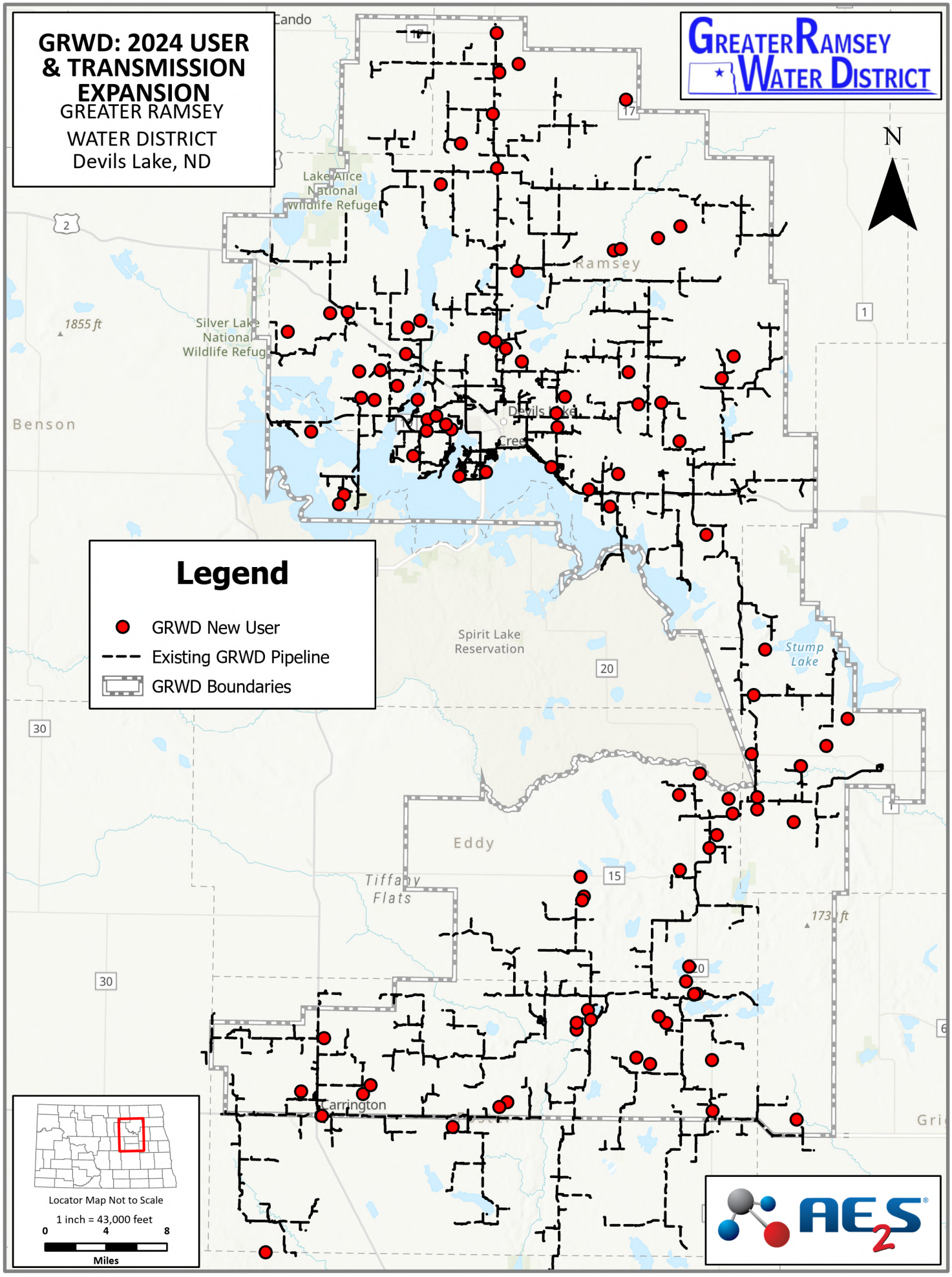
Sources

Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	Source Status	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share		Already Approved	$93,750.00	$0.00	$0.00	$93,750.00	Grant	0.00	0.00

Pre-Construction									
Department of Water Resources Cost Share Pre-Construction		Current Request	$0.00	$375,750.00	$0.00	$375,750.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		Future Request	$0.00	$3,569,306.25	$0.00	$3,569,306.25	Grant	0.00	0.00
Other	Local Share		$31,250.00	$1,315,018.75	$0.00	$1,346,268.75		0.00	0.00
			$125,000.00	**$5,260,075.00**	**$0.00**	**$5,385,075.00**			

DWR Date Received : 6/17/24



DELINEATION OF COSTS
NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
PLANNING AND EDUCATION
SFN 61801 (4/2024)

DWR Date Received : June 17, 2024

Project:	GRWD: 2024 User Expansion
Sponsor:	Greater Ramsey Water District
Contact:	Lonnie Lacina, Manager
Phone:	701-662-5781
Engineer:	Brian Aafedt, AE2S
Phone:	701-213-7470

Total Cost :	$ 5,385,075
Ineligible Cost :	$ -
Eligible Cost :	$ 5,385,075
Local Cost :	$ 1,346,275

Date: June 14, 2024

	Cost-Share $
	$ 4,038,800
Preconstruction :	$ 469,500
Construction :	$ 3,569,306

Project Type:	**Cost-share %**
Rural Water Supply	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share $ *
		Construction Costs						
1	3.3%	Mobilization	1	LS	140,000.00	$ 140,000	75%	$ 105,000
2	1.7%	Bonding	1	LS	70,000.00	$ 70,000	75%	$ 52,500
3	1.3%	Insurance	1	LS	55,000.00	$ 55,000	75%	$ 41,250
4	48.0%	Water Main 2 in	287000	LF	7.00	$ 2,009,000	75%	$ 1,506,750
5	0.2%	Water Main 3 in	1000	LF	10.00	$ 10,000	75%	$ 7,500
6	15.3%	Boring - Poly	32000	LF	20.00	$ 640,000	75%	$ 480,000
7	6.0%	Fittings	1	LS	250,000.00	$ 250,000	75%	$ 187,500
8	0.6%	Gate Valve	10	EA	2,500.00	$ 25,000	75%	$ 18,750
9	6.0%	Curb Stop	100	EA	2,500.00	$ 250,000	75%	$ 187,500
10	2.0%	Meter	70	EA	1,200.00	$ 84,000	75%	$ 63,000
11	2.1%	Meter - Frost Free	30	EA	3,000.00	$ 90,000	75%	$ 67,500
12	0.5%	Seeding	25	ACRE	850.00	$ 21,250	75%	$ 15,938
13	0.5%	Gravel	500	TON	40.00	$ 20,000	75%	$ 15,000
14	3.4%	Restoration	288000	LF	0.50	$ 144,000	75%	$ 108,000
15	0.0%		0		-	$ -	75%	$ -
16	0.0%		0		-	$ -	75%	$ -
17	0.0%		0		-	$ -	75%	$ -
18	0.0%		0		-	$ -	75%	$ -
19	0.0%		0		-	$ -	75%	$ -
20	0.0%		0		-	$ -	75%	$ -
21	0.0%		0		-	$ -	75%	$ -
22	0.0%		0		-	$ -	75%	$ -
23	0.0%		0		-	$ -	75%	$ -
24	0.0%		0		-	$ -	75%	$ -
25	0.0%		0		-	$ -	75%	$ -
26	0.0%		0		-	$ -	75%	$ -
		Construction Sub-Total				$ 3,808,250	75%	$ 2,856,188
	10.0%	**Contingency**				$ 380,825	75%	$ 285,619
	77.8%	**Construction Total**				$ 4,189,075	75%	$ 3,141,806
		Preconstruction Costs						
27	3.0%	Preliminary Design	1	NA	125,000.00	$ 125,000	75%	$ 93,750
28	7.3%	Final Design	1	NA	304,000.00	$ 304,000	75%	$ 228,000
29	2.9%	Permit and Easement Assistance	1	NA	122,000.00	$ 122,000	75%	$ 91,500
30	0.6%	Bidding / Negotiations	1	NA	25,000.00	$ 25,000	75%	$ 18,750
31	1.2%	Archeological Study	1	NA	50,000.00	$ 50,000	75%	$ 37,500
	11.6%	**Preconstruction Total**				$ 626,000	75%	$ 469,500
		Construction Engineering Costs						
32	10.0%	Project Inspection	1	NA	420,000.00	$ 420,000	75%	$ 315,000
33	0.0%		0		-	$ -	75%	$ -
34	0.0%		0		-	$ -	75%	$ -
35	0.0%		0		-	$ -	75%	$ -
36	0.0%		0		-	$ -	75%	$ -
	7.8%	**Construction Engineering Total**				$ 420,000	75%	$ 315,000
		Other Eligible Costs						
37	2.8%	Crop Damage Compensation	1	NA	150,000.00	$ 150,000	75%	$ 112,500

38	0.0%		0		-	$	-	75%	$ -
39	0.0%		0		-	$	-	75%	$ -
40	0.0%		0		-	$	-	75%	$ -
41	0.0%		0		-	$	-	75%	$ -
	2.8%	**Other Eligible Total**				$	150,000	75%	$ 112,500
					In-eligible Costs				
42	0.0%		0		-	$	-	0%	$ -
43	0.0%		0		-	$	-	0%	$ -
44	0.0%		0		-	$	-	0%	$ -
45	0.0%		0		-	$	-	0%	$ -
	0.0%	**Other Ineligible Total**				$	-	0%	$ -
	100.0%				**Total**	$	5,385,075		
					Eligible Total	$	5,385,075	75%	$ 4,038,806
					Federal or State Funds That Supplant Costs	$	-		
					Eligible Cost Total	$	5,385,075	75%	$ 4,038,806

* The cost-share estimate is purely for planning and informational purposes only and does not, in any way, guarantee a financial commitment to any degree, from the State Water Commission.

Life Cycle Cost Analysis Review

Sponsor: Greater Ramsey Water District (GRWD)
Project Title: 2024 User Expansion **Date:** June 28, 2024

Explanation of Alternatives:

Do Nothing - GRWD would not extend service to users whose current well water quality is unreliable and have contaminant levels significantly higher than EPA Max Contaminant Level (MCL) levels.

User Expansion Project (Preferred) – Expand service to 100 new users/interested parties with treated, potable water to remediate water quality and reliability concerns. This will involve installation of distribution pipeline to new users. The project will add or replace existing pipelines, if necessary, to sufficiently support flow and pressure to provide adequate service to new and existing customers with capacity for up to 200 additional new and future connections.

Inputs:

New Connections Served	100
Future Connections Served	100
Current Connections Served	0
Net Connections (New + Current)	100

Current CIF Balance	NA
Annual CIF Contribution	NA
Cash Funding Target (Percentage %) New Assets	NA
Cash Funding Target (Percentage %) Existing Asets	NA
Annual CIF Contribution suggested for the Project	NA

	Do Nothing	User Expansion Project		
Construction Cost	$0	$5,385,100		
Annual O & M	$0	$36,000		

Details:

This request is to perform the design elements of the system expansion and preconstruction activities.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	User Expansion Project		
Capital Costs	$0	$5,313,000		
O&M	$0	$928,000		
Repair, Rehab, Replacement	$0	$509,000		
Salvage Value	$0	$556,000		
Total PVC	**$0**	**$6,194,000**		
PV Cost Per User	**$0**	**$61,940**		

Current Water Rate (Cost Per 5000g)		**$63**			
Comparable Water Rate		**$47**			
Net Connections (New + Current)		100	100		
Cost-Share Percent		75%	75%		
	Local Share	$0	$1,328,250		
	Other Funding	$0	$0		
	Total Local	$0	$1,328,250		
Payment Per User With Cost-Share		**$0.00**	**$67.19**		
	Local Share	$0	$5,313,000		
	Other Funding	$0	$0		
	Total Local	$0	$5,313,000		
Payment Per User Without Cost-Share		**$0.00**	**$268.78**		

Explanation of Results:

The sponsor preferred project is the "User Expansion Project" option. The present value cost of the preferred alternative is $6,194,000 and the presented alternative for comparison is "Do Nothing" at a present value cost of $0. The present value cost per user for the preferred alternative is $61,940. The monthly user cost of the local share with DWR 75% cost-share participation is $67.19 per month and $268.78 without DWR participation.

The economic model appears to have functioned properly. The results are deemed to be reliable and repeatable with the inputs provided by the project sponsor.

LCCA Version Version 1.2024.04.18