

**State Water Commission Pre-Commission Meeting
Bank of North Dakota (SWC Staff Only)
1200 Memorial Hwy., Bismarck, ND
Thursday, May 16, 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,,346412299# United States, Fargo

Phone Conference ID: 346 412 299#

AGENDA

- 1:00 – 1:03 A. Roll Call/Pledge of Allegiance
- 1:03 – 1:07 B. SWC Secretary Update (no attachment)
- 1:07 – 1:30 C. Cost-Share Policy (Pat Fridgen)
- 1:30 – 1:35 D. Commissioner-Hosted Basin Meetings (Cory Drevecky) (no attachment)
- 1:35 – 1:45 E. State Municipal, Rural, & Industrial (MR&I) Funding FY2024 (Julie Prescott) (no attachment)
- 1:45 – 1:50 F. Southwest Pipeline Project (SWPP) (Justin Froseth)
1. Strategic Hydraulic Improvement Project Final Design—North New England Service Area
- 1:50 – 1:55 G. Northwest Area Water Supply (NAWS) (Sindhuja S.Pillai-Grinolds)
1. Biota Water Treatment Plant—Operations and Maintenance Agreement with City of Minot
- 1:55 – 2:00 H. Western Area Water Supply Authority Update (Chris Kadrmas) (no attachment)
- 2:00 – 2:10 I. Flood Control (Abigail Franklund)
- | | | | | |
|----|-----------------------|--|-------------|----|
| 1. | Traill County WRD | Carson Drain 10 Improvements | \$238,399 | C |
| 2. | Lower Heart River WRD | Lower Heart River Flood Risk Reduction | \$723,900 | CI |
| 3. | Jamestown | 96" Storm Water Replacement | \$1,454,210 | O |
- 2:10 – 2:25 J. General Water (Abigail Franklund)
- | | | | | |
|----|-------------------|--|-------------|----|
| 1. | McLean County WRD | Painted Woods Lake Dam | \$88,260 | PC |
| 2. | DWR | Targeted LiDAR Collection: Williams & Ward Co. | \$1,500,000 | O |
| 3. | DWR/USGS | Cooperative Monitoring Program FY-2025 | \$527,678 | O |
- 2:25 – 2:55 K. Water Supply (Municipal) (Julie Prescott)
- | | | | | |
|----|------------------|---|--------------|----|
| 1. | City of Bismarck | Western ND Joint WTP CO2 Storage Facility | \$360,000 | PC |
| 2. | City of Lisbon | CO2 Tank Replacement | \$285,930 | C |
| 3. | City of Taylor | Connect to Southwest Pipeline | \$1,151,406 | C |
| 4. | City of Tioga | North Main Street Reconstruction | \$630,284 | C |
| 5. | City of Bismarck | Water Treatment Plant Expansion | \$50,000,000 | L |
| 6. | City of Mapleton | Water Main Improvements District 2023-1 | \$220,325 | CI |
- 2:55 – 3:15 L. Water Supply (Rural) (Julie Prescott)
- | | | | | |
|----|-------------------|--|-------------|----|
| 1. | Fort Berthold RW | Parshall to White Shield Regionalization | \$341,250 | PC |
| 2. | Central Plains WD | Maddock Connection to Central Plains WD | \$7,376,702 | C |
| 3. | Central Plains WD | Back Up Power Generators | \$162,063 | C |
| 4. | WAWSA | R&T Battleview & McGregor Rural Distribution Ph. 1 | \$8,415,970 | C |
- M. Adjourn

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

TO: Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: Cost-Share Program & Policy Recommendations
DATE: May 7, 2024

At the March 14, 2024, Pre-Commission meeting and the April 11, 2024, Commission meeting, draft Cost-Share Program modifications we provided in response to a recent ND Supreme Court decision. Three options were presented for SWC consideration that are related to WebGrants certifications by sponsors, DWR's standard agreement template, and cost-share policy related to pre-application options for assessment projects. Comments received on the three options are summarized and attached to this memorandum.

In addition, at the April 2024 Commission meeting, Commissioners denied three separate requests for cost-share funding for water meter replacement projects. Commissioners determined those types of projects are considered part of regular system operation and maintenance, and as such, are not eligible. Staff were then asked to develop draft policy to reflect this determination.

Draft Cost-Share Program and policy modifications for consideration include the following:

WebGrants Acknowledgement/Certification

- **Recommendation** - Modify WebGrants certification to read:

"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."

DWR Agreement Template

- **Recommendation** - In the DWR Agreement for Cost-Share Reimbursement template, expand Section 4, Sponsor's Responsibilities, to read:

"Comply with all North Dakota laws applicable to Project." ~~governing the requirements for competitive bids, advertising, and awarding of contracts for construction of Project.~~

Cost-Share Policy – Pre-Application for Assessment Projects

- **Recommendation** - Modify Section 3.3 "Pre-Application For Assessment Projects" to read:

"A pre-application process is allowed for cost-share of assessment projects. This process only requires the local sponsor to submit a brief narrative of the project and a Delineation of Costs (SFN 61801). The Secretary will then review the material presented, make a determination of project eligibility, and estimate the maximum potential cost-share funding the project may anticipate receiving."

A project eligibility letter will then be sent to the local sponsor noting the maximum percent of cost-share assistance that may be expected on eligible items as well as listing those items that are not considered to be eligible costs. In addition, the project eligibility letter will state that the Secretary will recommend approval, assuming all cost-share requirements are addressed. The local sponsor may use the non-binding project eligibility letter for informational purposes to develop a project budget. However, it is expected that project sponsors follow all applicable laws pertaining to apportionment of costs to project beneficiaries, including disclosure of total project costs absent state cost-share. Upon completion of the assessment vote and all other requirements, an application for cost-share can be submitted. (The estimated cost-share funding may be reduced subject to application of all other policy eligibility criteria at the time the project is presented to the Commission and during review for reimbursement.)

Cost-Share Policy – Operation & Maintenance (Meters)

Section 3.14 (d) (Ineligible Items) includes “Project related operation and maintenance costs.”

- **Recommendation** - Modify the definition of “Regular Maintenance Costs” to read:

“Operation and Regular Maintenance include processes, inputs, normal repairs, and general upkeep of components and facilities to allow facilities to continue support proper operation and function. These maintenance items may occur on a regular or annual basis, but not in all cases. Regular maintenance activities simply help ensure the asset will remain serviceable throughout its originally predicted useful life.”

Section 3.14 (d) (Ineligible Items) could specifically include water meter replacements.

- **Recommendation** – Modify Section 3.14 (Ineligible Items) to include:

“m. Water meter replacements.”

Commissioner Cost-Share Program & Policy Comments
Post April 11, 2024, Commission Meeting

Question/Comment - Do the policy recommendations assume an assessment vote will take place, since not all projects require a vote?

- Response – The section of policy being modified is specific of the pre-application process for assessment projects. The proposed modifications would not impact projects not requiring a vote. Further, the determination of whether a project requires a vote, or not, is a local decision. The Commission, through these suggested changes, is attempting to ensure sponsors are reminded that all applicable laws and requirements are met in the execution of projects.

Question/Comment – The SWC should not be the agency deciding if sponsors are following the law. However, if the court system determines a sponsor has not followed the law in the development of a cost-share project, should the sponsor be responsible for returning the state’s cost-share funding.

- Response – This will be determined on a case-by-case basis.

Question/Comment – As required by policy (Section 3.6), are sponsors providing assurance of sustainable operation, maintenance, and replacement of facilities – including evidence of a capital improvement plan (CIP) and capital improvement fund (CIF)?

- Response – Water supply project sponsors are currently required to submit with their applications a basic CIP or SF 61938. However, this information is currently quite basic. Beginning with pre-commission packets presented in July 2024, sponsors submitting water supply project construction requests will need to attach the Commission’s new Basic Asset Inventory Assessment and Capital Improvement Plan tool results, or equivalent. The results of those submittals will be summarized for Commissioners in the Life Cycle Cost Analysis results.

Since other types of projects currently do not have to submit CIP and CIF with application packets, language has been proposed to the sponsor certification in WebGrants that they are able to sustainably operate, maintain, and replace the project for which they are receiving cost-share.

Question/Comment – Under the Commission’s cost-share policy operating procedures, projects that are not included in the Water Development Plan (WDP) are deferred for the first six months of each biennium. Under the Commission’s Project Prioritization Guidance, it states the Water Commission will give funding preference to projects designated as high or moderate priorities for the first 12 months of each budget cycle.

- Response – The timeframes for the aforementioned are indeed different, but the issues being considered are also different – in that one is related to WDP submittals, and the other, priorities. If the Commission wanted to have consistency between the two, that change could be made.

MEMORANDUM

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: SWPP - North New England Service Area Hydraulic Improvements Final Design
DATE: May 8, 2024

Building distribution capacity upgrades for the future has been one of the focus for Southwest Pipeline Project since the beginning of the 2019-2021 biennium. Work has been ongoing on the three-pronged approach to meet the distribution capacity which includes improvements to transmission facilities, strategic hydraulic improvements to address waiting list users, and design of rural distribution system to serve interested rural customers.

To assist with the prioritization of strategic hydraulic improvement projects a prioritization matrix and process was approved by Southwest Water Authority (SWA) and State Water Commission (SWC) in late 2022 to early 2023. Using the prioritization matrix, nine of the most evident service areas with a need for a hydraulic improvement project were scored. Through that effort the hydraulic improvements in the North New England service area was selected to move forward with preliminary design and was approved at the April 2023 SWC meeting.

The prioritization matrix includes six weighted criteria categories. The criteria categories and the weights are: waitlist density (30%), number of waitlist users (30%), longevity of waitlist (10%), water service growth potential (15%), age of the service area (5%), and developmental growth potential (10%). The results of the spring of 2023 prioritization effort is included as Table 1 and is accompanied by a map of these areas, Figure 1. North New England service area scored highest in the criteria categories of: number of waitlist users, developmental growth potential, age of service area and growth potential. It scored relatively high in the criteria category of waitlist density and towards the lower end for the criteria category of age of waitlist users.

Preliminary design has been completed for the North New England service area with 89 users based on the waitlist. Figure 2 and Table 2 are provided to show the preliminary designed project components and the preliminary cost estimate, respectively. Following

SWPP - North New England Service Area Hydraulic Improvements Final Design

May 8, 2024

Page 2 of 6

the preliminary design, SWA sent letters to all waitlist users requesting execution of the "Intent to become Subsequent Customer" form with a sign up fee of \$750 to assure commitment from the users before the project is built. The SWA has received commitment from 71 users in the area, which also includes some users not originally included in the preliminary design. This equates to over 70% of eligible users included in the preliminary design. There is no required signup percentage for strategic improvement projects, but in staff's opinion, receiving commitment from over 70% of the waitlist users is a good representation of commitment in the project area and this project is ready to move forward with final bid ready documents.

The 2023-2025 biennium budget for SWPP includes \$5 million for strategic hydraulic improvements. Therefore, there is funding availability for the North New England service area strategic improvement project estimated at \$3.1 million.

A recommendation to move forward with developing bid ready documents for this project will be brought forward at the June SWC meeting.

AT:JF:/1736-99

Attachments

SWPP Strategic Improvement Areas -2023 Prioritization (Updated March 21, 2023)

CRITERIA DESCRIPTION	Criteria 1		Criteria 2		Criteria 3		Criteria 4		Criteria 5		Criteria 6		WEIGHTED SCORE
	Criteria 1 SCORES		Criteria 2 SCORES		Criteria 3 SCORES		Criteria 4 SCORES		Criteria 5 SCORES		Criteria 6 SCORES		
	Percentage of highest SA Density Users/sq.mile	Weighted Score	Percentage of highest SA Waitlist Number	Weighted Score	Percentage of largest Average Age of Waitlist users	Weighted Score	Percentage of Highest Unserved Potential SA	Weighted Score	Percentage of oldest SA	Weighted Score	Based on SVA staff Input	Weighted Score	
WEIGHTED MAX VALUE	12	12	4	6	2	4	2	4	4	4	4	40	
WEIGHT PERCENTAGE	30%	30%	10%	15%	5%	10%	5%	10%	100%				
DESCRIPTION OF METRIC (sq.mile)	Users/sq.mile	Weighted Score	Number of waitlist users	Weighted Score	Average Age of waitlist users	Weighted Score	Number of Potential Unserved Dwellings	Weighted Score	Age of Service Area	Weighted Score	Based on SVA staff Input	Weighted Score	TOTAL SCORE
North New England	0.13	6.6	83	12.0	2.8	2.24	257	6.0	28	2.00	4	4	32.8
South Fairfield	0.23	12.0	47	6.8	2.75	2.20	44	1.0	12	0.86	1	1	23.9
Beach/Golva	0.10	5.0	67	9.7	2	1.60	102	2.4	15	1.07	1	1	20.8
Dunn Center	0.07	3.8	50	7.2	3.16	2.53	168	3.9	5	0.36	2	2	19.9
South New England	0.13	6.8	27	3.9	4	3.20	57	1.3	27	1.93	1	1	18.2
South Jung Lake	0.07	3.8	27	3.9	4	3.20	56	1.3	26	1.86	1	1	15.1
NE Davis Buftes	0.09	4.4	4	0.6	4	3.20	12	0.3	27	1.93	4	4	14.4
NW Davis Buftes	0.07	3.4	3	0.4	3	2.40	17	0.4	27	1.93	4	4	12.6
South Fryburg	0.09	4.4	11	1.6	5	4.00	13	0.3	14	1.00	1	1	12.3

Table 1 – 2023 Hydraulic Improvements Prioritization Matrix

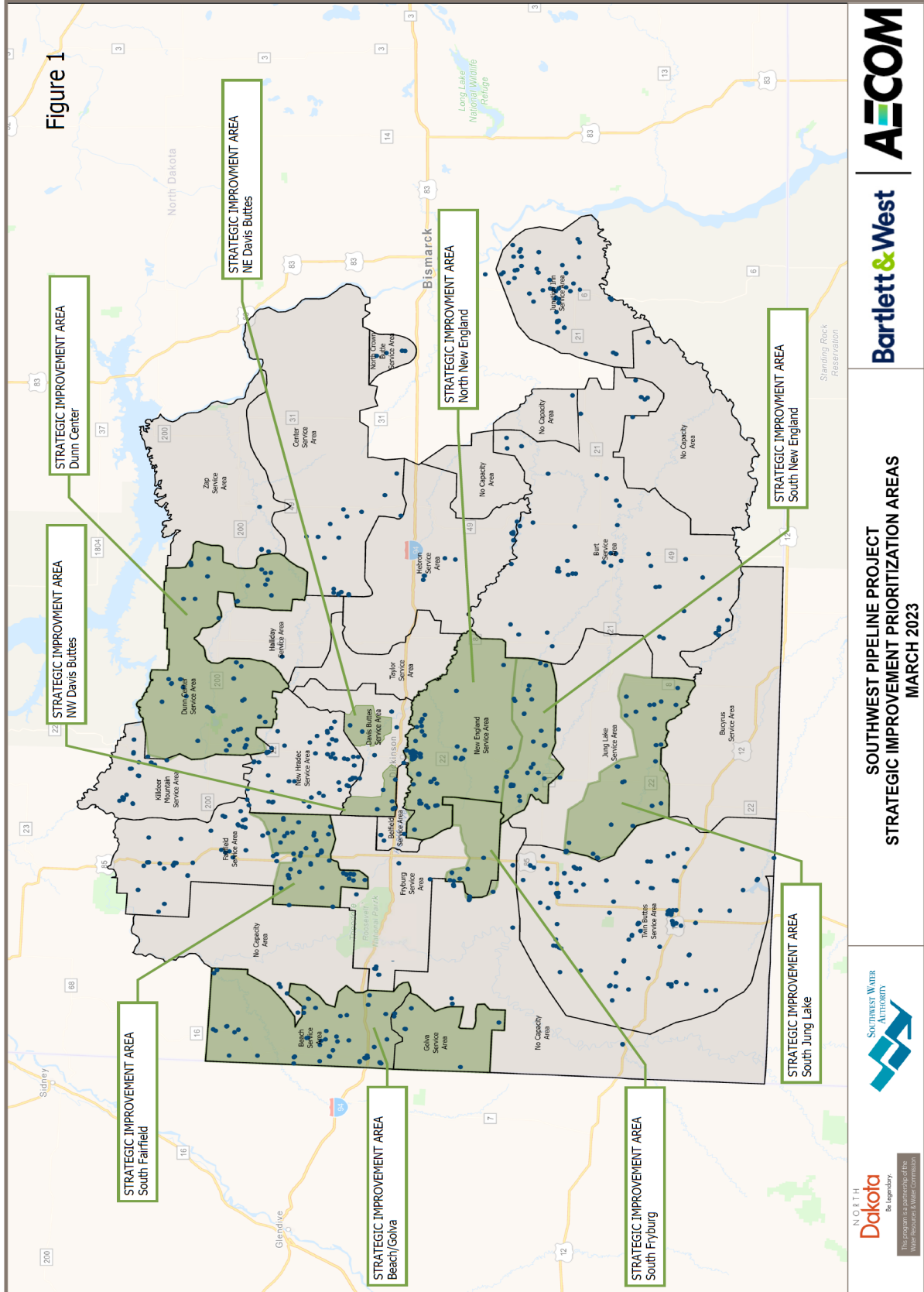


Figure 1 – Map showing project areas included in 2023 prioritization matrix

SWPP - North New England Service Area Hydraulic Improvements Final Design

May 8, 2024

Page 5 of 6

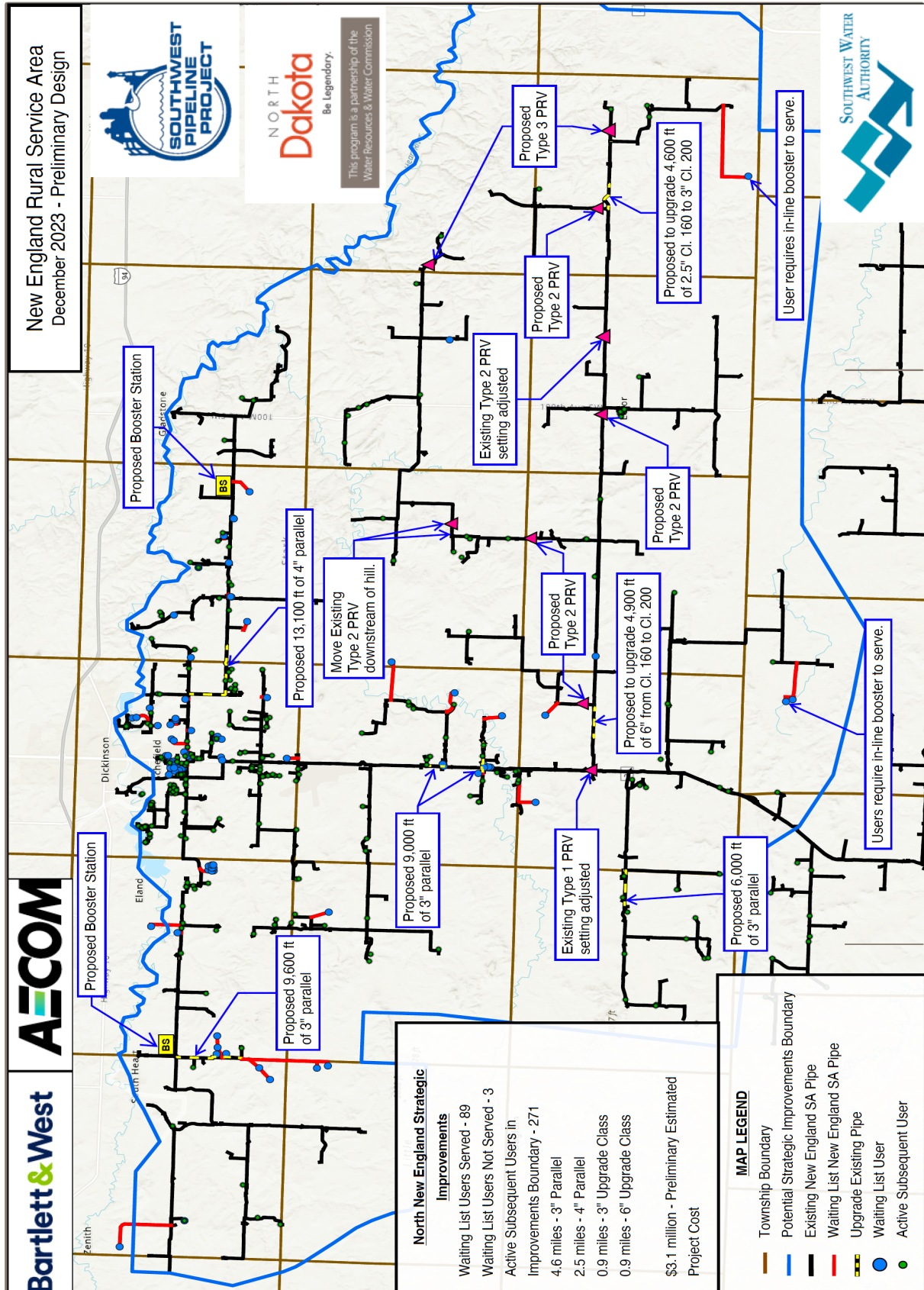


Figure 2 – Preliminary Design for the North New England Hydraulic Improvement Project

North New England Preliminary Cost Estimate				
Parallel Pipe & Boosters				
Item Description	Quantity	Unit Price	Total Cost	
6" PVC Pipe	4,963	\$ 39.00	\$ 190,000.00	
4" PVC Pipe	13,141	\$ 26.50	\$ 350,000.00	
3" PVC Pipe	29,233	\$ 21.50	\$ 630,000.00	
2 hp Booster Station	1	\$ 328,100.00	\$ 330,000.00	
2 hp Booster Station	1	\$ 328,100.00	\$ 330,000.00	
Add Type 2 PRV	4	\$ 41,020.00	\$ 160,000.00	
Add Type 3 PRV	2	\$ 6,150.00	\$ 10,000.00	
Appurtenances (Add 25% to Cost of Pipe)		25%	\$ 290,000.00	
SubTotal			\$ 2,290,000.00	
Contingency		15%	\$ 340,000.00	
Design Engineering		6%	\$ 140,000.00	
Construction Administration/Construction Observation		15%	\$ 340,000.00	
		Total	\$ 3,100,000.00	

*All unit prices assumed based on HI-2021 bid tab and adjusted according to November 2023 CCI.

Table 2 – Preliminary Estimate for the North New England Hydraulic Improvement Project

NORTH
Dakota | Water Resources
Be Legendary.

TO: Governor Doug Burgum
Members of the State Water Commission
FROM: Andrea Travnicek, Ph.D., Secretary
SUBJECT: NAWS – Biota Water Treatment Plant Operations Agreement
DATE: May 8, 2024

The costs associate with the operations, maintenance, and replacement of the Biota Water Treatment Plant (WTP) is a federal responsibility as the Biota WTP is required for the Boundary Water Treaty compliance.

A memorandum of agreement between Bureau of Reclamation (Reclamation), the State Water Commission (SWC), and the City of Minot defining roles and responsibilities for the operation, maintenance and replacement of the NAWS Biota water treatment plant has been executed by all parties. A subsequent cooperative agreement between Reclamation and SWC will be executed for Reclamation to provide federal funding.

The Biota WTP will be operated by the City of Minot. Attached draft agreement is in the works between SWC and the City of Minot for the day-to-day operations of the Biota WTP.

The agreement is expected to be finalized and presented for approval at the June SWC meeting.

AT:SSP/237-04
Attachment

NORTHWEST AREA WATER SUPPLY BIOTA WATER TREATMENT PLANT – OPERATIONS AND MAINTENANCE AGREEMENT

I. PARTIES

This Agreement is between the State of North Dakota, through the State Water Commission (the “Commission”) and the City of Minot, North Dakota (“City”) (collectively the “Parties”). The purpose of this Agreement is to identify and define the Parties’ roles, responsibilities, and deliverables for the Operation, Maintenance and Replacement (“OM&R”) of the Northwest Area Water Supply (“NAWS”) Biota Water Treatment Plant (“WTP”).

II. BACKGROUND

The NAWS project is a bulk water supply system being constructed to serve communities and rural water systems within northwestern North Dakota. The project will deliver water from the Missouri River Basin to communities and rural water systems within the Hudson Bay Basin. In compliance with the Boundary Waters Treaty, a Biota WTP is being constructed within the Missouri River Basin as a means of reducing the project-related risk of aquatic invasive species (“Biota”) transfer. The Biota WTP includes conventional water treatment, along with ultraviolet irradiation and chemical disinfection in the treatment process. This treatment occurs within the Missouri River Basin prior to the water being delivered via a buried pipeline to the City’s WTP.

The United States Department of the Interior, Bureau of Reclamation (“Reclamation”) signed a Record of Decision in 2015 to conclude the National Environmental Policy Act process. Environmental commitments in the Record of Decision include the development of an *Adaptive Management Plan* for the OM&R of the Biota WTP. The purpose of the *Adaptive Management Plan* is to monitor the effectiveness of the NAWS Biota WTP systems in reducing the risk of project-related transfer of aquatic invasive species from the Missouri River Basin to the Hudson Bay Basin. The *Adaptive Management Plan* could influence future Biota WTP operations.

The Commission is the NAWS project owner. The construction and operation of NAWS is performed by the Department of Water Resources (“DWR”), which has the statutory responsibility of administering the legal obligations of the Commission. The Parties, through this agreement are entering into a contract to operate and maintain the Biota WTP.

III. ROLES AND RESPONSIBILITIES

OM&R responsibilities include all routine day-to-day work items and replacements associated with Biota WTP operations and facility maintenance as described below.

The Parties have the following roles and responsibilities in operation and maintenance of the NAWS Biota WTP.

- a. The Commission and DWR’s responsibilities include the following:
 1. The Commission through DWR in collaboration with the City will implement the requirements set forth in Reclamation’s Record of Decision and *Adaptive Management Plan* as it relates to the Biota WTP operations.

2. DWR will ensure the structures associated with the operation and maintenance of the facility are insured. The DWR contributes funding to the North Dakota Insurance Reserve Fund, which provides insurance for state-owned facilities.
 3. The Commission will retain ownership of the property and facilities that comprise the Biota WTP. No changes to this ownership will occur without Reclamation's concurrence.
 4. DWR will schedule and conduct quarterly coordination meetings with Reclamation and the City to discuss: (1) ongoing Biota WTP operations, (2) ongoing monitoring tasks, (3) reporting tasks, (4) changes as a result of modifications to the *Adaptive Management Plan*, and (5) extra-ordinary maintenance needs.
 5. DWR will obtain any permits required by applicable regulating agencies (i.e., discharge permit) for the operation and maintenance of the Biota WTP.
 6. DWR and City will ensure their respective equipment and vehicle operators have a valid and appropriate operator's license for equipment and vehicle use.
 7. DWR will conduct annual on-site maintenance review and security review of the Biota WTP and invite Reclamation to participate in these reviews. DWR with support from City will complete report on findings and provide the resulting report to Reclamation. Recommendations from these reviews will be addressed in an action plan cooperatively developed between the DWR, City, and Reclamation. These reviews will occur on an annual basis, or more frequently, as requested by DWR, City, or Reclamation.
- b. City's responsibilities include the following:
1. City will operate the Biota WTP day-to-day, which includes the water treatment processes as described in Reclamation's Record of Decision.
 2. City will ensure the equipment and vehicles associated with the operation and maintenance of the facility are insured. City may submit these costs and associated documentation to DWR for reimbursement.
 3. City will conduct regular routine maintenance activities of the Biota WTP equipment.
 4. City in collaboration with DWR and Reclamation will determine the appropriate staffing required for the operations of the Biota WTP.
 5. City will employ certified operators to staff the City's WTP and the Biota WTP. City will provide copies of any such certifications to Reclamation, consistent with federal privacy laws.

6. City in collaboration with DWR will provide Standard Operating Procedures (“SOPs”) for Reclamation review and approval. SOPs will document instructions detailing all steps and activities required to operate the plant, including frequency of tasks. The Biota WTP operators will review and use the SOPs for Biota WTP operation.
7. City in collaboration with DWR will provide emergency operating plan and procedures for Reclamation review and approval. The Biota WTP operators will review and use the emergency operation procedures should an incident arise that calls for such procedures to be enacted. Should an incident arise, operators will notify the key personnel of all Parties to this agreement within 24 hours.
8. City will provide janitorial services for the offices, conference room, restrooms, locker rooms, laboratory, electrical room, and other areas within the Biota WTP and facilities within the shop located on the Biota WTP site.
9. City will provide buildings and grounds maintenance, including landscaping, snow removal, weed control, etc. on the Biota WTP site.
10. City will collect and analyze influent and effluent water quality samples in accordance with the Adaptive Management Plan and share the data/results with the Commission through DWR and Reclamation per the Adaptive Management Plan.
11. City will operate the Biota WTP to meet the log-inactivation and removal credits (greater than 3 log inactivation of Giardia and greater than 4 log inactivation of viruses) as identified in Reclamation’s Record of Decision and as modified in the Adaptive Management Plan.
12. City will monitor the Nephelometric Turbidity Unit (“NTU”) of the coagulation, flocculation, sedimentation, and filtration processes. Desired outcome is less than or equal to 0.3 NTUs for the Combined Filter Effluent (“CFE”) in at least 95% of the 15-minute incremental measurements each month. Maximum level not to exceed 1.0 NTU at any time.
13. City will ensure proper operation of the UV Irradiation (lamp intensity/exposure in $\mu\text{watt-sec/cm}^2$.) Example: Minimum dosage of 40mJ/cm² at a design UV transmittance of 85% at 254 nm.
14. City will ensure proper operation of the chlorine/chloramine disinfection at a minimum dosage of 4 mg/L, with a contact time required 12.0 mg/L-min and minimum free chlorine residual of 2 mg/L.
15. City will record monthly pumping volumes leaving the Biota WTP and provide documentation to the Commission through DWR and Reclamation.
16. City will provide annual financial statement for the Biota WTP to the DWR. The annual financial statement will cover the same reporting period as the

schedule of expenditures of federal awards included in the City's Annual Comprehensive Financial Report.

- c. The Parties shall have the following joint responsibilities:

DWR and City will participate in an after-action review with personnel involved in the emergency operation procedures to identify response measures implemented, opportunities for improvement, etc. DWR, City, and Reclamation will cooperatively work to modify the emergency operation procedures, if necessary, based on the outcome of the after-action review.

IV. FUNDING AND PAYMENT

Federal funding for the OM&R of the Biota WTP will be transferred through a cooperative agreement between Reclamation and the Commission, as directed by the authorizing legislation. Federal funds will be provided as they are made available by the United States Congress.

City will track all costs associated with the OM&R of the Biota WTP in accordance with Generally Accepted Accounting Principles. The Commission, through DWR, will reimburse City for all costs associated with OM&R of the Biota WTP on a quarterly basis. City will submit its reimbursement request to DWR with all supporting documentation. DWR will review the request and make payments to the City within 45 days.

Payment of an invoice by DWR will not prejudice the Commission's right to object to or question that or any other invoice or matter in relation thereto. City's invoice will be subject to reduction for amounts included in any invoice or payment made which are determined by DWR, on the basis of audits conducted in accordance with the terms of this Agreement, not to constitute allowable costs. At DWR's sole discretion, all payments shall be subject to reduction for amounts equal to prior overpayments to City.

V. TERM OF CONTRACT

This Agreement shall become effective upon signature of both parties and shall remain in effect unless the Agreement is terminated as provided in the following Section.

VI. TERMINATION

a. Termination by Mutual Agreement

This Contract may be terminated by mutual consent of both Parties executed in writing.

b. Early Termination in the Public Interest

The Commission is entering this Contract for the purpose of carrying out the public policy of the State of North Dakota, as determined by its Governor, Legislative Assembly, Agencies and Courts. If this Contract ceases to further the public policy of the State of North Dakota, the Commission, in its sole discretion, by written notice to City, may terminate this Contract in whole or in part.

c. Termination for Lack of Funding or Authority

The Commission by written notice to City, may terminate the whole or any part of this

Contract under any of the following conditions:

1. If funding from federal, state, or other sources is not obtained or continued at levels sufficient to allow for purchase of the services or goods in the indicated quantities or term.
2. If federal or state laws or rules are modified or interpreted in a way that the services or goods are no longer allowable or appropriate for purchase under this Contract or are no longer eligible for the funding proposed for payments authorized by this Contract.
3. If any license, permit, or certificate required by law or rule, or by the terms of this Contract, is for any reason denied, revoked, suspended, or not renewed.

Termination of this Contract under this subsection is without prejudice to any obligations or liabilities of either Party already accrued prior to termination.

d. Termination for Cause

The Commission may terminate this Contract effective upon delivery of written notice to City, or any later date stated in the notice:

1. If City fails to provide services or goods required by this Contract within the time specified or any extension agreed to in writing by the Commission; or
2. If City fails to perform any of the other provisions of this Contract, or so fails to pursue the work as to endanger performance of this Contract in accordance with its terms.

The rights and remedies of the Commission provided in this subsection are not exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

VII. FORCE MAJEURE

Neither Party shall be held responsible for delay or default caused by fire, riot, terrorism, pandemic (excluding COVID-19), acts of God, or war if the event was not foreseeable through the exercise of reasonable diligence by the affected party, the event is beyond the party's reasonable control, and the affected Party gives notice to the other Party promptly upon occurrence of the event causing the delay or default or that is reasonably expected to cause a delay or default. If City is the affected Party and does not resume performance within fifteen (15) days or another period agreed between the Parties, then the Commission may seek all available remedies, up to and including termination of this Contract pursuant to its Termination clause, and the Commission shall be entitled to a pro-rata refund of any amounts paid for which the full value has not been realized, including amounts paid toward software subscriptions, maintenance, or licenses.

VIII. INDEMNIFICATION

City agrees to defend, indemnify, and hold harmless the state of North Dakota, its agencies, officers, and employees (“State”), from and against claims based on the vicarious liability of the State or its agents, but not against claims based on the State’s contributory negligence, comparative and/or contributory negligence or fault, sole negligence, or intentional misconduct. This obligation to defend, indemnify, and hold harmless does not extend to professional liability claims arising from professional errors and omissions. The legal defense provided by City to the State under this provision must be free of any conflicts of interest, even if retention of separate legal counsel for the State is necessary. Any attorney appointed to represent the State must first qualify as and be appointed by the North Dakota Attorney General as a Special Assistant Attorney General as required under N.D.C.C. § 54-12-08. City also agrees to reimburse the State for all costs, expenses, and attorneys’ fees incurred if the State prevails in an action against City in establishing and litigating the indemnification coverage provided herein. This obligation shall continue after termination of this agreement.

IX. INSURANCE

City shall secure and keep in force during the term of this agreement and City shall require all subcontractors, prior to commencement of an agreement between City and the subcontractor, to secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds, authorized to do business in North Dakota, the following insurance coverages:

- a. Commercial general liability, including premises or operations, contractual, and products or completed operations coverages (if applicable), with minimum liability limits of \$2,000,000 per occurrence.
- b. Automobile liability, including owned (if any), hired, and non-owned automobiles, with minimum liability limits of \$500,000 per person and \$2,000,000 per occurrence.
- c. Workers’ compensation coverage meeting all statutory requirements. The policy must provide coverage for all states of operation that apply to the performance of this Contract. For the purposes of this Contract, the only state of operation is North Dakota.
- d. Employer’s liability or “stop gap” insurance of not less than \$2,000,000 as an endorsement on the workers’ compensation or commercial general liability insurance.
- e. Professional errors and omissions with minimum limits of \$2,000,000 per claim and in the aggregate. City must continuously maintain such coverage during the contract period and for three years thereafter. In the event of a change or cancellation of coverage, City shall purchase an extended reporting period to meet the time periods required in this section.

The insurance coverages listed above must meet the following additional requirements:

- f. Any deductible or self-insured retention amount or other similar obligation under the policies is the sole responsibility of City. The amount of any deductible or self-retention is subject to approval by the Commission.

- g. This insurance may be in policy or policies of insurance, primary and excess, including the so-called umbrella or catastrophe form and must be placed with insurers rated "A-" or better by A.M. Best Company, Inc., provided any excess policy follows form for coverage. Less than an "A-" rating must be approved by the Commission. The policies must be in form and terms approved by the Commission.
- h. The duty to defend, indemnify, and hold harmless the Commission under this agreement shall not be limited by the insurance required in the agreement.
- i. The Commission shall be endorsed on the commercial general liability policy on a primary and noncontributory basis, including any excess policies (to the extent applicable), as additional insured. The Commission shall have all the benefits, rights, and coverages of an additional insured under these policies that shall not be limited to the minimum limits of insurance required by this agreement or by the contractual indemnity obligations of City.
- j. A "Waiver of Subrogation" waiving any right of recovery the insurance company may have against the Commission.
- k. The City shall furnish a certificate of insurance to the Commission before commencement of this agreement. All endorsements shall be provided as soon as practicable.
- l. Failure to provide insurance as required in this agreement is a material breach of contract entitling the State to terminate this agreement immediately.
- m. City shall provide at least 30 days' notice of any cancellation or material change to the policies or endorsements. City shall provide on an ongoing basis, certificates of insurance during the term of the contract. A renewal certificate will be provided 10 days prior to coverage expiration. An updated, current certificate of insurance shall be provided in the event of any change in policy.

X. WORKS FOR HIRE

City acknowledges that all work(s) under this Contract is "work(s) for hire" within the meaning of the United States Copyright Act (Title 17 United States Code) and hereby assigns to the Commission all rights and interests City may have in the work(s) it prepares under this Contract, including any right to derivative use of the work(s). All software and related materials developed by City in performance of this Contract for the Commission shall be the sole property of the Commission, and City hereby assigns and transfers all its right, title, and interest therein to the Commission. City shall execute all necessary documents to enable the Commission to protect the Commission's intellectual property rights under this section.

XI. WORK PRODUCT

All work product, equipment or materials created for the Commission or purchased by the Commission under this Contract belong to the Commission and must be immediately delivered to the Commission at the Commission's request upon termination of this Contract.

XII. NOTICE

All notices or other communications required under this Contract must be given by email, registered or certified mail and are complete on the date postmarked when addressed to the Parties at the following addresses:

COMMISSION/DWR	CITY
	Name
	Title
1200 Memorial Highway	Address
Bismarck, ND 58504	City, State, Zip
spillai@nd.gov	Email

Notice provided under this provision does not meet the notice requirements for monetary claims against the State found at N.D.C.C. § 32-12.2-04.

XIII. CONFIDENTIALITY

City shall not use or disclose any information it receives from the Commission under this Contract that the Commission has previously identified as confidential or exempt from mandatory public disclosure except as necessary to carry out the purposes of this Contract or as authorized in advance by the Commission. The Commission shall not disclose any information it receives from City that City has previously identified as confidential and that the Commission determines in its sole discretion is protected from mandatory public disclosure under a specific exception to the North Dakota public records law, **N.D.C.C. CH. 44-04**. The duty of the Commission and City to maintain confidentiality of information under this section continues beyond the Term of this Contract.

XIV. COMPLIANCE WITH PUBLIC RECORDS LAWS

Under the North Dakota public records law and subject to the Confidentiality clause of this Contract, certain records may be open to the public upon request. Public records may include: (a) records the Commission receives from City under this Contract, (b) records obtained by either Party under this Contract, and (c) records generated by either Party under this Contract. City agrees to contact the Commission immediately upon receiving a request for information under the public records law and to comply with the Commission’s instructions on how to respond to such request.

XV. ASSIGNMENT AND SUBCONTRACTS

City may not assign or otherwise transfer or delegate any right or duty without the Commission’s express written consent, provided, however, that City may assign its rights and obligations hereunder in the event of a change of control or sale of all or substantially all of its assets related to this Contract, whether by merger, reorganization, operation of law, or otherwise. Should an assignee be a business or entity with whom the Commission is prohibited from conducting

business, the Commission shall have the right to terminate in accordance with the Termination for Cause clause of this Contract. City may enter subcontracts provided that any subcontract acknowledges the binding nature of this Contract and incorporates this Contract, including any attachments. City is solely responsible for the performance of any sub-City with whom City contracts. City does not have authority to contract for or incur obligations on behalf of the Commission.

XVI. SPOILIATION – PRESERVATION OF EVIDENCE

City shall promptly notify the Commission of all potential claims that arise or result from this Contract. City shall also take all reasonable steps to preserve all physical evidence and information that may be relevant to the circumstances surrounding a potential claim, while maintaining public safety, and grants to the Commission the opportunity to review and inspect such evidence, including the scene of an accident.

XVII. MERGER AND MODIFICATION, CONFLICT IN DOCUMENTS

This Contract, including the following documents, constitutes the entire agreement between the Parties. There are no understandings, agreements, or representations, oral or written, not specified within this Contract. This Contract may not be modified, supplemented or amended, in any manner, except by written agreement signed by both Parties.

XVIII. SEVERABILITY

If any term of this Contract is declared to be illegal or unenforceable by a court having competent jurisdiction, the validity of the remaining terms is unaffected and, if possible, the rights and obligations of the Parties are to be construed and enforced as if this Contract did not contain that term.

XIX. APPLICABLE LAW AND VENUE

This Contract is governed by and construed in accordance with the laws of the State of North Dakota. Any action to enforce this Contract must be adjudicated exclusively in the state District Court of Burleigh County, North Dakota. Each Party consents to the exclusive jurisdiction of such court and waives any claim of lack of jurisdiction or *forum non conveniens*.

XX. ALTERNATIVE DISPUTE RESOLUTION – JURY TRIAL

By entering this Contract, the Commission does not agree to binding arbitration, mediation, or any other form of mandatory alternative dispute resolution. The Parties may enforce the rights and remedies in judicial proceedings. The Commission does not waive any right to a jury trial.

XXI. ATTORNEY’S FEES

In the event a lawsuit is instituted by the Commission to obtain performance due under this Contract, and the Commission is the prevailing Party, City shall, except when prohibited by N.D.C.C. § 28-26-04, pay the Commission’s reasonable attorney fees and costs in connection with the lawsuit.

XXII. NONDISCRIMINATION AND COMPLIANCE WITH LAWS

City agrees to comply with all applicable federal and state laws, rules, and policies, including those relating to nondiscrimination, accessibility and civil rights. (See N.D.C.C. Title 34 – Labor and Employment, specifically N.D.C.C. ch. 34-06.1 Equal Pay for Men and Women). City agrees to timely file all required reports, make required payroll deductions, and timely pay all taxes and premiums owed, including sales and use taxes, unemployment compensation and workers' compensation premiums. City shall have and keep current all licenses and permits required by law during the Term of this Contract all licenses and permits required by law. City is prohibited from boycotting Israel for the duration of this Contract. (See N.D.C.C § 54-44.4-15). City represents that it does not and will not engage in a boycotting Israel during the term of this Contract. If the Commission receives evidence that City boycotts Israel, the Commission shall determine whether the company boycotts Israel. The foregoing does not apply to contracts with a total value of less than \$100,000 or if City has fewer than ten full-time employees. City's failure to comply with this section may be deemed a material breach by City entitling the Commission to terminate in accordance with the Termination for Cause clause of this Contract.

XXIII. STATE AUDIT

Pursuant to N.D.C.C. § 54-10-19, all records, regardless of physical form, and the accounting practices and procedures of City relevant to this Contract are subject to examination by the North Dakota State Auditor, the Auditor's designee, or Federal auditors, if required. City shall maintain these records for at least three (3) years following completion of this Contract and be able to provide them upon reasonable notice. The Commission, State Auditor, or Auditor's designee shall provide reasonable notice to City prior to conducting examination.

XXIV. OBSERVATIONS BY COMMISSION, DWR

The Commission, DWR, or its representatives shall at all reasonable times have access to the Biota WTP and may observe, inspect, photograph, or otherwise review the Biota WTP's operations, for any purpose including ascertaining if they are being kept in a safe and proper operating condition. Notice of such visits to the Biota WTP will be given to the City in advance, if possible, and interference with the City's performance will be avoided to the maximum extent possible.

XXV. COUNTERPARTS

This Contract may be executed in multiple, identical counterparts, each of which is be deemed an original, and all of which taken together shall constitute one and the same contract.

XXVI. EFFECTIVENESS OF CONTRACT

This Contract is not effective until fully executed by both Parties. If no start date is specified in the Term of Contract clause, the most recent date of the signatures of the Parties shall be deemed the "Effective Date".

XXVII. SIGNATURE PARTIES

IN WITNESS WHEREOF, the Parties have executed this Agreement and agree to the terms and conditions on the date and year written below.

Dated this ___ day of _____, 2024.

STATE OF NORTH DAKOTA
STATE WATER COMMISSION

By: _____
Dr. Andrea Travnicek, Ph.D.,
Secretary

Dated this ___ day of _____, 2024.

City of Minot

By: _____
Thomas Ross
Mayor

DRAFT

Water Development Plan: 2023
Priority: Low

11

1083200 - 23391 - Traill Co Carson Drain No. 10 Improvements

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 26, 2024 2:05 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Jessica Spaeth
Funding Opportunity Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	Apr 29, 2024 12:04 PM
Status:	Submitted	Last Submitted By:	Jessica Spaeth
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joshua
First Name

Middle Name Hassell
Last Name

Title:

Email*: joshua.hassell@mooreengineeringinc.com

Address*: 925 10th Avenue East

Organization Information

Status*: Approved

Name*: Traill County Water Resource District

Organization Type*: Political Subdivision

Tax Id:

Organization Website:

Address*: 102 1st St SW

Suite 1

West Fargo North Dakota
City State/Province

Hillsboro North Dakota
City State/Province

58078
Postal Code/Zip

58045-0000
Postal Code/Zip

Phone*: (701) 282-4692 Ext.
Phone
###-###-####

Phone*: (701) 636-5812 Ext.
###-###-####

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

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

Comments:

Vendor ID:

**PeopleSoft
Supplier ID:**

Comments:

**Location
Code:**

Infrastructure Funding Request

Infrastructure Funding Request

**Project, Program, or Study
Name*:** Traill County Carson Drain No. 10

Sponsor(s)*: Traill County Water Resource District

County*: Trail

City*: Hillsboro

Description of Request*: New

If Study, What Type:

**If Project/Program, What
Type:** Rural Flood Control

**Jurisdictions/Stakeholders
Involved*:**

Traill County Water Resource District, Local Landowners

Describe the Problem*:

The surrounding agricultural land is experiencing poor drainage issues resulting in crop damage as a result of deteriorating channel grade and undersized culvert crossings.

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

The Project is intended to lower the channel grade and improve channel crossings and conveyance to meet current ND Stream Crossing and Water Resource District Standards for the first four downstream channel crossings of the legal assessment drain. The purpose of the Project is to improve agricultural drainage, address crossing capacity issues, and reduce flooding and standing water without adverse downstream impacts to structures.

For this project,

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

What is the Current Estimated Population?*: 100

For this project,

What is the Benefited Population?*: 100

Have Assessment Districts Been Formed?*: Yes

Date Formed: 08/02/2022

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?*: 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?*: Yes

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

Approved by DWR on 3/28/24

Have You Been Approved for any State Permits?: Yes

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

Surface Drain Permit No. 6312

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? No

(Example: Hazard Mitigation Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Complete

Design Completion*: Summer 2024

Bid*: Summer 2024

Construction Start*: Fall 2024

Construction Completion*: Winter 2024

Explain Additional Timeline

Issues*:

No additional timeline issues expected

Consulting Engineer*: Moore Engineering, Inc.

Engineer Telephone Number*: 701-282-4692

Engineer Email*: nathan.trosen@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Jessica Speith 04/29/2024
First Name Last Name Date

Address*: 102 1st St SW
Address Line 1
Address Line 2
Hillsboro North Dakota 58045-____
City State Zip Code

Telephone Number*: 701-636-5812

Sponsor Email*: tcwrd@co.trail.nd.us

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

Authorized Individual*: Jessica Speith 04/29/2024
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 23391_Project_Basemap.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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: 23391_Carson10_Delineation_of_Costs_20240425.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 23391 Carson D10 Plans_20240429_signed.pdf

Water Supply Projects?: No

Rural Flood Control?: Yes

Approved Drainage Permit: DR_6312_ROD.pdf

Results Of Positive Assessment Vote: 2022_Drain10_AssessmentList.pdf

Drain Reconstructions?: Yes

Sediment Analysis: 23391_Sediment_Analysis.pdf

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?: Yes

[CLICK HERE for Economic Analysis Instructions.](#)

Economic Analysis: 20240410_Carson10_EA_BB_123.xlsx

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

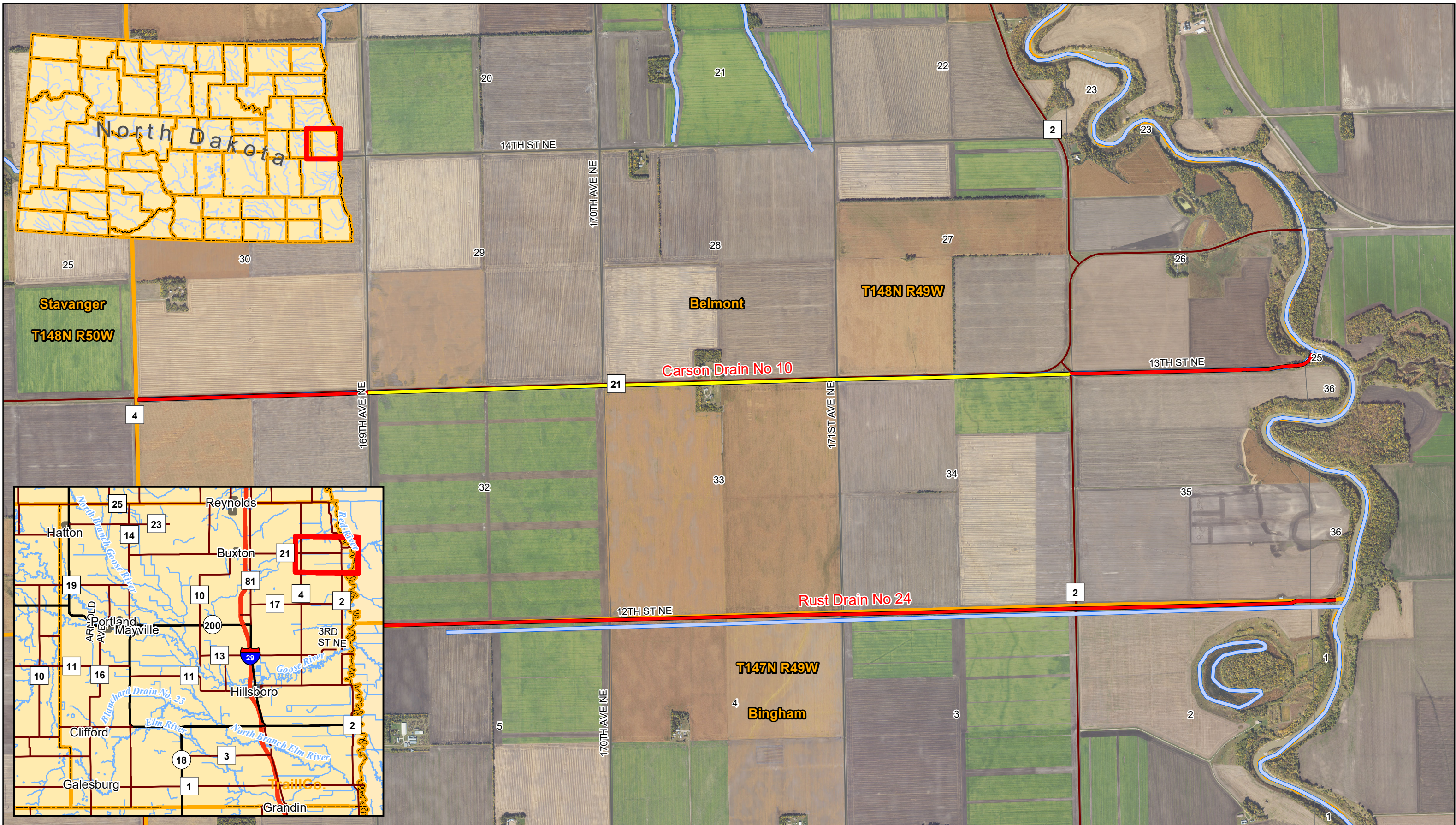
Photos of Problem/Issue:

Other Applicable Document(s): No

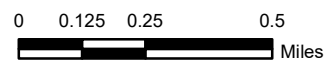
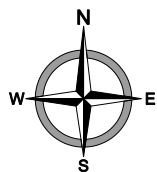
Sources

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

Source	If Other, Specify Funding Source	State			Total Cost	Type	Term	Interest Rate
		State Fiscal Year 1 July to June	Fiscal Year 2 July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Construction		\$238,399.00	\$0.00	\$0.00	\$238,399.00	Grant	0.00	0.00
Other	Local	\$303,376.00	\$0.00	\$0.00	\$303,376.00	Grant	0.00	0.00
		\$541,775.00	\$0.00	\$0.00	\$541,775.00			



Carson Drain No. 10
Trail County Water Resource District
Trail County, North Dakota



- Project Extents
- Trail County Drains
- Rivers/Streams
- Townships



Created By: AKS Date Created: 4/25/24 Date Saved: 04/25/24 Date Plotted: NEVER Date Exported: 04/25/24
 Plotted By: andrew.smith Parcel Date: XX/XX/20 Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: NAD 1983 UTM Zone 14N Vertical Datum: NAVD1988
 T:\Projects\23300\23391\23391_1_Project_Basemap.mxd



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

DWR Date Received : April 29, 2024

Project:	23391 Traill County Drain No. 10 Improvements
Sponsor:	Traill County Water Resource District
Contact:	Jessica Speith
Phone:	701-636-5812
Engineer:	Moore Engineering, Inc.
Phone:	701-282-4692

Total Cost :	\$ 541,775	Date:	April 26, 2024
Ineligible Cost :	\$ 12,000		
Eligible Cost :	\$ 529,775		
Local Cost :	\$ 303,375	Cost-Share \$	\$ 238,400
		Preconstruction :	\$ -
		Construction :	\$ 238,399

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	8.2%	Mobilization	1	LS	40,000.00	\$ 40,000	45%	\$ 18,000
2	0.0%	Bonding	0		-	\$ -	45%	\$ -
3	0.0%	Insurance	0		-	\$ -	45%	\$ -
4	1.0%	Demolition	511	LF	10.00	\$ 5,110	45%	\$ 2,300
5	46.1%	Culverts	872	LF	258.60	\$ 225,499	45%	\$ 101,475
6	0.8%	Flap Gate	6	EA	625.00	\$ 3,750	45%	\$ 1,688
7	8.6%	Rip-Rap	490	CY	85.51	\$ 41,900	45%	\$ 18,855
8	0.8%	Gravel	85	CY	46.94	\$ 3,990	45%	\$ 1,795
9	0.8%	Traffic Control	1	LS	4,000.00	\$ 4,000	45%	\$ 1,800
10	1.2%	Other Services Provided By Contractor	1	LS	6,000.00	\$ 6,000	45%	\$ 2,700
11	1.2%	Seeding	1	LS	6,001.00	\$ 6,001	45%	\$ 2,700
12	22.1%	Earthwork	3	MILE	36,000.00	\$ 108,000	45%	\$ 48,600
13	0.0%		0		-	\$ -	45%	\$ -
14	0.0%		0		-	\$ -	45%	\$ -
15	0.0%		0		-	\$ -	45%	\$ -
16	0.0%		0		-	\$ -	45%	\$ -
17	0.0%		0		-	\$ -	45%	\$ -
18	0.0%		0		-	\$ -	45%	\$ -
19	0.0%		0		-	\$ -	45%	\$ -
20	0.0%		0		-	\$ -	45%	\$ -
21	0.0%		0		-	\$ -	45%	\$ -
22	0.0%		0		-	\$ -	45%	\$ -
23	0.0%		0		-	\$ -	45%	\$ -
24	0.0%		0		-	\$ -	45%	\$ -
25	0.0%		0		-	\$ -	45%	\$ -
26	0.0%		0		-	\$ -	45%	\$ -
		Construction Sub-Total				\$ 444,250	45%	\$ 199,913
	10.0%	Contingency				\$ 44,425	45%	\$ 19,991
	90.2%	Construction Total				\$ 488,675	45%	\$ 219,904
Preconstruction Costs								
27	0.0%		0		-	\$ -	45%	\$ -
28	0.0%		0		-	\$ -	45%	\$ -
29	0.0%		0		-	\$ -	45%	\$ -
30	0.0%		0		-	\$ -	45%	\$ -
31	0.0%		0		-	\$ -	45%	\$ -
	0.0%	Preconstruction Total				\$ -	45%	\$ -
Construction Engineering Costs								
32	8.4%	Project Inspection	1	LS	41,100.00	\$ 41,100	45%	\$ 18,495
33	0.0%		0		-	\$ -	45%	\$ -
34	0.0%		0		-	\$ -	45%	\$ -
35	0.0%		0		-	\$ -	45%	\$ -
36	0.0%		0		-	\$ -	45%	\$ -
	7.6%	Construction Engineering Total				\$ 41,100	45%	\$ 18,495
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	2.2%	Sediment Removal	0.33334	MILE	36,000.00	\$ 12,000	0%	\$ -
43	0.0%		0		-	\$ -	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
	2.2%	Other Ineligible Total				\$ 12,000	0%	\$ -
100.0%		Total				\$ 541,775		
		Eligible Total				\$ 529,775	45%	\$ 238,399
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 529,775	45%	\$ 238,399

* 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.

Economic Analysis Review

Project Title: Trail County Drain No. 10 Channel Improvements Date: April 30, 2024
 Description: The project is to replace existing culverts with larger culverts sized to meet ND Stream Crossing standards. The project will also include lowering the grade of the channel by approximately 1-foot.

Project Type:

Project Overview			
Project Area:		Carson Drain 10	
County		Trail	
City		Belmont Township	
Agricultural Acres Impacted		867	
Urban		No	
Population Served		159	
Cost	Construction	O & M	Total
Nominal	\$541,775	\$2,500/yr	\$669,275
PV (50 years)	\$535,814	\$66,604	\$602,418
\$ / Capita	\$3,369.90	\$418.90	\$3,788.80
\$ / Acre	\$617.94	\$76.81	\$694.75

Inputs	
Protection Level:	1:10
Consumptive and Non-Consumptive Benefits:	
NA	
Detours:	
NA	

Results			
Project Performance Metrics	Present Value	Average Annual	Notes
Benefit-to-Cost Ratio	1.750		
Net Benefits	\$451,841	\$15,145	
Internal Rate of Return (IRR)	6%		
Payback Year	20		

Average Annual Damages							
	Rural				Urban		
	Difference	Without	With		Difference	Without	With
Cropland	\$34,004	\$55,301	\$21,297	Damage to structures at risk	\$0	\$0	\$0
Pasture	\$0	\$0	\$0	Value of other flood costs	\$0	\$0	\$0
\$	\$34,004	\$55,301	\$21,297				

Model Function

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. The project engineer confirmed all acres identified as benefitting are newly benefitting acres and do not include acres previously benefitting from the existing drain or waterway as previously designed or functioning.

Explanation of Results

The sponsors identified up to 867 acres of agricultural lands benefitting from altered drainage and flood attenuation resulting from this project designed for the 1 in 10 event probability. The B/C ratio exceeds 1.0 and the net benefit of the project is estimated at \$451,841 over the next 50 years. The estimated probable annual net benefit is \$15,145.

Other Comments

Glossary

PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.

1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.

Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.

Non-consumptive Benefits - These occur when an individual's use does not diminish the supply for other consumers of the benefit (e.g. bird watching).

Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.

Value of Other Flood Costs - All other costs associated with an event (e.g. flood fighting operations, time delays, relocations, etc).

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.

TRAIL COUNTY DRAIN NO. 10 CHANNEL IMPROVEMENTS

TRAIL COUNTY WATER RESOURCE DISTRICT

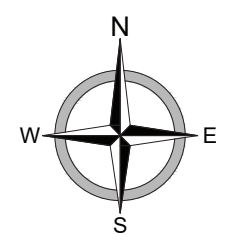
TRAIL COUNTY, NORTH DAKOTA



VICINITY MAP

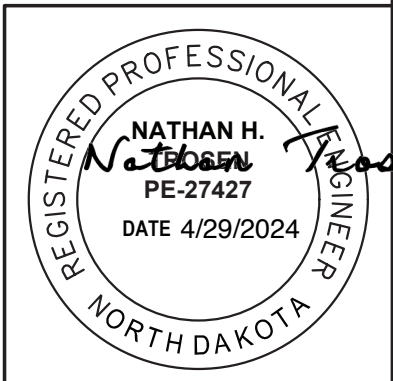


PROJECT LOCATIONS



PROJECT No. 23391

**ISSUED FOR
PERMITTING**



SURFACE DRAIN PERMIT NO. 6312

WATER RESOURCE DISTRICT PERMIT NO. _____

This permit authorizes the permittee to drain a pond, slough, lake, sheetwater, or any series thereof, according to North Dakota Century Code (N.D.C.C.) § 61-32-03 and North Dakota Administrative Code (N.D.A.C.) ch. 89-02-01.

Name of Permittee: **TRAILL COUNTY WATER RESOURCE DISTRICT
 102 1ST ST SW
 PO BOX 10
 HILLSBORO, ND 58078**

Water Resource District: **Trail County Water Resource District (District)**

Feature to Be Drained: **Sheetwater - Overland Flow**

Purpose of Drainage: **Flood Relief**

Location of Drain (Department of Water Resources Location Map Attached):

Drain Alignment: **N 1/2 Section 36, T148N, R50W, N 1/2 Sections 31, 32, 33, 34, T148N, R49W.**
 Drain Outlet Location: **N 1/2 Section 34 T148N, R49W**
 Stream: **Red River**
 Basin: **Lower Red**

Is the proposed drainage of statewide or interdistrict significance?: **NO**

Design Data:

Type of project:	Modification
Contributing watershed area (approximate):	1690 Acres
Assessment Drain?:	True
If YES, Name of Drain:	
Type of modification(s) (if applicable):	Deepening
Drainage Method:	Gravity

Drainage Method Information:

Gravity Type:	Ditch	
Length of Drain:	26620	Feet
Maximum Cut:	1	Feet
Bottom Width:	10	Feet
Side Slopes:	4:1	

CONDITIONS TO SURFACE DRAIN PERMIT NO. 6312

1. According to N.D.A.C. § 89-02-01-09.11, the project and the rights granted under the permit are subject to modification to protect the public health, safety, and welfare.
2. According to N.D.A.C. § 89-02-01-09.11, construction must be completed within two years from the final approval date or the permit is void. The two-year period does not begin until any appeal is complete.
3. According to N.D.A.C. § 89-02-01-09.11, the Department of Water Resources or water resource district may attach other conditions to the permit if necessary. **If applicable, any other permit conditions adopted by the water resource district will be attached on separate sheets.**
4. This permit applies to the specific project and project location described and depicted in the permit application.
5. The Permittee, project owner, project sponsor, landowner, and any associated parties may be liable for all activity conducted and all effects caused by the construction, modification, and operation of the project as described in the application and this permit. Consequently, the receipt of this permit does not relieve the Permittee, project owner, project sponsor, landowner, or any associated parties from liability resulting from the construction, modification, or operation of the project approved under this permit.
6. If prior to or during construction items of substantial archeological value are discovered or a deposit of such items are disturbed, the Permittee shall cease construction activities in the area so affected. The Department of Water Resources must be promptly notified of the discovery and construction must not resume until the Department of Water Resources gives written permission.
7. The Permittee is responsible for obtaining any other local, state, or federal permits or approvals that may be necessary prior to construction.

I, the undersigned, am approving this application for surface drainage according to N.D.C.C. § 61-32-03 on behalf of the water resource district I represent. I acknowledge that the water resource district has reviewed this application as required by N.D.C.C. § 61-32-03 and N.D.A.C. § 89-02-01.09.1 and that the water resource district has considered the evaluation factors listed in N.D.A.C. § 89-02-01-09.2. I acknowledge that I may attach conditions to this permit and must notify the applicant of his or her responsibilities to comply with the conditions stated in this permit.

Signature:  Approval Date: 02-APR-2024
Chair or Secretary of Water Resource District

NOTES:

- This approved permit must be forwarded to the Department of Water Resources for record keeping.
- The water resource district may attach additional conditions to this permit approval if necessary.
- This permit document is not final until signed and dated by a water resource district representative.

Water Development Plan: 2023
Priority: High

12

1083170 - Lower Heart WRD/Mandan Levee Accreditation Design Amendment

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 24, 2024 3:20 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Dennis Reep
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	Last
Status:	Submitted	Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Dennis
First Name Wayne Reep
Middle Name Last Name

Title: ND Managing Principal

Email*: dennis.reep@hdrinc.com

Address*: 3231 Greensboro Dr., Ste. 200

Organization Information

Status*: Approved

Name*: Lower Heart River Water Resource District

Organization Type*: Political Subdivision

Tax Id: 45-0279853

Organization Website:

Address*: PO Box 395

	Bismarck North Dakota		Mandan North Dakota
	City State/Province		City State/Province
58501		58554-0000	
Postal Code/Zip		Postal Code/Zip	
Phone*:	(701) 595-2142 Ext.	Phone*:	(701) 471-8398 Ext.
	Phone		###-###-####
	###-###-####	Fax:	###-###-####
Fax:	(701) 557-9640	Vendor ID:	
	###-###-####	PeopleSoft	
Comments:		Supplier ID:	
		Comments:	
		Location	
		Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study

Name*:

Lower Heart/Mandan Levee Accreditation and Flood Risk Reduction Project

Sponsor(s)*: Lower Heart Water Resource District

County*: Morton

City*: Mandan

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Flood Control

Jurisdictions/Stakeholders

Involved*:

Lower Heart Water Resource District and City of Mandan

Describe the Problem*:

Design, CLOMR submittal, numerous regulatory permits, have been submitted. CLOMR review and consultation with FEMA has resulted in an additional freeboard deficient reach in the levee system. This additional reach increases design and permitting costs and extends schedule. Cover letter has additional details.

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

The project will bring the Mandan and Lower Unit levee system segments into FEMA compliant status and improve the long-term resiliency of the system. This will continue and extend the real protection provided to the City of Mandan and Morton County and maintain a recognized levee system by FEMA, providing economic relief from required flood insurance.

For this project,

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

What is the Current Estimated Population?* 24500

For this project,

What is the Benefited Population?* 24500

Have Assessment Districts Been Formed?* Yes

Date Formed: 03/15/2022

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?* No

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

Have You Applied For Any Federal Permits?* Ongoing

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

Section 408/404 permits were submitted for review and concurrence by the USACE. The additional freeboard deficient reach will necessitate the expansion of those permit submittals.

**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):**

Construction and Sovereign Lands permits are in draft form, but will need to be expanded due to the addition of the additional freeboard deficient reach.

**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):**

Floodplain permits are in draft form, but will need to be expanded due to the addition of the additional freeboard deficient reach.

**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? Yes

(Example: Hazard Mitigation Grant Program)

•:

Explain the Source, Timing and Amount of Federal Funds:

FEMA Flood Mitigation Assistance (FMA) and Building Resilient Infrastructure and Communities (BRIC) grants were submitted in 2023. The FMA grant was accepted and is currently going through a Request For Information (RFI) phase. If awarded, as is expected, it will provide \$13.8M in federal funds to offset project costs. Allocation of the funds would likely occur in late 2024.

Federal Funding Contact: Todd Joersz
First Name Last Name

Federal Funding Contact Number: 701-328-8261

Federal Funding Email: tjoersz@nd.gov

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: 2025

Bid*: 2025

Construction Start*: Late 2025

Construction Completion*: 2027

Explain Additional Timeline

Issues*:

Section 404 and 408 permitting processes can be extensive with the addition of the freeboard deficient reach. CLOMR resolution needs to occur before re-submittal of permits.

Consulting Engineer*: HDR Engineering

Engineer Telephone Number*: 701-595-2142

Engineer Email*: dennis.reep@hdrinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Bill Robinson 04/24/2024
 First Name Last Name Date

Address*: P.O. Box 395
 Address Line 1
 Address Line 2
 Mandan North Dakota 58554-____
 City State Zip Code

Telephone Number*: 701-471-8398

Sponsor Email*: b.robinson@bankwithchoice.com

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

Authorized Individual*: Bill Robinson 04/24/2024
 First Name Last Name Date

Title/Position/Authority*: Chairman, Lower Heart WRD

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: Yes

CLICK HERE to see examples.

Project Specific Map V2_MapCostShareSubmittal_LowerHeart_Amend2.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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:** LowerHeart-Apr-2024_sfn_61801_delineation_of_cost.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?:** Yes

[CLICK HERE for Economic Analysis Instructions.](#)

Economic Analysis:

**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: DesignCostShareRequest_CoverLetter_Apr-2024.pdf

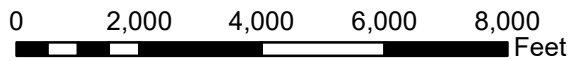
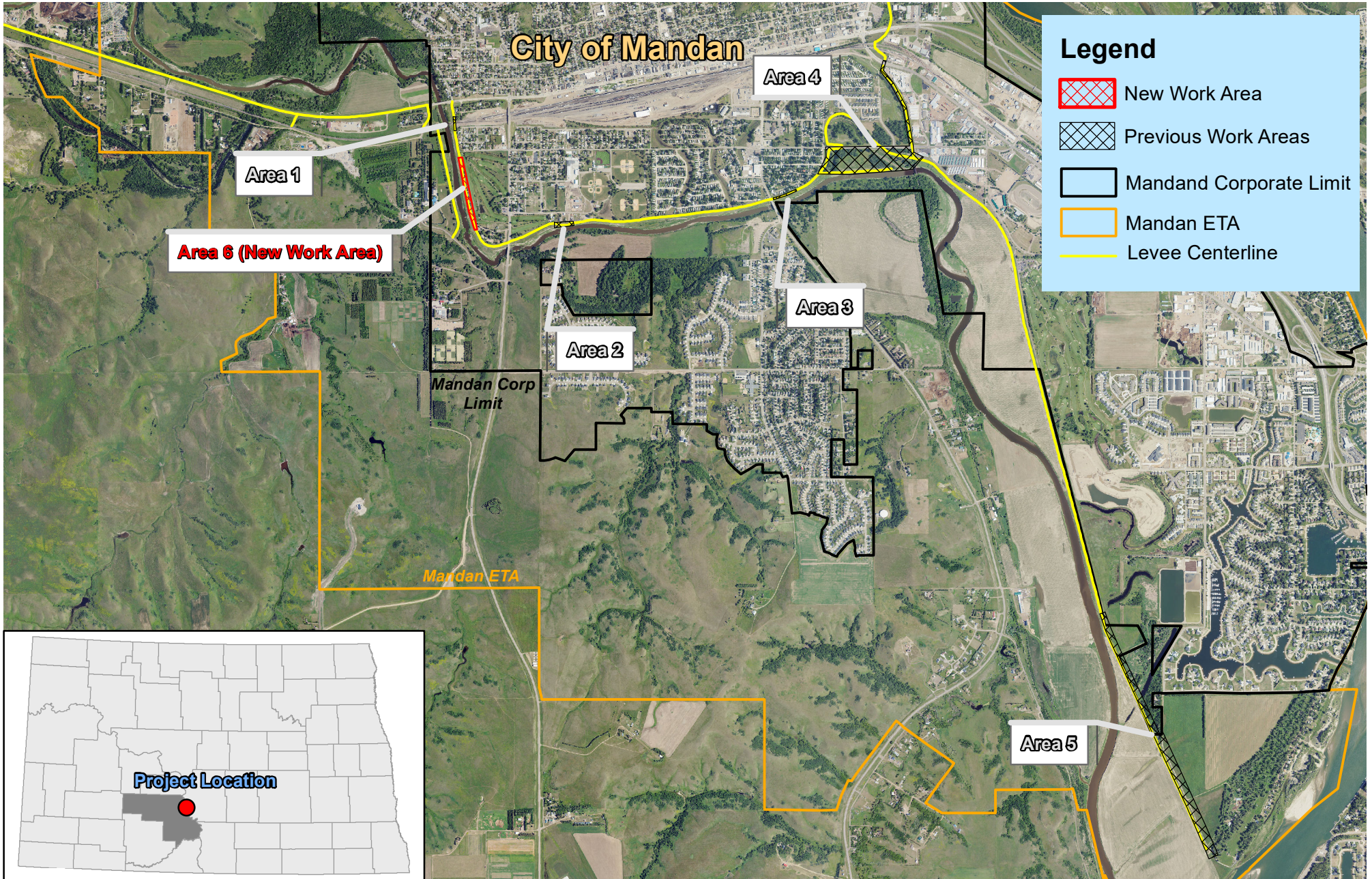
Other Applicable Document:

Other Applicable Document:

Sources

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

Source	If Other, Specify Funding Source	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		\$0.00	\$723,900.00	\$0.00	\$723,900.00	Grant	0.00	0.00
Other	Lower Heart WRD	\$0.00	\$482,600.00	\$0.00	\$482,600.00	Grant	0.00	0.00
		\$0.00	\$1,206,500.00	\$0.00	\$1,206,500.00			





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

DWR Date Received : April 26, 2024

Project:	Lower Heart Flood Risk Reduction/Levee Accreditation
Sponsor:	Lower Heart Water Resource District
Contact:	Bill Robinson, Chairman
Phone:	701-471-8398
Engineer:	Dennis Reep, HDR Engineering
Phone:	701-595-2142

Total Cost :	\$ 28,056,500	Date:	April 26, 2024
Ineligible Cost :	\$ 14,100,000		
Eligible Cost :	\$ 13,956,500		
Local Cost :	\$ 19,682,600	Cost-Share \$	\$ 8,373,900
		Preconstruction :	\$ 2,073,900
		Construction :	\$ 14,580,000

Project Type:	Cost-share %
FEMA Flood Levee Accreditation	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	90.9%	Blank 1 (User Enter)	1	LS	18,000,000.00	\$ 18,000,000	60%	\$ 10,800,000
5	0.0%		0		-	-	60%	\$ -
6	0.0%		0		-	-	60%	\$ -
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				\$ 18,000,000	60%	\$ 10,800,000
	10.0%	Contingency				\$ 1,800,000	60%	\$ 1,080,000
	70.6%	Construction Total				\$ 19,800,000	60%	\$ 11,880,000
Preconstruction Costs								
27	17.5%	Final Design	1	NA	3,456,500.00	\$ 3,456,500	60%	\$ 2,073,900
28	0.0%		0		-	-	60%	\$ -
29	0.0%		0		-	-	60%	\$ -
30	0.0%		0		-	-	60%	\$ -
31	0.0%		0		-	-	60%	\$ -
	12.3%	Preconstruction Total				\$ 3,456,500	60%	\$ 2,073,900
Construction Engineering Costs								
32	15.2%	Construction Contract Management	1	NA	3,000,000.00	\$ 3,000,000	60%	\$ 1,800,000
33	0.0%		0		-	-	60%	\$ -
34	0.0%		0		-	-	60%	\$ -
35	0.0%		0		-	-	60%	\$ -
36	0.0%		0		-	-	60%	\$ -
	10.7%	Construction Engineering Total				\$ 3,000,000	60%	\$ 1,800,000
Other Eligible Costs								
37	1.4%	Property / Land (Flood Protection)	1	LS	400,000.00	\$ 400,000	60%	\$ 240,000
38	0.4%	Mitigation Required By Law	1		100,000.00	\$ 100,000	60%	\$ 60,000
39	3.6%	Miscellaneous	1		1,000,000.00	\$ 1,000,000	60%	\$ 600,000
40	0.0%		0		-	-	60%	\$ -
41	0.0%		0		-	-	60%	\$ -
	5.3%	Other Eligible Total				\$ 1,500,000	60%	\$ 900,000
In-eligible Costs								
42	1.1%	Legal Expenses	1	NA	300,000.00	\$ 300,000	0%	\$ -
43	0.0%		0		-	-	0%	\$ -
44	0.0%		0		-	-	0%	\$ -
45	0.0%		0		-	-	0%	\$ -
	1.1%	Other Ineligible Total				\$ 300,000	0%	\$ -
100.0%		Total				\$ 28,056,500		
		Eligible Total				\$ 27,756,500	60%	\$ 16,653,900
Federal or State Funds That Supplant Costs								
						\$ 13,800,000		
		Eligible Cost Total				\$ 13,956,500	60%	\$ 8,373,900

* 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.

* \$2,073,900 Total preconstruction cost-share
 -\$1,200,000 previously approved on 10/8/2020
 -\$150,000 previously approved on 4/13/2023
 \$723,900 Requested cost-share for preconstruction cost increases

Lower Heart River WRD
of Morton County
P.O. Box 395
Mandan, ND 58554

Apr 24, 2024

Ms. Andrea Travnicek, Ph.D., Director
North Dakota Department of Water Resources
1200 Memorial Highway
Bismarck ND 58504-5262

RE: Mandan/Lower Heart FEMA Accreditation Project Additional Cost-Share Request – Design

Dear Ms. Travnicek:

The North Dakota State Water Commission (NDSWC) approved cost-share for the pre-construction activities for the design phase to acquire FEMA re-accreditation of the Lower Heart Levee System in Mandan, North Dakota at the October 8, 2020, meeting in the amount of \$1,200,000.00. The original request was submitted in April 2020, but funding challenges associated with the Resources Trust Fund delayed the consideration and approval until October 2020. An amendment was granted in the amount of \$150,000.00 at the April 13, 2023, meeting to accommodate an unanticipated alignment change, incorporation of BNSF Railway emergency management provisions, and incorporation of consolidation of dry-side surface discharges to meet FEMA standards.

Design, CLOMR submittal, numerous regulatory permits, and other activities have progressed, but the CLOMR review by FEMA identified an additional reach that is considered freeboard deficient. This additional reach is approximately 1,900 feet in length and will require additional design, environmental analyses, permitting, geotechnical investigation, ROW, and other tasks to bring the levee system into accreditation status through FEMA.

Altogether, these changes result in an estimated addition of \$1,206,500 to bring the project to a construction bid ready position. Based on an eligibility rate of 60 percent cost-share for FEMA re-certification in accordance with state cost-share policy, we are requesting our existing agreement for this phase of the project be amended to provide an additional \$723,900.00 from the NDSWC.

Separately, an application was submitted to FEMA through their Flood Mitigation Assistance (FMA) grant program. The application was accepted and is currently in the stages of the Requests For Information (RFIs) stage, an indication that an award is probable in the future for construction activities. This award would be in the amount of \$13.8 Million and would help defray local and state costs significantly.

We appreciate the consideration of this request, and the past, present, and future partnership provided by the NDSWC and North Dakota Department of Water Resource staff. If you have any questions, please do not hesitate to contact me at 701-471-8398 or our project engineer Dennis Reep at 701-595-2142.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bill Robinson". The signature is fluid and cursive, with a prominent initial "B" and "R".

Bill Robinson, Chairman
Lower Heart WRD

CC: Dennis Reep, HDR Engineering

Water Development Plan: No

13

1082551 - Jamestown - 96" Storm Water Replacement: 2024 Construction

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Feb 26, 2024 3:19 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Jason Bivens
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Under Review	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Jason
First Name

Middle Name Bivens
Last Name

Title:

Email*:
jason.bivens@interstateeng.com

Address*: 1903 12th Ave SW

Organization Information

Status*: Approved

Name*: City of Jamestown, ND

Organization Type*: Municipal Government

Tax Id: 456002099

Organization Website: <https://jamestownnd.gov/>

Address*: 102 3rd Ave S.E.

	Jamestown	North Dakota	Jamestown	North Dakota
	City	State/Province	City	State/Province
58401			58401-4205	
Postal Code/Zip			Postal Code/Zip	
Phone*:	701-252-0234	Ext.	Phone*:	701-252-5900 Ext.
	Phone			###-###-####
	###-###-####			
Fax:	###-###-####		Fax:	701-252-5903
				###-###-####
Comments:			Vendor ID:	
			PeopleSoft	
			Supplier ID:	
			Comments:	
			Location	
			Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Jamestown - 96" Stormwater Replacement

Sponsor(s)*: City of Jamestown

County*: Stutsman

City*: Jamestown

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Flood Control

Jurisdictions/Stakeholders Involved*:

City of Jamestown, ND Department of Water Resources, ND Department of Environmental Quality.

Describe the Problem*:

The stormwater pipe was originally built in the 1970s with portions under Hwy 52 / 281 and Interstate 94

having been updated in 2014 and ~2010's, respectively. During the original 1970s construction, approximately 2,270 feet of pipe was installed. 2022 inspections showed severe deformation and corrosion in any of the system that was still made of original corrugated metal pipe (CMP). 370-feet of CMP was replaced with Hobas pipe (fiberglass) in the fall of 2023 under an emergency declaration (Phase 1). The remaining portions of CMP need to be replaced before they too, experience a complete failure.

The watershed that feeds the stormwater pipe totals 9,380 acres as shown in the attached maps that were completed by Stutsman County as a part of a 2017 Stormwater Master Plan. Roughly 621 acres or 6.62% of the watershed falls within City limits.

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

Phase 2 of the project would replace the remaining portions of original CMP pipe with fiberglass pipe via open-cut methods. The new pipe would be installed from the manhole structure that was built immediately north of 25th St SW as a part of Phase 1, to the Hwy 281 portion; then from the east side of Hwy 281 to the south Interstate 94 portion; the remaining portion on the north side of Interstate 94 to the outlet structure is located within the ND DOT right-of-way and would remain in place. Minor clean-out work of rock and sediment would occur within the ditch at the outlet.

Depending on available funding, the City may bid separately and complete the remaining portion in phases, whereas the portion west of 281 would be priority for 2024 and east of 281 would be considered at a later date in Fall 2024 or 2025.

A no action alternative or water diversion alternative are not financially or economically feasible and therefore were not considered further.

For this project,

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

What is the Current Estimated Population?* 15849

For this project,

What is the Benefited Population?* 15849

Have Assessment Districts Been Formed?* Ongoing

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?*: Ongoing

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

404 Clean Water Act. Pre-construction notification under nationwide permit 3 will be filed for ditch clean out.

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?*: 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?

Yes

(Example: Hazard Mitigation Grant Program)

*:

Explain the Source, Timing and Amount of Federal Funds:

USDA - RD (Not Secured). Feb 2024 update. Timing would not work for portion west of 281 that needs to be a priority for 2024. Still potential for remaining portion to the east of 281. Amount is unknown.

Federal Funding Contact: Ranetta Starr
First Name Last Name

Federal Funding Contact Number: 701-890-3076

Federal Funding Email: ranetta.starr@usda.gov

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 2023

Design Completion*: 2023 / 2024

Bid*: Spring 2024

Construction Start*: Summer / Fall 2024

Construction Completion*: Fall 2024

Explain Additional Timeline Issues*:

Availability of construction materials and capable construction crews.

Consulting Engineer*: Interstate Engineering

Engineer Telephone Number*: 701-252-0237

Engineer Email*: travis.dillman@interstateeng.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Sarah Hellekson 02/26/2024
 First Name Last Name Date

Address*: City Hall
 Address Line 1
 102 3rd Ave SE
 Address Line 2
 Jamestown North Dakota 58401-0000
 City State Zip Code

Telephone Number*: 701-252-5900

Sponsor Email*: shellekson@jamestownnd.gov

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

Authorized Individual*: Sarah Hellekson 02/26/2024
 First Name Last Name Date

Title/Position/Authority*: City Administrator / 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

Project Maps.pdf

*:

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 15.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: _2024-2-21_Binder_WebGrants.pdf

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?: Yes

CLICK HERE for Economic Analysis Instructions.

Economic Analysis:

Economic Analysis worksheet_Jamestown96inchCulvert-2.23-2024.xlsx

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: Photos_Jmst96.pdf

Other Applicable Document(s): Yes

Other Applicable Document: Memo_NDDOT Traffic Counts.pdf

Other Applicable Document:

Other Applicable Document:

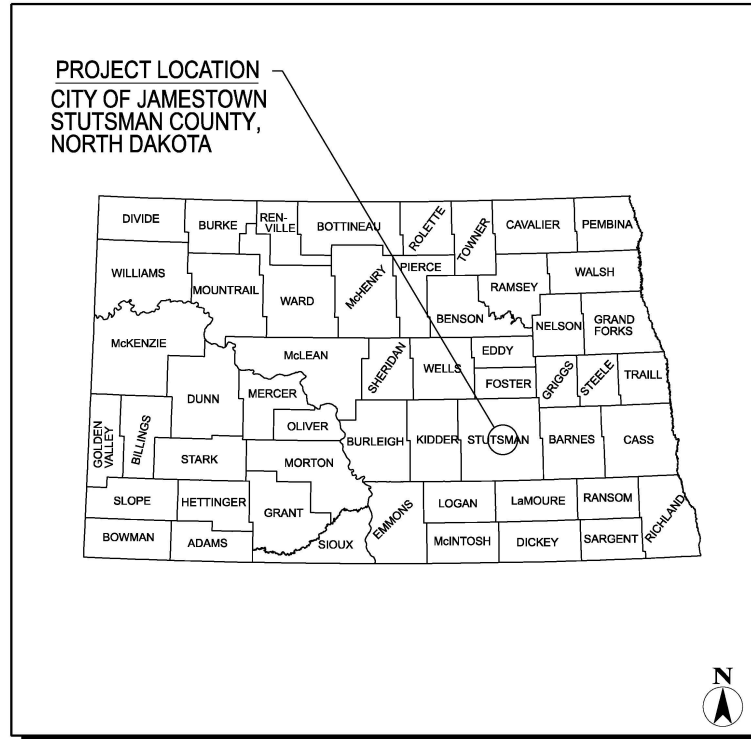
Sources

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

Source	If Other, Specify Funding Source	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		\$176,400.00	\$0.00	\$0.00	\$176,400.00	Grant	0.00	0.00
Clean Water State Pre-Revolving Fund	Construction	\$157,500.00	\$0.00	\$0.00	\$157,500.00	Loan	20.00	2.00
Department of Water Resources Cost Share Construction		\$3,636,000.00	\$0.00	\$0.00	\$3,636,000.00	Grant	0.00	0.00
Other	USDA-RD: Potential Disaster Relief Grant	\$1,000,000.00	\$0.00	\$0.00	\$1,000,000.00	Grant	0.00	0.00
Clean Water State Pre-Revolving Fund	Construction	\$1,838,007.00	\$0.00	\$0.00	\$1,838,007.00	Loan	20.00	2.00
		\$6,807,907.00	\$0.00	\$0.00	\$6,807,907.00			

96" STORM SEWER EMERGENCY REPLACEMENT PROJECT

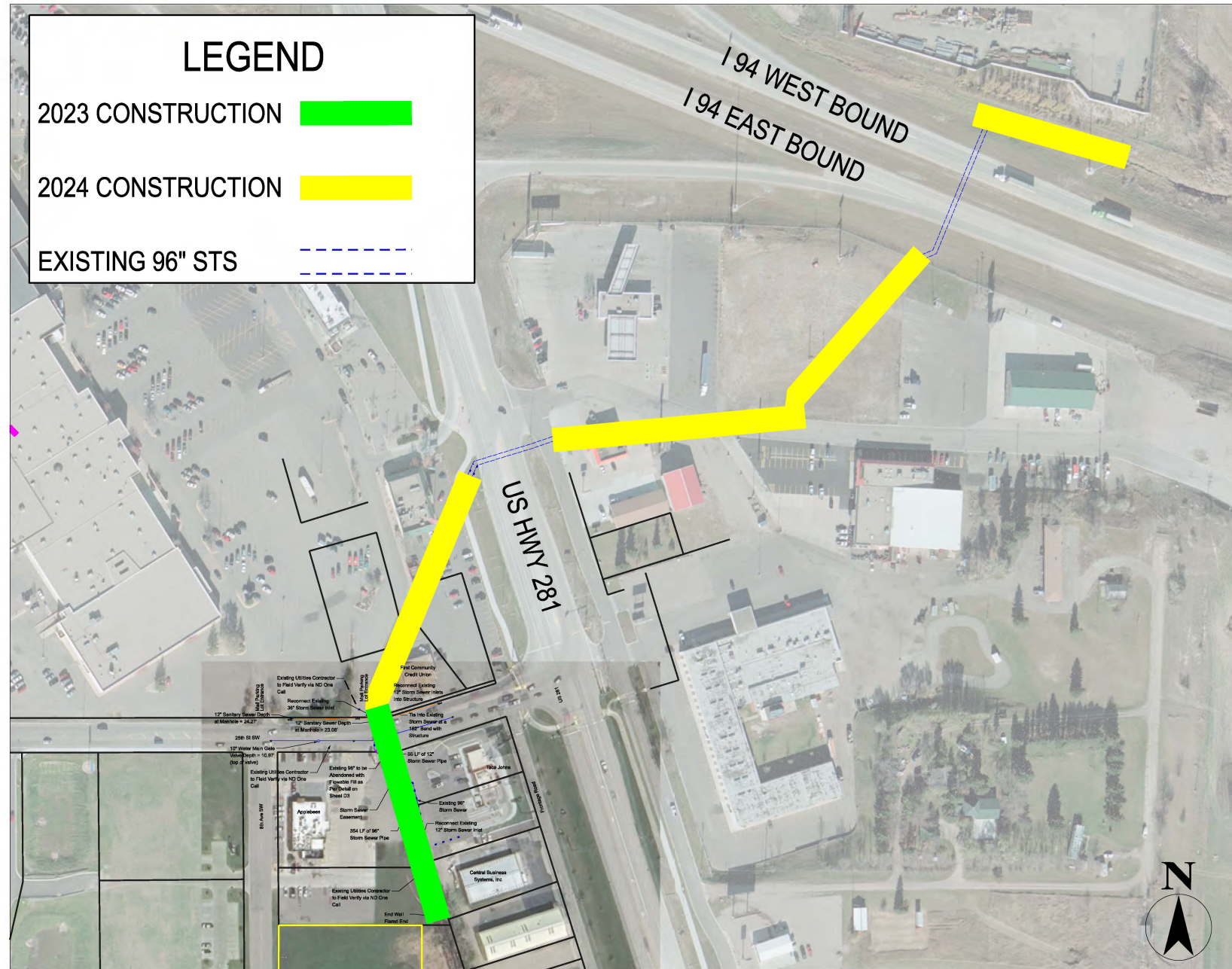
PREPARED FOR
CITY OF JAMESTOWN
JAMESTOWN, NORTH DAKOTA



LOCATION MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE



INTERSTATE ENGINEERING
Professionals you need, people you trust.

Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

IN

Offices in North Dakota, Minnesota, Montana and South Dakota

Sheet Number

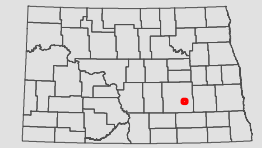
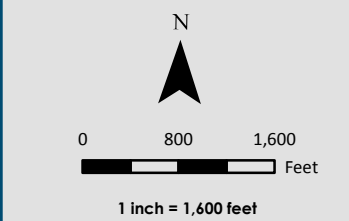
Culvert ID	Note	Barrels	Length (ft)	Size (in)	Material	U/S Invert	D/S Invert	Cost	Funding Identifier
82nd Ave SE Crossing	Addition to Existing 48" CMP	1	50	48	RCP	1476.7	1476.6	\$48,300	B
Future 82nd Ave SE Crossing	Replace Existing 18" CMP	2	60	48	RCP	1482.3	1482	\$113,500	A
Future 25th St SW Crossing	Future Road	2	80	54 Equivalent Arch	RCP	1481.1	1480.9	\$155,600	A
Future Crossing	Future Road	2	80	60 Equivalent Arch	RCP	1475.2	1474.8	\$170,800	A
10th Ave SW Crossing	Replace Existing (3) 24" RCP	2	80	60 Equivalent Arch	RCP	1472.2	1471.8	\$236,600	C
37th St SE Crossing	Replace Existing 24", 36", & 48" CMP	3	80	48	RCP	1457.9	1457.4	\$172,100	B
Buffalo Road Crossing	Addition to Existing 72" RCP	1	50	72	RCP	1381.2	1380	\$69,200	C
38th St SE Crossing	Replace Existing 30" CMP	1	60	36	RCP	1494.3	1492.9	N/A*	B
81st Ave SE Crossing	Replace Existing 48" CMP	2	60	54	RCP	1498.1	1497.9	N/A*	B

*Outside of planning location, opinion of probable cost not provided.

Storm Sewer System ID	Storm Sewer Section	Note	Length (ft)	Size (in) and Material	U/S Invert	D/S Invert	Total System Cost	Funding Identifier
System 1	Section 1	Replace Existing 42" RCP	120	84" RCP	1450.7	1450	\$993,000	C
	Section 2	Addition to Existing 42" RCP	430	72" RCP	1450	1448		
System 2	Section 1	Replace Existing 72" CMP	800	84" RCP	1453.9	1448	\$3,853,000	B
	Section 2	Replace Existing 96" CMP	1230	8' x 8' RCB	1448	1434.9		
	Section 3	Replace Existing 96" CMP	50	6' x 10' RCB	1434.9	1434		

Basin	Surface Area (ac)	Maximum Storage ¹ (ac-ft)	Contributing Area ² (ac)	Bottom Elev.	100-yr Peak Elev.	Cost	Funding Identifier
Regional Basin 1	3.5	17.3	72.1	1488.00	1492.20	\$1,077,000	A
Regional Basin 2	4.3	23.8	156.3	1484.00	1488.84	\$1,453,000	A

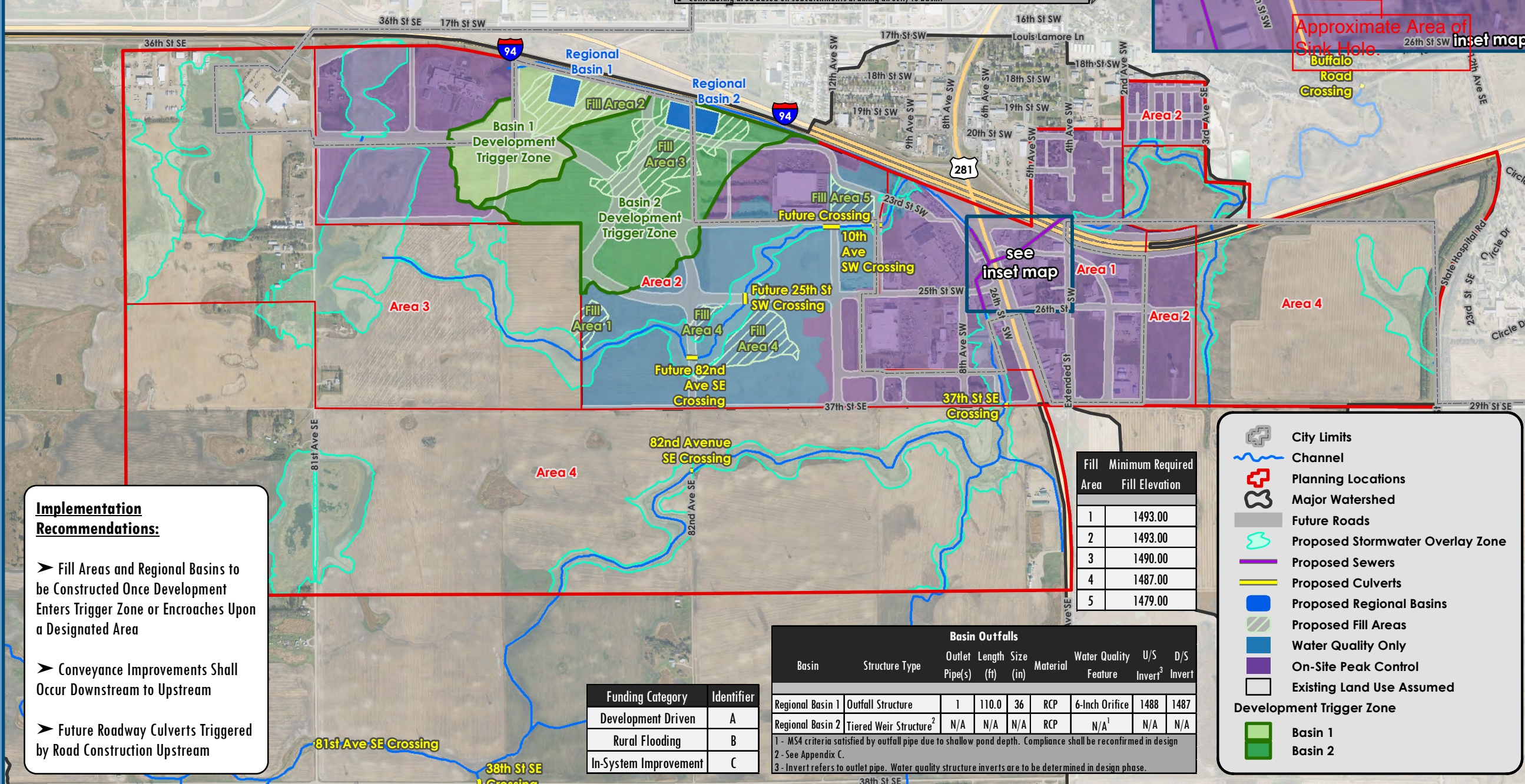
1 - Maximum storage based on proposed top of embankment.
2 - Contributing area based on subcatchments draining directly to basin.



Locator Map Not to Scale

City of Jamestown
Stutsman County, ND

**Figure ES-5:
Southwest
Planning
Location-
Proposed
Detention
Approach &
Improvements**



Implementation Recommendations:

- Fill Areas and Regional Basins to be Constructed Once Development Enters Trigger Zone or Encroaches Upon a Designated Area
- Conveyance Improvements Shall Occur Downstream to Upstream
- Future Roadway Culverts Triggered by Road Construction Upstream

Funding Category	Identifier
Development Driven	A
Rural Flooding	B
In-System Improvement	C

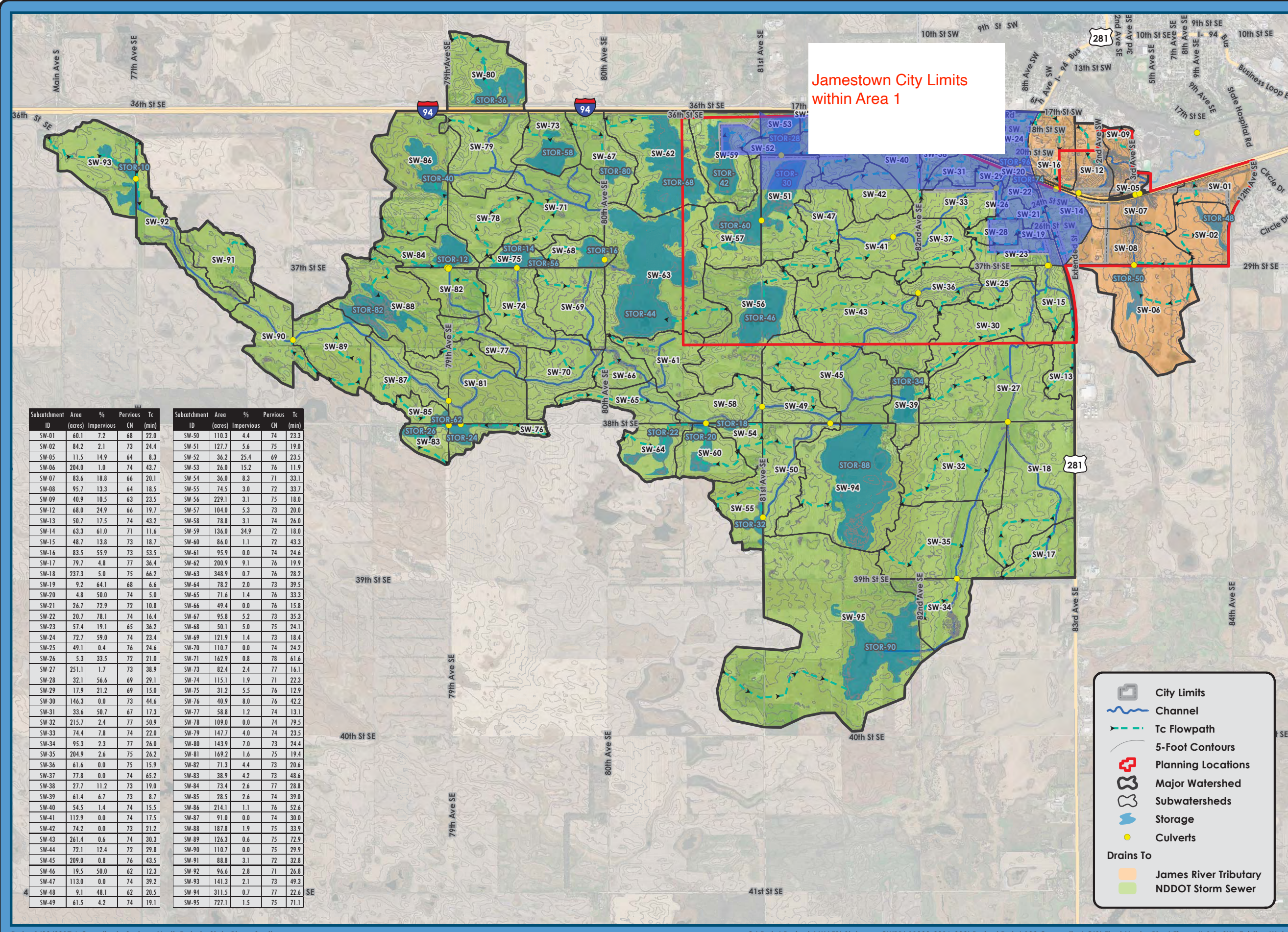
Basin	Structure Type	Basin Outfalls			Water Quality Feature	U/S Invert ³	D/S Invert	
		Outlet Pipe(s)	Length (ft)	Size (in)				
Regional Basin 1	Outfall Structure	1	110.0	36	RCP	6-Inch Orifice	1488	1487
Regional Basin 2	Tiered Weir Structure ²	N/A	N/A	N/A	RCP	N/A ¹	N/A	N/A

1 - MS4 criteria satisfied by outfall pipe due to shallow pond depth. Compliance shall be reconfirmed in design
2 - See Appendix C.
3 - Invert refers to outlet pipe. Water quality structure inverts are to be determined in design phase.

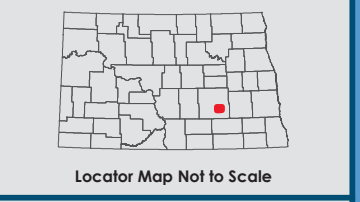
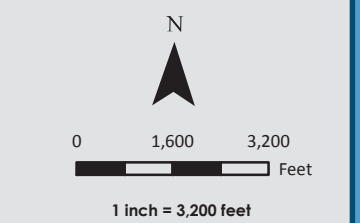
Stormwater Master
Plan Project

Stutsman County
Water Resource Board





Jamestown City Limits
within Area 1



City of Jamestown
Stutsman County, ND

Figure II-1.1:
Southwest
Planning
Location—
Existing
Watersheds and
Storage Areas

Subcatchment ID	Area (acres)	% Impervious	Pervious CN	Tc (min)
SW-01	60.1	7.2	68	22.0
SW-02	84.2	2.1	73	24.4
SW-05	11.5	14.9	64	8.3
SW-06	204.0	1.0	74	43.7
SW-07	83.6	18.8	66	20.1
SW-08	95.7	13.3	64	18.5
SW-09	40.9	10.5	63	23.5
SW-12	68.0	24.9	66	19.7
SW-13	50.7	17.5	74	43.2
SW-14	63.3	61.0	71	11.6
SW-15	48.7	13.8	73	18.7
SW-16	83.5	55.9	73	53.5
SW-17	79.7	4.8	77	36.4
SW-18	237.3	5.0	75	66.2
SW-19	9.2	64.1	68	6.6
SW-20	4.8	50.0	74	5.0
SW-21	26.7	72.9	72	10.8
SW-22	20.7	78.1	74	16.4
SW-23	57.4	19.1	65	36.2
SW-24	72.7	59.0	74	23.4
SW-25	49.1	0.4	76	24.6
SW-26	5.3	33.5	72	21.0
SW-27	251.1	1.7	73	38.9
SW-28	32.1	56.6	69	29.1
SW-29	17.9	21.2	69	15.0
SW-30	146.3	0.0	73	44.6
SW-31	33.6	50.7	67	17.3
SW-32	215.7	2.4	77	50.9
SW-33	74.4	7.8	74	22.0
SW-34	95.3	2.3	77	26.0
SW-35	204.9	2.6	75	26.2
SW-36	61.6	0.0	75	15.9
SW-37	77.8	0.0	74	65.2
SW-38	27.7	11.2	73	19.0
SW-39	61.4	6.7	73	8.7
SW-40	54.5	1.4	74	15.5
SW-41	112.9	0.0	74	17.5
SW-42	74.2	0.0	73	21.2
SW-43	261.4	0.6	74	30.3
SW-44	72.1	12.4	72	29.8
SW-45	209.0	0.8	76	43.5
SW-46	19.5	50.0	62	12.3
SW-47	113.0	0.0	74	39.2
SW-48	9.1	48.1	62	20.5
SW-49	61.5	4.2	74	19.1

Subcatchment ID	Area (acres)	% Impervious	Pervious CN	Tc (min)
SW-50	110.3	4.4	74	23.3
SW-51	127.7	5.6	75	19.0
SW-52	36.2	25.4	69	23.5
SW-53	26.0	15.2	76	11.9
SW-54	36.0	8.3	71	33.1
SW-55	74.5	3.0	72	33.7
SW-56	229.1	3.1	75	18.0
SW-57	104.0	5.3	73	20.0
SW-58	78.8	3.1	74	26.0
SW-59	136.0	34.9	72	18.0
SW-60	86.0	1.1	72	43.3
SW-61	95.9	0.0	74	24.6
SW-62	200.9	9.1	76	19.9
SW-63	348.9	0.7	76	28.2
SW-64	78.2	2.0	73	39.5
SW-65	71.6	1.4	76	33.3
SW-66	49.4	0.0	76	15.8
SW-67	95.8	5.2	73	35.3
SW-68	50.1	5.0	75	24.1
SW-69	121.9	1.4	73	18.4
SW-70	110.7	0.0	74	24.2
SW-71	162.9	0.8	78	61.6
SW-73	82.4	2.4	77	16.1
SW-74	115.1	1.9	71	22.3
SW-75	31.2	5.5	76	12.9
SW-76	40.9	8.0	76	42.2
SW-77	58.8	1.2	74	13.1
SW-78	109.0	0.0	74	79.5
SW-79	147.7	4.0	74	23.5
SW-80	143.9	7.0	73	24.4
SW-81	169.2	1.6	75	19.4
SW-82	71.3	4.4	73	20.6
SW-83	38.9	4.2	73	48.6
SW-84	73.4	2.6	77	28.8
SW-85	28.5	2.6	74	39.0
SW-86	214.1	1.1	76	52.6
SW-87	91.0	0.0	74	30.0
SW-88	187.8	1.9	75	33.9
SW-89	126.3	0.6	75	72.9
SW-90	110.7	0.0	75	29.9
SW-91	88.8	3.1	72	32.8
SW-92	96.6	2.8	71	26.8
SW-93	141.3	2.1	73	49.3
SW-94	311.5	0.7	77	22.6
SW-95	727.1	1.5	75	71.1

- City Limits
- Channel
- Tc Flowpath
- 5-Foot Contours
- Planning Locations
- Major Watershed
- Subwatersheds
- Storage
- Culverts
- Drains To**
- James River Tributary
- NDDOT Storm Sewer

Stormwater Master
Plan Project

Stutsman County
Water Resource Board





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

Requested cost-share 56% for construction
 Recommended cost-share 28% for construction

DWR Date Received : February 26, 2024

Project:	96" Stormwater Replacement - Phase 2
Sponsor:	City of Jamestown
Contact:	Travis, Dillman, City Engineer
Phone:	701-252-0234
Engineer:	Interstate Engineering
Phone:	701-252-0234

Total Cost :	\$ 6,807,007	Date:	December 13, 2023
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 6,807,007		
Local Cost :	\$ 3,403,507		
		Cost-Share \$	\$ 3,403,500
		Preconstruction :	\$ 157,500
		Construction :	\$ 3,246,004

Project Type:	Cost-share %
Flood Protection - With Federal Participation	50%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	1.7%	Mobilization	1	LS	100,000.00	\$ 100,000	50%	\$ 50,000
2	0.0%	Bonding	1	LS	-	\$ -	50%	\$ -
3	0.0%	Insurance	1	LS	-	\$ -	50%	\$ -
4	1.7%	Pavement Removal	1	LS	100,000.00	\$ 100,000	50%	\$ 50,000
5	0.0%	Common Excavation	0		-	\$ -	50%	\$ -
6	68.2%	96" Stormwater Pipe (Hobas)	1340	LF	3,000.00	\$ 4,020,000	50%	\$ 2,010,000
7	0.7%	Pipeline Appurtenances	1	LS	40,000.00	\$ 40,000	50%	\$ 20,000
8	3.4%	Connection to Existing Line	4	EA	50,000.00	\$ 200,000	50%	\$ 100,000
9	3.3%	Paving	1400	TON	140.00	\$ 196,000	50%	\$ 98,000
10	1.1%	Bedding	630	CY	105.00	\$ 66,150	50%	\$ 33,075
11	0.8%	Other Services Provided By Contractor	1	LS	50,000.00	\$ 50,000	50%	\$ 25,000
12	0.1%	Seeding	1	LS	6,000.00	\$ 6,000	50%	\$ 3,000
13	0.2%	Erosion Control	1	LS	10,000.00	\$ 10,000	50%	\$ 5,000
14	1.6%	Sidewalk - Remove and Replace	795	SY	121.00	\$ 96,195	50%	\$ 48,098
15	0.2%	Moving Underground Utilities	1	LS	10,000.00	\$ 10,000	50%	\$ 5,000
16	0.0%	Moving Sanitary System	0		-	\$ -	50%	\$ -
17	0.5%	Traffic Control	1	LS	30,000.00	\$ 30,000	50%	\$ 15,000
18	2.3%	Curb and Gutter	1015	LF	135.00	\$ 137,025	50%	\$ 68,513
19	2.5%	Cast In Place Structure	1	EA	150,000.00	\$ 150,000	50%	\$ 75,000
20	2.5%	Flowable Fill	580	CY	250.00	\$ 145,000	50%	\$ 72,500
21	0.0%		0		-	\$ -	50%	\$ -
22	0.0%		0		-	\$ -	50%	\$ -
23	0.0%		0		-	\$ -	50%	\$ -
24	0.0%		0		-	\$ -	50%	\$ -
25	0.0%		0		-	\$ -	50%	\$ -
26	0.0%		0		-	\$ -	50%	\$ -
		Construction Sub-Total				\$ 5,356,370	50%	\$ 2,678,185
	10.0%	Contingency				\$ 535,637	50%	\$ 267,819
	86.6%	Construction Total				\$ 5,892,007	50%	\$ 2,946,004
Preconstruction Costs								
27	5.1%	Final Design	1	NA	300,000.00	\$ 300,000	50%	\$ 150,000
28	0.3%	Bidding / Negotiations	1	NA	15,000.00	\$ 15,000	50%	\$ 7,500
29	0.0%		0		-	\$ -	50%	\$ -
30	0.0%		0		-	\$ -	50%	\$ -
31	0.0%		0		-	\$ -	50%	\$ -
	4.6%	Preconstruction Total				\$ 315,000	50%	\$ 157,500
Construction Engineering Costs								
32	1.7%	Construction Contract Management	1	NA	100,000.00	\$ 100,000	50%	\$ 50,000
33	8.5%	Project Inspection	1	NA	500,000.00	\$ 500,000	50%	\$ 250,000
34	0.0%		0		-	\$ -	50%	\$ -
35	0.0%		0		-	\$ -	50%	\$ -
36	0.0%		0		-	\$ -	50%	\$ -
	8.8%	Construction Engineering Total				\$ 600,000	50%	\$ 300,000
Other Eligible Costs								
37	0.0%	Miscellaneous	1	LS	-	\$ -	50%	\$ -
38	0.0%		0		-	\$ -	50%	\$ -
39	0.0%		0		-	\$ -	50%	\$ -
40	0.0%		0		-	\$ -	50%	\$ -
41	0.0%		0		-	\$ -	50%	\$ -
	0.0%	Other Eligible Total				\$ -	50%	\$ -
In-eligible Costs								
42	0.0%	Legal Expenses	1	NA	-	\$ -	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				\$ 6,807,007		
		Eligible Total				\$ 6,807,007	50%	\$ 3,403,504
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 6,807,007	50%	\$ 3,403,504

* 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.

\$6,492,007 construction project total cost
 x 28%
 \$1,817,762 eligible cost-share funding
 -\$363,552 previously approved funding for construction
 \$1,454,210 recommended additional cost-share

Economic Analysis Review

Project Title: Jamestown - Emergency 96" Stormwater Replacement Date: May 8, 2024
 Description: Original metal pipe installed in the 1970s has reached the end of its useful life. 370-feet of CMP was replaced with Hobas pipe (fiberglass) in the fall of 2023 under an emergency declaration (Phase 1). The remaining portions of CMP need to be replaced.
 Project Type: _____

Project Overview			
Project Area: The south edge of Jamestown near exit 258.			
County		Stutsman	
City		Jamestown	
Agricultural Acres Impacted		-	
Urban		No	
Population Served		15,849	
Cost	Construction	O & M	Total
Nominal	\$9,027,000	\$1,000/yr	\$9,078,000
PV (50 years)	\$9,027,000	\$27,405	\$9,054,405
\$ / Capita	\$569.56	\$1.73	\$571.29

Inputs	
Protection Level:	1:30+
Other Benefits:	
Subsidence damage to properties with foundation immediately adjacent to the buried culvert were calculated using average foundation damage and engineering costs from literature. Two buildings were allowed to be built directly atop the likely subsidence zone.	
Detours:	
DWR used Network Analysis concepts under Graph Theory to estimate traffic pattern changes and alternatives to water on roads from DOT traffic counts.	

Results			
Project Performance Metrics			Notes
Benefit-to-Cost Ratio	Present Value	0.509	Development has occurred over the top of a natural drainage and above infrastructure with a limited useful life and finite time to failure. This moral hazard should be considered by the community and Commission prior to encouraging future development. One of the motivations for this project is to add more infrastructure in the vicinity of the buried pipe.
Net Benefits	Average Annual	-\$148,970	
Internal Rate of Return (IRR)	None	0%	
Payback Year			

Average Annual Damages							
Rural				Urban			
	Difference	Without	With		Difference	Without	With
Cropland	-	-	-	Damage to structures at risk	\$16,460	\$16,460	\$0
Pasture	0	0	0	Value of other flood costs	\$4,690	\$4,690	
\$	-	-	-				

Model Function

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

Explanation of Results

The minority of the benefits of this drainage project are directly attributable to avoided structural damages from flood inundation and duration. The project is replacing a limited life corrugated steel pipe that replaced an open culvert that drains 9,000 acres of agricultural land through a short segment of the city. The limited life pipe was installed more than 40 years ago, and since that time, the city has allowed development over the top of the submerged drainage. In some areas there is approximately 3 feet of overburden between the top of the culvert and the surface. This aging pipe created an emergency last year when a sink hole developed. The function of that repair is dependent on the rest of the aging pipe continuing to function. The city has additional development planned in the area. Staff provided a range of B/C ratios for the Commission's consideration to provide the expected results plus a 10-fold increase in the more dynamic inputs (traffic) which shows the output is modestly sensitive to those inputs. The only data that are reasonably questionable are the level of event necessary to cause traffic disruptions, the traffic analysis, and duration of those impacts. To that end, DWR staff included a followup addition of 194 worst case scenario to the detour impacts. The B/C ratio is less than 1.0 and is estimated at 0.5. The estimated annual benefit is \$-148,970 with a total net benefit over 50 years of \$-4,444,443.

Population and Trend				
	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
ND Census: Dept. of Commerce	15,427	15,849	0.3%	42

Other Comments

This analysis is only valid if the entire remaining length is replaced. Any partial replacement would not receive the benefits delineated in this analysis. Any partial replacement would likely have a B/C ratio of 0.00.

Glossary

PV - Present Value of all future costs or benefits adjusted to the current dollar value using an interest rate factor.
1:100 - The probability of an event. Commonly referred to as a one in one hundred year event. It is more accurately a one in one hundred chance of an event of a specific magnitude happening each individual year.
Nominal - Refers to the dollars spent or benefitted without adjusting for the time value of money or inflation.
Damage To Structures At Risk - Is the segregation of flood costs related to physical damage to structures.
Value of Other Flood Costs - All other costs associated with an event (e.g. flood fighting operations, time delays, relocations, etc).

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.

CITY OF JAMESTOWN



NORTH DAKOTA

OFFICE OF MAYOR
102 THIRD AVENUE SOUTHEAST
JAMESTOWN, NORTH DAKOTA 58401

PHONE (701) 252-5900
FAX (701) 252-5903

February 28, 2024

North Dakota Department of Water Resources
ATTN: Abigail Franklund
1200 Memorial Highway
Bismarck, ND 58504

RE: 96" Stormwater Replacement Project
City of Jamestown, ND

Dear Mrs. Franklund:

The City of Jamestown (City) hereby submits the attached cost-share application for construction assistance on the remaining segments of the 96" Stormwater Replacement Project. The overall project has been ongoing since the spring of 2023 when a portion of the existing corrugated metal pipe (CMP) collapsed resulting in an emergency declaration to replace a 370-foot portion in the fall of 2023. The Department of Water Resources (DWR) provided a 56% cost-share for the 2023 portion under the flood control / flood protection program based on facts that over 93% of the 9,380-acre drainage originates from outside of City limits.

The City of Jamestown strongly feels that this is a flood control project that simply uses a closed conduit instead of a riverine system. Therefore it would be the same as a river through the community.

Further inspection on the remaining portions of pipe indicates that all parts excluding the portions under US Highway 52 / 281 and Interstate 94 are in very poor condition and need to be addressed before a complete failure to the system occurs. The remaining portions have been split into two segments where Segment 1 is approximately 400-feet remaining on the west side of US Highway 52 / 281 and Segment 2 is approximately 940-feet located between US Highway 52 / 281 and Interstate 94. The City currently has the option to bid the two segments separately, pending available funding.

With the project crossing both US Highway 52 / 281 and Interstate 94, impacts to those major transportation routes would likely occur if the no action alternative is carried forward. A major blockage of the existing pipe at any portion along the alignment would result in overland flooding that would at a minimum cause traffic delays and could

ultimately jeopardize the integrity of those roads. A separate memo with NDDOT traffic count data is included in the economic analysis information along with ND Risk Assessment Map images and likely detour options.

Pursuant to current State Water Commission cost-share policy under the flood control / flood protection program, the City of Jamestown respectfully requests consideration from the Commission for additional cost-share contributions for the remaining segments of the Project.

The remaining approximately 1,340-feet of 96" CMP pipe will be replaced with fiberglass pipe, same as the 2023 emergency replacement portion. The project will be bid in separate segments, the 1st on March 28, 2024 at which point those prices will be provided to the State Water Commission for cost-share consideration. The second segment will be a couple of months later as we finalize the SRF loan funds and possibly some federal resiliency funding. Construction for Segment 1 will occur in 2024 with construction of Segment 2 occurring in 2024 or 2025 based on funding.

Enclosed please find one copy of the ND Webgrants application and applicable information including project maps, current plans, delineation of cost, economic analysis with traffic count memo, and project photos.

If you have any questions, please feel free to contact me at (701) 252-5900 or our Project Engineer, Darrell Hournbuckle, Interstate Engineering at (701) 252-0234.

Sincerely,
City of Jamestown

A handwritten signature in black ink that reads "Dwaine Heinrich". The signature is written in a cursive style with a small mark above the 'h'.

Dwaine Heinrich
Mayor

Enclosure

CONSTRUCTION PLANS

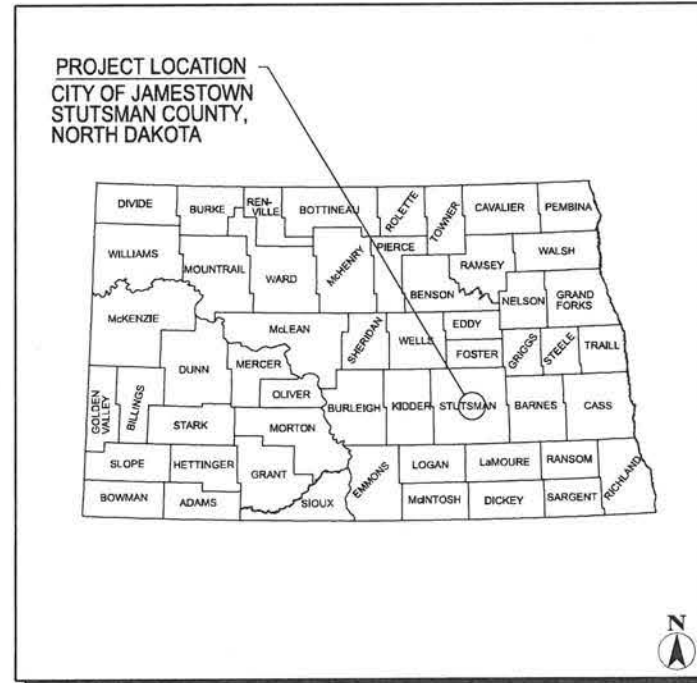
FOR

96" STORM SEWER REPLACEMENT PROJECT PHASE II

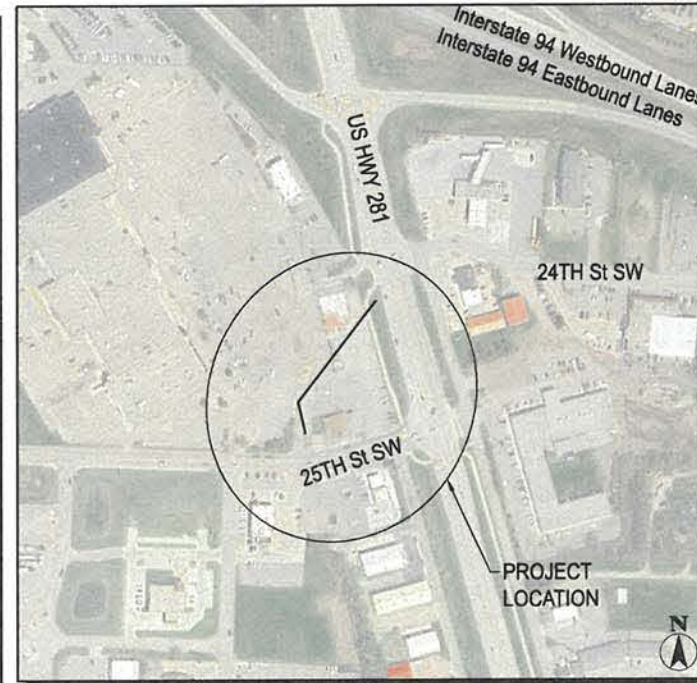
PREPARED FOR
CITY OF JAMESTOWN
JAMESTOWN, NORTH DAKOTA

INDEX OF DRAWINGS

SECTION NUMBER	SHEET NUMBER	SHEET TITLE
1	1	COVER SHEET
4	1-2	OVERVIEW
6	1-3	GENERAL NOTES
8	1	QUANTITIES
20	1-6	IE DETAILS
40	1	REMOVALS
60	1	PLAN & PROFILE - STA 0+00 TO 3+94
100	1-3	CONSTRUCTION SIGNAGE & TEMP PEDESTRIAN ROUTE
D260	1	NDDOT SILT FENCE DETAILS
D261	1	NDDOT CURB & GUTTER AND VALLEY GUTTER DETAILS
D722	1-8	NDDOT STORM SEWER DETAILS
D748	1-2	NDDOT CURB & GUTTER AND VALLEY GUTTER DETAILS
D750	1-4	NDDOT SIDEWALKS AND DRIVEWAYS DETAILS
THIS PLAN CONTAINS 34 SHEETS		



LOCATION MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

APPROVED:

BY:

INTERSTATE ENGINEERING, INC.
PROJECT ENGINEER

REVISION NO.	DATE	BY	DESCRIPTION

Professionals you need, people you trust.

Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota



CITY OFFICIALS

MAYOR.....DWAINE HENRICH
 COUNCIL PERSON.....DAN BUCHANAN
 COUNCIL PERSON.....BRIAN KAMLITZ
 COUNCIL PERSON.....DAVE SCHLOEGEL
 COUNCIL PERSON.....DAVE STEELE
 CITY ADMINISTRATOR.....SARAH HELLEKSON
 PUBLIC WORKS DIRECTOR.....TYLER MICHEL

2/28/2024 10:26:31 AM J:\d\h\g\g\X:\02323E\001\EC23-100_001_96_STB_Plan_1000_CADD_EC2300100000_Sheet004_001SW_Plan_Segment_Overview.dwg



PROJECT
AREA

25th St SW

8th Ave SW

Frontage Road

US 281

Frontage Road



SECTION
4
SHEET
1



Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com
Offices in North Dakota, Minnesota, Montana and South Dakota

96" Storm Sewer Replacement Project Phase II City of Jamestown Jamestown, North Dakota			
Project Overview			
Drawn By: JDH	Surveyed By: PJ	Project No: EC23-00-100	
Checked By: TLD	Designed By: DRH	Date: December 2023	

Rev No	Date	By	Description

Buffalo Mall
Parking Lot

Install 60° Bend at
Approximate Station
0+63

Connect to Existing
Storm Sewer at
Approximate Station
0+08 See Detail
Section 20
Sheet 2

Install 96" Storm Sewer
Tee w/ Type I Inlet
Riser - FRP at
Approximate Station
2+76 at Same Location
as Existing Inlet

Connect to Existing
Storm Sewer at
Approximate Station
3+94 See Detail
Section 20
Sheet 2

Remove Existing and
Replace with New
96" Storm Sewer in
Existing Alignment

Construction
Corridor

Existing 96"
Box Culvert

US 281

25th St SW



SECTION
4
SHEET
2



Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota

96" Storm Sewer Replacement Project Phase II City of Jamestown Jamestown, North Dakota			
Overview			
Drawn By: JDH	Surveyed By: PJ	Project No: EC23-00-100	
Checked By: JWS	Designed By: DRH	Date: December 2023	

Rev No	Date	By	Description

2/29/2024 8:51:54 AM J:\Projects\2023\96" Storm Sewer Replacement - Overview_Signoff.dwg X:\2023\96" Storm Sewer Replacement - Overview_Signoff.dwg

CONSTRUCTION PLANS

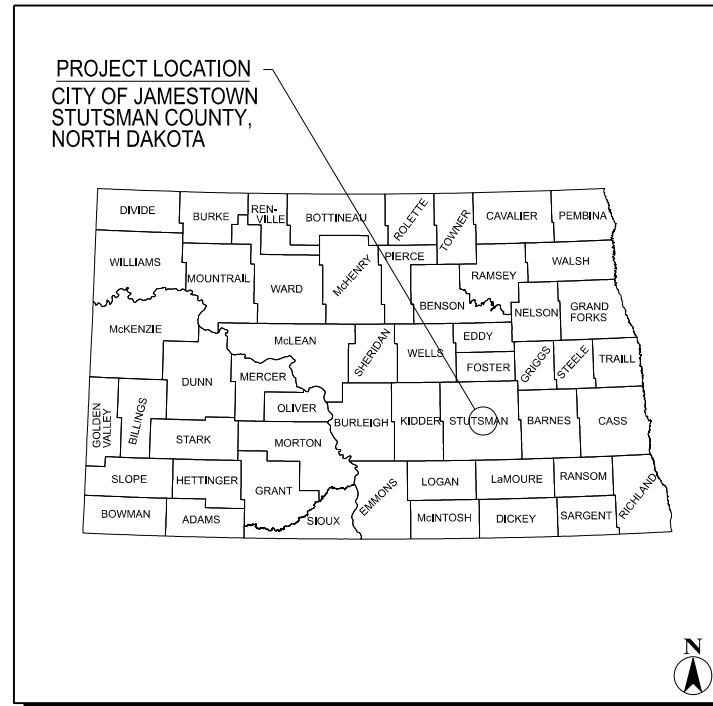
FOR

96" STORM SEWER REPLACEMENT PROJECT PHASE II

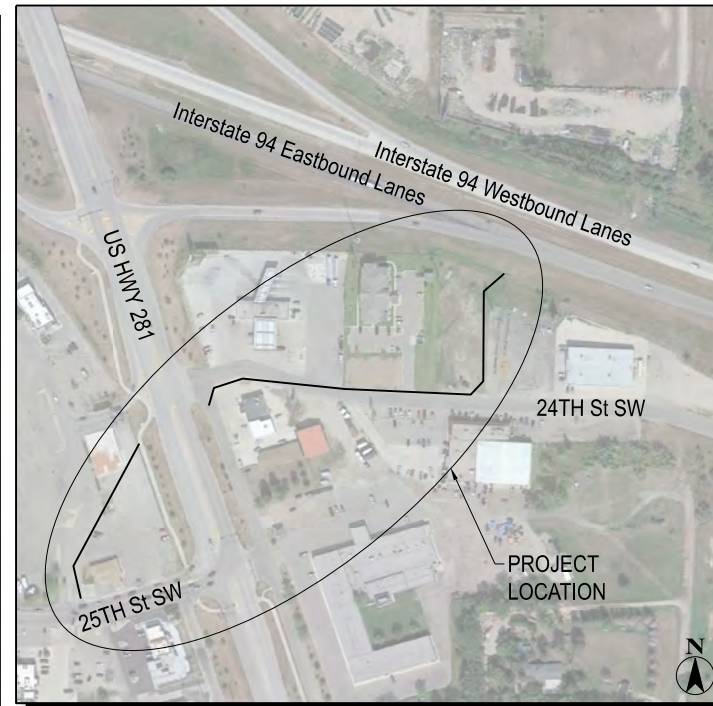
PREPARED FOR
CITY OF JAMESTOWN
JAMESTOWN, NORTH DAKOTA

INDEX OF DRAWINGS

SECTION NUMBER	SHEET NUMBER	SHEET TITLE
1	1	COVER SHEET
4	1-3	OVERVIEW
6	1-5	GENERAL NOTES
8	1	QUANTITIES
20	1-6	IE DETAILS
21	1-4	STRUCTURAL
40	1-2	REMOVALS
60	1-4	PLAN & PROFILE - STA 0+00 TO 22+00
100	1-5	CONSTRUCTION SIGNAGE & TEMP PEDESTRIAN ROUTE
D260	1	NDDOT SILT FENCE DETAILS
D261	1	NDDOT CURB & GUTTER AND VALLEY GUTTER DETAILS
D722	1-10	NDDOT STORM SEWER DETAILS
D748	1-2	NDDOT CURB & GUTTER AND VALLEY GUTTER DETAILS
D750	1-4	NDDOT SIDEWALKS AND DRIVEWAYS DETAILS
		THIS PLAN CONTAINS 47 SHEETS



LOCATION MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

APPROVED:

BY:

INTERSTATE ENGINEERING, INC.
PROJECT ENGINEER

This document
is preliminary
and not for
construction or
implementation
purposes.

REVISION NO.	DATE	BY	DESCRIPTION



CITY OFFICIALS

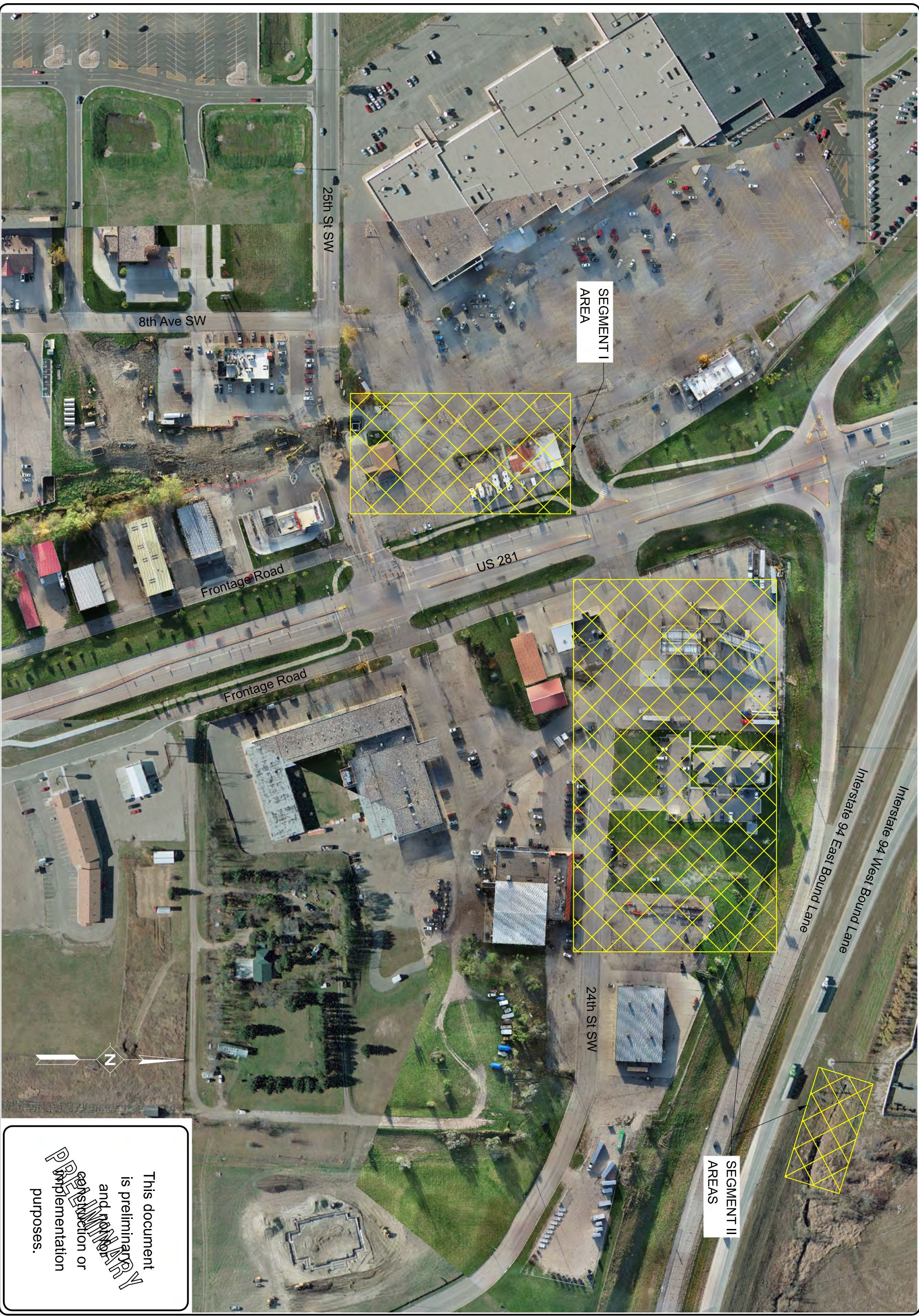
MAYOR.....DWAINE HENRICH
COUNCIL PERSON.....DAN BUCHANAN
COUNCIL PERSON.....BRIAN KAMLITZ
COUNCIL PERSON.....DAVE SCHLOEGEL
COUNCIL PERSON.....DAVE STEELE
CITY ADMINISTRATOR.....SARAH HELLEKSON
PUBLIC WORKS DIRECTOR.....TYLER MICHEL



Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota

1/23/2024 2:11:07 PM Jeth Headings X:\2023\EC00\EC23-00-100_June_96_975_Plane_1\01_CAD_EC230010008_Sheet04_001 SW Project_Segment_Overview.dgn



SEGMENT I
AREA

SEGMENT II
AREAS



This document is preliminary and not for construction or implementation purposes.

SECTION 4
SHEET 1



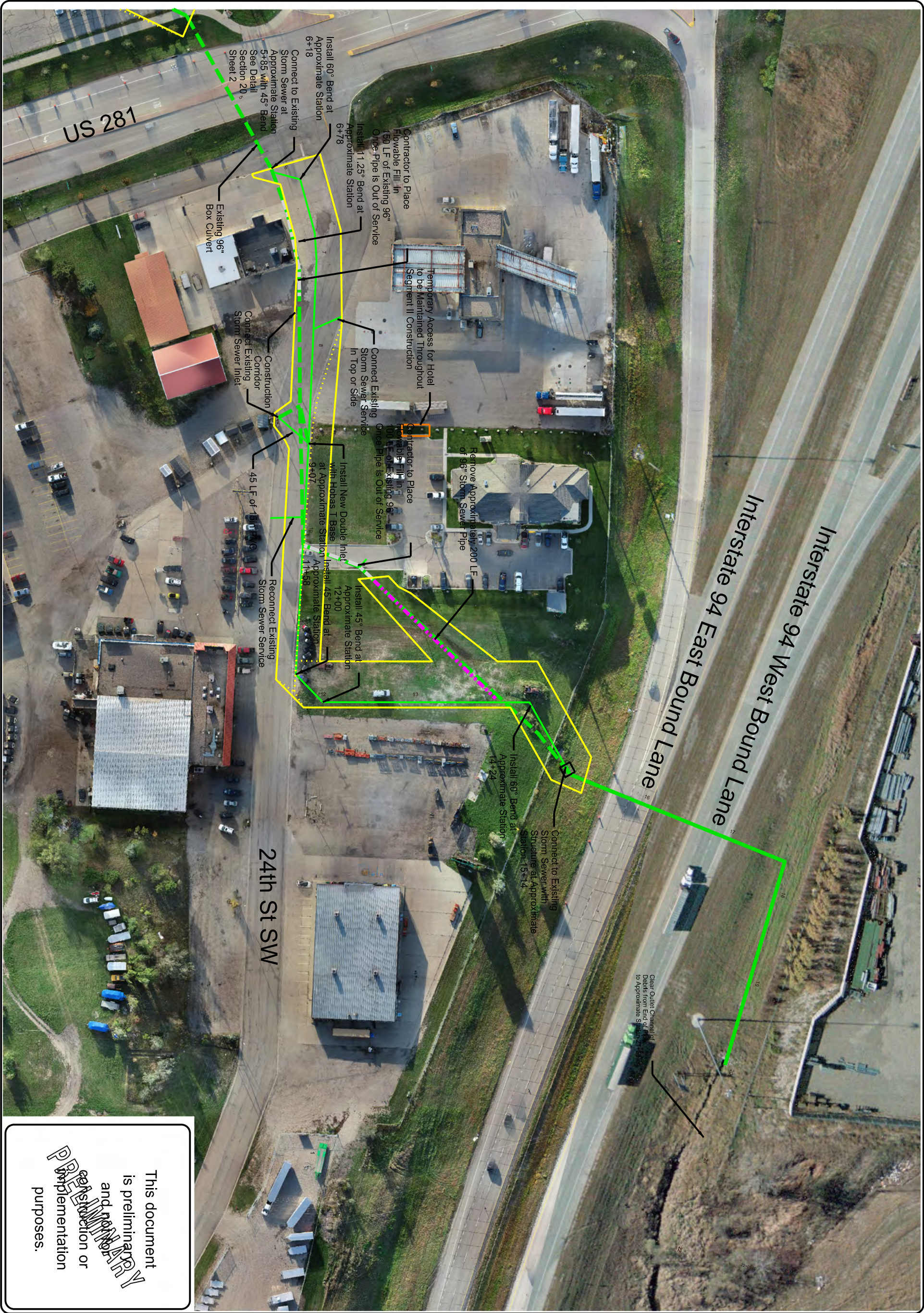
Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com
Offices in North Dakota, Minnesota, Montana and South Dakota

96" Storm Sewer Replacement Project Phase II
City of Jamestown
Jamestown, North Dakota

Project Segment Overview

Drawn By: JDH Surveyed By: PJ Project No: EC23-00-100
Checked By: TLD Designed By: DRH Date: December 2023


Rev No	Date	By	Description



1/25/2024 4:07:29 PM J:\d\h\eng\X2023\EC23-00-100_JWH_575_Plan\X2023\EC23-00-100_Sheet\004_003\SW_Cover\Map_Segment_II.dgn

This document is preliminary and for informational purposes only.

SECTION 4
 SHEET 3


INTERSTATE ENGINEERING
 Professionals you need, people you trust.

Interstate Engineering, Inc.
 P. O. Box 2035
 1903 12th Avenue SW
 Jamestown, ND 58402-2035
 Ph (701) 252-0234
 Fax (701) 252-0203
 www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota

96" Storm Sewer Replacement Project Phase II
 City of Jamestown
 Jamestown, North Dakota

Overview - Segment II

Drawn By: JDH	Surveyed By: PJ	Project No: EC23-00-100
Checked By: JWS	Designed By: DRH	Date: December 2023

Rev No	Date	By	Description

General Notes

1. The project is split into two Segments, I and II. Segment II can NOT be started until Segment I is completed. The existing Storm Sewer must remain operational in case of a water event. Contractor will be liable for maintaining this and responsible for any upkeep needed during a water event throughout the project. A water event is defined as any a water main break, a rain event greater than 0.1 inch in 24 hours, any kind of disaster such as a flood, or other acts of God.
2. Unless otherwise noted, the existing 96" shall be removed and back filled with native soils or may be abandoned in place with flowable fill. See Detail Sheet D3. No filling of the existing pipe may take place until a suitable, clear, path for the storm water is made.
3. Construction corridor for the project is FIFTY FEET (50') wide. The width is centered on the location of the new pipe. (25' each side) This was the guidelines for removals, replacements, and restoration pay items. Anything outside of this corridor damaged will not be paid without the approval of the Engineer.
4. Asphalt needing to be removed will be saw cut to ensure a clean edge.
5. Connect Existing Storm Sewer Services were taken from best data available at the time of design. Pipe sizes and depths may vary. Contractor to field verify. Any changes in pipe sizes will not be permitted without the approval of the Engineer.
6. When ordering Hobas pipe, note the lengths that are provided. It is not in 20' increments.
7. For connections to NDDOT Existing Pipe, Project number for I 94 East Bound Reconstruction is IM-2-094(004)258. US 281 Drainage Structure Replacement Project number is AC-HPU-NHU-2-281(030)066. On site pictures of tie in locations in Section 6 Sheets 2-5 of these plans.


This document
is preliminary
and not for
construction or
implementation
purposes.

Rev	Date	By	Description

96" Storm Sewer Replacement Project Phase II City of Jamestown Jamestown, North Dakota	
Project General Notes	
Drawn By: JDH	Surveyed By: PJ
Checked By: JWS	Designed By: DRH
Date: December 2023	Project No: EC23-00-100

Interstate Engineering, Inc.
1903 12th Avenue SW
Jamestown, ND 58402-2035
P.O. Box 2035
Fax (701) 252-0204
Ph (701) 252-0204
www.interstateeng.com

Professionals you need, people you trust.



Offices in North Dakota, Minnesota, Montana and South Dakota

SECTION 6
SHEET 1



This document is preliminary and not for construction or implementation purposes.

SECTION 40 SHEET 2



Interstate Engineering, Inc.
 P.O. Box 2035
 1903 12th Avenue SW
 Jamestown, ND 58402-2035
 Ph (701) 252-0234
 Fax (701) 252-0203
 www.interstateeng.com
 Offices in North Dakota, Minnesota, Montana and South Dakota

Removals - Segment II
 City of Jamestown
 Jamestown, North Dakota
 96" Storm Sewer Replacement Project Phase II

Drawn By: JWS	Designed By: DRH	Date: December 2023
Checked By: JWS	Surveyed By: PJ	Project No: EC23-00-100

Rev No	Date	By	Description

General Notes

Existing Bank Connection Point Pictures (Approximate Stationing 0+08)



Pic 1



Pic 2



Pic 3



Pic 4

This document is preliminary and not for construction or implementation purposes.

Rev No	Date	By	Description

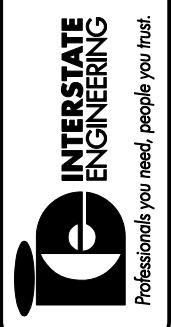
96" Storm Sewer Replacement Project Phase II
 J.D.H. P.J. EC23-00-100
 Jamestown, North Dakota DRH Date: December 2023

Project General Notes

Drawn By: J.D.H. Surveyed By: P.J. Project No: EC23-00-100
 Checked By: J.W.S. Designed By: DRH Date: December 2023

Interstate Engineering, Inc.
 P.O. Box 2035
 1903 12th Avenue SW
 Jamestown, ND 58402-2035
 Ph (701) 252-0234
 Fax (701) 252-0203
 www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota



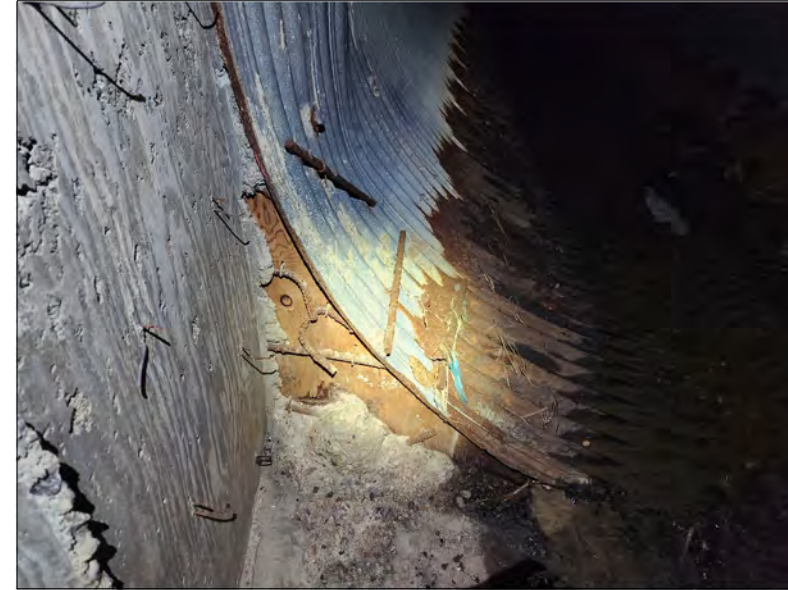
SECTION
 6
 SHEET
 2

General Notes

Existing US 281 West Side Connection Point Pictures (Approximate Stationing 3+94)



Pic 1



Pic 2



Pic 3



Pic 4

This document is preliminary and not for construction or implementation purposes.

Rev No	Date	By	Description

96" Storm Sewer Replacement Project Phase II
J.D.H. / J.W.S.
Jamestown, North Dakota

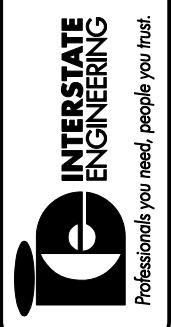
Project General Notes

Drawn By: J.D.H. P.J.
Checked By: J.W.S. D.R.H.

Project No: EC23-00-100
Date: December 2023

Interstate Engineering, Inc.
P.O. Box 2035
1903 12th Avenue SW
Jamestown, ND 58402-2035
Ph (701) 252-0234
Fax (701) 252-0203
www.interstateeng.com

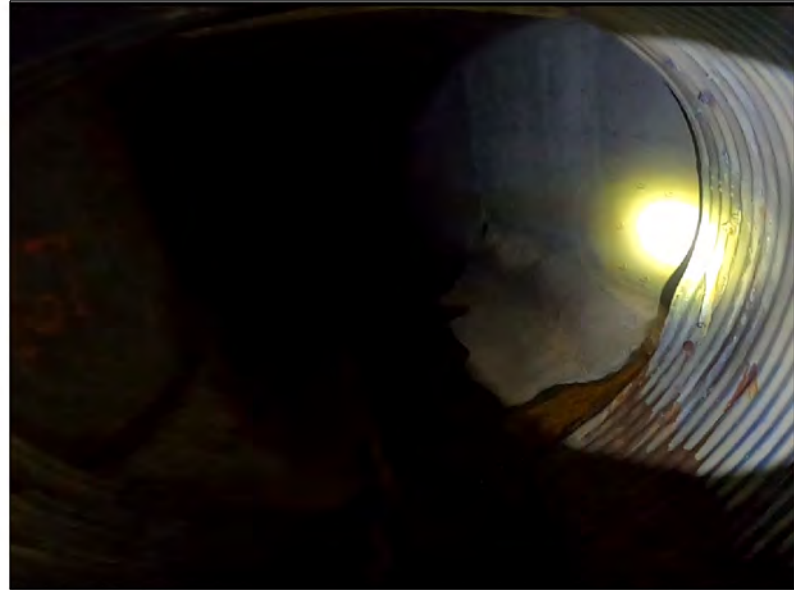
Offices in North Dakota, Minnesota, Montana and South Dakota



SECTION
6
SHEET
3

General Notes

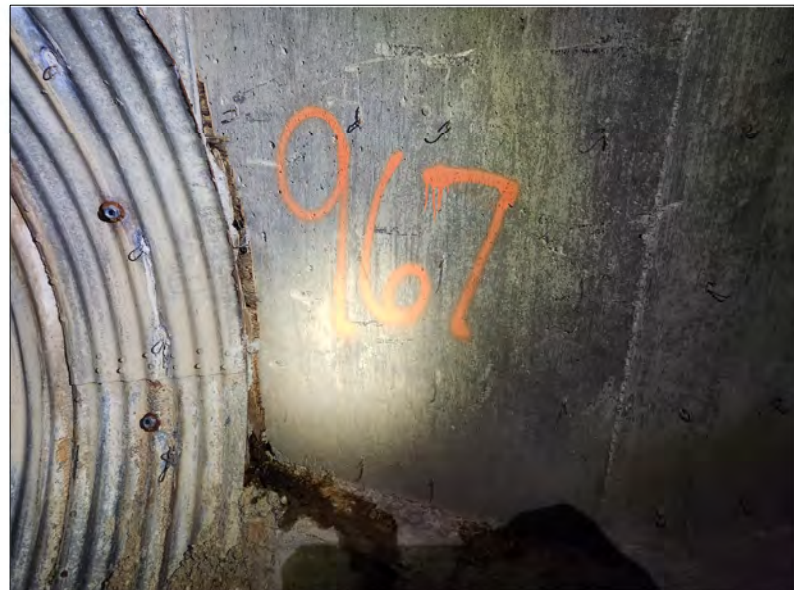
Existing US 281 East Side Connection Point Pictures (Approximate Stationing 5+85)



Pic 1



Pic 2



Pic 3



Pic 4

This document is preliminary and not for construction or implementation purposes.

Rev No	Date	By	Description

96" Storm Sewer Replacement Project Phase II
 Jamestown, North Dakota

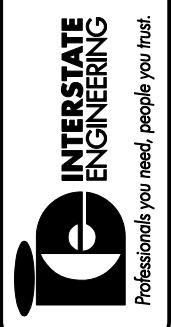
Project General Notes

Drawn By: JDH
 Surveyed By: PJ
 Checked By: JWS
 Designed By: DRH

Project No: EC23-00-100
 Date: December 2023

Interstate Engineering, Inc.
 P.O. Box 2035
 1903 12th Avenue SW
 Jamestown, ND 58402-2035
 Ph (701) 252-0234
 Fax (701) 252-0203
 www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota



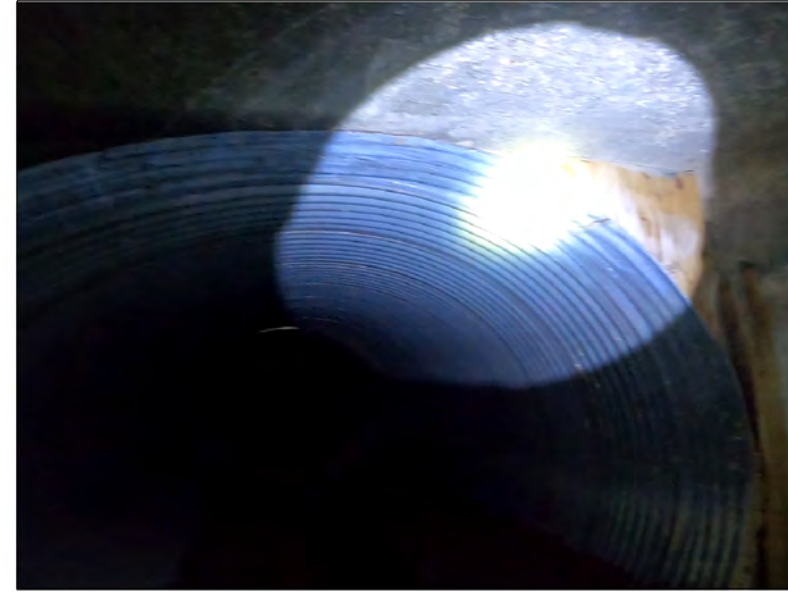
SECTION
 6
 SHEET
 4

General Notes

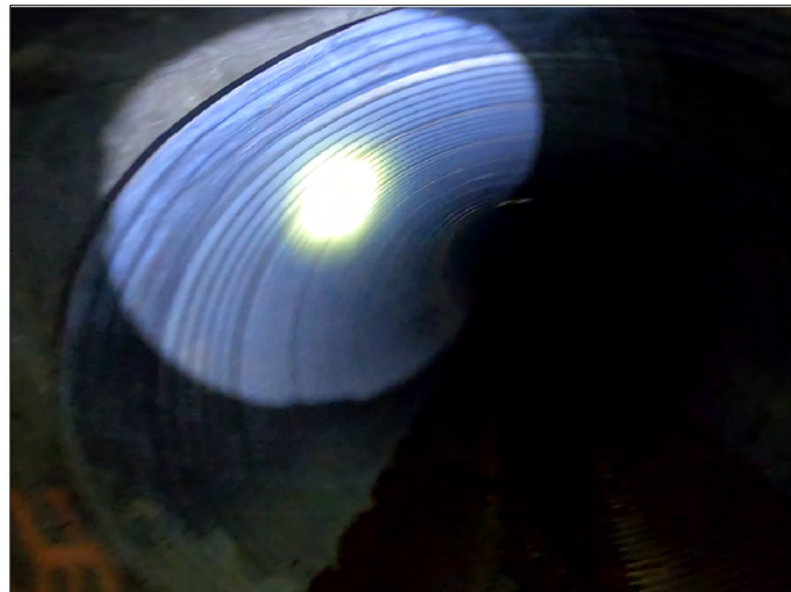
Existing I 94 South Side Connection Point Pictures (Approximate Stationing 15+14)



Pic 1



Pic 2



Pic 3



Pic 4

This document is preliminary and not for construction or implementation purposes.

Rev No	Date	By	Description

96" Storm Sewer Replacement Project Phase II
 Jamestown, North Dakota

Project General Notes

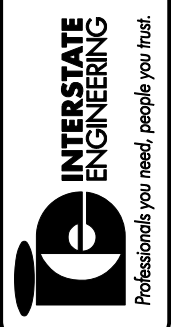
Drawn By: JJDH
 Checked By: JAWS

Surveyed By: PJL
 Designed By: DRH

Project No: EC23-00-100
 Date: December 2023

Interstate Engineering, Inc.
 P.O. Box 2035
 1903 12th Avenue SW
 Jamestown, ND 58402-2035
 Ph (701) 252-0234
 Fax (701) 252-0203
 www.interstateeng.com

Offices in North Dakota, Minnesota, Montana and South Dakota



SECTION
 6
 SHEET
 5

1082808 - Painted Woods Lake Flood Protection - Phase 2 - Dam

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Submitted
Stage: Final Application

Initial Submit Date: Apr 29, 2024 1:57 PM
Initially Submitted By: Joshua Hassell
Last Submit Date: Apr 30, 2024 10:29 AM
Last Submitted By: Joshua Hassell

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joshua Middle Name Hassell
First Name Last Name

Title:

Email*: joshua.hassell@mooreengineeringinc.com

Address*: 925 10th Avenue East
Suite 1
West Fargo North Dakota 58078
City State/Province Postal Code/Zip

Phone*: (701) 282-4692 Ext.
Phone
###-###-####

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

Comments:

Organization Information

Status*: Approved

Name*: McLean County Water Resource District

Organization Type*: Political Subdivision

Tax Id: 45-6002231

Organization Website:

Address*: 1237 Riverside Lane

Washburn North Dakota 58577
City State/Province Postal Code/Zip

Phone*: 701-400-7793 Ext.
###-###-####

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

Vendor ID:

PeopleSoft Supplier ID: 0000001350

Comments:

Location Code: REMIT

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Painted Woods Lake Flood Protection - Phase 2 - Channel

Sponsor(s)*: McLean County WRD

County*: McLean

City*: Washburn

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Rural Flood Control

Jurisdictions/Stakeholders

Involved*:

McLean County WRD

Describe the Problem*:

The Painted Woods Lake Watershed drains 305 square miles from two counties. The dam is beyond its service life and is in need of improvements to continue the existing benefits to state property.

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

A new control structure for the Painted Woods Lake will be built to maintain the water levels. In addition, the control structure will focus on recreational activities and add fishing piers and an access trail to the area.

For this project,

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

**What is the Current Estimated
Population?***: 1300

For this project,

**What is the Benefited
Population?***: 1300

**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?***: 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*: 09/2023

Design Completion*: 12/2024

Bid*: 03/2025

Construction Start*: 06/2025

Construction Completion*: 10/2025

Explain Additional Timeline Issues*:

NA

Consulting Engineer*: AJ Tuck

Engineer Telephone Number*: 701-391-1041

Engineer Email*: aj.tuck@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Lynn Oberg 04/29/2024
First Name Last Name Date

Address*: 1201 22S Ave SW
Address Line 1
Address Line 2
Washburn North Dakota 58577-4335
City State Zip Code

Telephone Number*: 701-400-7793

Sponsor Email*: obergm@westriv.com

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

Authorized Individual*: Lynn Oberg 04/29/2024
First Name Last Name Date
Title/Position/Authority*: Chairman

Documentation

Documentation

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

[CLICK HERE to see examples.](#)

Project Specific Map Cost Share 2024 - Dam.pdf

Must Include Project Location in State

Using an Inset Map and

Distance/Direction to Nearest

Community

*:

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: 22649_2024_sfn_61801_doc_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?: Yes

[CLICK HERE for Economic Analysis Instructions.](#)

Economic Analysis:

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:

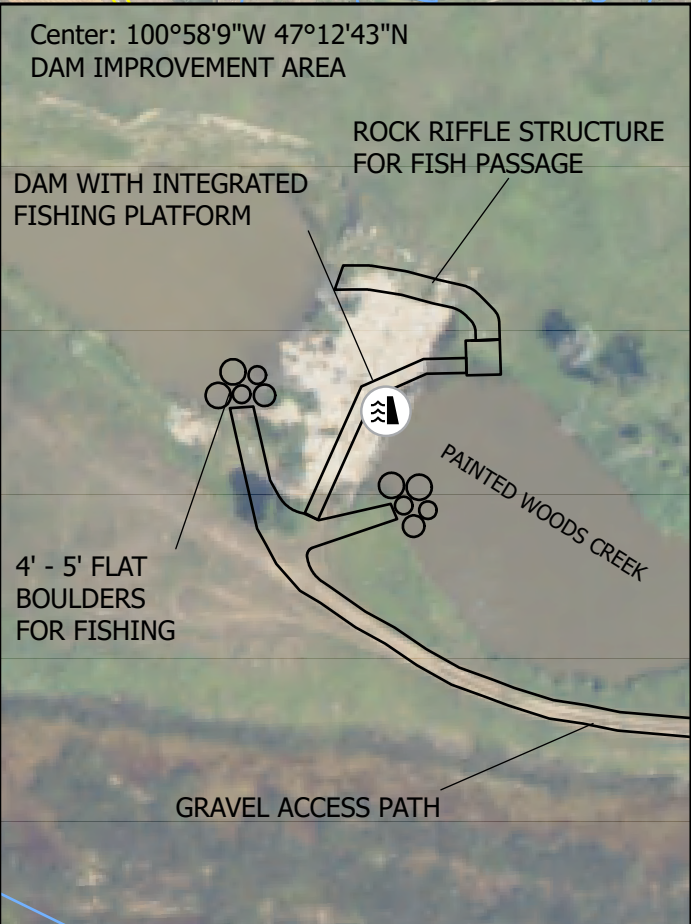
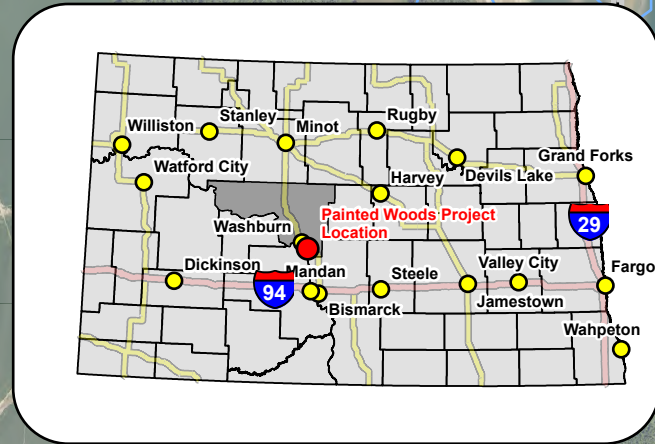
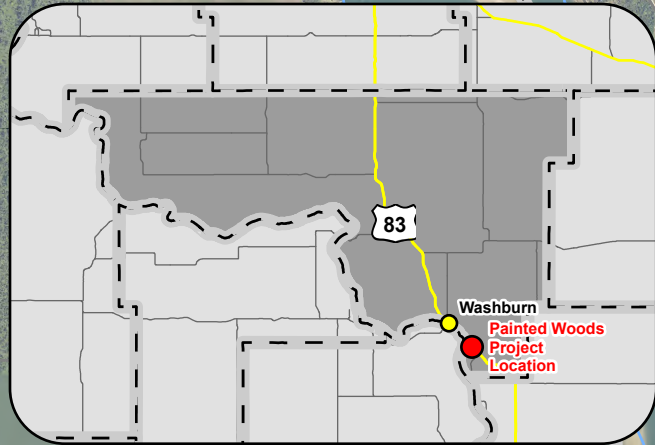
Other Applicable Document:

Other Applicable Document:

Sources

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

Source	If Other, Specify Funding Source	State Fiscal			Total Cost	Type	Term	Interest Rate
		Year 1 July to June	Year 2 July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Pre-Construction		\$132,400.00	\$0.00	\$0.00	\$132,400.00	Grant	0.00	0.00
Other	Local	\$88,250.00	\$0.00	\$0.00	\$88,250.00		0.00	0.00
		\$220,650.00	\$0.00	\$0.00	\$220,650.00			



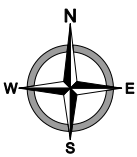
- County Boundaries
- Streams and Rivers
- Dam
- RRV Water Supply Intake



Improvements to failing dam infrastructure

**22649 - PAINTED WOODS LAKE FLOOD PROTECTION - PHASE 2
ND SWC COST SHARE REQUEST - DAM
MCLEAN COUNTY, NORTH DAKOTA**

Created By: ZAC Date Created: 02/27/2023 Date Saved: 03/21/24 Date Plotted: N/A Date Exported: 03/21/24
 Plotted By: Parcel Date: XXXXX/20 Aerial Image: 2022 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: WGS 1984 Web Mercator Auxiliary Sphere Vertical Datum: NAVD1988
 T:\Projects\22600\22649\10_ArcPro\22649_SWC_Application.aprx



Painted Woods - Rock Riffle Dam

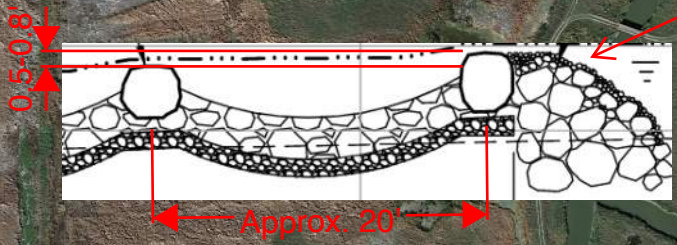
DWR Date Received : 5/3/24

Est. Drop in height 0.5'-0.8' from riffle to riffle

Draw down pipe control structure

Draw down pipe for lake management. (size to be determined)

Upstream end will likely include sheetpile to control peak flows and concentrate low flows to allow for fish passage.





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

DWR Date Received : April 29, 2024

Project:	Painted Woods Lake Flood Protection - Phase 2 - Dam
Sponsor:	McLean County WRD
Contact:	Lynn Oberg, Chairman
Phone:	701-400-7793
Engineer:	AJ Tuck
Phone:	701-282-4692

Total Cost :	\$ 220,650	Date:	April 19, 2024
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 220,650	Cost-Share \$	\$ 132,400
Local Cost :	\$ 88,250	Preconstruction :	\$ 132,390
		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				\$ -	60%	\$ -
2	#DIV/0!	Bonding				\$ -	60%	\$ -
3	#DIV/0!	Insurance				\$ -	60%	\$ -
4	#DIV/0!					\$ -	60%	\$ -
5	#DIV/0!					\$ -	60%	\$ -
6	#DIV/0!					\$ -	60%	\$ -
7	#DIV/0!					\$ -	60%	\$ -
8	#DIV/0!					\$ -	60%	\$ -
9	#DIV/0!					\$ -	60%	\$ -
10	#DIV/0!					\$ -	60%	\$ -
11	#DIV/0!					\$ -	60%	\$ -
12	#DIV/0!					\$ -	60%	\$ -
13	#DIV/0!					\$ -	60%	\$ -
14	#DIV/0!					\$ -	60%	\$ -
15	#DIV/0!					\$ -	60%	\$ -
16	#DIV/0!					\$ -	60%	\$ -
17	#DIV/0!					\$ -	60%	\$ -
18	#DIV/0!					\$ -	60%	\$ -
19	#DIV/0!					\$ -	60%	\$ -
20	#DIV/0!					\$ -	60%	\$ -
21	#DIV/0!					\$ -	60%	\$ -
22	#DIV/0!					\$ -	60%	\$ -
23	#DIV/0!					\$ -	60%	\$ -
24	#DIV/0!					\$ -	60%	\$ -
25	#DIV/0!					\$ -	60%	\$ -
26	#DIV/0!					\$ -	60%	\$ -
		Construction Sub-Total				\$ -	60%	\$ -
	0.0%	Contingency				\$ -	60%	\$ -
	0.0%	Construction Total				\$ -	60%	\$ -
Preconstruction Costs								
27	#DIV/0!	Final Design	1	LS	166,400.00	\$ 166,400	60%	\$ 99,840
28	#DIV/0!	Bidding / Negotiations	1	LS	9,750.00	\$ 9,750	60%	\$ 5,850
29	#DIV/0!	Geotechnical Investigations	1	LS	29,250.00	\$ 29,250	60%	\$ 17,550
30	#DIV/0!	Permitting	1	LS	15,250.00	\$ 15,250	60%	\$ 9,150
31	#DIV/0!					\$ -	60%	\$ -
	100.0%	Preconstruction Total				\$ 220,650	60%	\$ 132,390
Construction Engineering Costs								
32	#DIV/0!					\$ -	60%	\$ -
33	#DIV/0!					\$ -	60%	\$ -
34	#DIV/0!					\$ -	60%	\$ -
35	#DIV/0!					\$ -	60%	\$ -
36	#DIV/0!					\$ -	60%	\$ -
	0.0%	Construction Engineering Total				\$ -	60%	\$ -
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	0.0%					\$ -	0%	\$ -
43	0.0%					\$ -	0%	\$ -
44	0.0%					\$ -	0%	\$ -
45	0.0%					\$ -	0%	\$ -
	0.0%	Other Ineligible Total				\$ -	0%	\$ -
	100.0%	Total				\$ 220,650		
		Eligible Total				\$ 220,650	60%	\$ 132,390
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 220,650	60%	\$ 132,390

* 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.

Recommended Project Type: Recreation
\$220,650 Project costs
x 40% Recreation cost-share
\$88,260 Recommended cost-share





IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF RECLAMATION
Dakotas Area Office
304 East Broadway Avenue
Bismarck, ND 58501



DK-4000
2.2.4.21

Mr. Lynn Oberg
Chairman
McLean County Water Resource District
1237 Riverside Lane
Washburn, ND 58577
obergm@westriv.com

Subject: Painted Woods Lake Water Control Weir, Garrison Diversion Unit, Pick-Sloan
Missouri Basin Program

Dear Mr. Oberg:

I am writing in response to your consulting engineer's request for a letter of support for McLean County Water Resource District Board's (Board) proposed project in the Painted Woods Lake Area. The Board's proposal includes replacing the existing control weir constructed to restore Painted Woods Lake to its historic elevation. Reclamation supports the Board's weir replacement project with concurrence from the U.S. Fish and Wildlife Service (Service) and North Dakota Game and Fish Department (Department).

All maintenance of the existing weir structure is included as part of the overall management of the Painted Woods Lake Wildlife Development Area managed by the Service and the Department. All plans for construction, operations and maintenance of a replacement weir structure should be discussed with the Service and the Department.

Please contact Mr. Nathan Kraft, Civil Engineer, at (701) 221-1254 or at NKraft@usbr.gov and/or Mr. Darrin Goetzfried, Facilities and Engineering Division Manager, at (701) 221-1272 or at DGoetzfried@usbr.gov if you have any questions. If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Sincerely,

JOSEPH HALL Digitally signed by JOSEPH HALL
Date: 2023.06.07 10:48:58 -05'00'

Joseph E. Hall
Area Manager

cc: See next page

INTERIOR REGION 5 • MISSOURI BASIN

KANSAS, MONTANA*, NEBRASKA, NORTH DAKOTA, SOUTH DAKOTA

* PARTIAL

cc: Ms. Kathy Baer
Supervisory Wildlife Refuge Specialist
U.S. Fish and Wildlife Service
3275 11th St NW
Coleharbor, ND 58531
kathy_baer@fws.gov

Mr. Dan Halstad
Wildlife Resource Management Supervisor
North Dakota Game and Fish Department
406 Dakota Avenue
Riverdale, ND 58565-0506
dkhalstead@nd.gov

Mr. Duane DeKrey
General Manager
Garrison Diversion Conservancy District
P.O. Box 140
Carrington, ND 58421
duaned@gdcd.org
mri@gdcd.org

Mr. Scott Peterson
Deputy Director
North Dakota Game and Fish Department
100 North Bismarck Expressway
Bismarck, ND 58501-5095
speterso@nd.gov

Mr. AJ Tuck, P.E.
Project Manager
Moore Engineering, Inc.
4503 Coleman Street, Suite 105
Bismarck, ND 58503
aj.tuck@mooreengineeringinc.com



United States Department of the Interior

BUREAU OF RECLAMATION
Great Plains Region
Dakotas Area Office
P.O. Box 1017
Bismarck, ND 58502-1017

IN REPLY REFER TO:

DK-5000

MAR 30 2017

Mr. Todd Frerichs, Project Leader
Audubon National Wildlife Refuge
3275 11th Street NW
Coleharbor, ND 58531-9419

Subject: Painted Woods Weir Operation and Maintenance

Dear Mr. Frerichs:

On July 28, 2016, the Bureau of Reclamation, U.S Fish and Wildlife Service (Service), and North Dakota Game and Fish Department (Department) held a meeting at Audubon National Wildlife Refuge headquarters to discuss Painted Woods. At this meeting, Reclamation informed the group that the Painted Woods weir would no longer be maintained separately by Reclamation. Future maintenance would need to be completed by the Service or Department using standard O&M funds that are transferred from Reclamation to the Service annually.

Prior to transferring responsibility to the Service and Department, Reclamation committed to repairing the walkway and adding a safety cable. In a letter dated August 16, 2016, Reclamation committed to the McLean County Water Resource District (Board) to haul up to 4,000 cubic yards of rip-rap that could be used to repair the existing weir or could be used by the Board for construction of a new weir at Painted Woods.

The decision to construct a new weir proposed by the Board has been delayed until funding sources are located. Due to the heavy snow this year and high runoff expected, it was decided in calls to the Department, Service and Board that the weir should be protected from damage and have rip-rap placed on the downstream side. The Service secured a 404 permit from the Corps of Engineers and Reclamation had Garrison Conservancy District (GDCD) haul and place 690 cubic yards of rip-rap to stabilize the weir.

Reclamation has fulfilled its commitment to repair the weir and is turning over operation and maintenance of the weir to the Service and Department. If the Board finds funding to replace the

Subject: Painted Woods Weir Operation and Maintenance

weir within two years of the date of this letter, Reclamation will haul and stockpile the remaining 3,310 cubic yards of rip-rap.

Sincerely,

ARDEN FREITAG

Arden Freitag
Area Manager

cc: Mr. Lyn Oberg, Chairman
McLean County Water Resource District
1237 Riverside Lane
Washburn, ND 58577

Mr. Terry Steinwand, Director
100 North Bismarck Expressway
Bismarck, ND 58501-5095

bc: DK-4100 (Goetzfried, Marohl), DK-5000 (Hall, Fairbanks, Gue)

WBR:WFairbanks:JDubois:3/29/17:701-221-1284

V:\Public\DK5000\Correspondence\Painted Woods weir let (1) 3-29-17.docx

1083221 - Targeted Light Detection and Ranging (LiDAR) Collection

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 29, 2024 11:31 AM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Aaron Carranza
Funding Opportunity Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Submitted	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. Aaron Carranza
Salutation First Name

Middle Name Carranza
Last Name

Title:
DWR Regulatory Division Director

Email*: acarranza@nd.gov

Address*: 900 E Boulevard Avenue

Organization Information

Status*: Approved

Name*:
ND Department of Water Resources

Organization Type*: State Government

Tax Id:

Organization Website:

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*: Quality Level 2 LiDAR Collection

Sponsor(s)*: ND Department of Water Resources

County*: Multiple

City*: Bismarck

Description of Request*: New

If Study, What Type: Other

If Project/Program, What Type:

Jurisdictions/Stakeholders Involved*:

North Dakota Department of Water Resources, North Dakota Department of Mineral Resources, North Dakota Geological Survey

Describe the Problem*:

As land use and energy development matures throughout western North Dakota, one area of focus the Department of Mineral Resources ? Geological Survey has identified is updating their Phase 3 Landslide Mapping effort. The Geological Survey has been identifying landslides for nearly 20 years. Initially completed through aerial imagery comparison, the use of LiDAR comparison has enhanced the Geological Survey mapping abilities.

In most focus areas for this effort, the Geological Survey was able to compare previously collected North Dakota Quality Level (QL) 3 LiDAR with recently collected QL 2 LiDAR to gain a surface-to-surface comparison over time. Due to issues associated with the quality of the QL3 LiDAR data in Williams and Ward Counties, this comparison is not possible.

As a result of the QL3 issues in Williams and Ward Counties, these counties were prioritized at the start of the statewide QL2 collection effort in 2016.

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

The Department of Water Resources has an active contract to collect LiDAR in North Dakota, currently called Phase 11 and 12 James River QL2 Collect with the contractor Fugro. In discussions between Fugro and DWR, a contract extension and expansion would be an efficient way to collect additional data in Williams and Ward Counties in fall 2024.

The majority of North Dakota has a QL3 to QL2 collection year difference between five (5) and 13 years. By facilitating a second QL2 collection in Williams and Ward Counties eight (8) years after the first QL2 collection, the LiDAR-to-LiDAR landslide mapping initiative of the Geological Survey would then be supported in a similar time difference as the rest of the state.

The Geological Survey has internal capacity to review the Williams and Ward County LiDAR datasets beginning mid-2025, which aligns with LiDAR collection of Williams and Ward in fall 2024.

For this project,

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

What is the Current Estimated Population?* 108608

For this project,

What is the Benefited Population?* 779261

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?* :	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?* :	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? No
 (Example: Hazard Mitigation Grant Program)
 *:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 5/2025
Design Completion*: N/A
Bid*: N/A
Construction Start*: 10/2024
Construction Completion*: 10/2024

Explain Additional Timeline Issues*:

The Geological Survey staff estimates that their resources would not allow the Phase 3 Landslide Mapping effort to move forward until mid-2025 at the earliest.

For the Fugro contracted work, Williams and Ward Counties would be planned to be flown in fall 2024 (assuming favorable weather and ground conditions) with data delivery expected during the same mid-2025 timeframe. Williams County would be priorities by Geological Survey first, followed by Ward County.

Consulting Engineer*: N/A
Engineer Telephone Number*: 701-328-4813
Engineer Email*: acarranza@nd.gov

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Aaron Carranza 04/29/2024
 First Name Last Name Date
Address*: 1200 Memorial Highway
 Address Line 1
 Address Line 2
 Bismarck North Dakota 58504-5262
 City State 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*: Yes

Authorized Individual*: Aaron Carranza 04/29/2024
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 ND_Landslides.pdf
 Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
 *:

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-2.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): No

Sources

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

Source	If Other, Specify Funding Source	State Fiscal			Beyond Current Biennium	Total Cost Type	Term	Interest Rate
		Year 1 July to June	State Fiscal Year 2 July to June	Year 2				
Department of Water Resources Cost Share Pre-Construction		\$0.00	\$1,500,000.00	\$0.00	\$1,500,000.00	Grant	0.00	0.00

\$0.00 \$1,500,000.00 \$0.00 \$1,500,000.00

Areas of Landslides in North Dakota

Fred J. Anderson, Christopher A. Maike,
Levi D. Moxness, Edward C. Murphy,
Navin Thapa, Benjamin C. York
2023

Landslide Deposits
A mass of material that has moved downslope. Includes earth flows, slumps, and areas of soil creep.

DISCUSSION

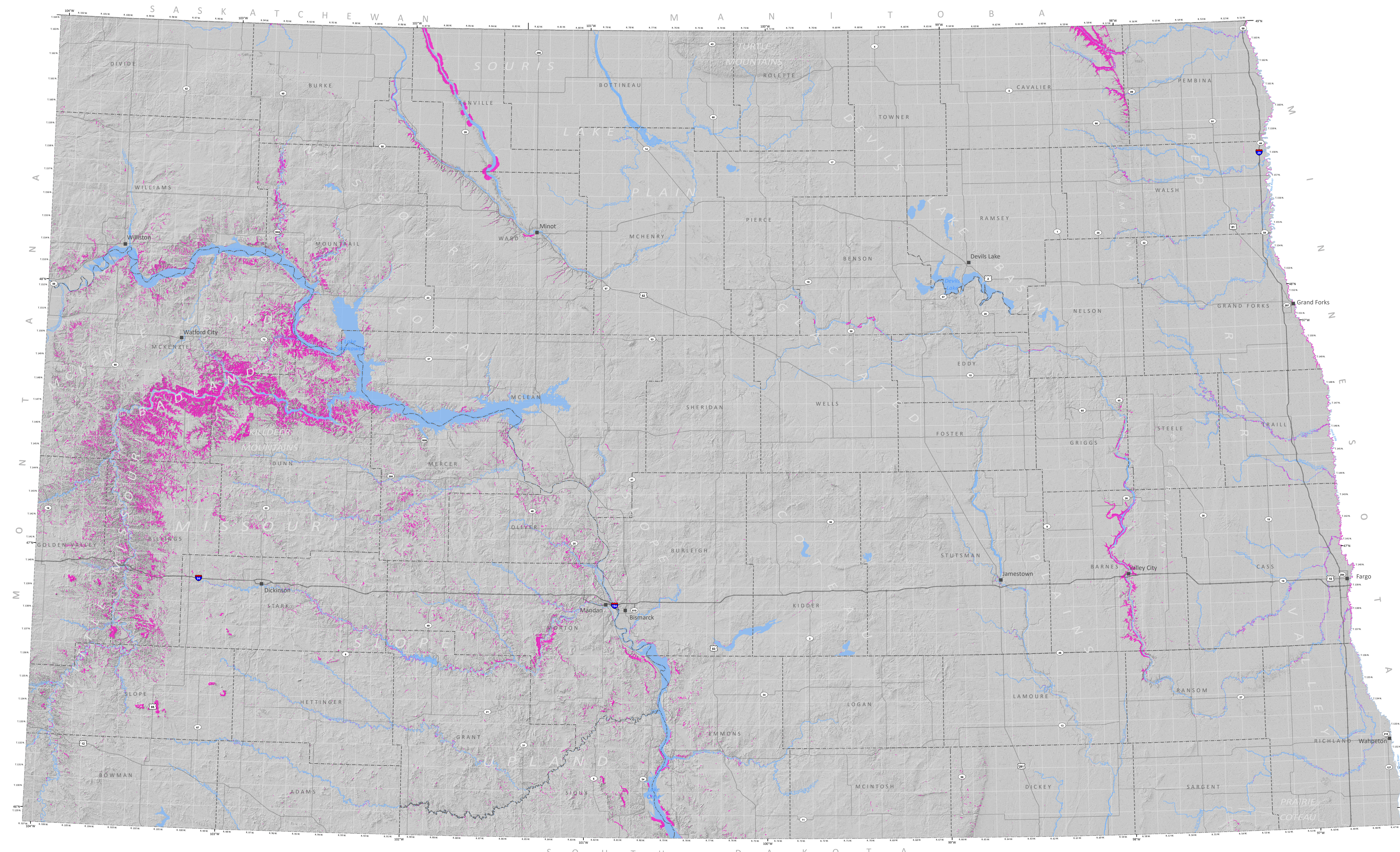
The landslides and landslide complexes depicted on this map were delineated using historical aerial photographs, recent digital aerial imagery, and hillshade models produced from Light Detection and Ranging (LiDAR) elevation data. These landslide areas were digitally mapped between 2016 and 2023 using Geographic Information Systems (GIS) platforms at variable scales and published at a scale of 1:24,000 in 1,464 individual 7.5' quadrangle maps that cover the state. During this inventory 58,891 landslide areas were identified from their surface geomorphology captured in the most recent LiDAR collections. The actual number of individual landslide areas is likely to be somewhat higher since many of these areas were mapped as landslide complexes which may contain several individual slides.

Historical aerial photography utilized in the initial identification of landslide areas consisted of 1:20,000 paper photographs from the U.S. Department of Agriculture's flights spanning the years from 1952 to 1965. Recent aerial imagery from the National Agricultural Imagery Program (NAIP), ranging primarily from 1997 to 2022, was also reviewed when available either in the desktop mapping environment or within the Google Earth platform. NAIP high resolution satellite imagery was also overlain on assorted elevation datasets. Shaded relief (hillshade) models, created from QL2 and QL3 LiDAR digital elevation datasets collected between 2008 and 2017, were used to update previous inventory mapping where only aerial photos were used. These models served as the basemap for final inventory mapping.

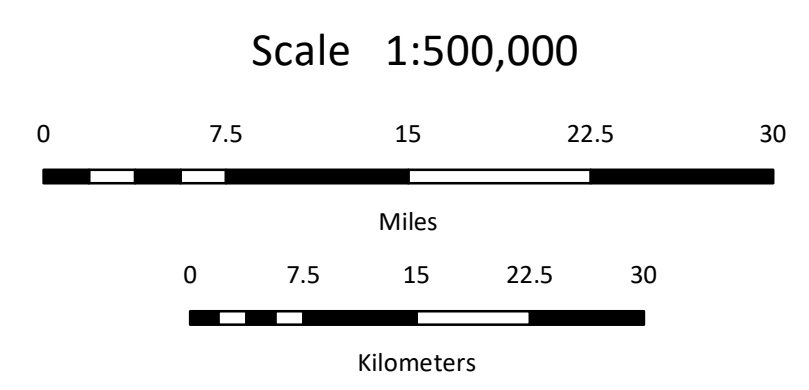
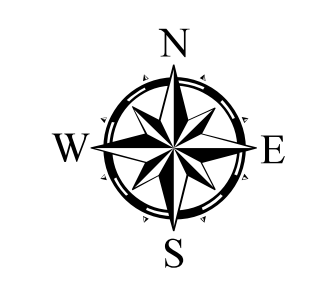
Throughout the state, regardless of the surface lithology, landslides of varying sizes occur along the edges of floodplains where fluvial erosion has undermined the base of the valley walls. Slopes also become oversteepened during human earthwork, especially along old railroad and road cuts, excavations for buildings, or well pads at the base of slopes. This activity can compromise previously stable slopes or reactivate older slope failures, especially portions of larger landslides where glacial meltwater carved deep ravines into bedrock. In western North Dakota, ice age downcutting by the Missouri River and its tributaries exposed steep outcrops of Paleocene sandstone, siltstone, mudstone, and lignite. These rocks are usually weakly cemented and prone to failure in large rotational slumps with well-defined head scarps and toes. This is common in the Little Missouri badlands, where landslide complexes can stretch uninterrupted for several miles.

In eastern North Dakota, exposures of bedrock are rare as repeated glaciations have dampened much of the topography and covered it in glacial sediment. Conversely, outburst floods cut deep meltwater trenches into Cretaceous shales in the Pembina Gorge and Sheyenne River Valley. Shale, claystone, and mudstone, as well as sediment rich in swelling clays, are the weakest and most failure-prone lithologies in the state, especially where they occur in steep slopes. Even the very moderate slopes of eastern North Dakota frequently fail where they occur in expansive glacial lake clays, mostly along rivers and streams and engineered slopes in the Red River Valley.

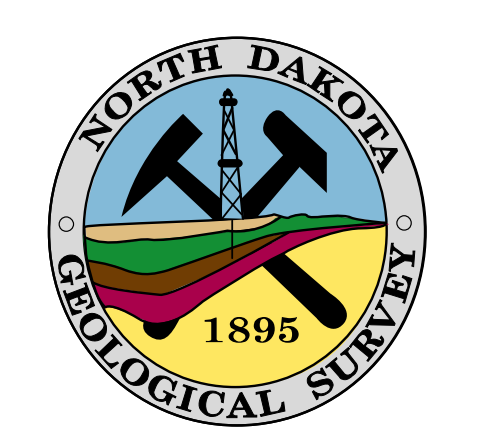
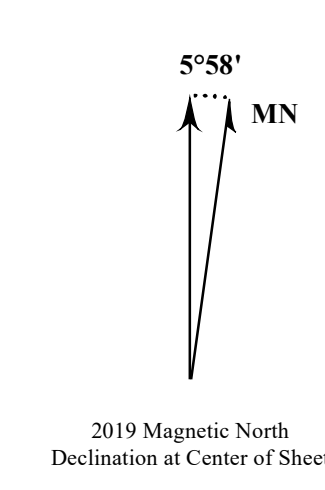
Landslides in North Dakota are thought to range in age from the Pleistocene to recent, although some large slumps around the major buttes in southwestern North Dakota could be older. Slump blocks become increasingly unconsolidated through time, often breaking down into complexes of smaller landslides or eventually stabilizing and becoming overprinted by colluvium (slopewash). Smaller landslides along active rivers can quickly erode away. New landslide activity continues to be identified as NDGS mapping progresses from inventory mapping into temporal analysis through the interpretation of repeat LiDAR data sets. This map represents the first comprehensive landslide mapping inventory completed for the state of North Dakota.



Expressway ——— Secondary Hwy
Interstate Route US Route State Route
Water ——— Counties



Lambert Conformal Conic Projection
Standard Parallel 47°0'0"N
North American 1983 Datum
Central Meridian 100°15'0"W





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

DWR Date Received : April 29, 2024

Project:	Targeted LiDAR Acquisition: Williams and Ward County
Sponsor:	Department of Water Resources
Contact:	Aaron Carranza, Regulatory Division Director
Phone:	701_328_4813
Engineer:	N/A
Phone:	N/A

Total Cost :	\$ 1,500,000	Date:	April 29, 2024
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 1,500,000	Cost-Share \$	\$ 1,500,000
Local Cost :	\$ -	Preconstruction :	\$ -
		Construction :	\$ 1,500,000

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

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	#DIV/0!	Mobilization			- \$	-	100%	\$ -
2	#DIV/0!	Bonding	0		- \$	-	100%	\$ -
3	#DIV/0!	Insurance	0		- \$	-	100%	\$ -
4	#DIV/0!		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		1,500,000.00 \$	1,500,000	100%	\$ 1,500,000
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				\$ 1,500,000	100%	\$ 1,500,000
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				\$ 1,500,000		
		Eligible Total				\$ 1,500,000	100%	\$ 1,500,000
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 1,500,000	100%	\$ 1,500,000

* 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.

J 3

1083201 - DWR/USGS COOPERATIVE MONITORING PROGRAM FY-2025

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 25, 2024 11:43 AM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Joseph Nett
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Submitted	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation Joseph
First Name
Henry George Nett
Middle Name Last Name

Title: Hydrologist Manager

Email*: jhgnett@nd.gov

Address*: 1200 Memorial Highway

Organization Information

Status*: Approved

Name*: ND Department of Water Resources

Organization Type*: State Government

Tax Id:

Organization Website:

Address*: 900 E Boulevard Ave

	Bismarck North Dakota		Bismarck North Dakota
	City State/Province		City State/Province
58504		58505-_____	
Postal Code/Zip		Postal Code/Zip	
Phone*:	701-328-2941 Ext.	Phone*:	701-328-4952 Ext.
	Phone		###-###-####
	###-###-####		
Fax:	###-###-####	Fax:	###-###-####
Comments:		Vendor ID:	
		PeopleSoft	
		Supplier ID:	
		Comments:	
		Location	
		Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: DWR/USGS COOPERATIVE MONITORING PROGRAM FY-2025

Sponsor(s)*: USGS

County*: Statewide

City*: BISMARCK

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Other

Jurisdictions/Stakeholders Involved*:

Cooperative - Statewide hydrologic monitoring program with the US Geological Survey

Describe the Problem*:

The stream gage network provides streamflow data that are needed for a variety of applications including the design of flood control structures, bridges, culverts, general water resource planning, floodplain mapping, water management and permitting. Many of the gaging stations provide real-time stream gage data which is crucial in responding to flood events, appropriation, and regulatory decisions.

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

This is an ongoing cooperative data collection program that provides baseline streamflow data for North Dakota's major streams and rivers such as flow rate and volume, as well as stream and lake water quality monitoring.

For this project,

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

What is the Current Estimated Population?*: 800000

For this project,

What is the Benefited Population?*: 800000

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? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 07/2025

Design Completion*: 00/0000

Bid*: 00/0000

Construction Start*: 00/0000

Construction Completion*: 00/0000

Explain Additional Timeline Issues*:

Ongoing project that will run from July 1, 2024 - June 30, 2025

Consulting Engineer*: Andrew Nygren

Engineer Telephone Number*: 701-328-1069

Engineer Email*: anygren@nd.gov

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Joseph Nett 04/25/2024
 First Name Last Name Date

Address*: 1200 Memorial Highway
 Address Line 1
 Address Line 2
 Bismarck North Dakota 58504-5262
 City State Zip Code

Telephone Number*: 701-328-2941

Sponsor Email*: jhgnett@nd.gov

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

Authorized Individual*: Andrew Nygren 04/25/2024
 First Name Last Name Date

Title/Position/Authority*: DWR Director of Appropriations

Documentation

Documentation

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

CLICK HERE to see examples.

Project Specific Map USGS Gage Map.png

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

Are You Seeking Department of Water Resources Cost-Share?* No

Attach Your Main Street Champion Designation from North Dakota's Department of Commerce (NDDC):

Has Your Project Been Identified as an Integral Part of a Completed Comprehensive Planning Effort or Action Plan That Was Developed Through the NDDC Partners in Planning Program?:

Attach Completed Comprehensive Plan:

Engineer's Estimate of Probable Cost NDDWR_FY25.pdf

Separate Project Components by Type (Storm Sewer, Sanitary Sewer and Associated Roads, Drinking Water and Associated Roads, and Roads)
:

Signed Plans and Specifications For Bidding:

[CLICK HERE for Life Cycle Cost Analysis Instructions and Current Version, as Shown on Title Tab.](#)

Life Cycle Cost Analysis:

[CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.](#)

Capital Improvement Plan SFN 61938:

Asset Inventory Assessment:

Approved Drainage Permit:

Results Of Positive Assessment Vote:

Sediment Analysis:

Acquisition Plan:

CLICK HERE for Economic Analysis Instructions.

Economic Analysis:

Feasibility/Engineering Study

Material:

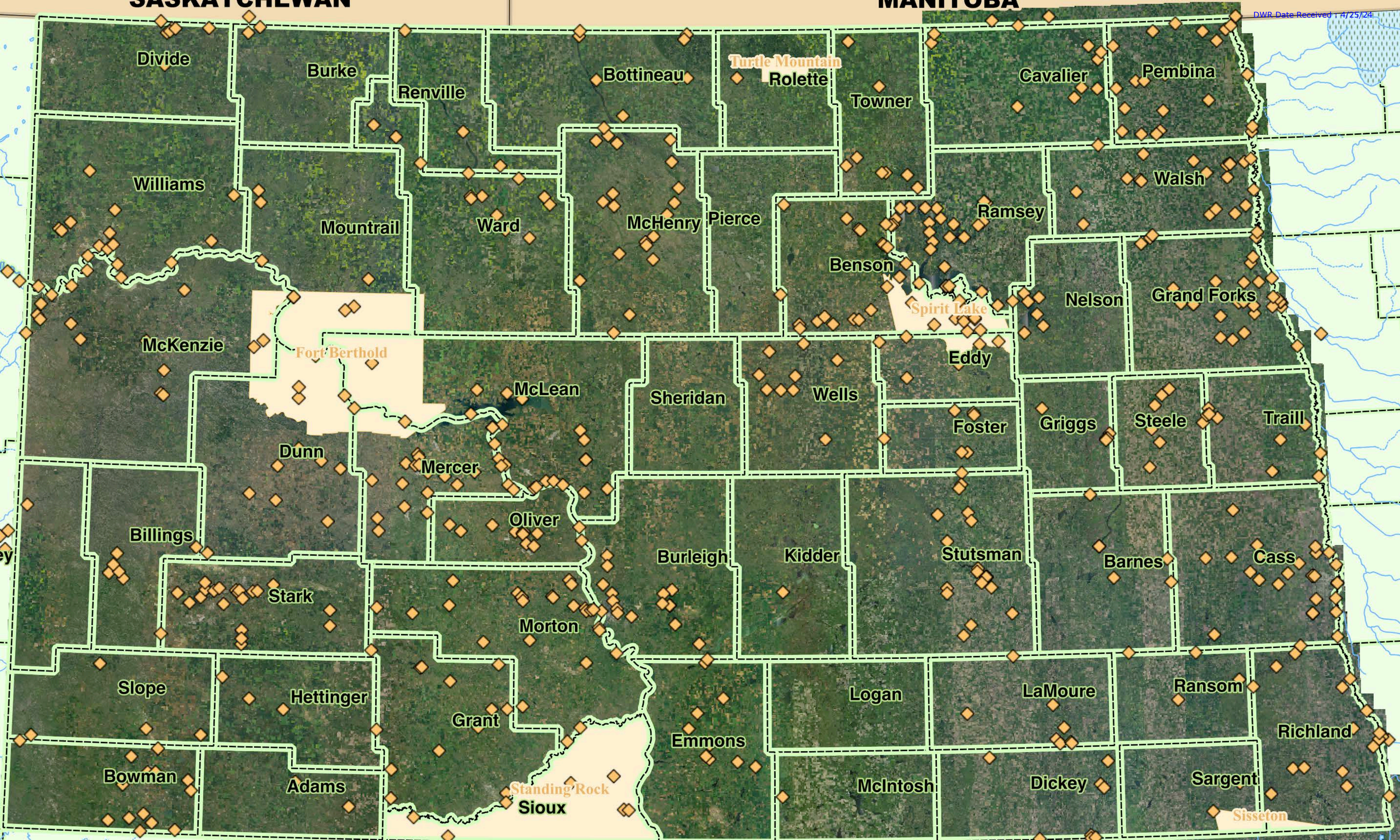
Other Applicable No

Document(s):

Sources

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

Source	If Other, Specify Funding Source	State Fiscal			Total Cost	Type	Term	Interest Rate
		Year 1 July to June	Year 2 July to June	Beyond Current Biennium				
Department of Water Resources Cost Share Pre-Construction		\$527,678.00	\$0.00	\$0.00	\$527,678.00	Grant	0.00	0.00
		\$527,678.00	\$0.00	\$0.00	\$527,678.00			





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

DWR Date Received : April 25, 2024

Project:	DWR/USGS COOPERATIVE MONITORING PROGRAM FY-2025
Sponsor:	Department of Water Resources
Contact:	Nygren, Andrew
Phone:	701-328-1069
Engineer:	Name, Firm
Phone:	000_000_0000

Total Cost :	\$ 1,047,711	Date:	April 25, 2024
Ineligible Cost :	\$ 520,033		
Eligible Cost :	\$ 527,678		
Local Cost :	\$ 520,011		
		Cost-Share \$	\$ 527,700
		Preconstruction :	\$ -
		Construction :	\$ 1,047,711

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!		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%	Monitoring Program FY 2025	1	NA	1,047,711.00	\$ 1,047,711	100%	\$ 1,047,711
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				\$ 1,047,711	100%	\$ 1,047,711
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				\$ 1,047,711		
		Eligible Total				\$ 1,047,711	100%	\$ 1,047,711
Federal or State Funds That Supplant Costs								
						\$ 520,033		
		Eligible Cost Total				\$ 527,678	100%	\$ 527,678

* 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.



ND Department of Water Resources/USGS Cooperative Monitoring Program
July 1, 2024 - June 30, 2025

Proposal Highlights

- Total requested funding of \$527,678 for data collection efforts from July 1, 2024 - June 30, 2025.
- 1.2% inflationary cost to existing NDDWR/USGS cooperative program.
- 50/50 cost split between NDSWC (50%) and other funding partners (50%) for sites of interest.
- Install a seasonal discharge gage at LITTLE MISSOURI RIVER ABV MOUTH NR OAKDALE, ND

Discipline	FY 2024			FY 2024 Program			% Increase
	Customer Funds	USGS FPS	USGS CMF	Customer Funds	Other Funding	Total Program	
Surface Water	375,500	98,470	235,515	399,370	52,840	786,195	
Water Quality*	105,190	-	98,280	116,308	3,428	218,016	
Ground Water	-	-	-	-	27,500	27,500	
Proposed New	40,750		4,000	12,000		16,000	
Grand Total	521,440	98,470	337,795	527,678	83,768	1,047,711	1.2%

% fo Total Program

50%

* Credit of \$30,300 in FY2025 (1.2% increase) applied for DWR construction crew support

1083194 - Western North Dakota Water Treatment Plant pH Stabilizer Storage Facility

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Apr 26, 2024 1:57 PM
Initially Submitted By: Ryan Anderson
Last Submit Date: May 1, 2024 2:27 PM
Last Submitted By: Ryan Anderson

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Salutation **Dennis** **Wayne** **Reep**
First Name Middle Name Last Name

Title: ND Managing Principal

Email*: dennis.reep@hdrinc.com

Address*: 3231 Greensboro Dr., Ste. 200

Bismarck North Dakota 58501
City State/Province Postal Code/Zip

Phone*: (701) 595-2142 Ext.
Phone
 ### #### #####

Fax: (701) 557-9640
 ### #### #####

Comments:

Organization Information

Status*: Approved

Name*: City of Bismarck

Organization Type*: Municipal Government

Tax Id: City of Bismarck

Organization Website: <http://www.bismarcknd.gov>

Address*: 221 N. 5th Street
City of Bismarck
Bismarck North Dakota 58506-____
City State/Province Postal Code/Zip

Phone*: 701-355-1601 Ext.
#####

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Western ND WTP pH Stabilizer Storage Facility

Sponsor(s)*: City of Bismarck

County*: Burleigh

City*: Bismarck

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

Systems currently supporting this shared facility include:

Southwest Water Authority
City of Williston / Western Area Water Supply
City of Minot / Northwest Area Water Supply
City of Bismarck
City of Mandan
City of Jamestown

Describe the Problem*:

The water systems in western ND have a common issue with shortages in delivery of a pH stabilizer (food grade CO2) that is required for production of safe drinking water. The water systems noted have repeatedly shared concerns with the stability of delivery of CO2 and thus have been working together to identify solutions to this shared issue. This proposed regional storage facility leverages a common need between communities and water systems to reduce costs through economy of scale. The proposed project is based on a joint CO2 storage facility that could provide service to the rural and municipal facilities listed. This submittal is based on a 60% Cost Share, but due to the multiple water system's supporting and taking part in this project, a blended rated cost share rate between 60% and 75% may be requested based on the final storage capacity need agreed to by each system.

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

A joint CO2 storage facility would be constructed on the City of Bismarck Water Treatment Plant facility site and would consist of the following: 400 ton storage vessel, vessel foundation, site grading improvements including retaining wall, delivery and hauling access road and approaches, facility fence and access control gates, electrical, and vessel control system. Preliminary site location would locate storage facility directly north of existing WTP on City of Bismarck property. Option to locate facility with the current City of Bismarck WTP facility site to be evaluated during design. An alternative location within the existing facility area is also being considered is on the east side of the site, near the existing substation.

For this project,

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

What is the Current Estimated Population?*: 380000

For this project,

What is the Benefited Population?*: 380000

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? No
(Example: Hazard Mitigation Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 08/2024

Design Completion*: 02/2025

Bid*: 03/2025

Construction Start*: 04/2025

Construction Completion*: 12/2025

Explain Additional Timeline Issues*:

Anticipate limited to no hurdles in design process and transition into construction. All design work is anticipated to be completed by the start of spring 2025. Anticipated construction commencement in spring 2025.

Consulting Engineer*: HDR Engineering

Engineer Telephone Number*: 701-557-9637

Engineer Email*: jarrett.hillius@hdrinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Michelle Klose 04/26/2024
First Name LastName Date

Address*: 221 North 5th Street
 Address Line 1
 Address Line 2
 Bismarck North Dakota 58501-____
 City State Zip Code

Telephone Number*: 701-355-1704

Sponsor Email*: mklose@bismarcknd.gov

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

Authorized Individual*: Michelle Klose 04/26/2024
 First Name Last Name Date

Title/Position/Authority*: Director of Utility Operations

Documentation

Documentation

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

[CLICK HERE](#) to see examples.

Project Specific Map [pHStabilizerStorage_SiteMap_05012024.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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 - WesternND_pHStabilizer_04262024.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 - WesternND_pHStabilizer_04262024.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [sfn_61938_capital_improvement_plan - WesternND_pHStabilizer_04262024.xlsx](#)

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: Yes

Feasibility/Engineering Study Material: [pHStabilizerStorage_CostShareLetter_04262024.pdf](#)

Photos of Problem/Issue:

Other Applicable Document(s): No

Sources




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

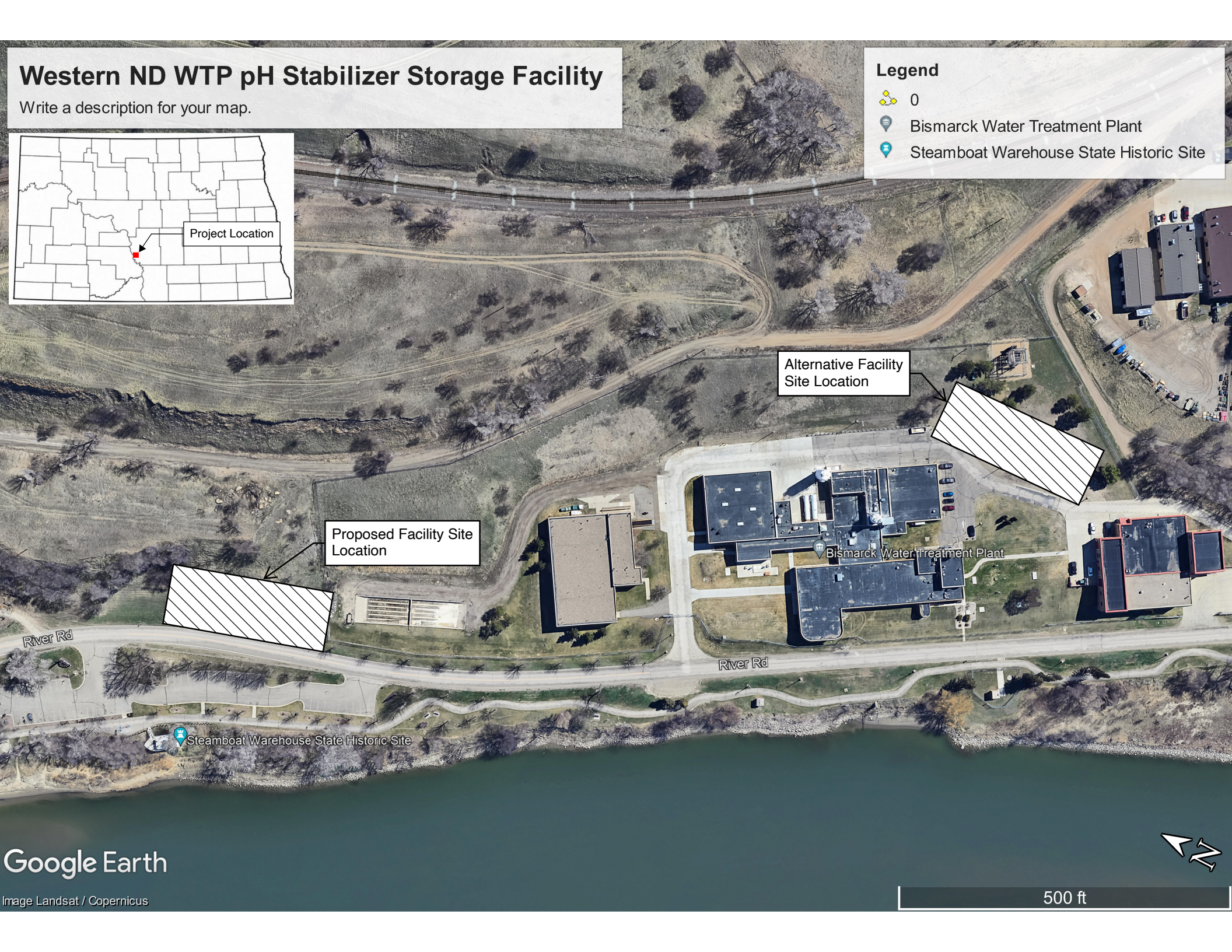
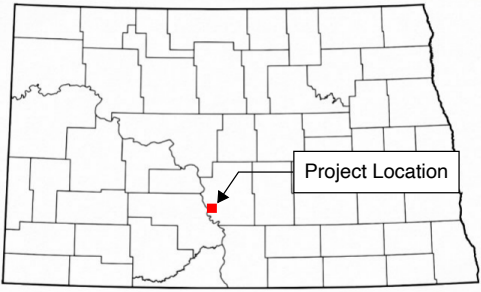
Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Department of Water Resources Cost Share Pre-Construction		\$360,000.00	\$0.00	\$0.00	\$360,000.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$3,408,000.00	\$0.00	\$3,408,000.00	Grant	0.00	0.00
Other	City of Bismarck	\$60,000.00	\$0.00	\$0.00	\$60,000.00	Grant	0.00	0.00
Other	City of Bismarck	\$0.00	\$568,000.00	\$0.00	\$568,000.00	Grant	0.00	0.00
Other	Other Facility Partners (As Described Above)	\$180,000.00	\$0.00	\$0.00	\$180,000.00		0.00	0.00
Other	Other Facility Partners (As Described Above)	\$0.00	\$1,704,000.00	\$0.00	\$1,704,000.00		0.00	0.00
		\$600,000.00	\$5,680,000.00	\$0.00	\$6,280,000.00			

Western ND WTP pH Stabilizer Storage Facility

Write a description for your map.

Legend

-  0
-  Bismarck Water Treatment Plant
-  Steamboat Warehouse State Historic Site





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

DWR Date Received : April 26, 2024

Project:	Western ND WTP pH Stabilizer Storage Facility
Sponsor:	City of Bismarck
Contact:	Michelle Klose, Director of Utility Operations
Phone:	701_355_1704
Engineer:	Jarrett Hillius, HDR Engineering
Phone:	701_557_9637

Total Cost :	\$ 6,280,000	Date:	April 26, 2024
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 6,280,000	Cost-Share \$	
Local Cost :	\$ 2,512,000		\$ 3,768,000
		Preconstruction :	\$ 360,000
		Construction :	\$ 3,408,000

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

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	3.5%	Mobilization	1	LS	198,000.00	\$ 198,000	60%	\$ 118,800
2	0.7%	Bonding	1	LS	40,342.00	\$ 40,342	60%	\$ 24,205
3	0.4%	Insurance	1	LS	23,294.00	\$ 23,294	60%	\$ 13,976
4	13.2%	Concrete	1	LS	748,000.00	\$ 748,000	60%	\$ 448,800
5	48.2%	Specialties	1	LS	2,739,000.00	\$ 2,739,000	60%	\$ 1,643,400
6	1.8%	Electrical	1	LS	100,000.00	\$ 100,000	60%	\$ 60,000
7	14.5%	Earthwork	1	LS	823,000.00	\$ 823,000	60%	\$ 493,800
8	2.3%	Site Work	1	LS	130,000.00	\$ 130,000	60%	\$ 78,000
9	3.0%	Road Repair	1	LS	168,000.00	\$ 168,000	60%	\$ 100,800
10	3.4%	Fencing	1	LS	194,000.00	\$ 194,000	60%	\$ 116,400
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				\$ 5,163,636	60%	\$ 3,098,182
	10.0%	Contingency				\$ 516,364	60%	\$ 309,818
	90.4%	Construction Total				\$ 5,680,000	60%	\$ 3,408,000
Preconstruction Costs								
27	2.6%	Preliminary Design	1	LS	150,000.00	\$ 150,000	60%	\$ 90,000
28	7.0%	Final Design	1	LS	400,000.00	\$ 400,000	60%	\$ 240,000
29	0.9%	CMAR Preconstruction Services	1	LS	50,000.00	\$ 50,000	60%	\$ 30,000
30	0.0%		0		-	\$ -	60%	\$ -
31	0.0%		0		-	\$ -	60%	\$ -
	9.6%	Preconstruction Total				\$ 600,000	60%	\$ 360,000
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	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				\$ 6,280,000		
		Eligible Total				\$ 6,280,000	60%	\$ 3,768,000
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 6,280,000	60%	\$ 3,768,000

* 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.

Life Cycle Cost Analysis Review

Sponsor: City of Bismarck
Project Title: Western ND Joint Water Treatment Plant (WTP) CO2 Storage Facility
Date: May 1, 2024

Explanation of Alternatives:

Western ND Joint WTP CO2 Storage Facility - A joint CO2 storage facility would be constructed on the City of Bismarck Water Treatment Plant facility site and would consist of the following: 400-ton storage vessel, vessel foundation, site grading improvements including a retaining wall, delivery and hauling access road and approaches, facility fence and access control gates, electrical, and vessel control system.

Do Nothing - The water systems in western ND have a common issue with shortages in delivery of a pH stabilizer (food grade CO2) that is required for current drinking water production processes. The participating water systems have shared concerns with the stability of supply and delivery of CO2. The consortium has been working together and identified this joint storage solutions to address this issue. Without this project, supply disruptions of CO2 may cause water rationing or reduced finished water production from WTPs in western ND. This disruption and possible water shortage would have cascading direct and indirect impacts to those 152,000 users of the participating facilities. The spectrum of impacts would range from economic to health and quality of life.

Inputs:

New Connections Served	0			
Future Connections Served	0			
Current Connections Served	152000			
Net Connections (New + Current)	152000			
	Western ND Joint WTP CO2 Storage Facility	Do Nothing		
Construction Cost	\$6,280,000		\$0	
Annual O & M	\$2,400		\$0	

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	Western ND Joint WTP CO2 Storage Facility	Do Nothing		
Present Value				
Capital Costs	\$6,280,000	\$0		
O&M	\$70,000	\$0		
Repair, Rehab, Replacement	\$5,429,000	\$0		
Salvage Value	\$781,000	\$0		
Total PVC	\$10,998,000	\$0		
PV Cost Per User	\$72	\$0		

Current Water Rate (Cost Per 5000g)	\$25		
Comparable Water Rate	\$47		
Net Connections (New + Current)	152,000	152,000	
Cost-Share Percent	60%	60%	
Local Share	\$2,512,000	\$0	
Other Funding	\$0	\$0	
Total Local	\$2,512,000	\$0	
Payment Per User With Cost-Share	\$0.08	\$0.00	
Local Share	\$6,280,000	\$0	
Other Funding	\$0	\$0	
Total Local	\$6,280,000	\$0	
Payment Per User Without Cost-Share	\$0.21	\$0.00	

Explanation of Results:

The sponsor preferred project is the "Western ND Joint WTP CO2 Storage Facility" option. The present value cost of the preferred alternative is \$10,998,000 and the presented alternative for the "Do Nothing" alternative was not addressed. The present value cost per user for the preferred alternative is \$72. The monthly user cost of the local share with DWR 60% cost-share participation is \$0.08 per month and \$0.21 without DWR participation.

Other Comments:

--

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.



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: City of Bismarck - Western ND WTP pH Stabilizer Storage Facility
Date: 04/26/24

Population: 380,000
Users: 152,000

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
SUBTOTAL Existing CIP Costs					\$0		\$0	\$0	\$0.00

New Project CIP Costs									
Western ND WTP pH Stabilizer Storage Facility	LS	\$6,280,000.00	1	50.00%	\$3,140,000	50	\$62,800	\$5,233	\$0.03
SUBTOTAL New CIP Costs					\$3,140,000		\$62,800	\$5,233	\$0.03

TOTAL Existing and New Project CIP					\$3,140,000		\$62,800	\$5,233	\$0.03
---	--	--	--	--	-------------	--	----------	---------	--------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$500,000	\$24,000	\$2,000.00	\$0.01
Adjustment:	\$2,640,000	\$38,800	\$3,233	\$0.02

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.01
Current	5,000	\$0.00
Adjustment	5,000	\$0.00

Report Prepared by (Title): _____
 Date: _____

Notes: _____

- Instructions**
- 1 - Fill in colored items
 - 2 - Enter Existing asset project CIP costs
 - 3 - Enter New asset project CIP costs
 - 4 - Enter current total reserves and annual reserve



April 26, 2024

Andrea Travnicek, Ph.D.
Director, DWR, and Secretary of State Water Commission
1200 Memorial Highway
Bismarck, ND 58504-5262

Mrs. Travnicek,

The City of Bismarck is requesting cost share from the North Dakota State Water Commission for development of a regional storage facility for bulk pH stabilizer (Food Grade CO₂) at the Bismarck Water Treatment Plant (WTP). Drinking water being treated at the Bismarck WTP, and other western North Dakota water treatment facilities, have a high pH after the lime softening process and additional treatment is required to lower pH levels. The proposed regional storage facility would house pH stabilizer chemical capable of lowering the pH of the treated water.

The storage facility would be constructed on City of Bismarck property as indicated in the figure submitted as part of our application. The storage facility would have a 400-ton capacity and would help western North Dakota communities and regional water systems with supply shortage issues of the stabilizer. The City of Bismarck is currently coordinating with the Southwest Water Authority (SWA), City of Minot/Northwest Area Water Supply (NAWS), City of Mandan, City of Jamestown, and City of Williston/Western Area Water Supply Authority (WAWSA) to develop this facility and meet the needs of western North Dakota. All of the municipalities and water systems noted currently support the expansion of food grade CO₂ storage in western North Dakota.

The total cost to construct the facility is estimated to be \$5,680,000, with preconstruction and design services estimated at \$600,000. The City of Bismarck is requesting 60-percent cost share, for a total of \$360,000, on preconstruction and design services for this facility that would serve western North Dakota. This request is based on a 60-percent cost share, due to the multiple water system's supporting and taking part in this project a blended rated cost share rate between 60% and 75% may be requested based on the final storage capacity need agreed to by each system.

If you have any questions, please feel free to contact me at 701-355-1704

Michelle Klose

Director Utility Operations

Bismarck Public Works

CC: Jim Kershaw, Water Plant Superintendent, City of Bismarck
Southwest Water Authority - Jen Murray, CEO; Grace Rixen-Handford, WTP Manager; Perry Grammond, WTP Assistant Manager

City of Williston / Western Area Water Supply - Jeffrey Bryson, WTP Superintendent

City of Minot / Northwest Area Water Supply - Mark Paddock, WTP Superintendent; Jeff Sorenson, Utilities Director

City of Bismarck - Jason Tomanek, City Administrator; Michelle Klose, Director of Utilities; Jim Kershaw - WTP Superintendent, Current ND AWWA Section Chairman

City of Mandan - Duane Friesz, WTP Superintendent

Jamestown - Joe Rowell, WTP Superintendent

Jarrett Hillius, PE, Project Manager, HDR

Joe Honner, PE, Project Manager, HDR

1082875 - Lisbon WTP CO2 Tank Replacement

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Apr 19, 2024 1:02 PM
Initially Submitted By: Sarah Brunsvold
Last Submit Date: May 1, 2024 11:07 AM
Last Submitted By: Sarah Brunsvold

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Salutation Sarah Middle Name Brunsvold
 First Name Last Name
Title:
Email*: sarah.brunsvold@mooreengineeringinc.com
Address*: 2158 Saint Anthony Ave
 St. Paul Minnesota 55104
 City State/Province Postal Code/Zip
Phone*: 612-723-4637 Ext.
 Phone
 ### ### ####
Fax: ### ### ####
Comments:

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 58054-0000
City State/Province 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*: WTP CO2 Tank Replacement

Sponsor(s)*: City of Lisbon

County*: Ransom

City*: Lisbon

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Lisbon, Southeast Water Users District

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?* 3300

For this project,

What is the Benefited Population?* 3300

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? No
(Example: Hazard Mitigation Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 2/23/24

Design Completion*: 4/12/24

Bid*: 5/7/2024

Construction Start*: June 2024

Construction Completion*: November 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*: Kristina Dick 05/03/2024
First Name Last Name Date

Address*: 432 Main Street
Address Line 1
Address Line 2
Lisbon North Dakota 58054-4143
City State Zip Code

Telephone Number*: 701-683-4140

Sponsor Email*: kristina@cityoflisbon.net

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

Authorized Individual*: Kristina Dick 05/03/2024
First Name Last Name Date

Title/Position/Authority*: Auditor

Documentation

Documentation

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

[CLICK HERE](#) to see examples.

Project Specific Map [22995_Exhibit_Flattened.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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: [22995_DelineationofCost_Construction.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [22995_BiddingManual_20240412.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: [22995_LifeCycleCostAnalysisWorksheet.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [22995_CapitalImprovementPlan.xlsx](#)

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: [DWR_Application_Project Description.pdf](#)

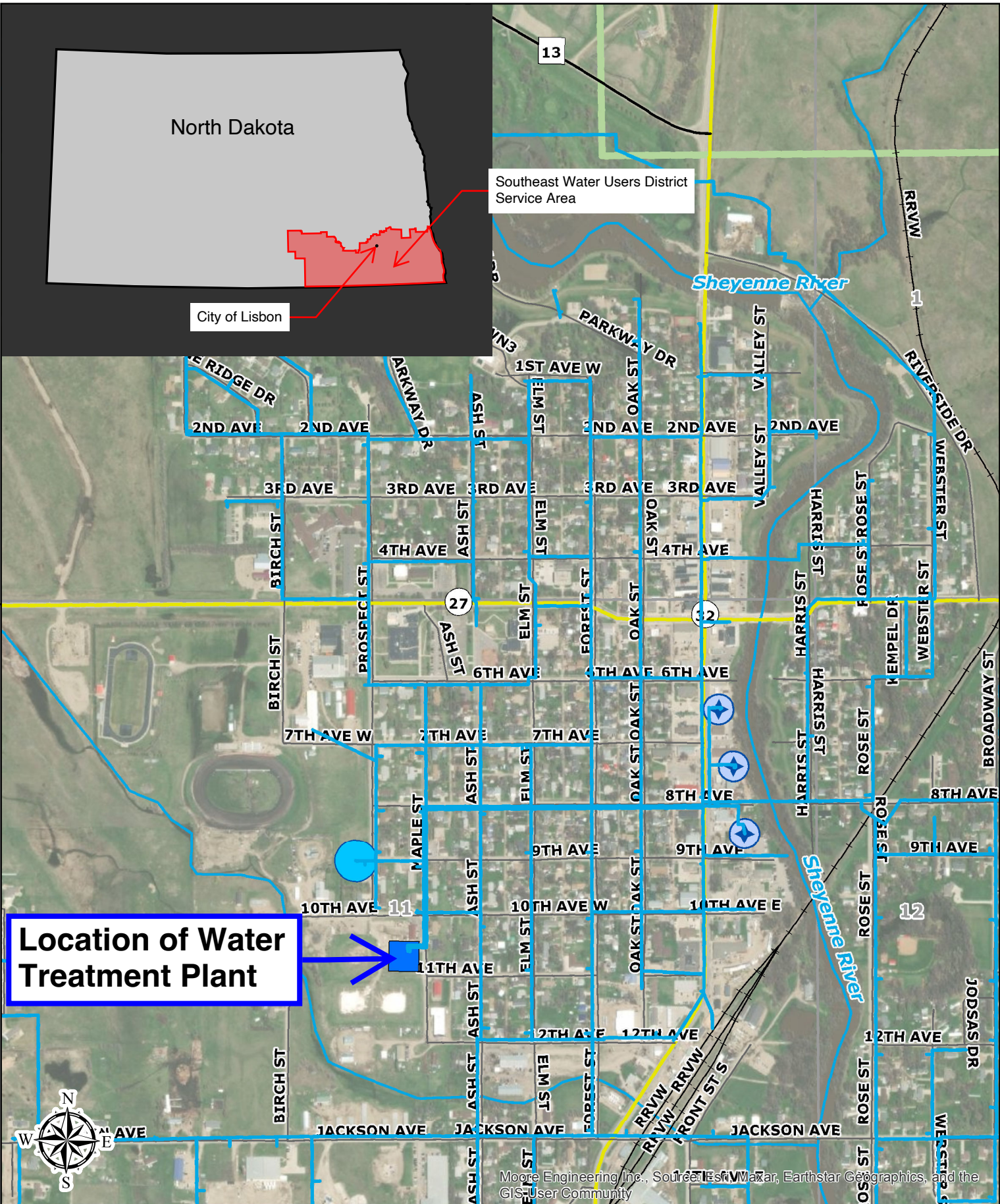
Other Applicable Document:

Other Applicable Document:

Sources

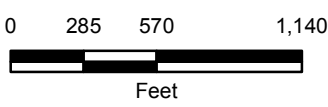
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	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		\$0.00	\$285,930.00	\$0.00	\$285,930.00	Grant	0.00	0.00
Department of Water Resources Cost Share Pre-Construction		\$45,300.00	\$0.00	\$0.00	\$45,300.00	Grant	0.00	0.00
Other	Cash	\$0.00	\$228,320.00	\$0.00	\$228,320.00		0.00	0.00
		\$45,300.00	\$514,250.00	\$0.00	\$559,550.00			



Location of Water Treatment Plant

Water System
City of Lisbon
Ransom County, North Dakota



Moore Engineering Inc., Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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

DWR Date Received : May 01, 2024

Project:	CO2 Tank Replacement
Sponsor:	City of Lisbon
Contact:	Kristina Dick
Phone:	701-683-4140
Engineer:	Tracy Eslinger, Moore Engineering
Phone:	701-499-5860

Total Cost :	\$ 559,550	Date:	April 17, 2024
Ineligible Cost :	\$ 7,500		
Eligible Cost :	\$ 552,050	Cost-Share \$	\$ 331,200
Local Cost :	\$ 228,350	Preconstruction :	\$ 45,300
		Construction :	\$ 285,930

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

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	6.7%	Mobilization	1	LS	30,000.00	\$ 30,000	60%	\$ 18,000
2	5.6%	Demo Existing 6-Ton CO2 Tank	1	LS	25,000.00	\$ 25,000	60%	\$ 15,000
3	61.7%	14-Ton CO2 Tank (includes freight)	1	LS	275,000.00	\$ 275,000	60%	\$ 165,000
4	6.7%	Concrete Foundation	1	LS	30,000.00	\$ 30,000	60%	\$ 18,000
5	5.6%	Mechanical Piping	1	LS	25,000.00	\$ 25,000	60%	\$ 15,000
6	4.6%	Electrical Wiring	1	LS	20,500.00	\$ 20,500	60%	\$ 12,300
7	0.0%					\$ -	60%	\$ -
8	0.0%					\$ -	60%	\$ -
9	0.0%					\$ -	60%	\$ -
10	0.0%					\$ -	60%	\$ -
11	0.0%					\$ -	60%	\$ -
12	0.0%					\$ -	60%	\$ -
13	0.0%					\$ -	60%	\$ -
14	0.0%					\$ -	60%	\$ -
15	0.0%					\$ -	60%	\$ -
16	0.0%					\$ -	60%	\$ -
17	0.0%					\$ -	60%	\$ -
18	0.0%					\$ -	60%	\$ -
19	0.0%					\$ -	60%	\$ -
20	0.0%					\$ -	60%	\$ -
21	0.0%					\$ -	60%	\$ -
22	0.0%					\$ -	60%	\$ -
23	0.0%					\$ -	60%	\$ -
24	0.0%					\$ -	60%	\$ -
25	0.0%					\$ -	60%	\$ -
26	0.0%					\$ -	60%	\$ -
		Construction Sub-Total				\$ 405,500	60%	\$ 243,300
10.0%		Contingency				\$ 40,550	60%	\$ 24,330
79.7%		Construction Total				\$ 446,050	60%	\$ 267,630
Preconstruction Costs								
27	2.9%	Preliminary Engineering	1	LS	13,000.00	\$ 13,000	60%	\$ 7,800
28	2.2%	Geotechnical Investigations	1	LS	10,000.00	\$ 10,000	60%	\$ 6,000
29	0.6%	Ads for Construction	1	LS	2,500.00	\$ 2,500	60%	\$ 1,500
30	1.7%	Bidding / Negotiations	1	LS	7,500.00	\$ 7,500	60%	\$ 4,500
31	9.5%	Final Design	1	LS	42,500.00	\$ 42,500	60%	\$ 25,500
13.5%		Preconstruction Total				\$ 75,500	60%	\$ 45,300
Construction Engineering Costs								
32	2.7%	Construction Engineering	1	LS	12,000.00	\$ 12,000	60%	\$ 7,200
33	0.0%					\$ -	60%	\$ -
34	0.0%					\$ -	60%	\$ -
35	0.0%					\$ -	60%	\$ -
36	0.0%					\$ -	60%	\$ -
2.1%		Construction Engineering Total				\$ 12,000	60%	\$ 7,200
Other Eligible Costs								
37	2.7%	Miscellaneous	1	LS	15,000.00	\$ 15,000	60%	\$ 9,000
38	0.6%	Bonding	1	LS	3,500.00	\$ 3,500	60%	\$ 2,100
39	0.0%					\$ -	60%	\$ -
40	0.0%					\$ -	60%	\$ -
41	0.0%					\$ -	60%	\$ -
3.3%		Other Eligible Total				\$ 18,500	60%	\$ 11,100
In-eligible Costs								
42	0.9%	Legal Expenses	1	LS	5,000.00	\$ 5,000	0%	\$ -
43	0.4%	Administrative	1	LS	2,500.00	\$ 2,500	0%	\$ -
44	0.0%					\$ -	0%	\$ -
45	0.0%					\$ -	0%	\$ -
1.3%		Other Ineligible Total				\$ 7,500	0%	\$ -
100.0%		Total				\$ 559,550		
		Eligible Total				\$ 552,050	60%	\$ 331,230
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 552,050	60%	\$ 331,230

* 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 Lisbon
Project Title: CO2 Tank Installation
Date: April 30, 2024

Explanation of Alternatives:

Do Nothing - Keep the existing undersized 6-ton CO2 tank. This alternative does not alleviate the strain that is put on the water treatment system.
 Upgrade to a 14-Ton CO2 Tank - Replace the existing 6-ton CO2 tank with a 14-ton tank. The larger tank would increase the CO2 storage allowing for the City of Lisbon to keep up with demand for water serving the Southwest Water Users District.
 Repair Existing CO2 Tank - This alternative would include keeping the existing 6-ton CO2 tank and having the manufacturer visit the site to repair and replace some of the existing equipment. This is not an optimal solution as it lacks the volume of storage desired to buffer inconsistent CO2 delivery to the water treatment plant.

Inputs:

New Connections Served	0		
Future Connections Served	0		
Current Connections Served	3300		
Net Connections (New + Current)	3300		
	Do Nothing	Upgrade to a 14-Ton CO2 Tank (Preferred)	Repair Existing CO2 Tank
Construction Cost	\$0	\$559,600	\$90,000
Annual O & M	\$5,000	\$2,000	\$5,000

Details:

It is assumed a larger storage vessel will promote a higher priority for supplier deliveries and to maintain a larger backup supply to account for long stretches without delivery service.

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	Upgrade to a 14-Ton CO2 Tank (Preferred)	Repair Existing CO2 Tank
Capital Costs	\$0	\$560,000	\$90,000
O&M	\$154,000	\$61,000	\$149,000
Repair, Rehab, Replacement	\$0	\$377,000	\$16,000
Salvage Value	\$0	\$59,000	\$1,000
Total PVC	\$154,000	\$939,000	\$254,000
PV Cost Per User	\$47	\$285	\$77

Current Water Rate (Cost Per 5000g)	\$345		
Comparable Water Rate	\$48		
Net Connections (New + Current)	3,300	3,300	3,300
Cost-Share Percent	60%	60%	60%
Local Share	\$0	\$224,000	\$36,000
Other Funding	\$0	\$0	\$0
Total Local	\$0	\$224,000	\$36,000
Payment Per User With Cost-Share	\$0.00	\$0.34	\$0.06
Local Share	\$0	\$560,000	\$90,000
Other Funding	\$0	\$0	\$0
Total Local	\$0	\$560,000	\$90,000
Payment Per User Without Cost-Share	\$0.00	\$0.86	\$0.14

Explanation of Results:

The sponsor preferred project is the "Upgrade to 14-Ton CO2 Tank" option. The present value cost of the preferred alternative is \$939,000, \$154,000 for the "Do Nothing" alternative, and \$254,000 for the "Repair Existing CO2 Tank" alternative as comparisons. The present value cost per user for the preferred alternative is \$285. The monthly user cost of the local share with DWR 60% cost-share participation is \$0.34 per month and \$0.86 without DWR participation.

ND Dept. of Commerce Population & Trends	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
	2,154	2,015	-0.6%	-14

Other Comments:



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: City of Lisbon - CO2 Tank Install
Date: 04/20/23

Population: 2,204
Users: 882

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
SUBTOTAL Existing CIP Costs					\$0		\$0	\$0	\$0.00

New Project CIP Costs									
CO2 Tank Install	LSUM	\$552,050.00	1	60.00%	\$331,230	50	\$6,625	\$552	\$0.63
SUBTOTAL New CIP Costs					\$331,230		\$6,625	\$552	\$0.63

TOTAL Existing and New Project CIP					\$331,230		\$6,625	\$552	\$0.63
---	--	--	--	--	-----------	--	---------	-------	--------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$500,000	\$24,000	\$2,000.00	\$2.27
Adjustment:	\$0	\$0	\$0	\$0.00

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.13
Current	5,000	\$0.45
Adjustment	5,000	\$0.00

Report Prepared by (Title): Kris Flagtwet
 Date: 4/20/23

Notes:

- Instructions**
- 1 - Fill in colored items
 - 2 - Enter Existing asset project CIP costs
 - 3 - Enter New asset project CIP costs
 - 4 - Enter current total reserves and annual reserve

Describe the Problem:

The proposed project is to correct an existing carbon dioxide storage issue at the City of Lisbon's Water Treatment Plant (WTP). The Lisbon WTP serves both the City of Lisbon, which has a population of approximately 2,200 people, and the Southeast Water Users District (SWUD). The SWUD covers a large portion of southeast North Dakota and has several water treatment plants in the region that contribute to the system.

The City of Lisbon currently uses carbon dioxide as a means to bring the pH back down after the lime softening process. Carbon dioxide is naturally-occurring in the atmosphere and is processed to a liquified gas for use in several industries including water treatment. At the Lisbon WTP, the carbon dioxide is stored in a 6-ton pressurized and refrigerated unit located just outside of the WTP building. The plant uses approximately 2 to 3 lbs per hour on average, which translates to roughly 3 months of storage with the 6-ton tank.

The issue driving this project proposal is that the carbon dioxide supplier both does not bring a delivery of carbon dioxide often enough to the plant and when they do make a delivery, they often only have a partial delivery. This is the result of several different issues on the supply side: the supplier only has a certain amount of carbon dioxide they can transport in their truck, the supplier only makes a certain number of trips per quarter, and the supplier will typically make deliveries to those who use a larger amount of carbon dioxide (industrial clients) first. This affects the Lisbon WTP because the supplier will typically stop at the WTP after making a larger delivery to see if they can off-load their remaining supply. And often times, their remaining supply is less than the 6-ton capacity of the WTP carbon dioxide storage tank. This results in an unreliable volume of supply of carbon dioxide for the WTP at any given time.

Additionally, the existing carbon dioxide storage tank is original to the construction of the water treatment plant in 2002. The parts of the tank required for it to operate correctly and efficiently are aging and either need to be repaired or replaced.

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

The proposed project will address this shortfall in carbon dioxide storage at the City of Lisbon WTP by replacing the existing aging carbon dioxide storage tank with a larger tank. A new 14-ton carbon dioxide tank will be installed near the existing tank at the WTP. After the new tank is installed, the existing tank will be removed from the WTP. The capacity of the new tank results in an increase in storage of 60% and will help alleviate the current supply issues. Because of the larger tank, it will be more of a priority for suppliers to visit the WTP.

The new tank will also provide a suitable replacement for the existing and aging storage tank. The plant will be able to get another 25 to 30 years of useful life out of the new storage tank.

1083159 - Water System Improvement District 2024-1

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: May 6, 2024 7:51 AM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Apr 29, 2024 4:38 PM
Initially Submitted By: Anthony Setness
Last Submit Date: May 6, 2024 12:09 PM
Last Submitted By: Anthony Setness

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name: Mr. Anthony M Setness
Salutation First Name Middle Name Last Name

Title: Project Engineer

Email*: anthony.setness@mooreengineeringinc.com

Address*: 4503 Coleman St, Suite 105

Bismarck North Dakota 58503
City State/Province Postal Code/Zip

Phone*: (701) 446-6230 Ext.
Phone
 ### ###-####

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

Comments:

Organization Information

Status*: Approved

Name*: City of Taylor

Organization Type*: Municipal Government

Tax Id: 45-0357213

Organization Website:

Address*: PO Box 68

Taylor North Dakota 58656-0000
City State/Province Postal Code/Zip

Phone*: 701-974-4382 Ext.
#####

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Water System Improvement District 2024-1

Sponsor(s)*: City of Taylor

County*: Stark

City*: Taylor

Description of Request*: New

If Study, What Type: Water Supply

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

The residents of the city of Taylor

Describe the Problem*:

The city of Taylor had water main installed in 1970 which are all undersized and do not meet 10 state standards. Because of this system, during high flow times the city will see reduced dynamic pressures meaning if one household is using the shower and their neighbor runs their sprinkler system, they both will feel reduced pressure since there is not enough volume in the system to sustain higher flows. In 1992 the city elected to connect to the Southwest Pipeline, which a 3" main from the pipeline to the city's pump house was installed. This only allowed for 30 gallons per minute. The city has to utilize their pump house to re-pressurize the water to distribute to the city which requires a sizable O&M cost.

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

This project will bring a new 6" water main through town to help volumes and pressures to those areas experiencing difficulties. The city requested the water main to be directionally drilled as to save the pavement anywhere possible. Open excavation installation will be at the service connections and water main connections. Based on what was submitted during preconstruction, the cost of ineligible items has changed reducing the pavement needing to be restored outside of the 10' trench and the majority sewer items being saved for another project.

For this project,

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

What is the Current Estimated Population?* 240

For this project,

What is the Benefited Population?* 240

Have Assessment Districts Been Formed?* Yes

Date Formed: 04/08/2024

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?*: 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.:

Road improvements will only take place in areas where water main excavation activities take pplace.

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?*: 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? No
(Example: Hazard Mitigation Grant Program)

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: March 2024

Design Completion*: May 2024

Bid*: May 2024 **June 10, 2024**

Construction Start*: July 2024

Construction Completion*: June 2025

Explain Additional Timeline Issues*:

Prolonged winter could cause the construction to be longer

Consulting Engineer*: Moore Engineering

Engineer Telephone Number*: 701-446-6230

Engineer Email*: anthony.setness@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Lisa Aune 04/29/2024
First Name LastName Date

Address*: 30 Ertel Avenue
Address Line 1
PO Box 68
Address Line 2

Taylor North Dakota 58656-0000
City State Zip Code

Telephone Number*: 701-260-3902

Sponsor Email*: cityoftaylornd@gmail.com

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

Authorized Individual*: Lisa Aune 04/29/2024
First Name Last Name Date

Title/Position/Authority*: City Auditor

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If
Yes, Add Boundary to Project Specific
Map.*: Yes

[CLICK HERE](#) to see examples.

Project Specific Map [Water Project Map.pdf](#)

Must Include Project Location in State Using an
Inset Map and Distance/Direction to Nearest
Community

*:

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: [Updated 5.3.24 taylor_sfn_61801_delineation_of_cost-2.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For
Bidding: [23090-TAYLOR_WATER_IMPROVEMENTS_1.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: [update taylor_life_cycle_cost_analysis_worksheet.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [taylor_sfn_61938_capital_improvement_plan.xlsx](#)

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: Yes

Feasibility/Engineering Study Material: [Taylor PER Reduced File Size.pdf](#)

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

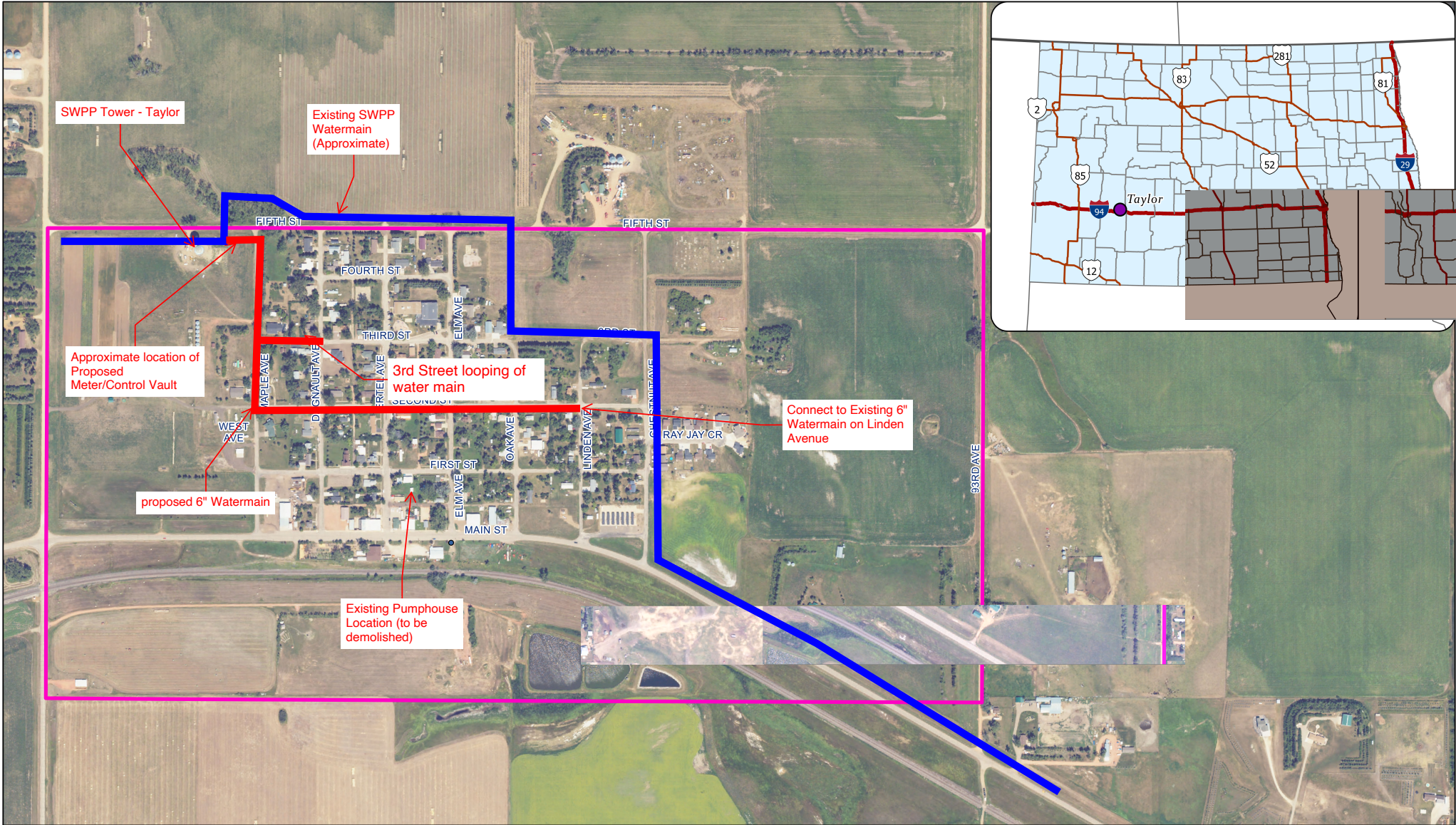
Other Applicable Document:

Other Applicable Document:

Sources

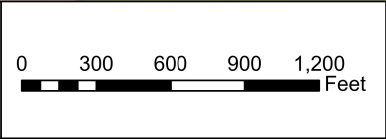
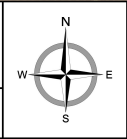
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal 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		\$72,300.00	\$797,582.00	\$0.00	\$869,882.00	Loan	30.00	0.02
Department of Water Resources Cost Share Pre-Construction		\$115,200.00	\$0.00	\$0.00	\$115,200.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$1,151,428.00	\$0.00	\$1,151,428.00	Grant	0.00	0.00
Clean Water State Revolving Fund		\$0.00	\$33,000.00	\$0.00	\$33,000.00	Loan	30.00	0.02
		\$187,500.00	\$1,982,010.00	\$0.00	\$2,169,510.00			



CITY MAP
TAYLOR, NORTH DAKOTA

Created By: BAS Date Created: 06/22/2023 Date Saved: 06/22/23 Date Plotted: N/A Date Exported: 06/22/23
 Plotted By: brook.smith Parcel Date: N/A Aerial Image: 2022 County NAIP SIDS Elevation Data: N/A
 Horizontal Datum: N/A Vertical Datum: NAVD1988 State of North Dakota, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA
 C:\Users\brook.smith\AppData\Local\Temp\ArcGISPro\Temp\144229990\0326-4c94-4506-9a1134515186\0622\Unlabeled.aprx



Legend

- City Boundary
- City of Taylor
- Interstate
- State Highway
- US Highway





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

DWR Date Received : May 06, 2024

Project:	Water System Improvement District No. 2024-1
Sponsor:	City of Taylor
Contact:	Lisa Aune
Phone:	701-260-3902
Engineer:	AJ Tuck
Phone:	701-751-8371

Total Cost :	\$ 2,169,510
Ineligible Cost :	\$ 58,500
Eligible Cost :	\$ 2,111,010
Local Cost :	\$ 902,904

Date: May 2, 2024

Cost-Share \$	\$ 1,266,606
Preconstruction :	\$ 115,200
Construction :	\$ 1,151,406

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

Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
---------------------	------------	------	------------	-------	--------------	-----------------

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	11.9%	Mobilization	1.000	L SUM	\$200,000.00	\$ 200,000	60%	\$ 120,000
2	0.6%	Traffic Control	1.000	L SUM	\$10,000.00	\$ 10,000	60%	\$ 6,000
3	0.5%	Storm Water Management	1.000	L SUM	\$8,000.00	\$ 8,000	60%	\$ 4,800
4	3.0%	Temporary Water	1	L SUM	\$50,000.00	\$ 50,000	60%	\$ 30,000
5	0.2%	Removal of Gate Valve	5	EA	\$600.00	\$ 3,000	60%	\$ 1,800
6	0.1%	Abandoning Gate Valve	1	EA	\$2,000.00	\$ 2,000	60%	\$ 1,200
7	0.2%	Plug Water Main	3	EA	\$1,000.00	\$ 3,000	60%	\$ 1,800
8	3.0%	Well Abandonment	1	L SUM	\$50,000.00	\$ 50,000	60%	\$ 30,000
9	3.0%	Pump House Demolition	1	L SUM	\$50,000.00	\$ 50,000	60%	\$ 30,000
10	5.1%	Water Main - 6"	568	LF	\$150.00	\$ 85,200	60%	\$ 51,120
11	0.1%	Water Main - 12"	5	LF	\$220.00	\$ 1,100	60%	\$ 660
12	9.2%	Gate Valve and Box - 6"	28	EA	\$5,500.00	\$ 154,000	60%	\$ 92,400
13	0.7%	Gate Valve and Box - 12"	1	EA	\$12,000.00	\$ 12,000	60%	\$ 7,200
14	1.8%	Hydrant	3	EA	\$10,000.00	\$ 30,000	60%	\$ 18,000
15	4.3%	Connect to Existing Water Main	12	EA	\$6,000.00	\$ 72,000	60%	\$ 43,200
16	0.7%	Connect to Existing Tower	1	EA	\$12,000.00	\$ 12,000	60%	\$ 7,200
17	0.7%	Exploratory Excavation	20	HR	\$600.00	\$ 12,000	60%	\$ 7,200
18	2.4%	Valve Vault	1	L SUM	\$40,000.00	\$ 40,000	60%	\$ 24,000
19	1.0%	Water Service Connection	9	EA	\$1,800.00	\$ 16,200	60%	\$ 9,720
20	0.6%	Curb Stop and Box	9	EA	\$1,200.00	\$ 10,800	60%	\$ 6,480
21	1.6%	Water Service Line	273	LF	\$100.00	\$ 27,300	60%	\$ 16,380
22	0.4%	Electromagnetic Locator	1	EA	\$7,500.00	\$ 7,500	60%	\$ 4,500
23	0.1%	Vehicle Gate	1	EA	\$2,500.00	\$ 2,500	60%	\$ 1,500
24	0.4%	Fence Remove & Reset	100	LF	\$60.00	\$ 6,000	60%	\$ 3,600
25	24.4%	Horizontal Directional Drilling - 6"	2,730	LF	\$150.00	\$ 409,500	60%	\$ 245,700
26	1.8%	Surface Restoration - Turf Establishment	1	L SUM	\$30,000.00	\$ 30,000	60%	\$ 18,000
27	4.2%	Surface Restoration - Gravel	1	L SUM	\$70,000.00	\$ 70,000	60%	\$ 42,000
28	8.9%	Surface Restoration - Asphalt Pavement	1	L SUM	\$150,000.00	\$ 150,000	60%	\$ 90,000
29	0.0%				\$ -	\$ -	60%	\$ -
30	0.0%				\$ -	\$ -	60%	\$ -
31	0.0%				\$ -	\$ -	60%	\$ -
32	0.0%				\$ -	\$ -	60%	\$ -
33	0.0%				\$ -	\$ -	60%	\$ -
		Construction Sub-Total				\$ 1,524,100	60%	\$ 914,460
	10.0%	Contingency				\$ 152,410	60%	\$ 91,446
	77.3%	Construction Total				\$ 1,676,510	60%	\$ 1,005,906

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Preconstruction Costs								
34	10.7%	Design Engineering	1	NA	\$ 180,000.00	\$ 180,000	60%	\$ 108,000
35	0.7%	Geotechnical Engineering	1	NA	\$ 12,000.00	\$ 12,000	60%	\$ 7,200
36	0.0%		0		\$ -	\$ -	60%	\$ -
37	0.0%		0		\$ -	\$ -	60%	\$ -
38	0.0%		0		\$ -	\$ -	60%	\$ -
	8.8%	Preconstruction Total				\$ 192,000	60%	\$ 115,200

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Engineering Costs								
39	13.0%	Construction Engineering	1	NA	\$ 217,500.00	\$ 217,500	60%	\$ 130,500
40	0.0%		0		\$ -	\$ -	60%	\$ -
41	0.0%		0		\$ -	\$ -	60%	\$ -
42	0.0%		0		\$ -	\$ -	60%	\$ -
43	0.0%		0		\$ -	\$ -	60%	\$ -
	10.0%	Construction Engineering Total				\$ 217,500	60%	\$ 130,500

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Other Eligible Costs								
44	1.2%	Bonding	1		\$ 25,000.00	\$ 25,000	60%	\$ 15,000
45	0.0%		0		\$ -	\$ -	60%	\$ -
46	0.0%		0		\$ -	\$ -	60%	\$ -
47	0.0%		0		\$ -	\$ -	60%	\$ -
48	0.0%		0		\$ -	\$ -	60%	\$ -
	1.2%	Other Eligible Total				\$ 25,000	60%	\$ 15,000

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
In-eligible Costs								
49	0.4%	Manhole Cone Section	1	EA	\$8,000.00	\$ 8,000		\$ -
50	1.2%	Legal	1	EA	\$25,000.00	\$ 25,000		\$ -
51	1.2%	Engineering Report - paid with DWSRF Grant	1	EA	\$25,500.00	\$ 25,500		\$ -
52					\$ -	\$ -		\$ -
53	0.0%				\$ -	\$ -	0%	\$ -
54	2.7%	Other Ineligible Total				\$ 58,500	0%	\$ -

Total	\$ 2,169,510
Eligible Total	\$ 2,111,010

Federal or State Funds That Supplant Costs	
Eligible Cost Total	\$ 2,111,010

* 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 Taylor
 Project Title: Water System Improvement District 2024-1
 Date: May 6, 2024

Explanation of Alternatives:

Directional Drilling and Pump House Abandonment (Preferred) - Abandon the pump house and reroute a new water main on 2nd street and connect to the Southwest Pipeline Project (SWPP) water tower northwest of Taylor. Directional drilling of the water main would preserve pavement where necessary. Boreholes, gate valves, connections to existing main, and curb stops will have open excavation.

Open Cut Installation and Pump House Abandonment - The pump house would be demolished and disconnected. A new water main will be installed using open cut methods on 2nd street connecting to the SWPP tower, with approval. The cost between directional drilling and open cut will be bid against each other.

Do Nothing - This alternate would consist of doing nothing. This alternate is not in the best interest of the city of Taylor due to the water main existing in town is not the 6" watermain minimum recommended.

Inputs:

New Connections Served	0		
Future Connections Served	0		
Current Connections Served	117		
Net Connections (New + Current)	117		
	Directional Drilling and Pump House Abandonment	Open Cut Installation and Pump House Abandonment	Do Nothing
Construction Cost	\$2,169,500	\$2,235,800	\$0
Annual O & M	\$0	\$0	\$0

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	Directional Drilling and Pump House Abandonment	Open Cut Installation and Pump House Abandonment	Do Nothing
Present Value			
Capital Costs	\$2,170,000	\$2,236,000	\$0
O&M	\$0	\$0	\$0
Repair, Rehab, Replacement	\$298,000	\$308,000	\$0
Salvage Value	\$45,000	\$46,000	\$0
Total PVC	\$2,423,000	\$2,498,000	\$0
PV Cost Per User	\$20,709	\$21,350	\$0

Current Water Rate (Cost Per 5000g)	\$38		
Comparable Water Rate	\$47		
Net Connections (New + Current)	117	117	117
Cost-Share Percent	60%	60%	60%
Local Share	\$868,000	\$894,400	\$0
Other Funding	\$0	\$0	\$0
Total Local	\$868,000	\$894,400	\$0
Payment Per User With Cost-Share	\$37.53	\$38.67	\$0.00
Local Share	\$2,170,000	\$2,236,000	\$0
Other Funding	\$0	\$0	\$0
Total Local	\$2,170,000	\$2,236,000	\$0
Payment Per User Without Cost-Share	\$93.83	\$96.68	\$0.00

Explanation of Results:

The sponsor preferred project is the "Directional Drilling and Pump House Abandonment" option. The present value cost of the preferred alternative is \$2,423,000 and the presented alternative for comparison is "Open Cut Installation and Pump House Abandonment" at a present value cost of \$2,498,000. The present value cost per user for the preferred alternative is \$20,709. The monthly user cost of the local share with DWR 60% cost-share participation is \$37.53 per month and \$93.83 without DWR participation.

ND Dept. of Commerce Population & Trends	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
	148	171	1.6%	2

Other Comments:

--

1082909 - North Main Street Reconstruction

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 18, 2024 11:01 AM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Michael Gorder
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Submitted	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Salutation Michael First Name
Middle Name	Gorder Last Name
Title:	Project Engineer
Email*:	michael.gorder@mooreengineeringinc.com
Address*:	4503 Coleman Street - Suite 105

Organization Information

Status*:	Approved
Name*:	City of Tioga
Organization Type*:	Municipal Government
Tax Id:	45-6004629
Organization Website:	
Address*:	16 1st Street NW P.O. Box 218

Tioga North Dakota
City State/Province

Bismarck North Dakota
City State/Province
58503
Postal Code/Zip
Phone*: 701-751-8377 Ext.
Phone
###-###-####
Fax: ###-###-####
Comments:

58852-_____
Postal Code/Zip
Phone*: 623-236-4626 Ext.
###-###-####
Fax: ###-###-####
Vendor ID:
PeopleSoft
Supplier ID:
Comments:
Location
Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: North Main Street Reconstruction
Sponsor(s)*: City of Tioga
County*: Williams
City*: Tioga
Description of Request*: New
If Study, What Type:
If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:
City of Tioga.

Describe the Problem*:
The project would replace several blocks of the city's existing asbestos cement pipe (ACP) water mains throughout the city, and loop any dead end lines. The existing water mains are deteriorated or undersized. The existing water mains need to be replaced with new PVC water mains appropriately sized to serve the

city.

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

The City's water distribution infrastructure, originally installed in the 1940's and 1950's, is aging and creating problems for the community. The original asbestos cement pipes are deteriorated and have begun to fail. Non-functioning gate valves also pose a concern. The City has replaced a portion of their water mains, but the remaining are beyond the end of their design life.

For this project,

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

What is the Current Estimated Population?* 2202

For this project,

What is the Benefited Population?* 2202

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.:

Streets are in poor condition and a ten foot trench width will be used for eligible cost share costs.

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? No
(Example: Hazard Mitigation Grant Program)
*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion* :	12/2023	
Design Completion* :	2/2024	
Bid* :	3/2024	
Construction Start* :	5/2024	June 2024
Construction Completion* :	10/2024	

Explain Additional Timeline

Issues*:

None.

Consulting Engineer*: Joshua Reiner - Moore Engineering Inc.

Engineer Telephone Number*: 701-751-8377

Engineer Email*: joshua.reiner@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Abby Salinas 04/18/2024
 First Name Last Name Date

Address*: 4503 Coleman Street - Suite 105
 Address Line 1
 Address Line 2
 Bismarck North Dakota 58503-____
 City State Zip Code

Telephone Number*: 701-664-2807

Sponsor Email*: auditor@cityoftioga.com

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

Authorized Individual*: Abby Salinas 04/18/2024
 First Name Last Name 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 23666_ProjectMap_20240417.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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: DelineationofCost_Tioga.xlsx

Type of Request: Construction

Signed Plans and Specifications For Bidding: 23666-Tioga Street Improvements_Signed.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: LCCA_Tioga version 1.xlsx

CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: sfn_61938_capital_improvement_plan.xlsx

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: DWR Eligible Costs.pdf

Other Applicable Document:

Other Applicable Document:

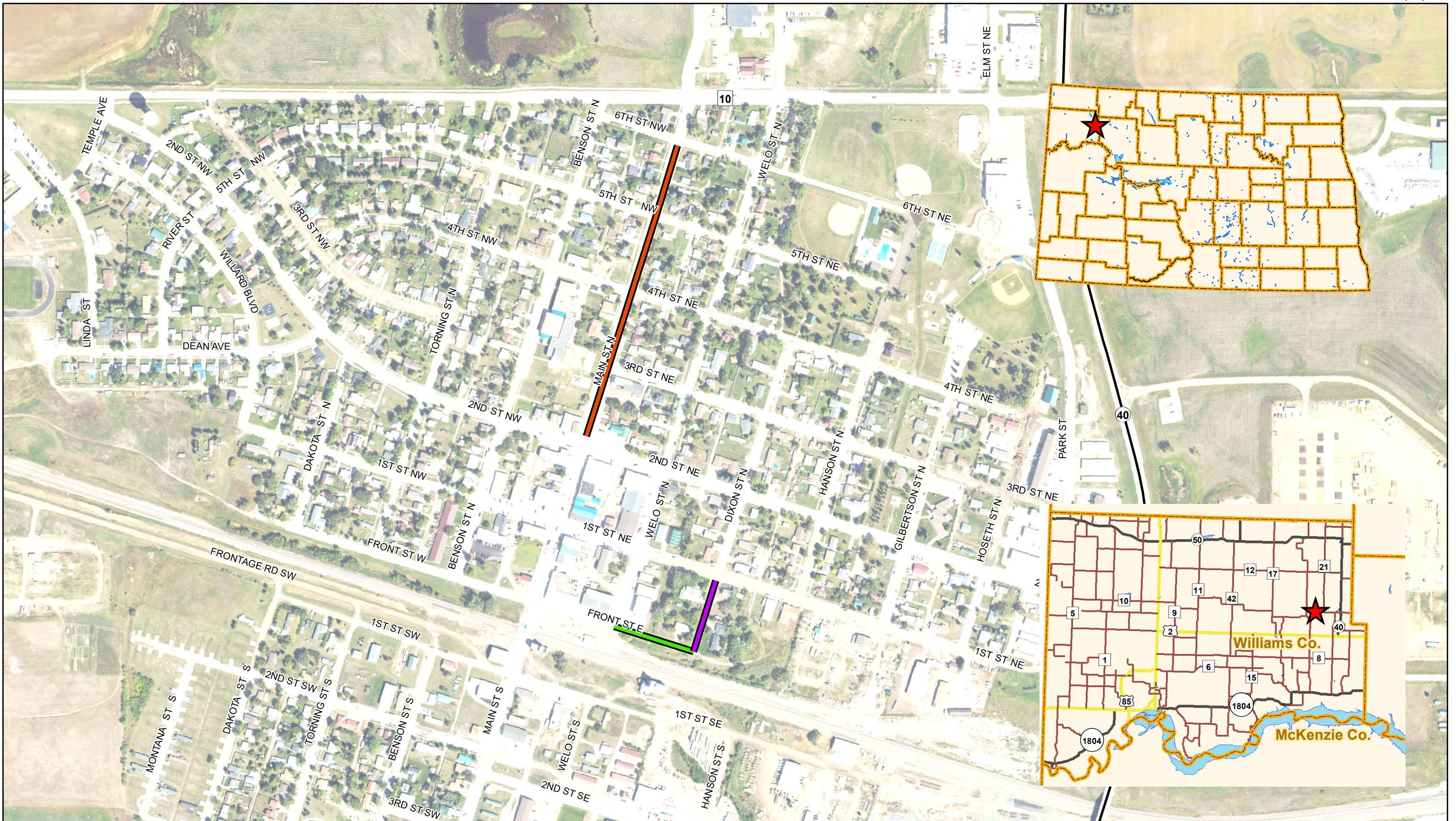
Sources

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

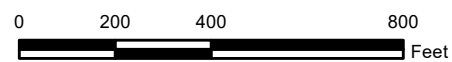
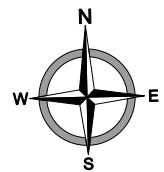
Source	If Other, Specify Funding Source	State Fiscal			Beyond Current Biennium	Total Cost Type	Term	Interest Rate
		Year 1 July to June	State Fiscal Year 2 July to June					
Department of Water Resources Cost Share Construction		\$0.00	\$632,214.14	\$0.00	\$632,214.14	Grant	0.00	0.00
Not Eligible	Local (No	\$0.00	\$3,833,485.86	\$0.00	\$3,833,485.86		0.00	0.00

Loan)




		\$0.00	\$4,465,700.00	\$0.00	\$4,465,700.00		
--	--	--------	----------------	--------	----------------	--	--



**NORTH MAIN STREET RECONSTRUCTION
IMPROVEMENT LOCATIONS
TIOGA, NORTH DAKOTA**



Legend

-  Water Service Line Replacement
-  Water Main Replacement
-  Water Main Looping





DELINEATION OF COSTS
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION
 SPN 61801 (10/2021)

DWR Date Received : April 18, 2024

Project:	North Main Street Reconstruction
Sponsor:	City of Tioga
Contact:	Abby Salinas
Phone:	701-664-2807
Engineer:	Joshua Reiner, Moore Engineering Inc.
Phone:	701-751-8377

Total Cost :	\$ 4,465,700	Date:	April 12, 2024
Ineligible Cost :	\$ 3,205,728		
Eligible Cost :	\$ 1,259,973		
Local Cost :	\$ 3,709,700		
		Cost-Share \$	\$ 756,000
		Preconstruction :	\$ 125,700
		Construction :	\$ 630,284

\$630,284

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

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	11.9%	Mobilization	1	LS	115,119.98	\$ 115,120	60%	\$ 69,072
2	0.8%	Testing Allowance (Must Enter \$30,000)	1	LS	7,427.10	\$ 7,427	60%	\$ 4,456
3	0.1%	Storm Water Management	1	LS	1,361.63	\$ 1,362	60%	\$ 817
4	0.3%	Traffic Control	1	LS	2,475.70	\$ 2,476	60%	\$ 1,485
5	19.0%	Water Main	725	LF	254.59	\$ 184,580	60%	\$ 110,748
6	1.6%	Gate Valve & Box	4	EA	3,950.00	\$ 15,800	60%	\$ 9,480
7	2.9%	Hydrant	4	EA	7,037.50	\$ 28,150	60%	\$ 16,890
8	3.5%	Water Service Connection	37	EA	916.22	\$ 33,900	60%	\$ 20,340
9	5.7%	Curb Stop & Box	37	EA	1,508.11	\$ 55,800	60%	\$ 33,480
10	10.8%	Water Service Line	1234	LF	85.28	\$ 105,230	60%	\$ 63,138
11	0.2%	Reset Sign Support	5	EA	325.00	\$ 1,625	60%	\$ 975
12	0.2%	Removal of Trees	3	EA	750.00	\$ 2,250	60%	\$ 1,350
13	1.0%	Removal of Concrete Pavement	480	SY	20.00	\$ 9,600	60%	\$ 5,760
14	0.4%	Removal of Curb and Gutter	285.3	LF	15.00	\$ 4,280	60%	\$ 2,568
15	1.8%	Full Depth Reclamation	2175.6	SY	8.00	\$ 17,405	60%	\$ 10,443
16	0.4%	Common Excavation (P)	205.56	CY	18.00	\$ 3,700	60%	\$ 2,220
17	3.4%	Cement	89.078	TON	375.00	\$ 33,404	60%	\$ 20,043
18	2.7%	Cement Stabilized Base - 12in	2175.6	SY	12.00	\$ 26,107	60%	\$ 15,664
19	9.6%	Superpave FAA 43	599.56	TON	155.00	\$ 92,932	60%	\$ 55,759
20	2.1%	Curb & Gutter- Type I	370	LF	55.00	\$ 20,350	60%	\$ 12,210
21	3.4%	Driveway Concrete	200	SY	165.00	\$ 33,000	60%	\$ 19,800
22	7.6%	Sidewalk Concrete 4In	506.67	SY	145.00	\$ 73,467	60%	\$ 44,080
23	1.4%	Turf Restoration	1	LS	13,378.25	\$ 13,378	60%	\$ 8,027
24	0.2%	Adjust Ex. Gate Valve Box	3	EA	500.00	\$ 1,500	60%	\$ 900
25	0.0%					\$ -	60%	\$ -
26	0.0%					\$ -	60%	\$ -
		Construction Sub-Total				\$ 882,842	60%	\$ 529,705
	10.0%	Contingency				\$ 88,284	60%	\$ 52,971
	21.7%	Construction Total				\$ 971,127	60%	\$ 582,676
Preconstruction Costs								
27	21.6%	Preliminary Design	1	LS	209,500.00	\$ 209,500	60%	\$ 125,700
28	0.0%		1	LS		\$ -	60%	\$ -
29	0.0%		1	LS		\$ -	60%	\$ -
30	0.0%		1	LS		\$ -	60%	\$ -
31	0.0%					\$ -	60%	\$ -
	4.7%	Preconstruction Total				\$ 209,500	60%	\$ 125,700
Construction Engineering Costs								
32	8.2%	Construction Engineering & Misc.	1	LS	79,346.00	\$ 79,346	60%	\$ 47,608
33	0.0%		1	LS		\$ -	60%	\$ -
34	0.0%		1	LS		\$ -	60%	\$ -
35	0.0%		1	LS		\$ -	60%	\$ -
36	0.0%		1	LS		\$ -	60%	\$ -
	1.8%	Construction Engineering Total				\$ 79,346	60%	\$ 47,608
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	60.1%	Other Construction	1	LS	2,683,188.00	\$ 2,683,188	0%	\$ -
43	5.7%	Other Engineering and Misc.	1	LS	254,154.00	\$ 254,154	0%	\$ -
44	6.0%	Other Contingencies	1	LS	268,385.85	\$ 268,386	0%	\$ -
45	0.0%		1			\$ -	0%	\$ -
	71.8%	Other Ineligible Total				\$ 3,205,728	0%	\$ -
100.0%		Total				\$ 4,465,700		
		Eligible Total				\$ 1,259,973	60%	\$ 755,984
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 1,259,973	60%	\$ 755,984

\$1,050,473

\$630,284

* 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 Tioga
Project Title: North Main Street Reconstruction

Date: April 29, 2024

Explanation of Alternatives:

Replace Asbestos Cement Watermain (Preferred) - Replacement of asbestos cement pipe water main. The water main is past its useful life. This alternative would include a 10-foot-wide trench and restoration of the trenched area.

Do Nothing - Leave the existing asbestos cement pipe water main in place and repair breaks as they occur. The city would be responsible for repairing breaks. The city and its residents would incur the costs of all repairs along with the inconvenience and safety hazards of being without water.

Inputs:

New Connections Served	0
Future Connections Served	0
Current Connections Served	37
Net Connections (New + Current)	37

	Replace Asbestos Cement Watermain (Preferred)	Do Nothing		
Construction Cost	\$4,465,700	\$0		
Annual O & M	\$5,000	\$10,000		

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Replace Asbestos Cement Watermain	Do Nothing		
Capital Costs	\$4,466,000	\$0		
O&M	\$149,000	\$305,000		
Repair, Rehab, Replacement	\$220,000	\$0		
Salvage Value	\$58,000	\$0		
Total PVC	\$4,777,000	\$305,000		
PV Cost Per User	\$129,108	\$8,243		

Current Water Rate (Cost Per 5000g) \$55

Comparable Water Rate \$47

Net Connections (New + Current)	37	37		
Cost-Share Percent	60%	60%		
Local Share	\$1,786,400	\$0		
Other Funding	\$0	\$0		
Total Local	\$1,786,400	\$0		
Payment Per User With Cost-Share	\$244.25	\$0.00		
Local Share	\$4,466,000	\$0		
Other Funding	\$0	\$0		
Total Local	\$4,466,000	\$0		
Payment Per User Without Cost-Share	\$610.61	\$0.00		

Explanation of Results:

The sponsor preferred project is the "Replace Asbestos Cement Watermain" option. The present value cost of the preferred alternative is \$4,777,000 and the presented alternative for comparison is "Do Nothing" at a present value cost of \$305,000 which represents a much lower local cost than replacement. The present value cost per user for the preferred alternative is \$129,108. The monthly user cost of the local share with DWR 60% cost-share participation is \$244 per month and \$611 without DWR participation.

	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
ND Dept. of Commerce Population & Trends	1,230	1,391	1.3%	16

Other Comments:

--

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.



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: City of Tioga
 Date: 04/12/24

Population: 2,202
 Users: 845

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
New Project CIP Costs									
Water Main	LF	\$255.00	725	75.00%	\$138,656	50	\$2,773	\$231	\$0.27
SUBTOTAL New CIP Costs					\$138,656		\$2,773	\$231	\$0.27
TOTAL New Project CIP					\$138,656		\$2,773	\$231	\$0.27

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$50,000	\$50,000	\$4,166.67	\$4.93
Adjustment:	\$188,656	\$0	\$0	\$0.00

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.05
Current	5,000	\$0.99
Adjustment	5,000	\$0.00

Report Prepared by (Title): Michael Gorder (Moore Engineering)
 Date: 4/12/24

Notes:

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve

1083193 - Bismarck Water Treatment Plant Expansion

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Apr 26, 2024 1:37 PM
Initially Submitted By: Ryan Anderson
Last Submit Date: May 1, 2024 8:44 AM
Last Submitted By: Ryan Anderson

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Salutation Dennis Wayne Reep
First Name Middle Name Last Name
Title: ND Managing Principal
Email*: dennis.reep@hdrinc.com
Address*: 3231 Greensboro Dr., Ste. 200

Bismarck North Dakota 58501
City State/Province Postal Code/Zip
Phone*: (701) 595-2142 Ext.
Phone
###-####
Fax: (701) 557-9640
###-####
Comments:

Organization Information

Status*: Approved
Name*: City of Bismarck
Organization Type*: Municipal Government
Tax Id: City of Bismarck
Organization Website: <http://www.bismarcknd.gov>
Address*: 221 N. 5th Street

City of Bismarck
Bismarck North Dakota 58506-____
City State/Province Postal Code/Zip

Phone*: 701-355-1601 Ext.

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Bismarck WTP Expansion

Sponsor(s)*: City of Bismarck

County*: Burleigh

City*: Bismarck

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:

City of Bismarck.

Describe the Problem*:

The City of Bismarck Water Treatment Plant Expansion Project will address treatment capacity limitations of their existing Water Treatment Plant by adding an additional 10 million gallons per day (MGD) of treatment capacity. Currently during peak water production periods, the City is approaching facility treatment capacity limits. As part of the Expansion Project, the Water Treatment Plant will also improve and replace several process components that have reached equipment or material end of useful life or are limiting current process production capacity.

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

The Project is based on expanding the capacity of the water treatment plant by 10 MGD through the following improvements: the replacement of existing surface water intake pipeline, screening, and pumps; addition of a raw water blending structure, hydraulic conveyance improvements, rehabilitation of the diversion basins and Superpulsators, and the implementation of primary and secondary ultrafiltration membranes and reverse osmosis membranes, and rehabilitation of the sludge processing gravity thickener. The project has the potential to require a sovereign lands permit. The City of Bismarck would like to have a pre permit application meeting with NDDWR staff to discuss applicability.

For this project,

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

What is the Current Estimated Population?* 96000

For this project,

What is the Benefited Population?* 96000

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? No
(Example: Hazard Mitigation Grant Program)

***:**

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 07/2024

Design Completion*: 09/2025

Bid*: 10/2025

Construction Start*: 12/2025

Construction Completion*: 12/2027

Explain Additional Timeline Issues*:

The City has chosen to complete this project utilizing a Construction Manager At Risk (CMAR) delivery method which will include multiple Guaranteed Maximum Price (GMP) agreements with the selected CMAR & Contractor. The current GMP phasing and overall design and procurement schedule is attached for reference. Multiple design and construction phases are occurring simultaneously. Construction will be taking place in 2024 through 2027.

Consulting Engineer*: HDR Engineering

Engineer Telephone Number*: 701-557-9637

Engineer Email*: jarrett.hillius@hdrinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Michelle Klose 04/26/2024
First Name Last Name Date

Address*: 221 North 5th Street
Address Line 1
Address Line 2
Bismarck North Dakota 58501-____
City State Zip Code

Telephone Number*: 701-355-1704

Sponsor Email*: mklose@bismarcknd.gov

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

Authorized Individual*: Michelle Klose 04/26/2024
First Name Last Name Date

Title/Position/Authority*: Director of Utility Operations

Documentation

Documentation

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

[CLICK HERE](#) to see examples.

Project Specific Map [BismarckWTPExpansion_SiteLayout_05012024.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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 - BismarckWTPExpansion_04262024.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [CostShareLetter_Bismarck WTP Expansion_04262024.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 - BismarckWTPExpansion_04262024.xlsx](#)
[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [sfn_61938_capital_improvement_plan - BismarckWTPExpansion_04262024.xlsx](#)

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: Yes

Feasibility/Engineering Study Material: [WTPExpansion_Feasibility_40262024.pdf](#)

Photos of Problem/Issue:

Other Applicable Document(s):

Other Applicable Document:

Other Applicable Document:

Other Applicable Document:

Sources

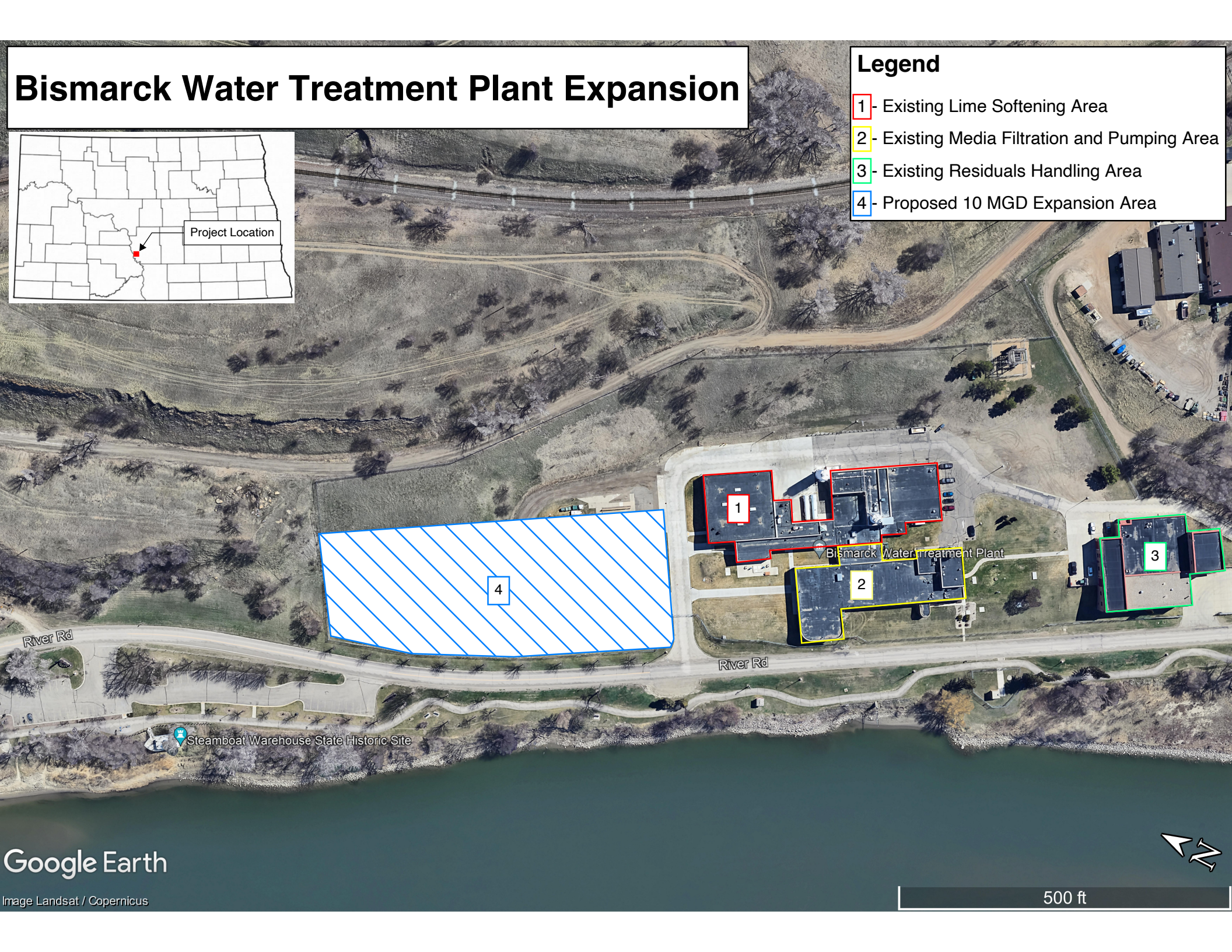
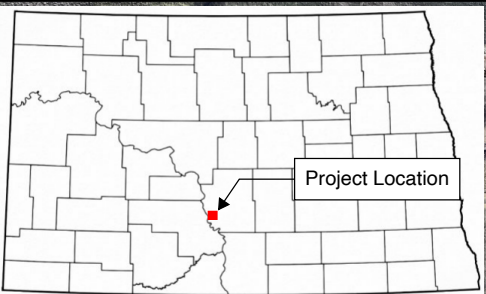
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	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		\$0.00	\$50,000,000.00	\$0.00	\$50,000,000.00	Grant	0.00	0.00
Other	City of Bismarck	\$0.00	\$33,333,334.00	\$0.00	\$33,333,334.00	Grant	0.00	0.00
		\$0.00	\$83,333,334.00	\$0.00	\$83,333,334.00			

Bismarck Water Treatment Plant Expansion

Legend

- 1 - Existing Lime Softening Area
- 2 - Existing Media Filtration and Pumping Area
- 3 - Existing Residuals Handling Area
- 4 - Proposed 10 MGD Expansion Area





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

DWR Date Received : April 26, 2024

Project:	Bismarck Water Treatment Plant Expansion
Sponsor:	City of Bismarck
Contact:	Michelle Klose, Director of Utility Operations
Phone:	701_355_1704
Engineer:	Jarrett Hillius, HDR Engineering
Phone:	000_000_0000

Total Cost :	\$ 83,333,334	Date:	April 26, 2024
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 83,333,334	Cost-Share \$	\$ 50,000,000
Local Cost :	\$ 33,333,334	Preconstruction :	\$ -
		Construction :	\$ 50,000,000

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

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	3.5%	Mobilization	1	LS	2,910,244.00	\$ 2,910,244	60%	\$ 1,746,146
2	0.7%	Bonding	1	LS	578,756.00	\$ 578,756	60%	\$ 347,254
3	0.4%	Insurance	1	LS	328,576.00	\$ 328,576	60%	\$ 197,146
4	2.5%	Demolition	1	LS	2,060,000.00	\$ 2,060,000	60%	\$ 1,236,000
5	10.0%	Concrete	1	LS	8,300,000.00	\$ 8,300,000	60%	\$ 4,980,000
6	3.0%	Masonry	1	LS	2,500,000.00	\$ 2,500,000	60%	\$ 1,500,000
7	4.2%	Metals	1	LS	3,500,000.00	\$ 3,500,000	60%	\$ 2,100,000
8	0.5%	Woods, Plastics, and Composites	1	LS	410,000.00	\$ 410,000	60%	\$ 246,000
9	0.9%	Cathodic Protection	1	LS	750,000.00	\$ 750,000	60%	\$ 450,000
10	0.5%	Doors	1	LS	410,000.00	\$ 410,000	60%	\$ 246,000
11	1.5%	Finishes	1	LS	1,250,000.00	\$ 1,250,000	60%	\$ 750,000
12	0.2%	Specialties	1	LS	160,000.00	\$ 160,000	60%	\$ 96,000
13	4.6%	Mechanical	1	LS	3,800,000.00	\$ 3,800,000	60%	\$ 2,280,000
14	10.3%	Electrical	1	LS	8,580,000.00	\$ 8,580,000	60%	\$ 5,148,000
15	2.2%	Earthwork	1	LS	1,800,000.00	\$ 1,800,000	60%	\$ 1,080,000
16	1.5%	Landscaping	1	LS	1,250,000.00	\$ 1,250,000	60%	\$ 750,000
17	7.4%	Utilities	1	LS	6,160,000.00	\$ 6,160,000	60%	\$ 3,696,000
18	9.4%	Process Pipes, Valves, Fittings	1	LS	7,800,000.00	\$ 7,800,000	60%	\$ 4,680,000
19	2.9%	Pump Equipment	1	LS	2,390,000.00	\$ 2,390,000	60%	\$ 1,434,000
20	25.0%	Water Treatment	1	LS	20,820,000.00	\$ 20,820,000	60%	\$ 12,492,000
21	0.0%				-	\$ -	60%	\$ -
22	0.0%				-	\$ -	60%	\$ -
23	0.0%				-	\$ -	60%	\$ -
24	0.0%				-	\$ -	60%	\$ -
25	0.0%				-	\$ -	60%	\$ -
26	0.0%				-	\$ -	60%	\$ -
		Construction Sub-Total				\$ 75,757,576	60%	\$ 45,454,546
	10.0%	Contingency				\$ 7,575,758	60%	\$ 4,545,455
	100.0%	Construction Total				\$ 83,333,334	60%	\$ 50,000,000
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	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				\$ 83,333,334		
		Eligible Total				\$ 83,333,334	60%	\$ 50,000,000
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 83,333,334	60%	\$ 50,000,000

* 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.

Life Cycle Cost Analysis Review

Sponsor: City of Bismarck
 Project Title: Water Treatment Plant - Expansion
 Date: May 1, 2024

Explanation of Alternatives:

WTP Expansion - Ultrafiltration and Reverse Osmosis - This alternative utilizes existing diversion basins and super pulsators and incorporates membrane filtration and membrane softening for the expanded capacity while maintaining the operation of the existing lime softening and media filtration portion of the existing water treatment plant. This alternative will continue to use the on-site clear wells, high-lift pumps, and chlorine contact in the transmission pipeline to the West End Reservoir.

Inputs:

New Connections Served	5500		
Future Connections Served	28000		
Current Connections Served	22500		
Net Connections (New + Current)	28000		
	WTP Expansion -		
Construction Cost	\$83,333,300		
Annual O & M	\$4,664,510		

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	WTP Expansion - Ultrafiltration and Reverse Osmosis		
Present Value			
Capital Costs	\$82,417,000		
O&M	\$133,067,000		
Repair, Rehab, Replacement	\$76,971,000		
Salvage Value	\$10,064,000		
Total PVC	\$282,391,000		
PV Cost Per User	\$10,085		

Current Water Rate (Cost Per 5000g)	\$25		
Comparable Water Rate	\$47		
Net Connections (New + Current)	28,000		
Cost-Share Percent	60%		
Local Share	\$32,966,800		
Other Funding	\$0		
Total Local	\$32,966,800		
Payment Per User With Cost-Share	\$5.96		
Local Share	\$82,417,000		
Other Funding	\$0		
Total Local	\$82,417,000		
Payment Per User Without Cost-Share	\$14.89		

Explanation of Results:

The sponsor preferred project is the "WTP Expansion" option. The present value cost of the preferred alternative is \$282,391,000 and there is no alternative for comparison. The present value cost per user for the preferred alternative is \$10,085. The monthly user cost of the local share with DWR 60% cost-share participation is \$5.96 per month and as a legislative appropriation there is no without DWR participation comparison provided.

ND Dept. of Commerce Population & Trends	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
	61,272	74,018	2.1%	1275

Other Comments:

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 1.2022.07.08



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: City of Bismarck - WTP Expansion
Date: 04/26/24

Population: 96,000
Users: 38,400

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
SUBTOTAL Existing CIP Costs					\$0		\$0	\$0	\$0.00

New Project CIP Costs									
Secondary, RO Skids for Softening	LS	\$83,333,333.60	1	50.00%	\$41,666,667	50	\$833,333	\$69,444	\$1.81
SUBTOTAL New CIP Costs					\$41,666,667		\$833,333	\$69,444	\$1.81

TOTAL Existing and New Project CIP					\$41,666,667		\$833,333	\$69,444	\$1.81
---	--	--	--	--	--------------	--	-----------	----------	--------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$500,000	\$24,000	\$2,000.00	\$0.05
Adjustment:	\$41,166,667	\$809,333	\$67,444	\$1.76

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.36
Current	5,000	\$0.01
Adjustment	5,000	\$0.35

Report Prepared by (Title): _____
 Date: _____

Notes: _____

- Instructions**
- 1 - Fill in colored items
 - 2 - Enter Existing asset project CIP costs
 - 3 - Enter New asset project CIP costs
 - 4 - Enter current total reserves and annual reserve



April 26, 2024

Andrea Travnicek, Ph.D.
Director, DWR, and Secretary of State Water Commission
1200 Memorial Highway
Bismarck, ND 58504-5262

Mrs. Travnicek,

The City of Bismarck (City) is requesting cost share funding from the North Dakota State Water Commission for the City's Water Treatment Plant (WTP) Expansion project that was included in Senate Bill 2020 (2023) in the amount of \$50,000,000. The City's Water Treatment Plant Expansion Project will address treatment capacity limitations of the existing WTP by adding an additional 10 MGD of treatment capacity. Currently during peak water production periods, the City is approaching facility treatment capacity limits. As part of the Expansion Project the WTP will also improve and replace several process components that have reached equipment or material end of useful life or are limiting current process production capacity. Additionally, a source water blending structure will be constructed to allow the City to blend raw water from their surface water intake with their Horizontal Collector Well. The blending of sources is needed to allow the City to utilize both existing raw water sources to meet the new facility treatment capacity of 40 MGD. The expansion also includes the replacement of the surface water intake screening to include a means to mitigate zebra mussel infestation that has now reached the stretch of the river where the intake is located.

The WTP Expansion Project is based on expanding the capacity of the water treatment plant by 10 million gallons per day through the following improvements: the replacement of existing surface water intake pipeline, screening, and pumps; addition of a raw water blending structure, hydraulic conveyance improvements, rehabilitation of the diversion basins and Superpulsators, and the implementation of primary and secondary ultrafiltration membranes and reverse osmosis membranes, and rehabilitation of the sludge processing gravity thickener. The project will include: the addition of a surface water screening with zebra mussel mitigation materials and chemical feed system, the replacement of the surface water raw water pipelines, the replacement of the existing surface water intake pumps and soft starts; a source water blending structure with associated piping, meters, and valves; facility hydraulic improvements; rehabilitation of the existing diversion basins and Superpulsator basins to install new pretreatment plate settlers; replacement of the existing media filter's 7-11 header piping; new concrete basins and building north of the existing diversion & Superpulsator building to house the primary and secondary ultrafiltration membranes and reverse osmosis membranes and membrane ancillary equipment; pumps for the membrane feed and by-pass; blending structure for the RO permeate and RO by-pass; high service wetwell and pumps; the replacement of the existing high-lift pumps and soft starts, on-site vault for blending the new facility water with the existing facility water; chemical feed improvements; expanded maintenance work space and equipment storage areas, Gravity Thickener #3 Rehabilitation & Replacement; mechanical/HVAC, electrical, instrumentation, and SCADA improvements in the existing and new buildings.

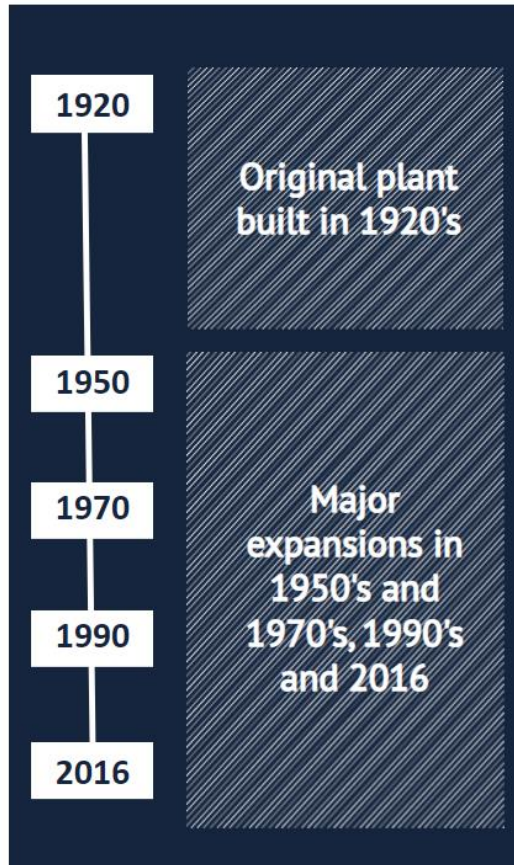
The total cost to construct the WTP Expansion project is currently estimated to be \$83,000,000. The City has chosen to complete this project utilizing a Construction Manager At Risk (CMAR) delivery method which will include multiple Guaranteed Maximum Price (GMP) agreements with the selected CMAR & Contractor. The current GMP phasing and overall design and procurement schedule is attached for reference. Due to the many GMP phases that include both construction and equipment procurement, as well as the legislative intent of S.B. 2020 the City is requesting approval of the entire \$50,000,000 at this time with the intent to submit GMP packages to ND DWR for review and reimbursement as they are developed.

If you have any questions, please feel free to contact me at 701-355-1704.

Michelle Klose
Director Utility Operations
Bismarck Public Works

CCC: Jim Kershaw, Water Plant Superintendent, City of Bismarck
Jarrett Hillius, PE, Project Manager, HDR
Joe Honner, PE, Project Manager, HDR

A History of Reliable Water Service



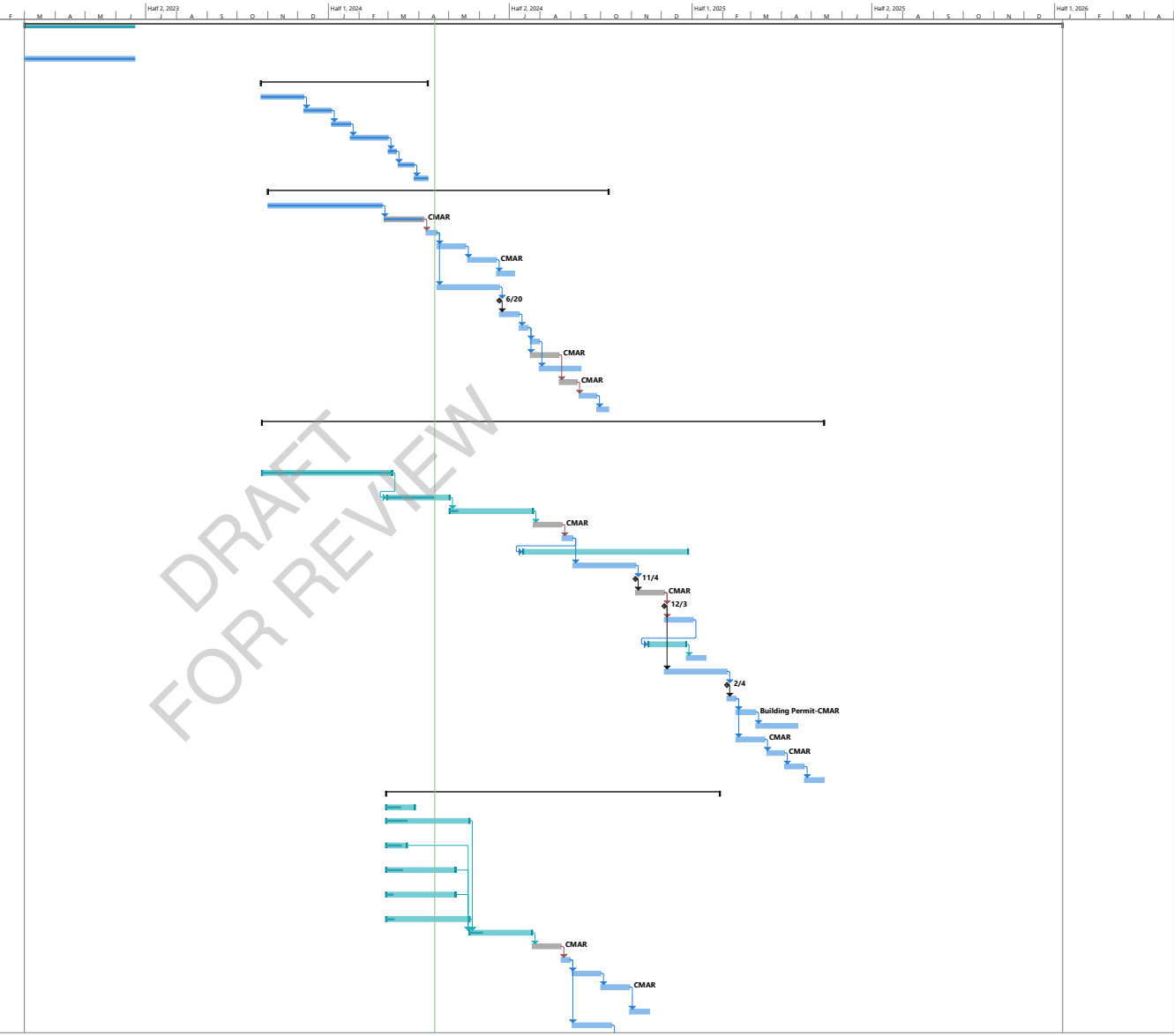
Over the past 100 years the City has maintained and updated the original plant to support growth and economic development in the region.



City of Bismarck WTP Improvements & Expansion Plan CMAR Program		Engineering Consultant 	CMAR 	Date of Update: 4/15/2024
--	--	---	---	------------------------------

Guaranteed Maximum Price - GMP Number	Description	Design Status	Current Cost	Cost Information Source
WTP GMP 3A	UPS Replacement Replacement Media Filter Control Valves Uninterruptable Power Supply (UPS) - 480V UPS has reached end of life and is needed for backup power	Complete	\$88,955	GMP Price Received from CMAR (PKG)
WTP GMP 3B	High Lift Pump Replacement High Lift Pump Replacement - Replacement and Refurbishment end of useful life pumps (HLP #1, 2, 3, & 4), Addition of 480V Variable Frequency Drives (VFDs), Electrical Improvements Equipment Procurement Package: Pumps, Motors, Drives (VFDs), and Transformer	30% / 60%	\$2,910,000	Engineer's OPCC (HDR)
WTP GMP 4	Hydraulic Capacity Improvements Surface Water Intake Screening - Replacement of end of life traveling screen with In-River Wedge-Wire Screens, Screens to include Zebra Mussel mitigation materials and chemical feed system. Screen system to include Air Burst backwash system. Replacement. Raw Water Intake Pipeline Replacement - Replacement/Lining of Metallic raw water pipeline, pipeline is beyond expected useful life - approaching 70 years in age. Low Lift (Raw Water Surface Intake) Pump replacement - Replacement and Reconfiguration of LLP #1,2,3, & 4 and piping manifold, Addition of 480V Variable Frequency Drives (VFDs), Electrical Improvements Source Water Blending Facility - construction of a new raw water flow control and metering structure that allows the process to utilize both Horizontal Collector Well and Missouri River sources through blending pipe manifold. Source Water Blending structure to be new construction. New Structure to include Maintenance Work Space and Equipment Storage areas. Media Filter 7-11 Pipe Replacement - Replacement of end of life media filter header piping, including filter effluent, influent, backwash, surface wash, and waste. Includes replacement of control valves. Equipment Procurement Package: Electrical Gear, VFDs-Drives, Pumps, vacuum priming system, wedge wire screens	Alternative Analysis - Preliminary Design (5-10%)		
WTP GMP 5	SCADA Improvements Design Consolidation of CP01 Remote Panels - CP03, CP03A, CP13, CP 21; Add to STAR network; Existing Control Panel PLC and IO Card Upgrades; New Single Mode Fiber Ring Network; Consolidated 120V UPS System	15% Design		
WTP GMP 6	10 MGD Expansion 10 MGD Expansion to include: pretreatment process modifications to existing Superpulsator building to incorporate oxidation, flocculation, sedimentation, and grit/sand removal systems; new structure/expansion of existing Superpulsator building to include Ultrafiltration system, Reverse Osmosis system, Disinfection system, Clearwell, High Lift pumping, Membrane Operations control room, Membrane operations support lab area, chemical feed systems, electrical additions, Membrane operations and maintenance staff office and work areas Membrane System Procurement (Ultrafiltration and Reverse Osmosis) Procurement Gravity Thickener #3 Rehabilitation/Replacement; rehabilitation of concrete basin, replacement of bridge, center column/feedwell, arms and scraper manifold, drive mechanism, weirs & baffles Equipment Procurement Package: Electrical Gear (MCCS, Transformer, Drives-Drives, Pumps, Valves) Electrical Utility Substation Expansion/Upgrade (MDU)	UF Piloting Complete; Preliminary Basis of Design Report (10-15%) Membrane System Procurement In-Development		
WTP GMP 7	Horizontal Collector Well (HCW) Improvements HVAC Equipment Replacement - Current chilled water system to be replacement entirely due to system failure. System reliant on HCW water containing Iron & Manganese which has caused premature failure of equipment in contact with the raw water to fail. Flowmeter Replacement - Current strap-on Magnetic Flowmeter to be replaced with more accurate/reliable meter. Equipment Procurement Package: Cooling System Equipment & Flowmeter	Alternative Analysis - Preliminary Design (5-10%)		
		Total Construction Estimate	\$83,000,000	City CIP & WTP Master Plan Planning Level Estimate
		SB No. 2020 Funding	\$50,000,000	

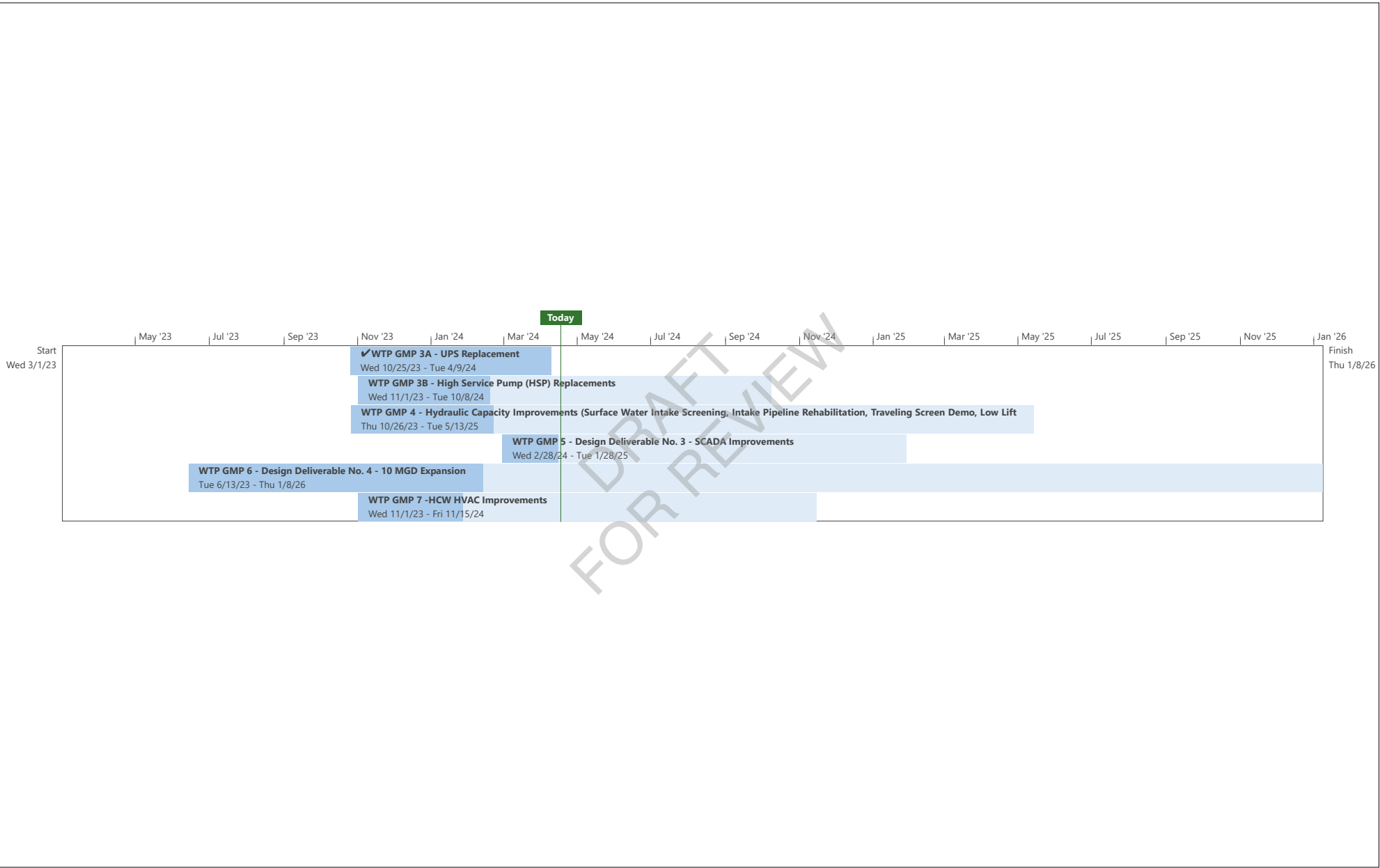
ID	Task Mode	Task Name	Duration	Start	Finish	Pre%	Resource Names
1	📌	Bismarck WTP Expansion and Improvements	742 days	Wed 3/1/23	Thu 1/8/26	100%	
		CMAR Program					
2	✓	Finalize Engineering and CMAR Services Agreement, Constructability & Procurement Review Workshop, Data and Information Collection	79 days	Wed 3/1/23	Mon 6/19/23	100%	
3	✓	WTP GMP 3A - UPS Replacement	117 days	Wed 10/25/23	Tue 4/9/24	100%	
4	✓	UPS Design Review Package Milestone	30 days	Wed 10/25/23	Wed 12/6/23	100%	
5	✓	UPS Design Review/VE Workshop	18 days	Thu 12/7/23	Wed 1/3/24	4	100%
6	✓	100%/Final UPS Design Package Milestone	13 days	Thu 1/4/24	Mon 1/22/24	5	100%
7	✓	UPS CMAR Bid/Procurement	28 days	Tue 1/23/24	Thu 2/29/24	6	100%
8	✓	UPS CMAR GMP Proposal	6 days	Fri 3/1/24	Fri 3/8/24	7	100%
9	✓	UPS GMP Workshop /Negotiation	12 days	Mon 3/11/24	Tue 3/26/24	8	100%
10	✓	UPS GMP - City Commission Meeting Approval	10 days	Wed 3/27/24	Tue 4/9/24	9	100%
11	✓	WTP GMP 3B - High Service Pump (HSP) Replacements	242 days	Wed 11/1/23	Tue 10/8/24	32%	
12	✓	100%/Final Design & HDR QC	80 days	Wed 11/1/23	Fri 2/23/24	100%	
13	✓	HSP 30%-60% City/CMAR Review	30 days	Mon 2/26/24	Fri 4/5/24	12	95% CMAR
14	✓	HSP 30%-60% Cost Model Review & VE Workshop	9 days	Mon 4/8/24	Thu 4/18/24	13	0%
15	✓	HSP Procurement Package Development (Pumps, Motors, VFDs, and Transformer)	21 days	Fri 4/19/24	Fri 5/17/24	14	0%
16	✓	Procurement Bidding & Work Authorization (WA) submission to City/HDR for Review	21 days	Mon 5/20/24	Mon 6/17/24	15	0% CMAR
17	✓	Review & City Commission Approval of HSP Procurement Package-	14 days	Tue 6/18/24	Fri 7/5/24	16	0%
18	✓	100%/Final Design & HDR QC	45 days	Fri 4/19/24	Thu 6/20/24	14	0%
19	✓	100%/Final Design Milestone	0 days	Thu 6/20/24	Thu 6/20/24	18	0%
20	✓	100%/Final City/CMAR Review	14 days	Fri 6/21/24	Wed 7/10/24	19	0%
21	✓	100%/Final Review Meeting	7 days	Thu 7/11/24	Fri 7/19/24	20	0%
22	✓	Issue Final Design Deliverables and Submit Project for ND DEQ Review	7 days	Mon 7/22/24	Tue 7/30/24	21	0%
23	🚩	Final Design CMAR Bidding	21 days	Mon 7/22/24	Mon 8/19/24	21	0% CMAR
24	✓	ND DEQ Review (Plans and Specs)	30 days	Wed 7/31/24	Tue 9/10/24	22	0%
25	🚩	GMP Proposal Development	14 days	Tue 8/20/24	Fri 9/6/24	23	0% CMAR
26	✓	GMP Workshop/Negotiation	14 days	Mon 9/9/24	Thu 9/26/24	25	0%
27	✓	HSP GMP - City Commission Meeting Approval	8 days	Fri 9/27/24	Tue 10/8/24	26	0%
28	✓	WTP GMP 4 - Hydraulic Capacity Improvements (Surface Water Intake Screening, Intake Pipeline Rehabilitation, Traveling Screen Demo, Low Lift Pump Replacement, Source Water Blending Vault, Filter Piping Replacement)	401 days	Thu 10/26/23	Tue 5/13/25	21%	
29	✓	Basis of Design Development (Preliminary Design 0-10%, Alternative Analysis - Scope Decision Verification)	90 days	Thu 10/26/23	Mon 3/4/24	100%	
30	✓	Low Lift Pump Alternative Analysis	45 days	Thu 2/29/24	Wed 5/1/24	29	75%
31	✓	30% Design Milestone	60 days	Thu 5/2/24	Wed 7/24/24	30	10%
32	🚩	30% City/CMAR Review	21 days	Thu 7/25/24	Thu 8/23/24	31	0% CMAR
33	✓	30% VE Workshop	7 days	Fri 8/23/24	Mon 9/2/24	32	0%
34	✓	In River Intake Screen Permitting - USACE, ND DWR	120 days	Mon 7/15/24	Fri 12/27/24	33	0%
35	✓	60% Design	45 days	Tue 9/3/24	Mon 11/4/24	33	0%
36	✓	60% Design Milestone	0 days	Mon 11/4/24	Mon 11/4/24	35	0%
37	🚩	60% City/CMAR Review	21 days	Tue 11/5/24	Tue 12/3/24	36	0% CMAR
38	✓	60% Cost Model & Constructability Workshop	0 days	Tue 12/3/24	Tue 12/3/24	37	0%
39	✓	Procurement Package Development (Electrical Gear, Pumps, Drives, Valves, Intake-21 Screen)	21 days	Wed 12/4/24	Wed 1/1/25	37	0%
40	✓	CMAR Procurement Process - Advertisement, Bidding, and Submission to City/HDR	28 days	Mon 11/18/24	Wed 12/25/24	39	0%
41	✓	Review & City Commission Approval of GMP 4 Procurement Package	14 days	Thu 12/26/24	Tue 1/14/25	40	0%
42	✓	100%/Final Design & HDR QC	45 days	Wed 12/4/24	Tue 2/4/25	38	0%
43	✓	100%/Final Design Milestone	0 days	Tue 2/4/25	Tue 2/4/25	42	0%
44	✓	100%/Final Design Workshop	7 days	Wed 2/5/25	Thu 2/13/25	43	0%
45	✓	Issue Final Design Deliverables & Submit DEQ Design Submittal and Building Permit	14 days	Fri 2/14/25	Wed 3/5/25	44	0% Buildin
46	✓	City Bismarck Building & Site Permit Review	30 days	Thu 3/6/25	Wed 4/16/25	45	0%
47	✓	Final Design CMAR Bid	21 days	Fri 2/14/25	Fri 3/14/25	44	0% CMAR
48	✓	GMP Proposal Development	14 days	Mon 3/17/25	Thu 4/3/25	47	0% CMAR
49	✓	GMP Workshop/Negotiation	14 days	Fri 4/4/25	Wed 4/23/25	48	0%
50	✓	HSP GMP - City Commission Meeting Approval	14 days	Thu 4/24/25	Tue 5/13/25	49	0%
51	✓	WTP GMP 5 - Design Deliverable No. 3 - SCADA Improvements	240 days	Wed 2/28/24	Tue 12/8/25	14%	
52	✓	Investigation and Cost analysis of consolidated 120 VAC UPS system	21 days	Wed 2/28/24	Wed 3/27/24	50%	
53	✓	Design Consolidation of CP01 Remote Panels - CP01, CP03A, CP13, CP 21; Add to STAR network	60 days	Wed 2/28/24	Tue 5/21/24	25%	
54	✓	Design HL Pump 5 Control Consolidation of CP09 - Design to be incorporated into existing HL Pump 5 Construction Contract	15 days	Wed 2/28/24	Tue 3/19/24	75%	
55	✓	Design HL Pump 1, 3, 4 Control Consolidation of CP09 - Design to be incorporated into GMP 3B	50 days	Wed 2/28/24	Tue 5/7/24	25%	
56	✓	Design of PLC and IO Card Upgrades - identification of CPs, upgrade, procurement and GMP plan	50 days	Wed 2/28/24	Tue 5/7/24	10%	
57	✓	Design of new Single Mode Fiber Ring	60 days	Wed 2/28/24	Tue 5/21/24	10%	
58	✓	30%/60% Design Development	45 days	Wed 5/22/24	Tue 7/23/24	53	20%
59	🚩	30%-60% City/CMAR Review	21 days	Wed 7/24/24	Wed 8/21/24	58	0% CMAR
60	✓	30%-60% Cost Model Review & VE Workshop	7 days	Thu 8/22/24	Fri 8/30/24	59	0%
61	✓	Procurement Package Development (CPs, PLC & IO Cards, Fiber, UPS)	21 days	Mon 9/2/24	Mon 9/30/24	60	0%
62	🚩	CMAR Procurement Bidding & Work Authorization (WA) submission to City/HDR for Review	21 days	Tue 10/1/24	Tue 10/29/24	61	0% CMAR
63	✓	Review & City Commission Approval of HSP Procurement Package-	14 days	Wed 10/30/24	Mon 11/18/24	262	0%
64	✓	100%/Final Design & HDR QC	30 days	Mon 9/2/24	Fri 10/11/24	60	0%



Project: Bismarck WTP Project Design & Procurement Schedule
 Date: Wed 4/17/24

Task Split: Milestone (blue square), Summary (dotted line), Project Summary (black line), Inactive Task (grey line), Inactive Summary (dotted line), Manual Task (green square), Manual Summary Rollup (green square), Manual Summary (green square), Start-only (green square), Finish-only (green square), External Tasks (grey square), External Milestone (grey square), Duration-only (grey square), Progress (blue line), Manual Progress (blue line), Inactive Milestone (grey square), Inactive Summary (dotted line), Manual Task (green square), Manual Summary Rollup (green square), Manual Summary (green square), Start-only (green square), Finish-only (green square), External Tasks (grey square), External Milestone (grey square), Duration-only (grey square), Progress (blue line), Manual Progress (blue line).

Page 1



used as necessary, except for salaries and wages, for the period beginning with the effective date of this Act, and ending June 30, 2025.

SECTION 10. ESTIMATED INCOME - WATER PROJECTS STABILIZATION FUND. The total special funds line item in section 1 of this Act includes \$123,380,315 from the water projects stabilization fund for water supply grants for the period beginning with the effective date of this Act, and ending June 30, 2025.

SECTION 11. AMENDMENT. Section 61-02-79 of the North Dakota Century Code is amended and reenacted as follows:

61-02-79. Bank of North Dakota - Line of credit.

The Bank of North Dakota shall extend a line of credit not to exceed fiftyone hundred million dollars at a rate of one and one-half percent over the three month London interbank offered rate, but may not exceed three percent to the state water commissionthe prevailing interest rate charged to North Dakota government entities. The state water commissiondepartment of water resources shall repay the line of credit from funds available in the resources trust fund, water development trust fund, or other funds, as appropriated by the legislative assembly. The state water commissiondepartment of water resources may access the line of credit, as necessary, to provide funding as authorized by the legislative assemblyup to fifty million dollars for the northwest area water supply project and up to fifty million dollars for the southwest pipeline project during the biennium beginning July 1, 20242023, and ending June 30, 20232025.

SECTION 12. AMENDMENT. Section 4 of chapter 20 of the 2021 Session Laws is amended and reenacted as follows:

SECTION 4. APPROPRIATION - RESOURCES TRUST FUND - STATE WATER COMMISSION DISCRETIONARY FUNDING. There is appropriated out of any moneys in the resources trust fund in the state treasury, not otherwise appropriated, the sum of \$6,000,000, or so much of the sum as may be necessary, to the state water commissionfor the purpose of providing discretionary funds for water project grantsdepartment of water resources to be used as necessary except for salaries and wages, for the biennium beginning July 1, 2021, and ending June 30, 2023. This funding is considered to be a one-time funding item.

SECTION 13. STATE WATER COMMISSION - RED RIVER WATER SUPPLY PROJECT FUNDING - LEGISLATIVE INTENT. Excluding the funding provided for Red River water supply projects prior to the 2023-25 biennium, the state water commission may not approve state funding for the Red River water supply project in excess of a total of \$953,000,000 without legislative approval. It is the intent of the sixty-eighth legislative assembly that of the \$953,000,000, \$180,000,000 is provided from the resources trust fund for the period beginning with the effective date of this Act, and ending June 30, 2025.

SECTION 14. STATE WATER COMMISSION - MOUSE RIVER FLOOD CONTROL PROJECT FUNDING - LEGISLATIVE INTENT. Excluding the funding provided for Mouse River flood control projects prior to the 2023-25 biennium, the state water commission may not approve state funding for the Mouse River flood control project in excess of a total of \$380,500,000 without legislative approval. It is the intent of the sixty-eighth legislative assembly that of the \$380,500,000, \$76,100,000 is provided from the resources trust fund for the period beginning with the effective date of this Act, and ending June 30, 2025.

SECTION 15. SOUTHWEST PIPELINE PROJECT FUNDING - LEGISLATIVE INTENT. It is the intent of the sixty-eighth legislative assembly that the sixty-ninth legislative assembly appropriate \$40,000,000 from the resources trust fund for the southwest pipeline project water treatment plant for the biennium beginning July 1, 2025, and ending June 30, 2027.

SECTION 16. LEGISLATIVE INTENT - STATE WATER COMMISSION - CITY OF BISMARCK WATER TREATMENT PLANT. Excluding the funding provided for the city of Bismarck water treatment

plant prior to the 2023-25 biennium, it is the intent of the sixty-eighth legislative assembly that up to \$50,000,000 of funding appropriated in the water supply - grants line item in section 1 of this Act be made available during the 2023-25 biennium for the city of Bismarck water treatment plant.

SECTION 17. LEGISLATIVE INTENT - CITY OF MEDORA WATER SUPPLY PROJECT. It is the intent of the sixty-eighth legislative assembly that the city of Medora request funding from the state water commission for water storage, water main replacement, and water supply expansion projects after all agreements for the construction of the Theodore Roosevelt presidential library have been finalized between the library, the library foundation, and the city of Medora.

SECTION 18. MISSOURI RIVER SYSTEM - LEGISLATIVE INTENT. It is the intent of the sixty-eighth legislative assembly that the department of water resources support efforts that protect and develop beneficial use of Missouri River system water and other available water supply sources.

SECTION 19. DEPARTMENT OF WATER RESOURCES - GARRISON DIVERSION CONSERVANCY DISTRICT - LEGISLATIVE INTENT - REPORT. It is the intent of the sixty-eighth legislative assembly that the department of water resources, in coordination with the Garrison Diversion Conservancy District, research and identify options for the use of the Missouri River intake constructed near Washburn. The department of water resources shall report its findings and recommendations to the legislative management by October 1, 2024.

SECTION 20. EXEMPTION - LINE ITEM TRANSFERS. Notwithstanding section 54-16-04, the office of management and budget shall transfer up to \$9,900,000 between the operating expenses and capital assets line items in section 1 of this Act, during the period beginning with the effective date of this Act, and ending June 30, 2025, as requested by the director of the department of water resources. The director of the department of water resources shall notify the legislative council of any transfers made pursuant to this section.

SECTION 21. EXEMPTION - GRANTS - APPLICATION - WATER-RELATED PROJECTS - CARRYOVER AUTHORITY. Section 54-44.1-11 does not apply to \$367,000,000 for grants or water-related projects included in the capital assets, water supply - grants, rural water supply - grants, flood control projects, and general water - grants line items in section 1 of chapter 20 of the 2021 Session Laws, sections 5 and 6 of chapter 20 of the 2021 Session Laws, section 9 of chapter 80 of the 2021 Session Laws, and subdivision 3 of section 1 of chapter 550 of the 2021 Special Session Session Laws. Any unexpended obligated and unobligated funds from these appropriations may be continued into the 2023-25 biennium. Any funds continued may be expended only for the purpose for which it was originally appropriated. The department of water resources may seek emergency commission and budget section approval under section 54-16-04.2 to increase carryover spending authority of funds appropriated in the 2021-23 biennium into the 2023-25 biennium.

SECTION 22. EMERGENCY. This Act and Senate Bill No. 2196, as approved by the sixty-eighth legislative assembly, are declared to be an emergency measure.

1083169 - Original Townsite & Maplewood - DWR Water Supply Additional Cost Share Request

Application Details

Funding Opportunity:	22356-State Fiscal Year 2023-2024 Infrastructure Request	Initial Submit Date:	Apr 19, 2024 3:38 PM
Funding Opportunity Due Date:	Jun 30, 2024 3:00 PM	Initially Submitted By:	Dylan Ensrude
Program Area:	Funding for Infrastructure in ND - FIND	Last Submit Date:	
Status:	Submitted	Last Submitted By:	
Stage:	Final Application		

Contact Information

Primary Contact Information

Active User*:	Yes
Type:	External User
Name:	Mr. Dylan Salutation First Name
Middle Name:	Ensrude Last Name
Title:	Professional Engineer
Email*:	dylan.ensrude@mooreengineeringinc.com
Address*:	925 10th Ave East

Organization Information

Status*:	Approved
Name*:	City of Mapleton
Organization Type*:	Municipal Government
Tax Id:	
Organization Website:	
Address*:	651 2nd St PO Box 9

	West fargo	North Dakota	Mapleton	North Dakota
	City	State/Province	City	State/Province
58078			58059-_____	
Postal Code/Zip			Postal Code/Zip	
Phone*:	(701) 551-1027	Ext.	Phone*:	701-282-5889 Ext.
	Phone			###-###-####
	###-###-####		Fax:	###-###-####
Fax:	###-###-####		Vendor ID:	
Comments:			PeopleSoft	
			Supplier ID:	
			Comments:	
			Location	
			Code:	

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Sewer, Water, and Street Improvement District No. 2023-1

Sponsor(s)*: City of Mapleton

County*: Cass

City*: Mapleton

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Municipal Water Supply

Jurisdictions/Stakeholders Involved*:
City of Mapleton

Describe the Problem*:

The Original Townsite and Maplewood neighborhoods are 60 and 50 years old, respectively and are in need of improvements. The existing asphalt streets are severely degraded in both neighborhoods. The

valves, hydrants, curb stops, and other metallic components are original and past their useful life, in addition to asbestos cement pipe in the original townsite. There are also several locations of sanitary sewer which are cracked or sagged, and the existing stormwater lift station is undersized.

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

*This is an additional construction cost share request for water system improvements. In February 2024, it was discovered that 2 saddles/corporation stops were leaking on Maple Drive within the project area. The City hired a contractor to fix them on an emergency basis. These components were previously not intended to be replaced as it is uncommon for them to leak, especially on a PVC main. However, to protect the City's investment in the surrounding infrastructure and the new street above it, the City is respectfully requesting additional cost share to replace the remaining saddles and corporation stops on Maple Drive.

For this project,

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

What is the Current Estimated Population?*: 1320

For this project,

What is the Benefited Population?*: 165

Have Assessment Districts Been Formed?*: Yes

Date Formed: 09/13/2022

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?*: 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 underground infrastructure in the Original Townsite and Maplewood neighborhoods is original (1962 and 1972, respectively) and is in need of replacement.

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?* Yes

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

Cass County utility/Drainage permit, BNSF temporary occupancy

Have You Been Approved For Any Local Permits?: Yes

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

County permits complete, BNSF permit complete

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? No
 (Example: Hazard Mitigation Grant Program)
 *:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 09/2022

Design Completion*: 05/2023

Bid*: 06/2023

Construction Start*: 9/2023

Construction Completion*: 10/2024

Explain Additional Timeline Issues*:

None anticipated

Consulting Engineer*: Moore Engineering, Inc

Engineer Telephone Number*: 701-551-1027

Engineer Email*: dylan.ensrude@mooreengineeringinc.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Michelle Kalvoda-Baumann 08/28/2023
 First Name Last Name Date

Address*: 651 2nd St
 Address Line 1
 Address Line 2
 Mapleton North Dakota 58059-0000
 City State Zip Code

Telephone Number*: 701-282-6992

Sponsor Email*: auditor@mapletonnd.com

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

Yes

Authorized Individual*:

Michelle Kalvoda-Baumann 08/28/2023
 First Name Last Name 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

20095_OverallProposedImprovements_WithInset_20230112.pdf

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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:

20095_DelineationOfCost_AdditionalCostShare_MapleDriveSaddlesCorps.xlsx

Type of Request:

Construction

Signed Plans and Specifications For Bidding: 20095_ImpDist2023-1ImpDistNo2023-2_DS.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:

20095_LCCA_WaterMainCombined_AddCostShare_MapleDriveSaddlesCorps.xlsx

[CLICK HERE for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.](#)

Capital Improvement Plan SFN 61938: 20095_CIP_WaterMain_20230828.xlsx

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: Yes

Feasibility/Engineering Study Material: 20095_Report_Final_20230310_Reduced.pdf

Photos of Problem/Issue: Maple Drive water service - saddlecorp.jpg

Other Applicable Document(s): No

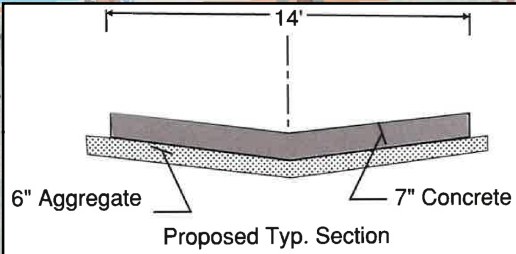
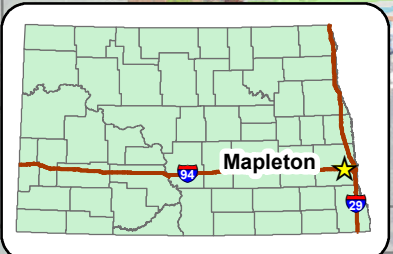
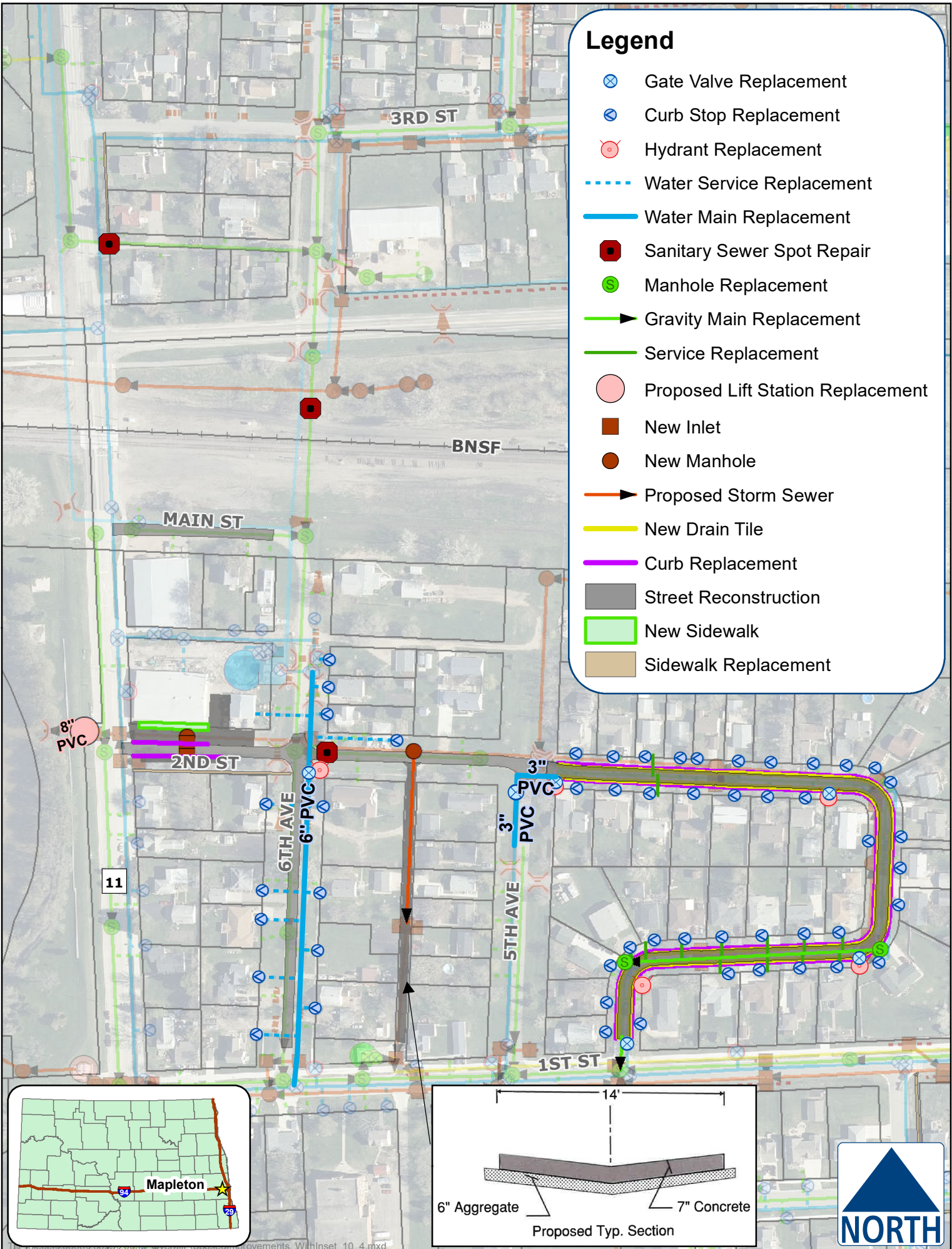
Sources

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

Source	If Other, Specify Funding Source	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		\$441,500.00	\$0.00	\$0.00	\$441,500.00	Grant	0.00	0.00
BND Infrastructure Revolving Loan Fund		\$2,600,000.00	\$0.00	\$0.00	\$2,600,000.00	Loan	20.00	2.00
Clean Water State Revolving Fund		\$1,975,000.00	\$0.00	\$0.00	\$1,975,000.00	Loan	30.00	2.00
Drinking Water State Revolving Fund		\$776,040.00	\$0.00	\$0.00	\$776,040.00	Loan	30.00	2.00
Other	Department of Water Resources Cost Share Construction Additional Cost Share	\$99,995.00	\$0.00	\$0.00	\$99,995.00	Grant	0.00	0.00
Other	DWR Additional Cost Share (Saddle/Corp Replacement)	\$220,320.00	\$0.00	\$0.00	\$220,320.00	Grant	0.00	0.00
		\$6,112,855.00	\$0.00	\$0.00	\$6,112,855.00			

Legend

- Gate Valve Replacement
- Curb Stop Replacement
- Hydrant Replacement
- Water Service Replacement
- Water Main Replacement
- Sanitary Sewer Spot Repair
- Manhole Replacement
- Gravity Main Replacement
- Service Replacement
- Proposed Lift Station Replacement
- New Inlet
- New Manhole
- Proposed Storm Sewer
- New Drain Tile
- Curb Replacement
- Street Reconstruction
- New Sidewalk
- Sidewalk Replacement





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

DWR Date Received : April 22, 2024

Project:	Sewer, Water, and Street Improvement District No. 2023-1
Sponsor:	City of Mapleton
Contact:	Michelle Kalvoda-Baumann (Auditor)
Phone:	701.282.6992
Engineer:	Dylan Ensrude (Moore Engineering)
Phone:	701.282.4692

Total Cost :	\$ 6,259,744
Ineligible Cost :	\$ 4,990,043
Eligible Cost :	\$ 1,269,701
Local Cost :	\$ 5,497,944

Date: April 19, 2024

	Cost-Share \$
	\$ 761,820
Preconstruction :	\$ -
Construction :	\$ 761,820
Previously Approved :	\$ 541,495
Current Request :	\$ 220,325

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

Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
---------------------	------------	------	------------	-------	--------------	-----------------

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	5.0%	Mobilization, SWPPP, Traffic Control	1	LS	60,000.00	\$ 60,000	60%	\$ 36,000
2	6.7%	Temporary Water	1	LS	80,000.00	\$ 80,000	60%	\$ 48,000
3	5.0%	Removal of ACP Watermain	700	LF	85.00	\$ 59,500	60%	\$ 35,700
4	0.1%	Removal of Water Main	45	LF	30.00	\$ 1,350	60%	\$ 810
5	7.8%	Watermain - 6In	745	LF	125.00	\$ 93,125	60%	\$ 55,875
6	4.5%	Hydrant	6	EA	9,000.00	\$ 54,000	60%	\$ 32,400
7	5.0%	Gate Valve & Box - 6In	10	EA	6,000.00	\$ 60,000	60%	\$ 36,000
8	1.5%	Water Service Connection	13	EA	1,400.00	\$ 18,200	60%	\$ 10,920
9	7.6%	Water Service Line	1130	LF	80.00	\$ 90,400	60%	\$ 54,240
10	9.0%	Curb Stop & Box	51	EA	2,100.00	\$ 107,100	60%	\$ 64,260
11	5.3%	Topsoil	1787.5	SY	35.00	\$ 62,563	60%	\$ 37,538
12	3.5%	Turf Est., Watering, Weed Control	1	LS	41,164.00	\$ 41,164	60%	\$ 24,698
13	1.9%	Aggregate Removal/Replacement	225	SY	100.00	\$ 22,500	60%	\$ 13,500
14	28.1%	Fittings - Saddle/Corporation	36	EA	9,300.00	\$ 334,800	60%	\$ 200,880
15	0.0%					\$ -	60%	\$ -
16	0.0%					\$ -	60%	\$ -
		Construction Sub-Total			749901.85	\$ 1,084,702	60%	\$ 650,821
	9.7%	Contingency				\$ 104,999	60%	\$ 62,999
	19.0%	Construction Total				\$ 1,189,701	60%	\$ 713,820

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Preconstruction Costs								
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%	\$ -
	0.0%	Preconstruction Total				\$ -	60%	\$ -

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Engineering Costs								
22	1.8%	Construction Contract Management	1	LS	22,000.00	\$ 22,000	60%	\$ 13,200
23	4.6%	Project Inspection	1	LS	55,000.00	\$ 55,000	60%	\$ 33,000
24	0.3%	Post-Construction / Warranty	1	LS	3,000.00	\$ 3,000	60%	\$ 1,800
25	0.0%		0		-	\$ -	60%	\$ -
26	0.0%		0		-	\$ -	60%	\$ -
	1.3%	Construction Engineering Total				\$ 80,000	60%	\$ 48,000

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Other Eligible 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%	Other Eligible Total				\$ -	60%	\$ -

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
In-eligible Costs								
32	30.5%	Street Items	1	LS	1,910,000.00	\$ 1,910,000	0%	\$ -
33	0.5%	Traffic Control	1	LS	30,000.00	\$ 30,000	0%	\$ -
34	4.2%	Mobilization	1	LS	260,000.00	\$ 260,000	0%	\$ -
35	11.8%	Increased Sewer and Street Costs	1	LS	736,543.00	\$ 736,543	0%	\$ -
36	0.0%					\$ -	0%	\$ -
37	5.5%	Sewer Items	1	LS	343,000.00	\$ 343,000	0%	\$ -
38	9.8%	Flood Control Items (separate applicatio	1	LS	610,500.00	\$ 610,500	0%	\$ -
39	17.6%	Non-Construction Costs	1	LS	1,100,000.00	\$ 1,100,000	0%	\$ -
	79.7%	Other Ineligible Total				\$ 4,990,043	0%	\$ -

100.0%	Total	\$ 6,259,744
	Eligible Total	\$ 1,269,701 60% \$ 761,820

Federal or State Funds That Supplant Costs	\$ -
Eligible Cost Total	\$ 1,269,701 60% \$ 761,820

* 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 Mapleton
Project Title: Original Townsite/Maplewood Improvements
Date: April 30, 2024

Explanation of Alternatives:

Old Town and Maplewood mains, valves, and fittings (Preferred) – Full replacement of AC water mains in Old Town and replace service lines, hydrants, gate valves, and curb stops in Original Townsite and Maplewood

Maplewood mains and Old Town valves and fittings - Full replacement of PVC water mains in Maplewood and replace service lines, hydrants, gate valves, and curb stops in Original Townsite and Maplewood

Inputs:

New Connections Served	0		
Future Connections Served	0		
Current Connections Served	33		
Net Connections (New + Current)	33		
	Old Town and Maplewood mains, valves, and fittings (Preferred)	Maplewood mains and Old Town valves and fittings	
Construction Cost	\$1,159,800	\$1,267,520	
Annual O & M	\$2,500	\$10,000	

Details:

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	Old Town and Maplewood mains, valves, and fittings (Preferred)	Maplewood mains and Old Town valves and fittings	
Present Value			
Capital Costs	\$1,160,000	\$1,268,000	
O&M	\$71,000	\$295,000	
Repair, Rehab, Replacement	\$189,000	\$170,000	
Salvage Value	\$51,000	\$47,000	
Total PVC	\$1,369,000	\$1,686,000	
PV Cost Per User	\$41,485	\$51,091	

Current Water Rate (Cost Per 5000g)	\$52		
Comparable Water Rate	\$48		
Net Connections (New + Current)	33	33	
Cost-Share Percent	60%	60%	
Local Share	\$464,000	\$507,200	
Other Funding	\$0	\$0	
Total Local	\$464,000	\$507,200	
Payment Per User With Cost-Share	\$71.13	\$77.75	
Local Share	\$1,160,000	\$1,268,000	
Other Funding	\$0	\$0	
Total Local	\$1,160,000	\$1,268,000	
Payment Per User Without Cost-Share	\$177.83	\$194.38	

Explanation of Results:

The sponsor preferred project is the “Old Town and Maplewood mains, valves, and fittings” option. The present value cost of the preferred alternative is \$1,369,000 and \$1,686,000 for the “Maplewood mains and Old Town valves and fittings” alternative as a comparison. The present value cost per user for the preferred alternative is \$41,485. The monthly user cost of the local share with DWR 60% cost-share participation is \$71.13 per month and \$177.83 without DWR participation.

	Year	Annual Population Growth	Average Annual Population
ND Dept. of Commerce	2010 2020	Rate	Increase/Decrease
Population & Trends	762 1,282	6.8%	52

Other Comments:

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.



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: City of Mapleton
 Date: 04/24/23

Population: 1,374
 Users: 540

PROJECT NAME	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
SUBTOTAL Existing CIP Costs					\$0		\$0	\$0	\$0.00

New Project CIP Costs									
Sewer, Water, and Street Imp Dist 2023-1	L SUM	\$750,000	1	100.00%	\$825,000	75	\$11,000	\$917	\$1.70
SUBTOTAL New CIP Costs					\$825,000		\$11,000	\$917	\$1.70

TOTAL Existing and New Project CIP					\$825,000		\$11,000	\$917	\$1.70
---	--	--	--	--	-----------	--	----------	-------	--------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$0	\$0	\$0.00	\$0.00
Adjustment:	\$825,000	\$11,000	\$917	\$1.70

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.34
Current	5,000	\$0.00
Adjustment	5,000	\$0.34

Report Prepared by (Title): Dylan Ensruide, PE
 Date: 6/24/23

Notes:
 The "Existing CIP Project Costs" are based on the current Capital Improvement Plan - Project Summaries as approved by the City of Mapleton. The proposed project is currently in the City's CIP, but has been included under the "New Project CIP Costs" to delineate it from other projects. Also see attached.

- Instructions**
- 1 - Fill in colored items
 - 2 - Enter Existing asset project CIP costs
 - 3 - Enter New asset project CIP costs
 - 4 - Enter current total reserves and annual reserve



1082467 - Parshall to White Shield Regionalization

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Mar 18, 2024 9:01 AM
Initially Submitted By: Jared Huibregtse
Last Submit Date: Apr 25, 2024 4:42 PM
Last Submitted By: Jared Huibregtse

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Mr. Jack Fletcher
Salutation First Name Middle Name Last Name
Title:
Email*: jack.fletcher@bartwest.com
Address*: 3456 E Century Ave,

Bismarck North Dakota 58503
City State/Province Postal Code/Zip
Phone*: 701-221-8370 Ext.
Phone
###-####
Fax: ### ###-####
Comments:

Organization Information

Status*: Approved
Name*: Fort Berthold Rural Water
Organization Type*: Tribal Government
Tax Id:
Organization Website:
Address*: 308 4 Bears Complex

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

Phone*: (701) 627-8185 Ext.
#####

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Parshall to White Shield Regionalization

Sponsor(s)*: Fort Berthold Rural Water

County*: McLean

City*: White Shield

Description of Request*: New

If Study, What Type:

If Project/Program, What Type:

Jurisdictions/Stakeholders Involved*:

The primary stakeholders involved in this project include the community of White Shield and the surrounding rural service area, collectively referred to as the White Shield Segment of Fort Berthold Rural Water.

Describe the Problem*:

The existing water treatment plant that serves the White Shield service area is limited in capacity and is nearing the end of its expected useful life. The water treatment plant will likely need to be replaced within the next 5-10 years.

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

This project involves regionalizing the White Shield Segment by connecting it to the Parshall - Lucky Mound water system. The Parshall water treatment plant is located approximately 20 miles northwest of the community of White Shield and has sufficient excess capacity to serve the entirety of the White Shield Segment. Completing this regionalization will eliminate the need to build redundant infrastructure (i.e., a new White Shield water treatment plant).

For this project,

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

What is the Current Estimated Population?* 1000

For this project,

What is the Benefited Population?* 1000

Have Assessment Districts Been Formed?* N/A

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?*: 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? Yes
(Example: Hazard Mitigation Grant Program)
*:

Explain the Source, Timing and Amount of Federal Funds:

\$850,000 from the US Bureau of Reclamation (USBR). These are aging infrastructure dollars identified specifically to support the installation of the pump station required to complete this project

Federal Funding Contact: Denise Fischer
First Name Last Name

Federal Funding Contact Number: 701-221-1252

Federal Funding Email: dfischer@usbr.gov

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: N/A

Design Completion*: Summer 2025

Bid*: Fall 2025

Construction Start*: Spring 2026

Construction Completion*: Fall 2028

Explain Additional Timeline Issues*:

Conceptual design is complete. The Three Affiliated Tribes/MHA Nation has committed to providing the necessary funds to cover the local share of a potential cost-share agreement. If pre-construction costs are authorized by DWR, work will begin to obtain necessary Right-of-Way and bid documents will be developed. Completion of Right-of-Way acquisition and bidding documents could take up to a year, and construction is expected to take two years.

Consulting Engineer*: Jack Fletcher (Bartlett & West)

Engineer Telephone Number*: 701-221-8370

Engineer Email*: jack.fletcher@bartwest.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Joseph Silveria 03/18/2024
First Name Last Name Date

Address*: 308 4 Bears Complex
 Address Line 1
 Address Line 2
 New Town North Dakota 58763-0000
 City State Zip Code

Telephone Number*: 701-627-8185

Sponsor Email*: jsilveria@mhanation.com

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

Authorized Individual*: Joseph Silveria 03/18/2024
 First Name Last Name Date

Title/Position/Authority*: Public Works Administrator, Three Affiliated Tribes

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map*: No
[CLICK HERE](#) to see examples.

Project Specific Map [Project Map_Parshall to WS.pdf](#)
 Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
 *:

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_Parshall-White Shield.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_Parshall-White Shield1.xlsx](#)
[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [sfn_61938_capital_improvement_plan_Parshall-White Shield.xlsx](#)

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

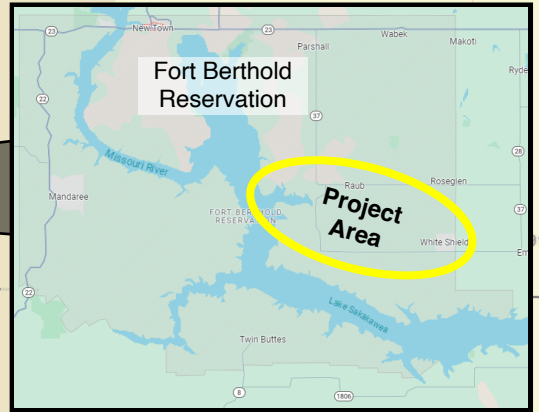
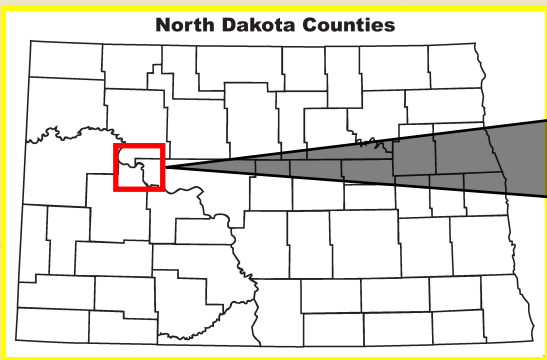
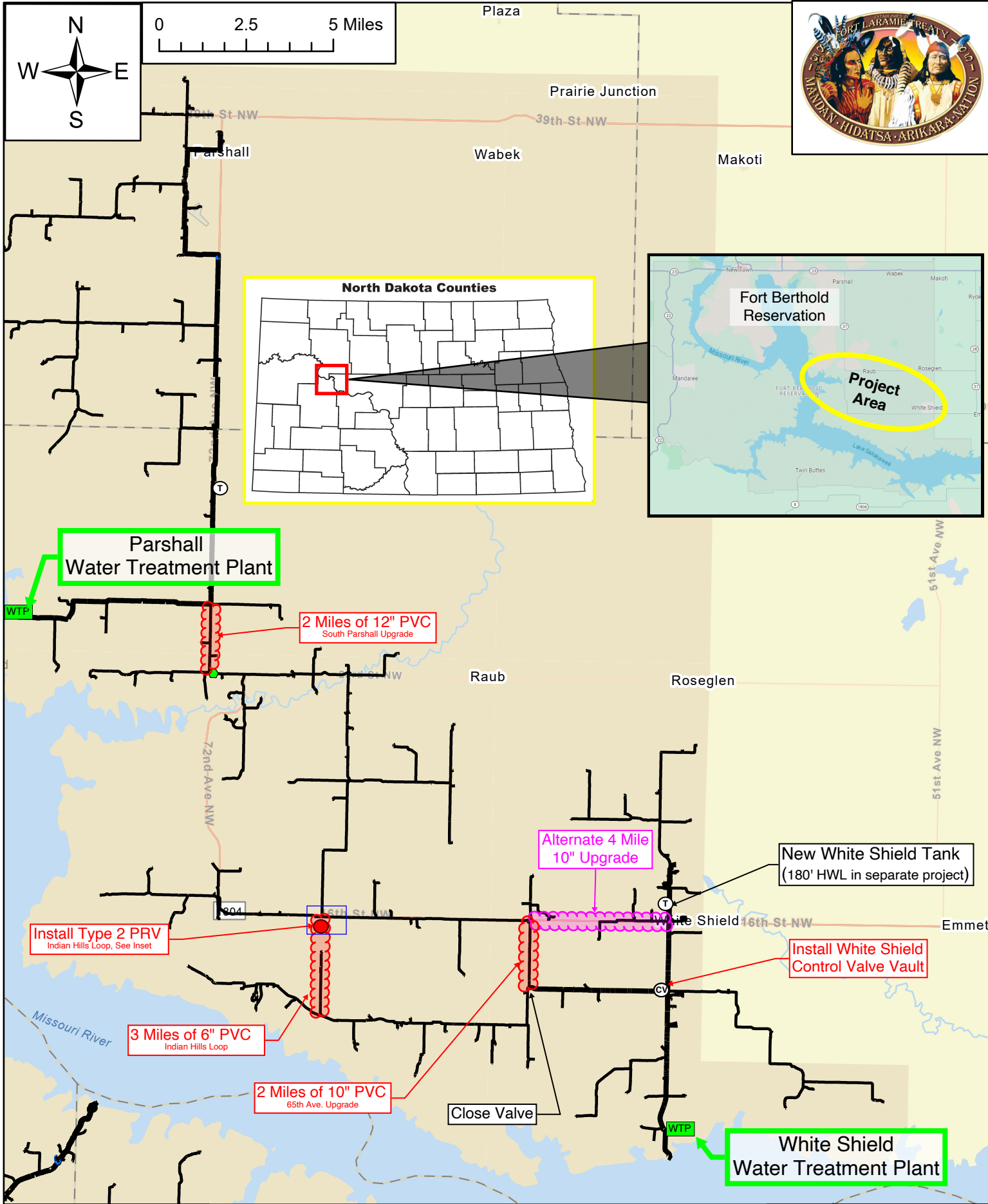
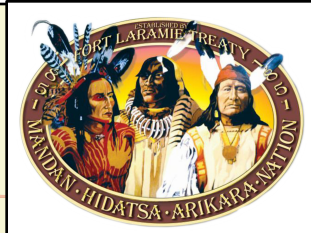
Photos of Problem/Issue:

Other Applicable Document(s): No

Sources

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

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Other	US Bureau of Reclamation	\$0.00	\$850,000.00	\$0.00	\$850,000.00	Grant	0.00	0.00
Department of Water Resources Cost Share Pre-Construction		\$341,250.00	\$0.00	\$0.00	\$341,250.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$3,000,000.00	\$768,550.00	\$3,768,550.00	Grant	0.00	0.00
Other	MHA Nation/Three Affiliated Tribes	\$0.00	\$1,000,000.00	\$599,258.00	\$1,599,258.00		0.00	0.00
		\$341,250.00	\$4,850,000.00	\$1,367,808.00	\$6,559,058.00			



Parshall to White Shield Regionalization - Fort Berthold Rural Water

T148N, R88-90W, Multiple Sections; T149N, R89-90W, Multiple Sections



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

DWR Date Received : Month Day, Year

Project:	Parshall to White Shield Regionalization
Sponsor:	Fort Berthold Rural Water
Contact:	Jack Fletcher, P.E., Project Manager
Phone:	701-221-8370
Engineer:	Jack Fletcher, Bartlett & West
Phone:	701-221-8370

Total Cost :	\$ 6,559,058
Ineligible Cost :	\$ 1,022,000
Eligible Cost :	\$ 5,537,058
Local Cost :	\$ 2,406,258

Date: March 20, 2024

Cost-Share \$	
	\$ 4,152,800
Preconstruction :	\$ 341,250
Construction :	\$ 4,449,044

Project Type:	Cost-share %
Rural Water - Expansion/Improvement	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	0.0%	Mobilization	1	LS	2,000.00	\$ 2,000	75%	\$ 1,500
2	0.0%	Bonding	1	LS	1,000.00	\$ 1,000	75%	\$ 750
3	0.0%	Insurance	1	LS	1,000.00	\$ 1,000	75%	\$ 750
4	20.3%	Water Main 12 in	10560	LF	102.53	\$ 1,082,717	75%	\$ 812,038
5	13.8%	Water Main 10 in	10560	LF	70.00	\$ 739,200	75%	\$ 554,400
6	3.7%	Water Main 10 in	2640	LF	75.00	\$ 198,000	75%	\$ 148,500
7	13.5%	Water Main 6 in	16000	LF	45.00	\$ 720,000	75%	\$ 540,000
8	0.5%	Water Main 6 in	600	LF	45.00	\$ 27,000	75%	\$ 20,250
9	11.9%	Pipeline Appurtenances	1	LS	635,500.00	\$ 635,500	75%	\$ 476,625
10	16.8%	Pump Station	1	LS	900,000.00	\$ 900,000	75%	\$ 675,000
11	6.6%	Pressure Relief Valve	1	LS	350,000.00	\$ 350,000	75%	\$ 262,500
12	3.7%	Pressure Relief Valve	1	LS	200,000.00	\$ 200,000	75%	\$ 150,000
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				\$ 4,856,417	75%	\$ 3,642,313
	10.0%	Contingency				\$ 485,642	75%	\$ 364,231
	81.4%	Construction Total				\$ 5,342,058	75%	\$ 4,006,544
Preconstruction Costs								
27	3.0%	Preliminary Design	1	LS	160,000.00	\$ 160,000	75%	\$ 120,000
28	5.5%	Final Design	1	LS	295,000.00	\$ 295,000	75%	\$ 221,250
29	0.0%	Bidding / Negotiations	1	LS	-	\$ -	75%	\$ -
30	0.0%		0			\$ -	75%	\$ -
31	0.0%		0			\$ -	75%	\$ -
	6.9%	Preconstruction Total				\$ 455,000	75%	\$ 341,250
Construction Engineering Costs								
32	5.5%	Construction Contract Management	1	LS	295,000.00	\$ 295,000	75%	\$ 221,250
33	5.5%	Project Inspection	1	LS	295,000.00	\$ 295,000	75%	\$ 221,250
34	0.0%		0			\$ -	75%	\$ -
35	0.0%		0			\$ -	75%	\$ -
36	0.0%		0			\$ -	75%	\$ -
	9.0%	Construction Engineering Total				\$ 590,000	75%	\$ 442,500
Other Eligible Costs								
37	0.0%					\$ -	75%	\$ -
38	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	1.9%	Blank 1 (User Enter)	1	LS	123,000.00	\$ 123,000	0%	\$ -
43	0.7%	Blank 2	1	LS	49,000.00	\$ 49,000	0%	\$ -
44	0.0%		0			\$ -	0%	\$ -
45	0.0%		0			\$ -	0%	\$ -
	2.6%	Other Ineligible Total				\$ 172,000	0%	\$ -
100.0%		Total				\$ 6,559,058		
		Eligible Total				\$ 6,387,058	75%	\$ 4,790,294
Federal or State Funds That Supplant Costs								
						\$ 850,000		
		Eligible Cost Total				\$ 5,537,058	75%	\$ 4,152,794

* 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: Fort Berthold Rural Water (FBRW)
Project Title: Parshall to White Shield Regionalization

Date: April 19, 2024

Explanation of Alternatives:

480-GPM Transmission Peak Flow (Preferred) - This alternative adds additional pumping capacity at the booster to the planned White Shield Casino Phase 2 flows to the 250-gpm alternative to achieve a combined flow rate of 480-gpm from the Parshall Service Area (SA) into the White Shield SA. Some additional parallel piping would be included.

Gravity Flow with System Improvements - The primary option transfers water from the Parshall SA to the White Shield SA by gravity flow. (NOTE: This gravity flow will come from the new White Shield Elevated Tank, which is a separate project.) The existing system will be upgraded to maximize the amount of water that can be transferred to the White Shield SA. The upgrades consist of parallel 12", 10", and 6" pipelines, a new control valve vault, and a new Type 2 pressure release valve (PRV). This option maximizes transmission flow rate from the Parshall SA to the White Shield SA. There will be no additional pumping costs required for this scenario.

250-GPM Transmission Flow to White Shield - This alternative would transfer water from the Parshall SA to the White Shield SA by gravity flow when the new White Shield Elevated tank is completed. Several additional upgrades are required to meet a transmission flow of 250-gpm at peak conditions, which is the projected transmission flow requirement for the year 2050 based on FBRW's Master Plan. The required improvements include: a new control vault, parallel pipelines of 12", 10", and 6", a Type 2 PRV, and a new booster pump station.

350-GPM Transmission Flow to White Shield - This alternative includes the Scenario 3 (250-GPM Transmission Flow to White Shield) flows and adds the flows necessary for the Planned White Shield Casino Phase 1, which would require an estimated total of 350-gpm from the Parshall SA into the White Shield SA.

Inputs:

New Connections Served	0			
Future Connections Served	0			
Current Connections Served	220			
Net Connections (New + Current)	220			
	480-GPM Transmission Peak Flow (Preferred)	Gravity Flow with System Improvements	250 GPM Transmission Flow to White Shield	350 GPM Transmission Flow to White Shield
Construction Cost	\$6,559,000	\$4,978,500	\$6,044,900	\$6,112,600
Annual O & M	\$15,000	\$2,000	\$0	\$0

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	480-GPM Transmission Peak Flow (Preferred)	Gravity Flow with System Improvements	250 GPM Transmission Flow to White Shield	350 GPM Transmission Flow to White Shield
Capital Costs	\$6,487,000	\$4,979,000	\$5,978,000	\$6,045,000
O&M	\$428,000	\$61,000	\$0	\$0
Repair, Rehab, Replacement	\$2,983,000	\$900,000	\$2,751,000	\$2,866,000
Salvage Value	\$154,000	\$154,000	\$154,000	\$154,000
Total PVC	\$9,744,000	\$5,786,000	\$8,575,000	\$8,757,000
PV Cost Per User	\$44,291	\$26,300	\$38,977	\$39,805

Current Water Rate (Cost Per 5000g)	\$0			
Comparable Water Rate	\$77			
Net Connections (New + Current)	220	220	220	220
Cost-Share Percent	75%	75%	75%	75%
Local Share	\$1,621,750	\$1,244,750	\$1,494,500	\$1,511,250
Other Funding	\$0	\$0	\$0	\$0
Total Local	\$1,621,750	\$1,244,750	\$1,494,500	\$1,511,250
Payment Per User With Cost-Share	\$37.29	\$28.62	\$34.37	\$34.75
Local Share	\$6,487,000	\$4,979,000	\$5,978,000	\$6,045,000
Other Funding	\$0	\$0	\$0	\$0
Total Local	\$6,487,000	\$4,979,000	\$5,978,000	\$6,045,000
Payment Per User Without Cost-Share	\$149.17	\$114.49	\$137.46	\$139.00

Explanation of Results:

The sponsor preferred project is the "480-GPM Transmission Peak Flow" option. The present value cost of the preferred alternative is \$9,744,000 and the presented alternative for comparison is "Gravity Flow with System Improvements" at a present value cost of \$5,786,000. The present value cost per user for the preferred alternative is \$44,291. The monthly equivalent if the system had a user cost of the local share with DWR 75% cost-share participation would be \$37.29 per month and \$149.17 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.



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: Fort Berthold Rural Water - Parshall to White Shield Regionalization
Date: 02/09/24

Population: 5,700
Users: 2,280

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Mandaree Water Treatment Plant	LS	\$20,000,000.00	1	75.00%	\$15,000,000	50	\$300,000	\$25,000	\$10.96
Mandaree 2nd Reservoir	LS	\$4,500,000.00	1	75.00%	\$3,375,000	50	\$67,500	\$5,625	\$2.47
White Shield New Reservoir	LS	\$4,500,000.00	1	75.00%	\$3,375,000	50	\$67,500	\$5,625	\$2.47
Elbowoods Reservoir	LS	\$4,500,000.00	1	75.00%	\$3,375,000	50	\$67,500	\$5,625	\$2.47
2nd Twin Buttes Reservoir	LS	\$4,500,000.00	1	75.00%	\$3,375,000	50	\$67,500	\$5,625	\$2.47
New Dragswolf Reservoir	LS	\$3,000,000.00	1	75.00%	\$2,250,000	50	\$45,000	\$3,750	\$1.64
FBRW Office/Shop Facility	LS	\$15,000,000.00	1	75.00%	\$11,250,000	50	\$225,000	\$18,750	\$8.22
SUBTOTAL Existing CIP Costs					\$42,000,000		\$840,000	\$70,000	\$30.70

New Project CIP Costs									
Parshall to White Shield Regionalization	LS	\$5,000,000.00	1	75.00%	\$3,750,000	50	\$75,000	\$6,250	\$2.74
Four Bears Water Treatment Plant	LS	\$30,000,000.00	1	75.00%	\$22,500,000	50	\$450,000	\$37,500	\$16.45
SUBTOTAL New CIP Costs					\$26,250,000		\$525,000	\$43,750	\$19.19

TOTAL Existing and New Project CIP					\$68,250,000		\$1,365,000	\$113,750	\$49.89
---	--	--	--	--	--------------	--	-------------	-----------	---------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$0	\$0	\$0.00	\$0.00
Adjustment:	\$68,250,000	\$1,365,000	\$113,750	\$49.89

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$0.00
Current	5,000	\$0.00
Adjustment	5,000	\$9.98

Report Prepared by (Title): Joe Silveria (Public Works Administrator)/Jack Fletcher (Bartlett & West)
 Date: 2/9/24

Notes: FBRW Currently does not charge residential users for potable water use.

Instructions

- 1 - Fill in colored items
- 2 - Enter Existing asset project CIP costs
- 3 - Enter New asset project CIP costs
- 4 - Enter current total reserves and annual reserve

1082514 - Maddock Connection to the Central Plains Water District - Copy

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Feb 21, 2024 1:00 PM
Initially Submitted By: Mike Berg
Last Submit Date: Apr 29, 2024 12:58 PM
Last Submitted By: Terry Morrow

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Mr. Mike Andrew Berg
Salutation First Name Middle Name Last Name
Title: Principal
Email*: Mike.Berg@ApexEngGroup.com
Address*: 9540 Island Rd.

Bismarck North Dakota 58503
City State/Province Postal Code/Zip
Phone*: 701-426-7458 Ext.
Phone
###-####
Fax: ###-###-####
Comments:

Organization Information

Status*: Approved
Name*: Central Plains Water District
Organization Type*: Political Subdivision
Tax Id:
Organization Website:
Address*: 105 Main Avenue South

Fessenden North Dakota 58438-____
City State/Province Postal Code/Zip

Phone*: 701-547-3751 Ext.

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Maddock Connection to the Central Plains Water District

Sponsor(s)*: Central Plains Water District

County*: Benson

City*: Maddock, ND

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Central Plains Water District
City of Maddock

Describe the Problem*:

The Central Plains Water District (CPWD) has capacity issues and is unable to meet peak demands in the Benson County area. The City of Maddock is located within this area and owns and operates its own Water Treatment Facility (WTF). The City of Maddock WTF is in need of upgrades but the City has about $\frac{1}{2}$ of the residents that it had when the WTF was built in the 1970s so upgrade costs are spread over fewer people.

The existing CPWD water is unsoftened (29 grains hardness) and does not meet the secondary standards for total dissolved solids and sulfate. It is also high in sodium. The existing Maddock WTF is a lime softening facility and does not meet the secondary standards for total dissolved solids and sulfate, and is also high in sodium.

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

The Maddock WTF has been evaluated and alternatives and costs have been developed for rehabilitating and expanding it and incorporating it into the CPWD system. The preferred alternative adds a building addition to the existing facility. This building addition will house new reverse osmosis membrane skids to provide softened water that meets all primary and secondary drinking water standards with reduced levels of sodium. The wells located approximately 1.5 miles west of the WTF will receive electrical upgrades.

The preferred alternative also includes the installation of a new pipeline from the Maddock WTF to the existing CPWD distribution system. This pipeline will be bid in the Spring/Summer of 2024 and is not part of this WebGrants application.

The preferred alternative solves the capacity problems for the CPWD distribution system and the water quality issues for both the CPWD distribution system and the City of Maddock.

For this project,

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

What is the Current Estimated Population?* :	725
For this project,	
What is the Benefited Population?* :	1103
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?* :	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) *:	Yes

Explain the Source, Timing and Amount of Federal Funds:

The DWSRF has determined that the Project is eligible to receive loan forgiveness in the amount of up to 75% of the eligible loan costs.

The project is required to:

- Issue the Notice of Award for the construction by 4/30/24. DWSRF has since granted an extension to this deadline.
- Use all loan forgiveness funds by 6/30/27.

Federal Funding Contact:	Shannon Fisher First Name Last Name
Federal Funding Contact Number:	701-328-5166
Federal Funding Email:	smfisher@nd.gov

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion* :	January 2023
Design Completion* :	February 2024
Bid* :	March, 2024
Construction Start* :	June, 2024
Construction Completion* :	July, 2026

Explain Additional Timeline Issues*:

No additional timeline issues.

Consulting Engineer*: Mike Berg, Apex Engineering Group

Engineer Telephone Number*: 701-323-3950

Engineer Email*: Mike.Berg@ApexEngGroup.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Terry Morrow 04/29/2024
First Name Last Name Date

Address*: Central Plains Water District
Address Line 1
105 Main Ave. South
Address Line 2
Fessenden North Dakota 58438-0157
City State Zip Code

Telephone Number*: 701-341-0161

Sponsor Email*: cpwd@gondtc.com

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

Authorized Individual*: Terry Morrow 04/29/2024
First Name Last Name Date

Title/Position/Authority*: Water District Manager

Documentation

Documentation

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

[CLICK HERE](#) to see examples.

Project Specific Map [Location Map 2.29.23.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community
*:

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: [Maddock WTP Delineation of Costs 4.25.24.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [Maddock WTF Improvements Comb PS.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: [Maddock WTP LCCA 4.25.24.xlsx](#)
[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [capital_improvement_plan 4.15.24.xlsx](#)

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: Yes

Feasibility/Engineering Study Material: [CPWD Maddock WTP Final 7.13.23.pdf](#)

Photos of Problem/Issue:

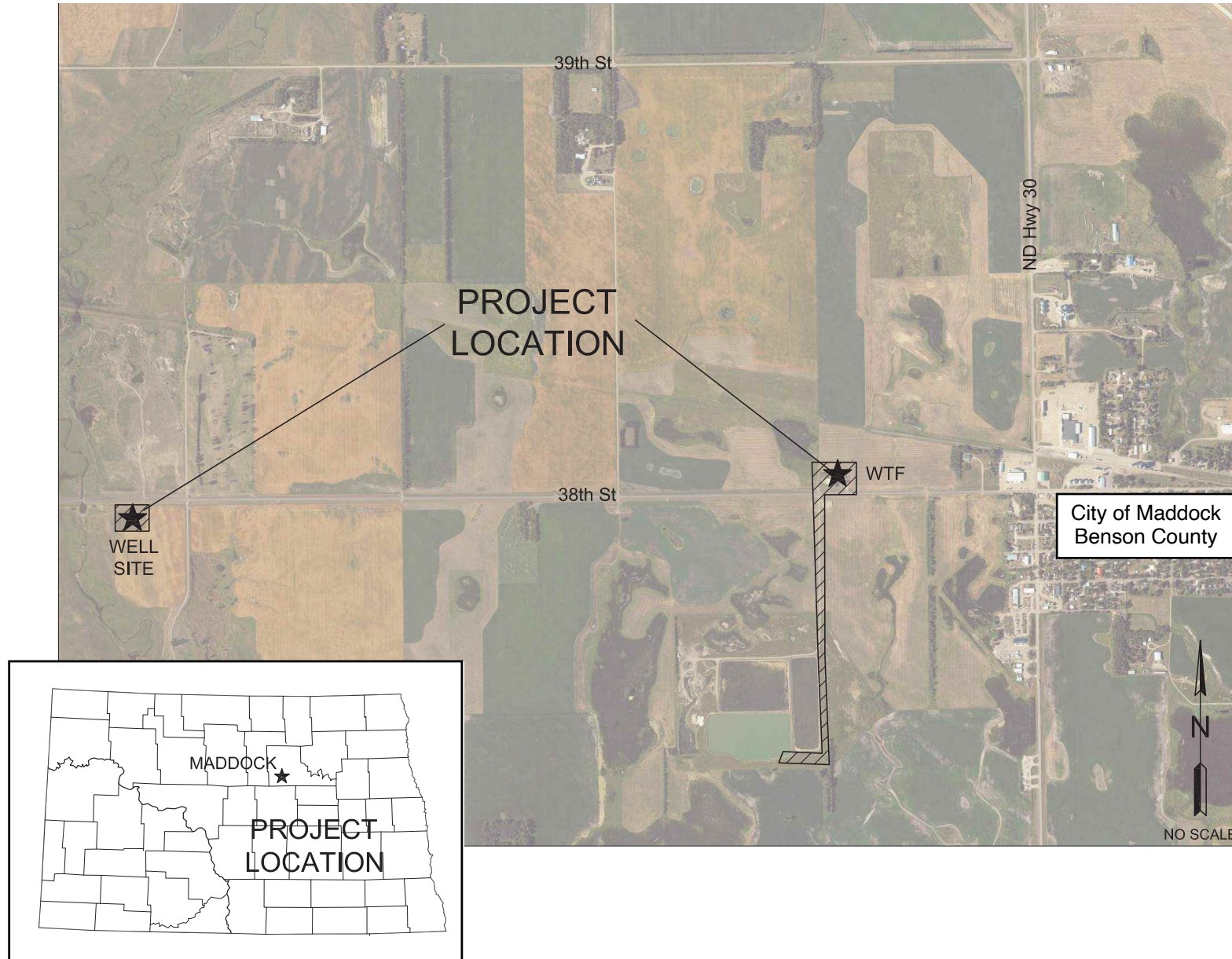
Other Applicable Document(s): No

Sources

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

Source	If Other, Specify Funding Source	State Fiscal 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	Loan Forgiveness	\$655,725.00	\$4,657,893.00	\$4,657,893.00	\$9,971,511.00	Grant	0.00	0.00
Other	Local Cost Share (10%), DWSRF Loan	\$54,644.00	\$1,224,472.00	\$1,224,472.00	\$2,503,588.00	Loan	20.00	2.00
Department of Water Resources Cost Share Pre-Construction		\$163,931.00	\$0.00	\$0.00	\$163,931.00	Grant	0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$3,673,413.00	\$3,673,413.00	\$7,346,826.00	Grant	0.00	0.00
		\$874,300.00	\$9,555,778.00	\$9,555,778.00	\$19,985,856.00			

Maddock Connection to the Central Plains Water District Project Location Map





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

DWR Date Received : April 29, 2024

Project:	Maddock Connection to the Central Plains Water District
Sponsor:	Central Plains Water District
Contact:	Terry Morrow, Water District Manager
Phone:	701-341-0161
Engineer:	Mike Berg, Apex Engineering Group
Phone:	701-426-7458

Total Cost :	\$ 19,985,853	Date:	April 25, 2024
Ineligible Cost :	\$ 9,971,510		
Eligible Cost :	\$ 10,014,343	Cost-Share \$	\$ 7,510,757
Local Cost :	\$ 12,475,096	Preconstruction :	\$ 655,725
		Construction :	\$ 14,333,665

Project Type:	Cost-share %
Water Supply - Connect to Regional System	75%

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	4.6%	Mobilization	1	LS	812,290.50	\$ 812,291	75%	\$ 609,218
2	2.3%	Bonding	1	LS	406,145.25	\$ 406,145	75%	\$ 304,609
3	2.3%	Insurance	1	LS	406,145.25	\$ 406,145	75%	\$ 304,609
4	1.1%	Demolition	1	LS	184,593.00	\$ 184,593	75%	\$ 138,445
5	0.0%	Erosion Control	1	LS	5,684.00	\$ 5,684	75%	\$ 4,263
6	6.3%	Pipeline Appurtenances	4010	LF	274.11	\$ 1,099,181	75%	\$ 824,386
7	38.6%	Water Treatment	1	LS	6,754,406.00	\$ 6,754,406	75%	\$ 5,065,805
8	17.8%	Building	1	LS	3,125,202.00	\$ 3,125,202	75%	\$ 2,343,902
9	0.1%	Meter	1	LS	12,586.00	\$ 12,586	75%	\$ 9,440
10	4.7%	Mechanical	1	LS	822,292.00	\$ 822,292	75%	\$ 616,719
11	6.9%	Motor Controls / VFD	1	LS	1,204,115.00	\$ 1,204,115	75%	\$ 903,086
12	6.2%	Electrical	1	LS	1,093,360.00	\$ 1,093,360	75%	\$ 820,020
13	0.0%					\$ -	75%	\$ -
14	0.0%					\$ -	75%	\$ -
15	0.0%					\$ -	75%	\$ -
16	0.0%					\$ -	75%	\$ -
17	0.0%					\$ -	75%	\$ -
18	0.0%					\$ -	75%	\$ -
19	0.0%					\$ -	75%	\$ -
20	0.0%					\$ -	75%	\$ -
21	0.0%					\$ -	75%	\$ -
22	0.0%					\$ -	75%	\$ -
23	0.0%					\$ -	75%	\$ -
24	0.0%					\$ -	75%	\$ -
25	0.0%					\$ -	75%	\$ -
26	0.0%					\$ -	75%	\$ -
		Construction Sub-Total				\$ 15,926,000	75%	\$ 11,944,500
	10.0%	Contingency				\$ 1,592,600	75%	\$ 1,194,450
	87.7%	Construction Total				\$ 17,518,600	75%	\$ 13,138,950
Preconstruction Costs								
27	5.0%	Final Design	1	LS	874,300.00	\$ 874,300	75%	\$ 655,725
28	0.0%		0			\$ -	75%	\$ -
29	0.0%		0			\$ -	75%	\$ -
30	0.0%		0			\$ -	75%	\$ -
31	0.0%		0			\$ -	75%	\$ -
	4.4%	Preconstruction Total				\$ 874,300	75%	\$ 655,725
Construction Engineering Costs								
32	9.1%	Construction Contract Management	1	LS	1,592,953.00	\$ 1,592,953	75%	\$ 1,194,715
33	0.0%		0			\$ -	75%	\$ -
34	0.0%		0			\$ -	75%	\$ -
35	0.0%		0			\$ -	75%	\$ -
36	0.0%		0			\$ -	75%	\$ -
	8.0%	Construction Engineering Total				\$ 1,592,953	75%	\$ 1,194,715
Other Eligible Costs								
37	0.0%		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	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				\$ 19,985,853		
		Eligible Total				\$ 19,985,853	75%	\$ 14,989,390
Federal or State Funds That Supplant Costs								
						\$ 9,971,510		
		Eligible Cost Total				\$ 10,014,343	75%	\$ 7,510,757

* 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: Central Plains Water District (CPWD) **Date:** May 2, 2024
Project Title: Maddock Connection to the Central Plains Water District

Explanation of Alternatives:

Do Nothing - In the do nothing alternative the Maddock Water Treatment Plant (WTP) will not be upgraded and incorporated into the CPWD system. CPWD will continue to have capacity issues. Both the existing CPWD and city of Maddock users will continue to have water that exceeds the secondary standards in total dissolved solids (TDS) and sulfate and is also high in sodium. Existing CPWD customers will also continue to have hard water.

WTP Rehabilitation - The existing facility is upgraded by replacing most items in-kind. The finished water quality of the Maddock WTP remains consistent with the current water quality which is softened but does not meet the secondary standards in total dissolved solids (TDS) and sulfate and is also high in sodium. The existing CPWD users that would now be served by the Maddock WTP would now have softened water which is an improvement even though the standards for TDS sulfate, and sodium will not be met.

WTP Rebuild Reverse Osmosis (RO) (Preferred) – WTP rebuilt using existing structure and adding RO membrane softening. The membrane system will produce finished water that meets all primary and secondary standards. This would be an improvement for all users since the current Maddock WTP and CPWD water supplies do not meet the secondary standards for TDS and sulfate and are also high in sodium. The existing CPWD users that would now be served by the Maddock WTP would also see the benefit of having softened water.

Inputs:

New Connections Served	378		
Future Connections Served	151		
Current Connections Served	725		
Net Connections (New + Current)	1103		
	Do Nothing	WTP Rehabilitation	WTP Rebuild Reverse Osmosis (RO) (Preferred)
Construction Cost	\$0	\$15,255,600	\$19,986,000
Annual O & M	\$108,185	\$59,947	\$22,266

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

Present Value	Do Nothing	WTP Rehabilitation	WTP Rebuild Reverse Osmosis (RO) (Preferred)
Capital Costs	\$0	\$15,088,000	\$19,766,000
O&M	\$3,299,000	\$1,711,000	\$634,000
Repair, Rehab, Replacement	\$0	\$11,360,000	\$14,735,000
Salvage Value	\$0	\$1,912,000	\$2,036,000
Total PVC	\$3,299,000	\$26,247,000	\$33,099,000
PV Cost Per User	\$2,991	\$23,796	\$30,008

Current Water Rate (Cost Per 5000g)	\$94		
Comparable Water Rate	\$77		
Net Connections (New + Current)	1,103	1,103	1,103
Cost-Share Percent	60%	60%	37%
DWR Share	\$0	\$9,052,800	\$7,290,902
Other Funding	\$0	\$0	\$9,971,510
Total Local	\$0	\$6,035,200	\$2,503,588
Payment Per User With Cost-Share	\$0.00	\$27.68	\$11.48
DWR Share	\$0	\$15,088,000	\$0
Other Funding	\$0	\$0	\$9,971,510
Total Local	\$0	\$15,088,000	\$9,794,490
Payment Per User Without Cost-Share	\$0.00	\$69.20	\$44.92

Explanation of Results:

The sponsor preferred project is the “WTP Rebuild Reverse Osmosis” option. The present value cost of the preferred alternative is \$33,099,000, and \$26,247,000 for the “WTP Rehabilitation” and \$3,299,000 for the “Do Nothing” alternative for comparison. The present value cost per connected user for the preferred alternative is \$30,008. The monthly user cost of the local share with DWR 37% cost-share participation is \$11.48 per month and \$44.92 without DWR participation.

ND Dept. of Commerce Population & Trends	Year		Annual Population Growth Rate	Average Annual Population Increase/Decrease
	2010	2020		
	382	375	-0.2%	-1

Other Comments:

The capital cost of this project has increased in excess of \$5.3 million or 37% from the previous submission.

L 3

1082926 - Central Plains Water District - Backup Power Generators

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Apr 16, 2024 12:46 PM
Initially Submitted By: Susan Hazelett
Last Submit Date: Apr 23, 2024 1:57 PM
Last Submitted By: Susan Hazelett

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Salutation Susan Marie Hazelett
First Name Middle Name Last Name
Title:
Email*: Susan.Hazelett@ApexEngGroup.com
Address*: 11611 Herman Drive

Menoken North Dakota 58558
City State/Province Postal Code/Zip
Phone*: (701) 390-4002 Ext.
Phone
###-####
Fax: ### ###-####
Comments:

Organization Information

Status*: Approved
Name*: Central Plains Water District
Organization Type*: Political Subdivision
Tax Id:
Organization Website:
Address*: 105 Main Avenue South

Fessenden North Dakota 58438-____
City State/Province Postal Code/Zip

Phone*: 701-547-3751 Ext.

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: Backup Power Generators

Sponsor(s)*: Terry Morrow

County*: Wells

City*: Fessenden

Description of Request*: New

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Central Plains Water District

Describe the Problem*:

Central Plains Water District (CPWD) over the years has had problems with power outages in the whole system. The outages have ranged from 30 seconds up to over 5 hours.

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

CPWD will be placing stationary backup power generators at four drinking water reservoirs. Each site will have a 40 KW propane fuel generator, with auto transfer switch placed on the inside of a building. Generators will be placed on a concrete pad that is 5.5" above the grass line, with conduit running from the pad to the building. CPWD is buying the generators and automatic transfer switches directly from Interstate Power Systems. CPWD is going to install the concrete pads for the generators and dig necessary trenches for electrical conduit. CPWD will hire an Electrical Contractor to connect everything together.

For this project,

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

What is the Current Estimated Population?* 3150

For this project,

What is the Benefited Population?* 3150

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?* 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? No
(Example: Hazard Mitigation Grant Program)

***:**

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: Not Applicable

Design Completion*: NA

Bid*: NA

Construction Start*: 11/15/24

Construction Completion*: 12/30/2024

Explain Additional Timeline Issues*:

As soon as funding becomes available, the generators and automatic transfer switches will be ordered and purchased by the CPWD. There is an 18 to 20 week lead time on the equipment. A local electrical contractor is lined up to do the electrical work when the equipment is delivered.

Consulting Engineer*: Susan Hazelett

Engineer Telephone Number*: 701-224-3101

Engineer Email*: Susan.Hazelett@ApexEngGroup.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Terry Morrow 04/16/2024
First Name Last Name Date

Address*: P.O. Box 157
Address Line 1
105 Main Ave. South
Address Line 2
Fessenden North Dakota 58438-0157
City State Zip Code

Telephone Number*: 701-547-3751

Sponsor Email*: cpwd@gondtc.com

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

Authorized Individual*: Terry Morrow 04/23/2024
 First Name Last Name Date

Title/Position/Authority*: Water District Manager

Documentation

Documentation

Project in Extraterritorial Jurisdiction? If Yes, Add Boundary to Project Specific Map.*: Yes

[CLICK HERE](#) to see examples.

Project Specific Map [CPWD Service Area - Generator Sites 1.pdf](#)

Must Include Project Location in State Using an Inset Map and Distance/Direction to Nearest Community

*:

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: [CPWD Delineation of Costs - Generators.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [Central Plains Water District GS40 Generator Quote W-Transfer Switches 4-16-24.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 Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [CPWD Generator capital_improvement_plan.xlsx](#)

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): No

Sources

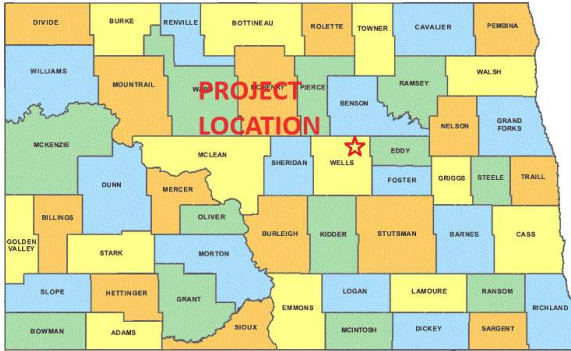
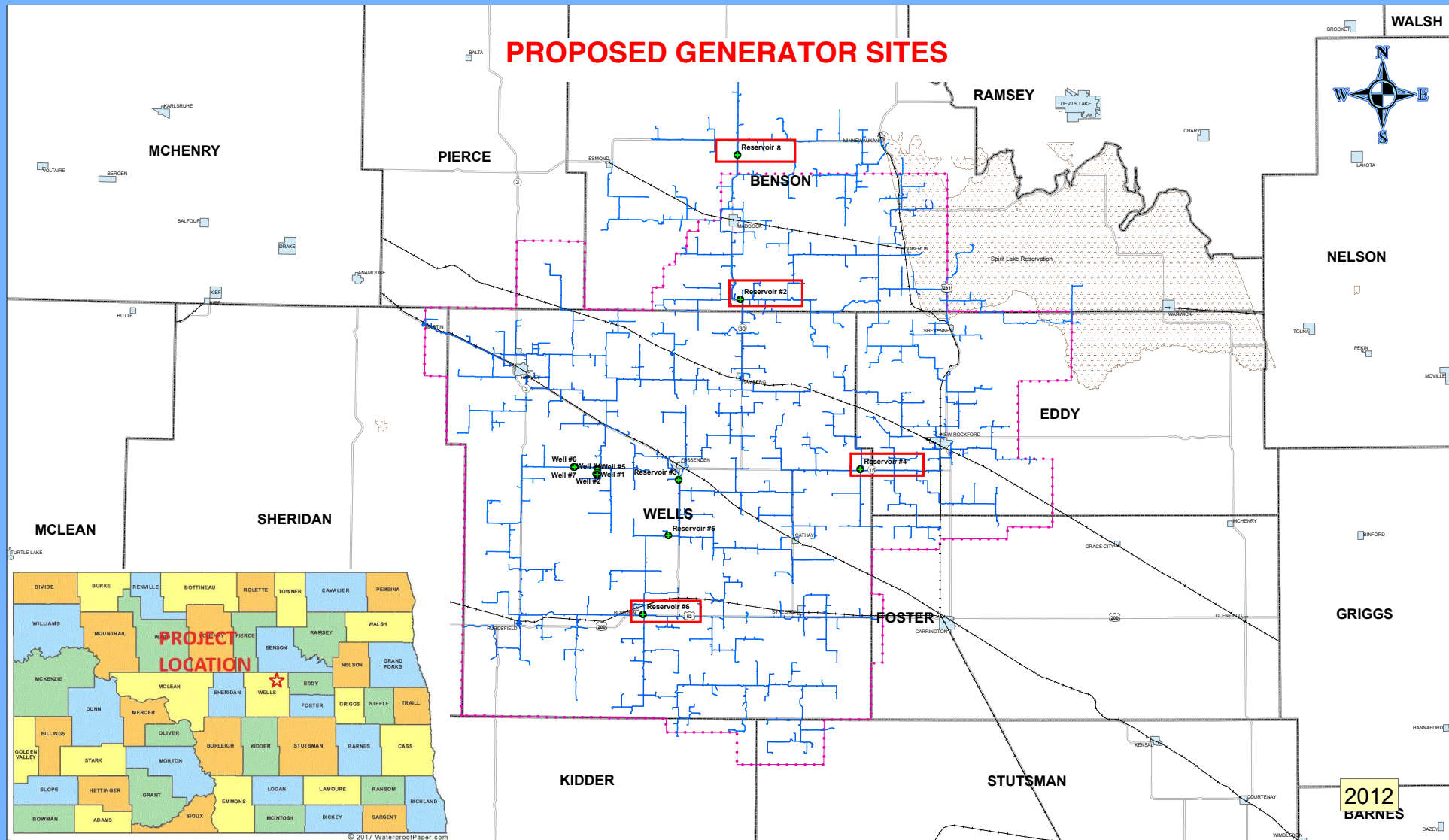
Project Funding Sources - Include All Funding Sources for the Project (Should Equal Project Cost)

Source	If Other, Specify Funding Source	State Fiscal Year 1 July to June	State Fiscal Year 2 July to June	Beyond Current Biennium	Total Cost	Type	Term	Interest Rate
Other	CPWD capital improvement funds	\$54,021.00	\$0.00	\$0.00	\$54,021.00		0.00	0.00
Department of Water Resources Cost Share Pre-Construction		\$162,063.00	\$0.00	\$0.00	\$162,063.00	Grant	0.00	0.00
		\$216,084.00	\$0.00	\$0.00	\$216,084.00			

CENTRAL PLAINS WATER DISTRICT



PROPOSED GENERATOR SITES



© 2017 WaterproofPaper.com

2012
BARNES

DATE



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

DWR Date Received : April 23, 2024

Project:	Central Plains Water District - Back Up Power Generators
Sponsor:	Central Plains Water District
Contact:	Terry Morrow, Water District Manager
Phone:	701-341-0161
Engineer:	Susan Hazelett, Apex Engineering Group
Phone:	701-224-3101

Total Cost :	\$ 216,084	Date:	October 1, 2021
Ineligible Cost :	\$ -		
Eligible Cost :	\$ 216,084	Cost-Share \$	\$ 162,100
Local Cost :	\$ 53,984	Preconstruction :	\$ -
		Construction :	\$ 162,063

Project Type:	Rural Water - Expansion/Improvement	Cost-share %	75%
----------------------	-------------------------------------	---------------------	-----

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	0.0%	Mobilization	0	LS	1.00	\$ -	75%	\$ -
2	0.0%	Bonding	0		-	\$ -	75%	\$ -
3	0.0%	Insurance	0		-	\$ -	75%	\$ -
4	65.6%	Back Up Power Generator	4	EA	35,420.00	\$ 141,680	75%	\$ 106,260
5	13.0%	Electrical Installation	4	EA	7,000.00	\$ 28,000	75%	\$ 21,000
6	12.4%	Automatic Transfer Switch	4	EA	6,690.00	\$ 26,760	75%	\$ 20,070
7	0.0%		0		-	\$ -	75%	\$ -
8	0.0%		0		-	\$ -	75%	\$ -
9	0.0%		0		-	\$ -	75%	\$ -
10	0.0%		0		-	\$ -	75%	\$ -
11	0.0%		0		-	\$ -	75%	\$ -
12	0.0%		0		-	\$ -	75%	\$ -
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				\$ 196,440	75%	\$ 147,330
	10.0%	Contingency				\$ 19,644	75%	\$ 14,733
	100.0%	Construction Total				\$ 216,084	75%	\$ 162,063
Preconstruction Costs								
27	0.0%	Final Design	0	NA	-	\$ -	75%	\$ -
28	0.0%		0		-	\$ -	75%	\$ -
29	0.0%		0		-	\$ -	75%	\$ -
30	0.0%		0		-	\$ -	75%	\$ -
31	0.0%		0		-	\$ -	75%	\$ -
		Preconstruction Total				\$ -	75%	\$ -
Construction Engineering Costs								
32	0.0%	Construction Contract Management	0	NA	-	\$ -	75%	\$ -
33	0.0%		0		-	\$ -	75%	\$ -
34	0.0%		0		-	\$ -	75%	\$ -
35	0.0%		0		-	\$ -	75%	\$ -
36	0.0%		0		-	\$ -	75%	\$ -
		Construction Engineering Total				\$ -	75%	\$ -
Other Eligible Costs								
37	0.0%	Miscellaneous	0	NA	4,000.00	\$ -	75%	\$ -
38	0.0%		0		-	\$ -	75%	\$ -
39	0.0%		0		-	\$ -	75%	\$ -
40	0.0%		0		-	\$ -	75%	\$ -
41	0.0%		0		-	\$ -	75%	\$ -
		Other Eligible Total				\$ -	75%	\$ -
In-eligible Costs								
42	0.0%	Legal Expenses	0	NA	-	\$ -	0%	\$ -
43	0.0%		0		-	\$ -	0%	\$ -
44	0.0%		0		-	\$ -	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
		Other Ineligible Total				\$ -	0%	\$ -
	100.0%	Total				\$ 216,084		
		Eligible Total				\$ 216,084	75%	\$ 162,063
		Federal or State Funds That Supplant Costs				\$ -		
		Eligible Cost Total				\$ 216,084	75%	\$ 162,063

* 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: Central Plains Water District (CPWD)
Project Title: Back Up Power Generators

Date: April 30, 2024

Explanation of Alternatives:

Do Nothing - CPWD will continue to operate as they currently do. Power outages in the area will result in the inoperability of the pumps at the water reservoirs and a loss of service to the customers in the service area until power is restored, and systems are brought back online.

Install backup power generators at four water reservoirs (Preferred) - Permanent onsite backup power generators will be installed at reservoirs 2, 4, 6, and 8. Each will be equipped with an automatic transfer switch that will switch the generator on when external power is disrupted.

Inputs:

New Connections Served		0		
Future Connections Served		0		
Current Connections Served		1260		
Net Connections (New + Current)		1260		
	Do Nothing		Install backup power generators at four water reservoirs (Preferred)	
Construction Cost		\$0	\$216,100	
Annual O & M		\$0	\$1,000	

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	Do Nothing	Install backup power generators at four water reservoirs (Preferred)		
Present Value				
Capital Costs	\$0	\$216,000		
O&M	\$0	\$31,000		
Repair, Rehab, Replacement	\$0	\$233,000		
Salvage Value	\$0	\$33,000		
Total PVC	\$0	\$447,000		
PV Cost Per User	\$0	\$355		

Current Water Rate (Cost Per 5000g)	\$94			
Comparable Water Rate	\$47			
Net Connections (New + Current)	1,260	1,260		
Cost-Share Percent	75%	75%		
Local Share	\$0	\$54,000		
Other Funding	\$0	\$0		
Total Local	\$0	\$54,000		
Payment Per User With Cost-Share	\$0.00	\$0.22		
Local Share	\$0	\$216,000		
Other Funding	\$0	\$0		
Total Local	\$0	\$216,000		
Payment Per User Without Cost-Share	\$0.00	\$0.87		

Explanation of Results:

The sponsor preferred project is the "Install backup power generators at four water reservoirs" option. The present value cost of the preferred alternative is \$447,000 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 \$355. The monthly user cost of the local share with DWR 75% cost-share participation is \$0.22 per month and \$0.87 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 1.2022.07.08



CAPITAL IMPROVEMENT PLAN (CIP)
 NORTH DAKOTA DEPARTMENT OF WATER RESOURCES
 PLANNING AND EDUCATION DIVISION
 SFN 61938 (7/2021)

System: Sponsor - Central Plains Water District
Date: 04/16/24

Population: 3,150
Users: 1,260

ASSET	UNITS	UNIT COST	QTY	RESERVE REPLACEMENT %	REPLACEMENT COST	AVERAGE LIFE (YRS)	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Existing Project CIP Costs									
Estimated Water Mains	Feet	\$10.00	528,000	75.00%	\$3,960,000	50	\$79,200	\$6,600	\$5.24
Existing Reservoirs	EA	\$1,500,000.00	6	75.00%	\$6,750,000	50	\$135,000	\$11,250	\$8.93
SUBTOTAL Existing CIP Costs					\$10,710,000		\$214,200	\$17,850	\$14.17

New Project CIP Costs									
Back Up Power Generator	EA	\$35,420.00	4	75.00%	\$106,260	20	\$5,313	\$443	\$0.35
Electrical Installation	EA	\$7,000.00	4	75.00%	\$21,000	20	\$1,050	\$88	\$0.07
Automatic Transfer Switch	EA	\$6,690.00	4	75.00%	\$20,070	20	\$1,004	\$84	\$0.07
SUBTOTAL New CIP Costs					\$147,330		\$7,367	\$614	\$0.49

TOTAL Existing and New Project CIP					\$10,857,330		\$221,567	\$18,464	\$14.65
---	--	--	--	--	--------------	--	-----------	----------	---------

	TOTAL RESERVES	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
Current:	\$650,000	\$65,000	\$5,416.67	\$4.30
Adjustment:	\$10,207,330	\$156,567	\$13,047	\$10.35

	Monthly Ave Gal/user	Monthly \$/kgal
Required	5,000	\$2.93
Current	5,000	\$0.86
Adjustment	5,000	\$2.07

Report Prepared by (Title): iusan Hazelett, PE, Engineer
 Date: 4/16/24

Notes:

- Instructions**
- 1 - Fill in colored items
 - 2 - Enter Existing asset project CIP costs
 - 3 - Enter New asset project CIP costs
 - 4 - Enter current total reserves and annual reserve

1082606 - WAWSA - R&T Battleview & McGregor Rural Distribution - Phase I

Application Details

Funding Opportunity: 22356-State Fiscal Year 2023-2024 Infrastructure Request
Funding Opportunity Due Date: Jun 30, 2024 3:00 PM
Program Area: Funding for Infrastructure in ND - FIND
Status: Under Review
Stage: Final Application

Initial Submit Date: Feb 26, 2024 2:41 PM
Initially Submitted By: Abby Ritz
Last Submit Date: Apr 29, 2024 10:28 AM
Last Submitted By: Abby Ritz

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Salutation Tami Middle Name Madsen
 First Name Last Name
Title: Executive Director
Email*: tami.madsen@wawsp.com
Address*: 1117 E. Broadway

Williston North Dakota 58801
 City State/Province Postal Code/Zip

Phone*: 701-609-0450 Ext.
 Phone
 ### ### ####
Fax: ### ### ####
Comments:

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 58802-2343
City State/Province Postal Code/Zip

Phone*: (701) 774-6605 Ext.
#####

Fax: ### ### #####

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Location Code:

Infrastructure Funding Request

Infrastructure Funding Request

Project, Program, or Study Name*: WAWSA - R&T Battleview & McGregor Rural Distribution Phase I

Sponsor(s)*: Western Area Water Supply Authority

County*: Williams

City*: Battleview & McGregor

Description of Request*: Updated (previously submitted)

If Study, What Type:

If Project/Program, What Type: Rural Water Supply

Jurisdictions/Stakeholders Involved*:

Western Area Water Supply Authority, City of Williston, McKenzie County Water Resource District, Northwest Rural Water District, R&T Water District, BDW Rural Water

Describe the Problem*:

The purpose of the proposed project is to supply quality potable drinking water to new R&T Water District rural users and the citizens of the towns of Battleview and McGregor through the installation of a total of 47 miles of rural distribution pipeline to serve Phase 1 - 63 users. This project will also include the construction of a booster pump station and mainline to service full build out to 169 new customers.

Provide Project Details, Objectives and

Solutions to Address Problem*:

The project will provide quality potable drinking water to the communities of Battleview, McGregor and the rural residences in the area. Currently all citizens are on private wells or haul water.

For this project,

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

What is the Current Estimated Population?* 7500

For this project,

What is the Benefited Population?* 200

Have Assessment Districts Been Formed?* N/A

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.)?*: No

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

*:

Implementation Timelines

Enter Start Date, Estimated Start Date or Not Applicable.

Study Completion*: 08/2022
Design Completion*: 03/2024
Bid*: 04/2024 5/30/2024
Construction Start*: 05/2024 06/2024
Construction Completion*: 11/2025

Explain Additional Timeline Issues*:

No timeline issues anticipated.

Consulting Engineer*: Cory Chome, AE2S

Engineer Telephone Number*: 701-221-0530

Engineer Email*: cory.chome@AE2S.com

Certification (Must Be Completed by Project Sponsor)

Submitted by*: Tami Madsen 02/26/2024
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*: Yes

Authorized Individual*: Tami Madsen 02/26/2024
First Name Last Name Date

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_WAWSA_RT_Battleview_McGregor_Map.pdf](#)

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_WAWSA-RT_Battleview_McGregor_Delineation_of_Cost.xlsx](#)

Type of Request: Construction

Signed Plans and Specifications For Bidding: [06_WAWSA_RT_BATTLEVIEW-MCGREGOR_PLANSET](#) 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: [04_WAWSA-RT_Battleview_McGregor_Rural_Distribution_Life_Cycle_Cost_Analysis_Worksheet.xlsx](#)

[CLICK HERE](#) for Basic Asset Inventory and Capital Improvement Plan Instructions and Current Version, as Shown on Title Tab.

Capital Improvement Plan SFN 61938: [05_WAWSA-RT_Battleview_McGregor_Rural_Distribution_Capital_Improvement_Plan.xlsx](#)

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:

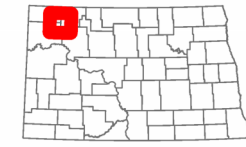
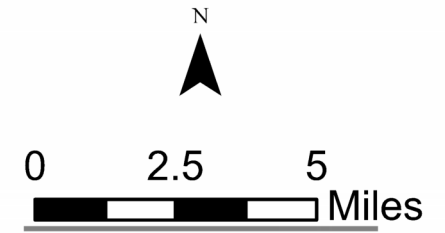
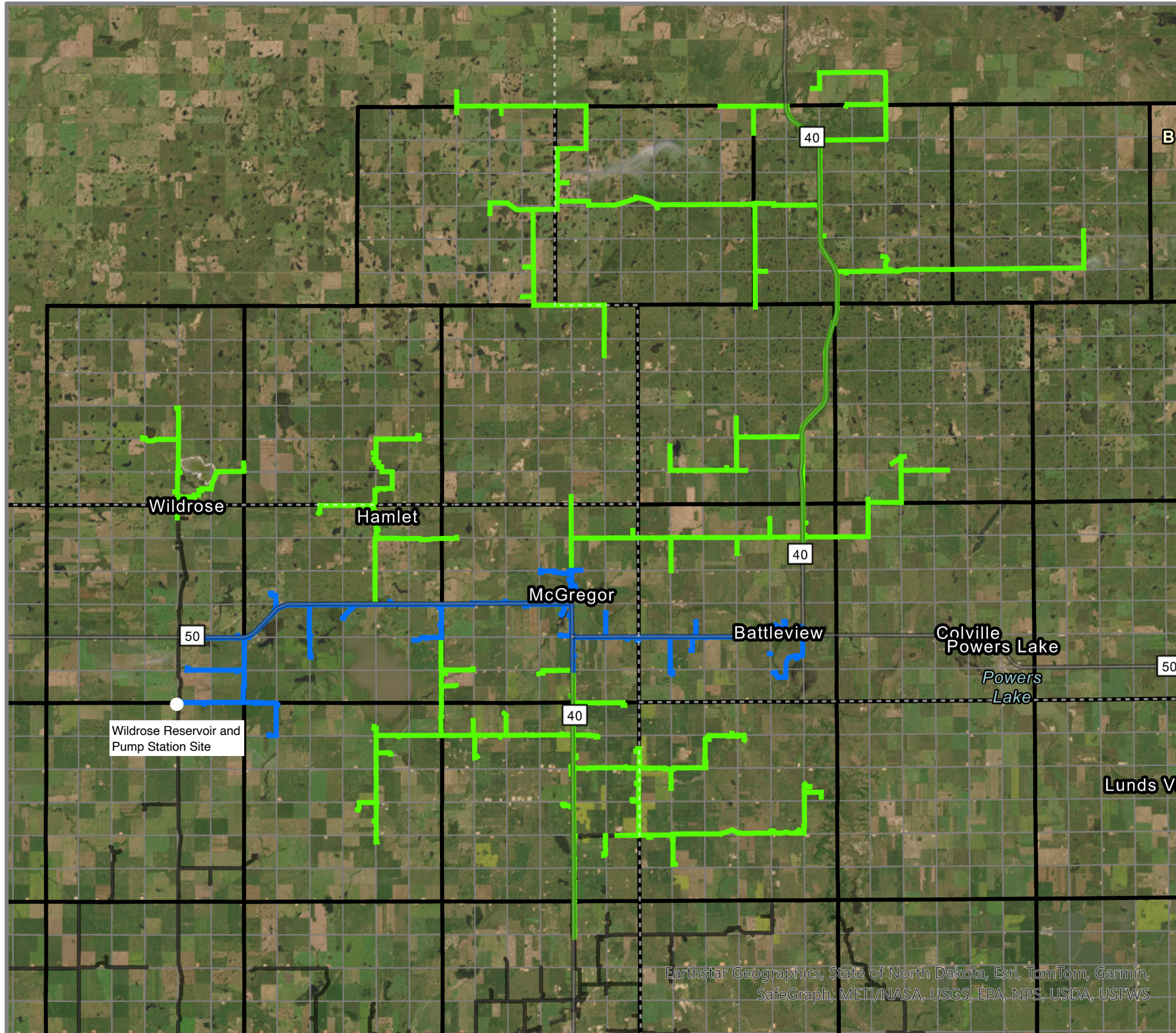
Other Applicable Document(s): No

Sources

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

Source	If Other, Specify Funding Source	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		\$318,750.00	\$0.00	\$0.00	\$318,750.00		0.00	0.00
Department of Water Resources Cost Share Construction		\$0.00	\$8,415,970.00	\$0.00	\$8,415,970.00		0.00	0.00
Drinking Water State Revolving Fund		\$106,250.00	\$2,945,343.00	\$0.00	\$3,051,593.00		0.00	0.00
		\$425,000.00	\$11,361,313.00	\$0.00	\$11,786,313.00			

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



Locator Map Not to Scale

Burke, Divide, Mountrail
and Williams Counties, ND

- Phase 1
- Future Phases
- Existing Water Main

WAWSA - R&T
BATTLEVIEW &
MCGREGOR RURAL
DISTRIBUTION

Date: 2/22/2024



Earthstar Geographics, State of North Dakota, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS

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: BOLSON | W:\W\WAWSA\10670-2020-011\GIS\P10670-2020-011 R and T Battleview and McGregor - Engineering Staff.aprx | SRF Solicitation Map



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

DWR Date Received : April 29, 2024

Project:	Battleview & McGregor Rural Distribution - Phase 1
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 :	\$ 11,786,293	Date:	February 23, 2024
Ineligible Cost :	\$ 140,000		
Eligible Cost :	\$ 11,646,293	Cost-Share \$	\$ 8,734,720
Local Cost :	\$ 3,051,573	Preconstruction :	\$ 318,750
		Construction :	\$ 8,415,970

Project Type:	Rural Water - Expansion/Improvement	Cost-share %	75%
----------------------	-------------------------------------	---------------------	-----

Item	%	Cost Classification	Quantities	Unit	Unit Price	Total	Cost-Share %	Cost-Share \$ *
Construction Costs								
1	10.0%	Mobilization	1	LS	1,056,361.50	\$ 1,056,362	75%	\$ 792,271
2	1.0%	Bonding	1	LS	101,100.00	\$ 101,100	75%	\$ 75,825
3	0.9%	Insurance	1	LS	100,000.00	\$ 100,000	75%	\$ 75,000
4	11.2%	Water Main 2 in	94,000	LF	12.50	\$ 1,175,000	75%	\$ 881,250
5	4.4%	Water Main 4 in	28,000	LF	16.40	\$ 459,200	75%	\$ 344,400
6	2.7%	Water Main 6 in	13,000	LF	22.00	\$ 286,000	75%	\$ 214,500
7	20.2%	Water Main 8 in	70,000	LF	30.40	\$ 2,128,000	75%	\$ 1,596,000
8	4.1%	Boring - Cased	3,950	LF	109.00	\$ 430,550	75%	\$ 322,913
9	22.2%	Boring - Poly	41,000	LF	57.00	\$ 2,337,000	75%	\$ 1,752,750
10	1.0%	Gate Valve	36	EA	2,814.00	\$ 101,304	75%	\$ 75,978
11	7.1%	Pump Station	1	EA	750,000.00	\$ 750,000	75%	\$ 562,500
12	0.5%	Air Release Valve	10	EA	4,775.00	\$ 47,750	75%	\$ 35,813
13	1.0%	Hydrant	12	EA	8,550.00	\$ 102,600	75%	\$ 76,950
14	0.4%	Air Blow-off Valve	20	EA	2,350.00	\$ 47,000	75%	\$ 35,250
15	0.8%	Curb Stop	63	EA	1,262.50	\$ 79,538	75%	\$ 59,653
16	2.2%	Meter - Frost Free	63	EA	3,600.00	\$ 226,800	75%	\$ 170,100
17	0.4%	Gas/Oil/Saltwater Pipeline Crossing Ver	40	EA	1,062.00	\$ 42,480	75%	\$ 31,860
18	0.8%	Seeding	100	AC	825.00	\$ 82,500	75%	\$ 61,875
19	0.0%	Gravel	50	TON	46.50	\$ 2,325	75%	\$ 1,744
20	0.1%	Ledge Rock Removal	100	CY	112.00	\$ 11,200	75%	\$ 8,400
21	0.0%	Connection to Existing Line	1	EA	5,000.00	\$ 5,000	75%	\$ 3,750
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				\$ 9,571,708	75%	\$ 7,178,781
	10.0%	Contingency				\$ 957,171	75%	\$ 717,878
	89.3%	Construction Total				\$ 10,528,879	75%	\$ 7,896,659
Preconstruction Costs								
27	4.0%	Previously Approved Pre-Construction	1	NA	425,000.00	\$ 425,000	75%	\$ 318,750
28	0.0%		0		-	\$ -	75%	\$ -
29	0.0%		0		-	\$ -	75%	\$ -
30	0.0%		0		-	\$ -	75%	\$ -
31	0.0%		0		-	\$ -	75%	\$ -
	3.6%	Preconstruction Total				\$ 425,000	75%	\$ 318,750
Construction Engineering Costs								
32	2.3%	Construction Contract Management	1	NA	244,000.00	\$ 244,000	75%	\$ 183,000
33	7.0%	Project Inspection	1	NA	732,000.00	\$ 732,000	75%	\$ 549,000
34	0.7%	Post-Construction / Warranty	1	NA	70,000.00	\$ 70,000	75%	\$ 52,500
35	0.5%	I&C System Services	1	NA	50,000.00	\$ 50,000	75%	\$ 37,500
36	0.0%		0		-	\$ -	75%	\$ -
	9.3%	Construction Engineering Total				\$ 1,096,000	75%	\$ 822,000
Other Eligible Costs								
37	0.0%	Contingency to 5%	1	LS	(478,585.40)	-\$ 478,585	75%	-\$ 358,939
38	0.6%	Pumpstation Electrical Service Upgrade	1	LS	75,000.00	\$ 75,000	75%	\$ 56,250
39	0.0%		0		-	\$ -	75%	\$ -
40	0.0%		0		-	\$ -	75%	\$ -
41	0.0%		0		-	\$ -	75%	\$ -
	0.6%	Other Eligible Total				-\$ 403,585	75%	-\$ 302,689
In-eligible Costs								
42	0.2%	Legal Expenses	1	NA	20,000.00	\$ 20,000	0%	\$ -
43	0.2%	Easement	1	NA	20,000.00	\$ 20,000	0%	\$ -
44	0.8%	Crop Damage	1	NA	100,000.00	\$ 100,000	0%	\$ -
45	0.0%		0		-	\$ -	0%	\$ -
	1.2%	Other Ineligible Total				\$ 140,000	0%	\$ -
104.1%		Total				\$ 11,786,293		
		Eligible Total				\$ 11,646,293	75%	\$ 8,734,720
Federal or State Funds That Supplant Costs								
						\$ -		
		Eligible Cost Total				\$ 11,646,293	75%	\$ 8,734,720

* 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: R&T Battlevue & McGregor Rural Dist - Phase I

Date: May 7, 2024

Explanation of Alternatives:

Battlevue McGregor Rural Distribution Phase I (Preferred) - Includes the installation of a total of 36 miles of rural distribution pipeline to serve 63 rural users between Wildrose, McGregor, and Battlevue. Service includes the cities of Battlevue and McGregor. This project will also include the construction of a booster pump station and mainline to service full build out to 106 future customers for a total of 169 eventual new users.

Do Nothing - The Do Nothing alternative would eliminate the construction of the proposed project and prevent water service from being provided to the 169 users that have signed up as part of this phased project.

Inputs:

New Connections Served	63			
Future Connections Served	106			
Current Connections Served	0			
Net Connections (New + Current)	63			
	Battlevue McGregor Rural Distribution Phase I (Preferred)	Do Nothing		
Construction Cost	\$11,786,300	\$0		
Annual O & M	\$25,000	\$0		

Details:

--

LCCA Model Results:

Scenario Analysis - Present Value Life Cycle Cost Summary

	Battlevue McGregor Rural Distribution Phase I (Preferred)	Do Nothing		
Present Value				
Capital Costs	\$7,858,000	\$0		
O&M	\$736,000	\$0		
Repair, Rehab, Replacement	\$5,559,000	\$0		
Salvage Value	\$976,000	\$0		
Total PVC	\$13,177,000	\$0		
PV Cost Per User	\$209,159	\$0		

Current Water Rate (Cost Per 5000g)	\$95			
Comparable Water Rate	\$75			
Net Connections (New + Current)	63	63		
Cost-Share Percent	75%	75%		
	Local Share	\$1,964,500	\$0	
	Other Funding	\$0	\$0	
	Total Local	\$1,964,500	\$0	
Payment Per User With Cost-Share	\$157.75	\$0.00		
	Local Share	\$7,858,000	\$0	
	Other Funding	\$0	\$0	
	Total Local	\$7,858,000	\$0	
Payment Per User Without Cost-Share	\$630.99	\$0.00		

Explanation of Results:

The sponsor's preferred project is the "Battlevue McGregor Rural Distribution Phase I" option. The present value cost of the preferred alternative is \$13,177,000 and \$0 for the "Do Nothing" alternative for comparison. The present value cost per user for the preferred alternative is \$209,159. The monthly user cost of the local share with DWR 75% cost-share participation is \$157.75 per month and \$630.99 without DWR participation.

Other Comments:

The original estimate of cost during preconstruction was \$6.6 million. The total project cost has increased significantly from September of 2022.

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.

