



NORTH
Dakota | Water Resources
Be Legendary.

NAWS

PROJECT UPDATE

ND Department of Water Resources





NAWS

NORTHWEST AREA WATER SUPPLY

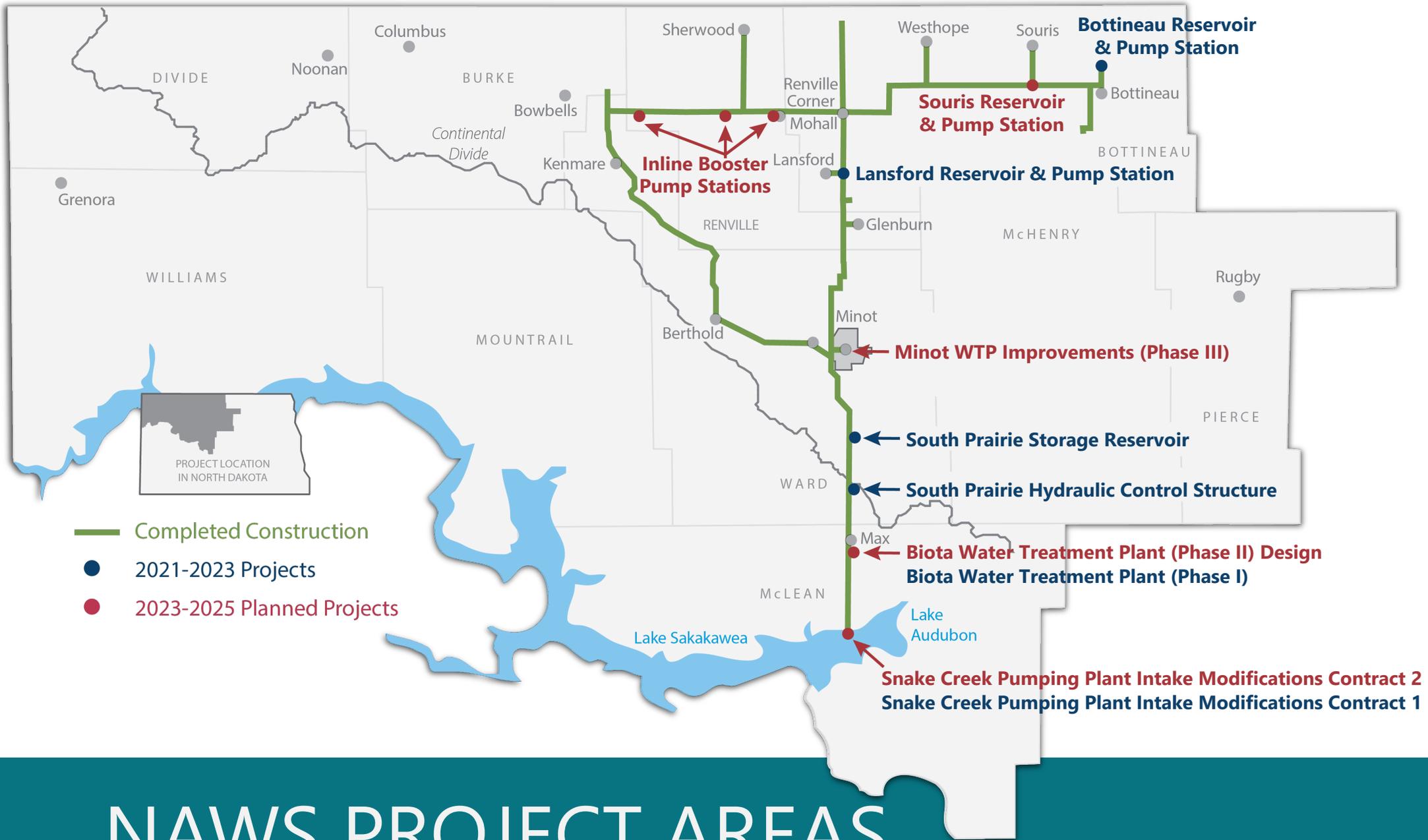
- **1 Of 2** Two State-Owned Regional Water Systems In ND
- Authorized By The Garrison Diversion Reformulation Act Of 1986 & The Dakota Water Resources Act Of 2000
- Construction **Began In 2002**
- Lawsuits Initiated Immediately
- Favorable Ruling By District Court In 2017
- Upheld By Appellate Court In 2019
- **Construction** Back Underway After **17 Years** Of Litigation



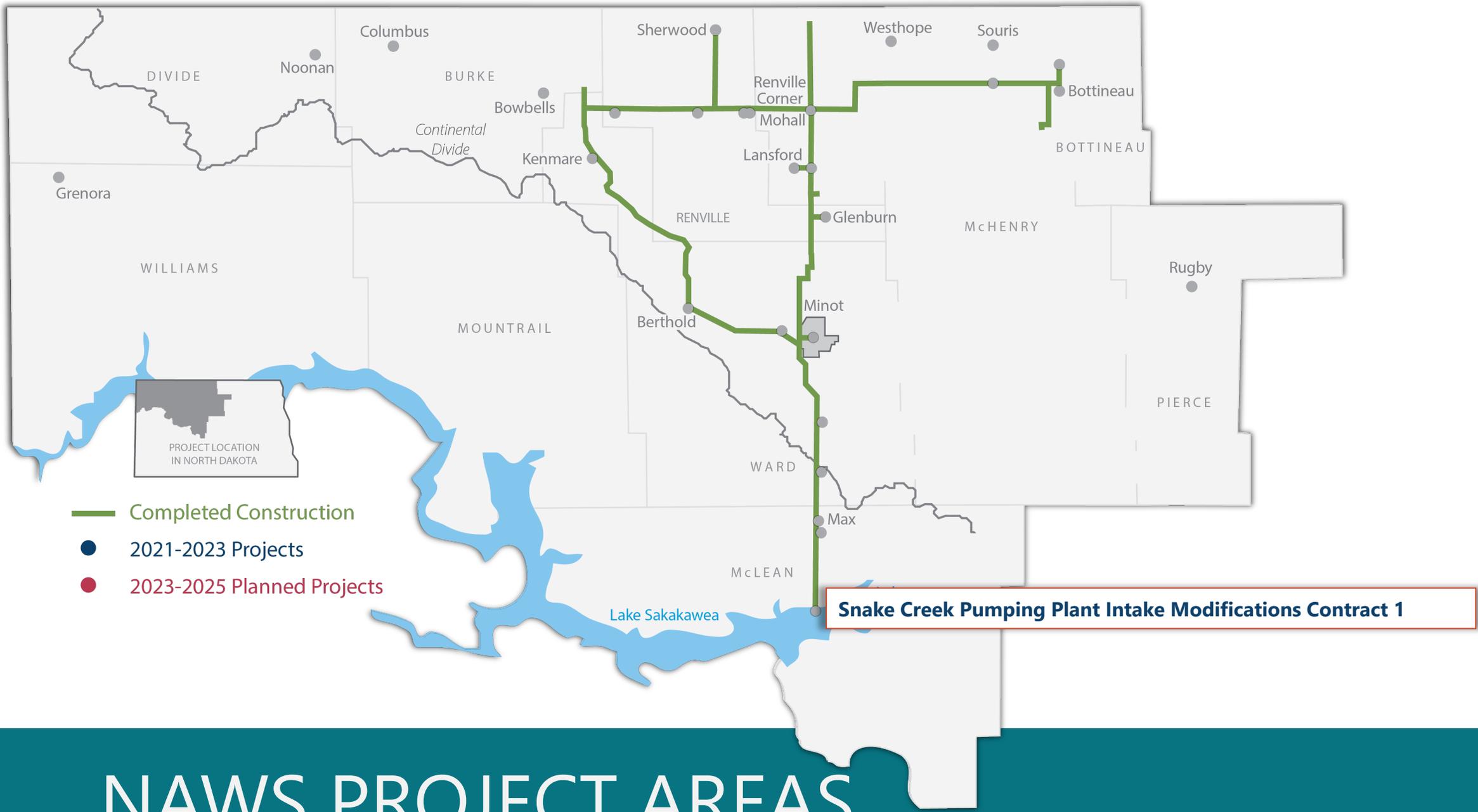
NAWS

NORTHWEST AREA WATER SUPPLY

- Designed To Serve A Project Area Of **81,000 People**
- NAWS Is Owned By The State Water Commission & Administered By The Department Of Water Resources (DWR)
- DWR Is Responsible For Construction & Operation Of NAWS
- Local Share For NAWS Is Provided By City Of Minot Through The **1% Sales Tax**
- Except For The Biota Water Treatment Plant Which Is A Federal Responsibility, City Of Minot Provides **35% In Cost-Share** For NAWS
- Bill To Change NAWS Advisory Committee To NAWS Authority (HB 1218) Is Introduced This Session



NAWS PROJECT AREAS



NAWS PROJECT AREAS

SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS

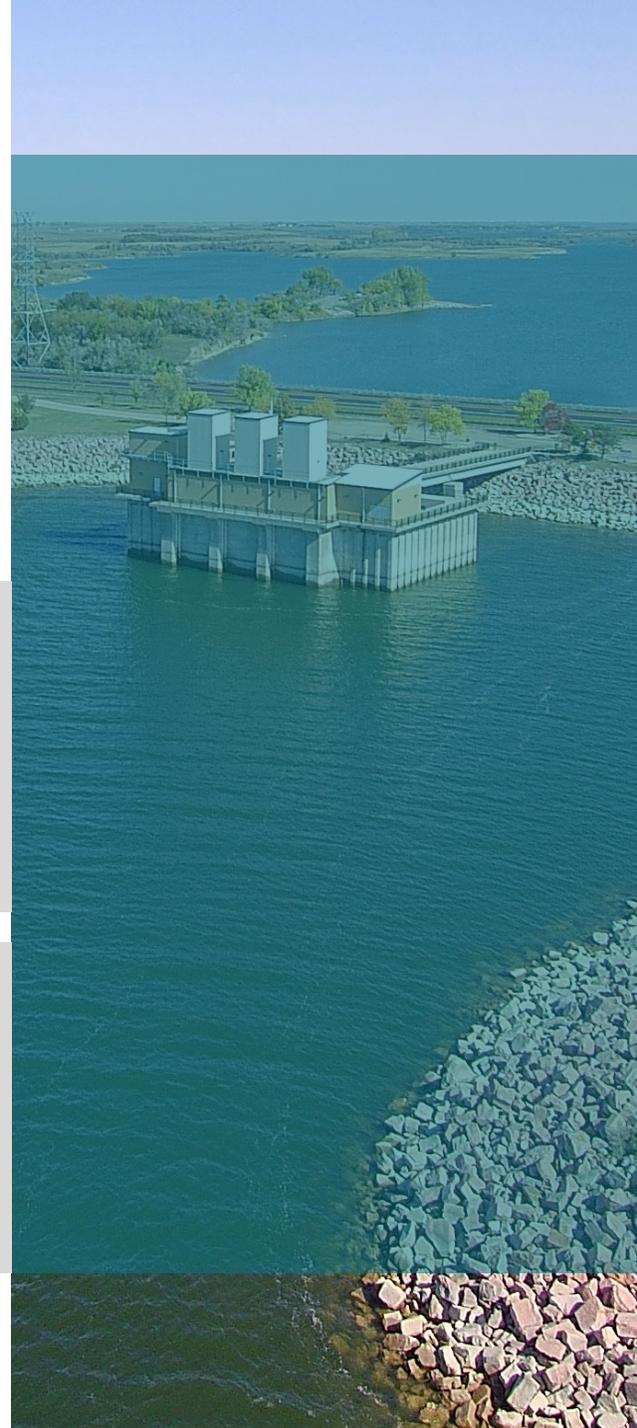
The Project Was Broken Up Into Two Contracts

CONTRACT 1

Is For Work Inside The Existing Facility
(No Section 408 Permit Required)

CONTRACT 2

Is For External Work
(Section 408 Permit Is Required)



CONTRACT 1

SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS



- Letter Of No Permission Required From USACE Received On **AUGUST 19, 2022**
- In September Bids Were Opened - Included Materials With Long Lead Times For Contract 2 (Pipeline, Permanent Intake Screen, Valves, Fittings, Etc)
- Included Cost Escalation Language In Contract To Secure Better Bids
- Bids Came In 250% Higher Than Estimate

CONTRACT 1

SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS



Readvertised Contract 1 Split Into **Three Contracts**

Procurement Contracts

- Includes Equipment With Long Lead Times
- Contract Awarded At **December 2022** SWC Meeting

Demolition Contracts

- Removal Of Existing Pump Unit No. 1 & Construction Of Bulkhead In The Discharge Structure On Lake Audubon
- Contract Awarded At **December 2022** SWC Meeting

Construction Contract

- Opened Bids **January 18, 2023**

CONTRACT 2

SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS



- Completeness Review Completed By USACE **July 2022**
- USACE Has Indicated A **Six-To-Twelve-Month** Review Period
- SWC Executed **1156 Agreement** With The USACE To Fund The Section 408 Review
- Expected **Bidding Timeframe** For Contract 2 - **February - August 2023** - Based On Corps Review Timeline

CONTRACT 2

SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS

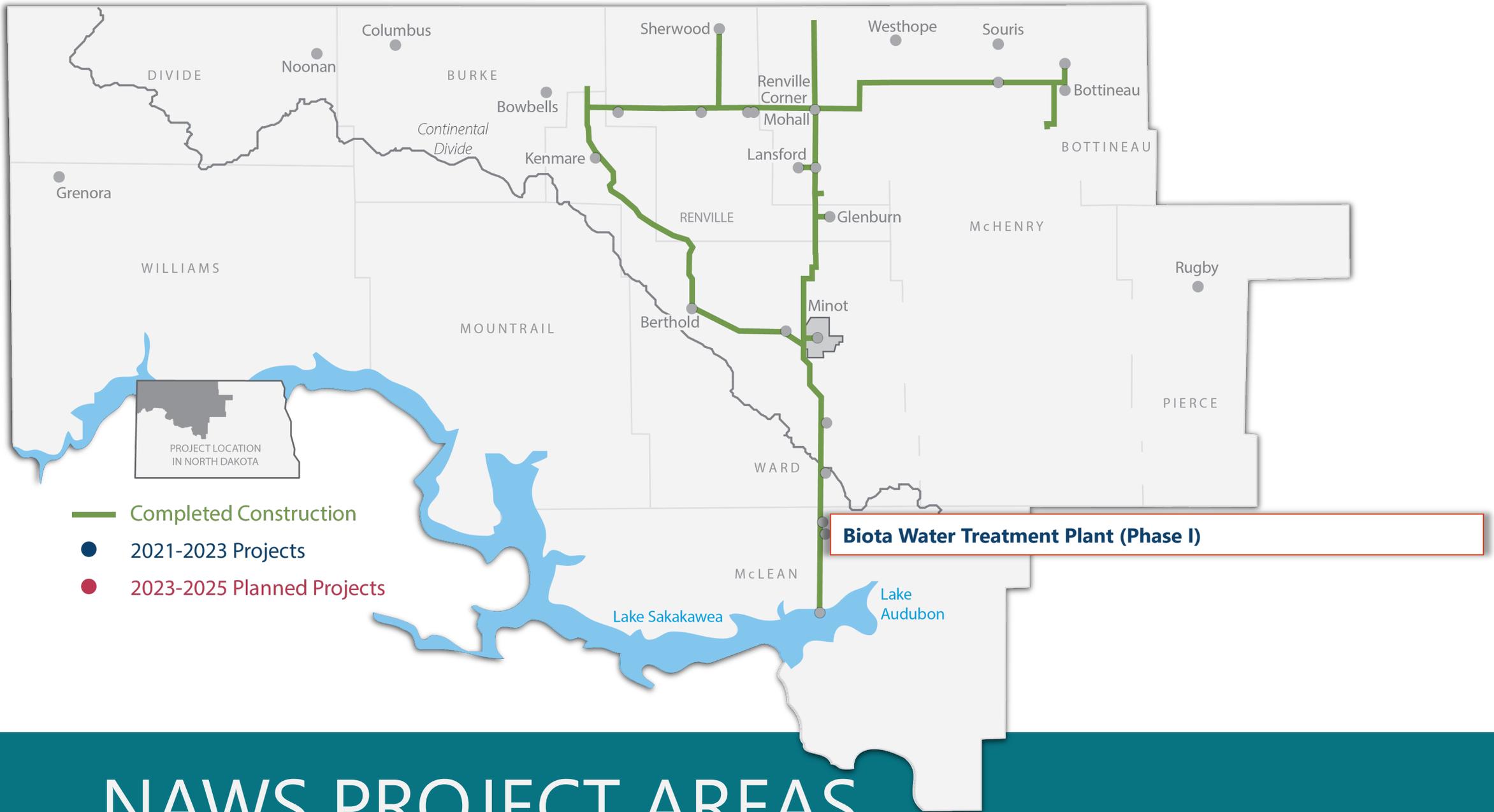


Contract 2 Will Be Divided Into **2 Bid Schedules**

- **Schedule 1** Will Include The Discharge Pipeline Which Is Necessary To Move Water To Biota Water Treatment Plant (Located At Max)
- Completion Expected - **Summer 2024**
- **Schedule 2** Will Include The Intake Pipe Bore & Permanent Intake Structure
- Completion Expected - **1-2 Years After Bidding (2024 or 2025)**
- Permitting, Funding, Construction Difficulties, Supply Chain Issues Are All Potential Variables

The Temporary Intake Screen Included In Contract 1 Will Be Used For Startup & Commissioning At Biota WTP & To Provide Raw Water Service To Minot

The Permanent Intake Will Improve Capacity & Water Quality For NAWS



— Completed Construction

● 2021-2023 Projects

● 2023-2025 Planned Projects

Biota Water Treatment Plant (Phase I)

NAWS PROJECT AREAS

BIOTA WATER TREATMENT PLANT

PHASE I - FUNDING



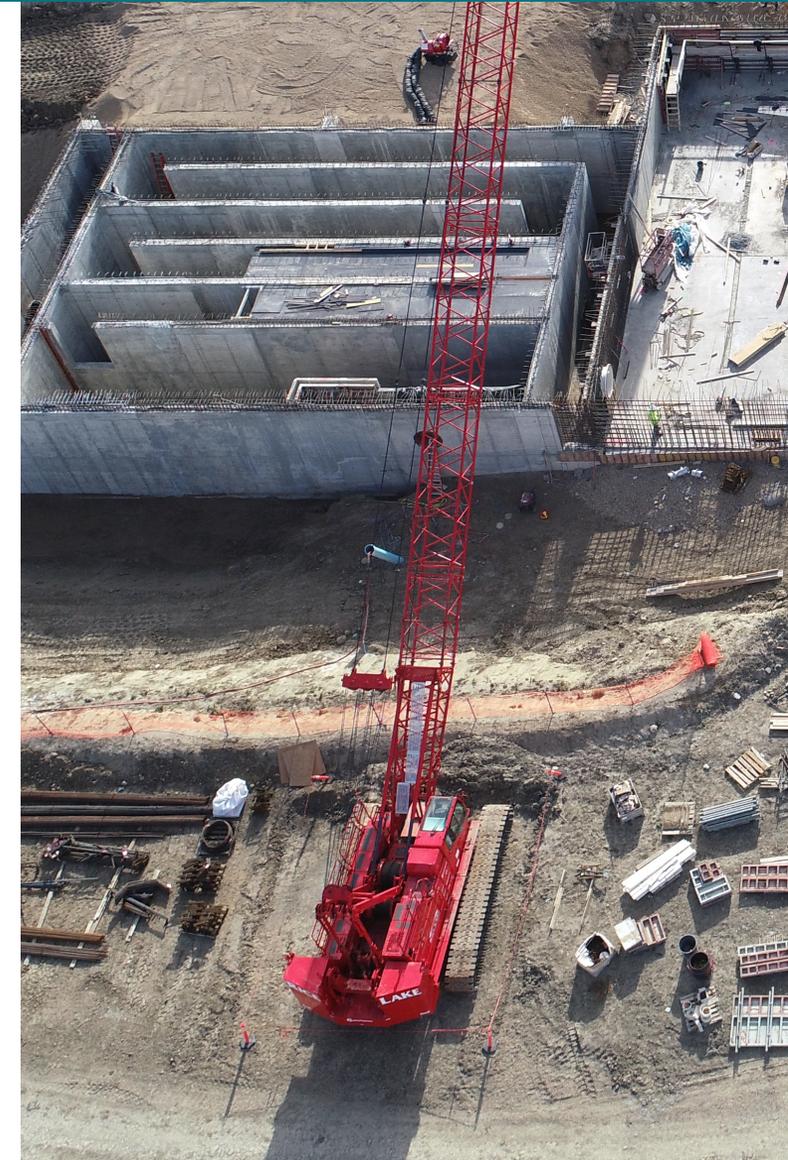
- Biota WTP Is For Boundary Waters Treaty Act Compliance & Therefore A Federal Responsibility Per Dakota Water Resources Act
- Garrison Diversion Unit MR&I Program Is Reclamation's Only Funding For Water Development In North Dakota
- All Costs Incurred For Phase I Of The Biota WTP Have Been Reimbursed With MR&I Funds. Sufficient MR&I Funding Will Be Available For Phase I When FY 2023 MR&I Funding Is Approved
- The Line Of Credit (LOC) Was Needed To Award The Phase I Contracts But Funding From LOC Has Not Been Accessed

PHASE I

BIOTA WATER TREATMENT PLANT

Features

- The Treatment Process Includes Clarification Through Flocculation & Dissolved Air Flotation, Dual Media Filtration, UV Disinfection, & Chemical Disinfection Through Chlorine Converted To Chloramine
- Freeze-Thaw Lagoons Will Be Used For Solids Residual Handling (Sludge From The Clarification Process)
- Includes A Shop Building For Storing Equipment For Building & Grounds Maintenance As Well As Staging Delivered Process Equipment During Construction Of Phase I & Phase II

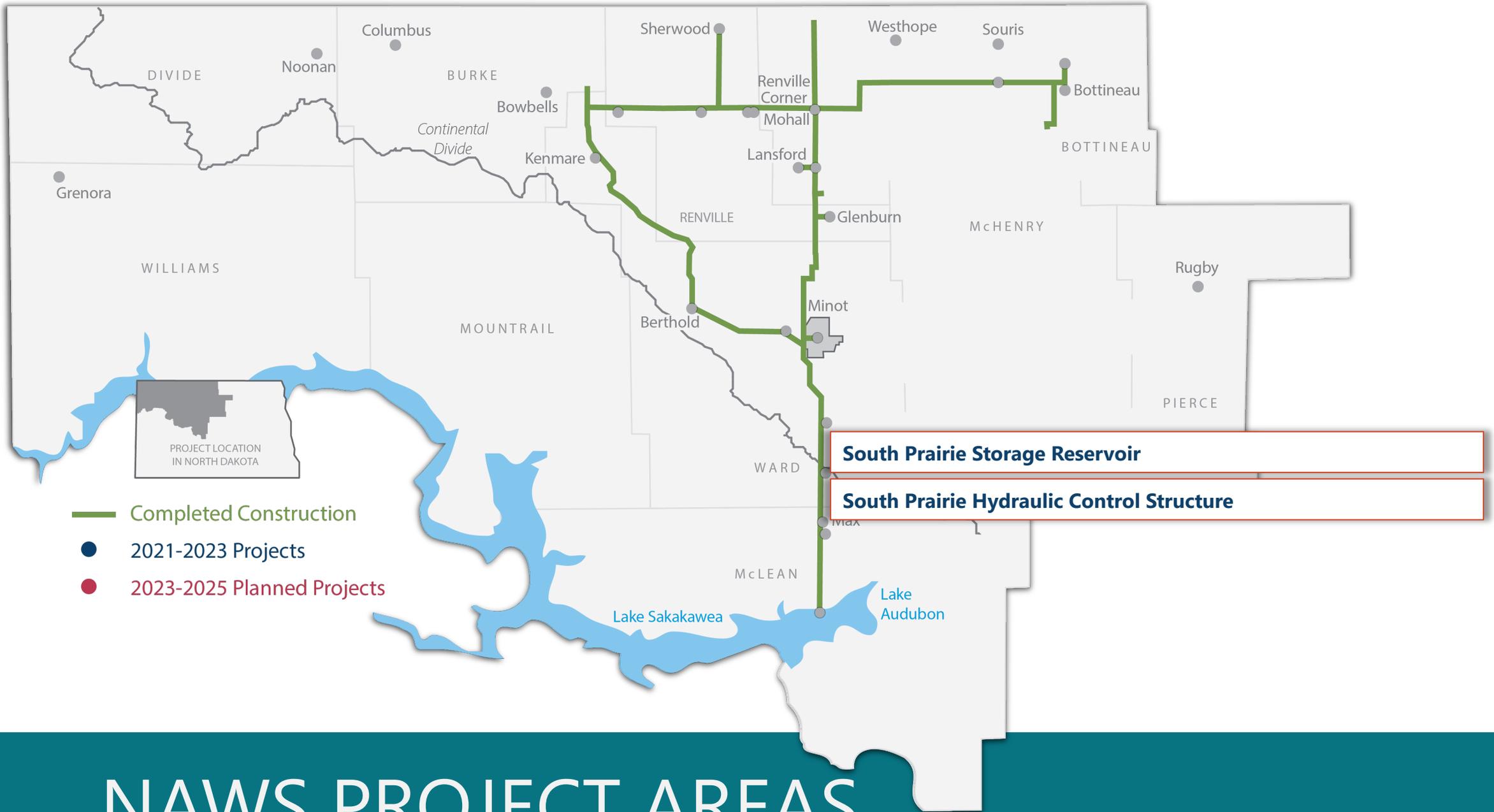


PHASE I

BIOTA WATER TREATMENT PLANT



- Shop Building Complete
- Cast In Place Concrete Complete
- Half Of The Roofing System Has Been Installed
- Working On Interior Walls, Process Piping, Coatings, Wiring, HVAC, Etc.
- **Substantial Completion** Date On The Contract - **December 2023**
- **Final Completion - June 2024**
 - Startup Dependent On Intake Contract 1 & Contract 2 Discharge Pipeline Completion - Scheduled For **Spring 2024**



— Completed Construction

● 2021-2023 Projects

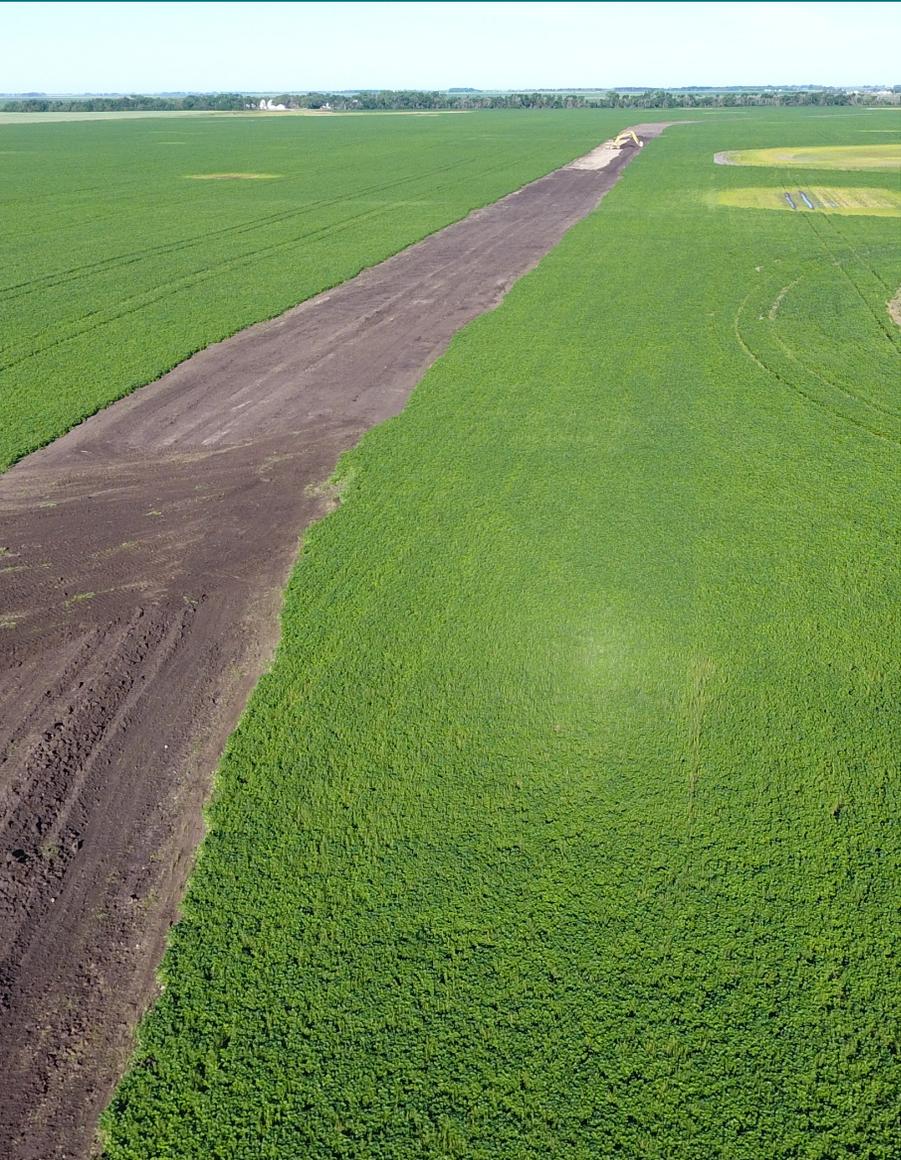
● 2023-2025 Planned Projects

South Prairie Storage Reservoir

South Prairie Hydraulic Control Structure

NAWS PROJECT AREAS

SOUTH PRAIRIE RESERVOIR & HYDRAULIC CONTROL STRUCTURE



- 10.5 Million Gallon Reservoir, Flow Control Facility, & Hydraulic Control Structure
- Hydraulic Control Structure Is Nearly Complete, Flow Control Facility Cast in Place & Precast Concrete Is complete
- Reservoir Floor & Reservoir Panels Have Been Cast & Reservoir Will Be **Erected In 2023**
- Contract Cost - **\$15 Million** (2021-2023 Funding)
- Completion Date On Contract - **November 2023**

SOUTH PRAIRIE HYDRAULIC CONTROL STRUCTURE

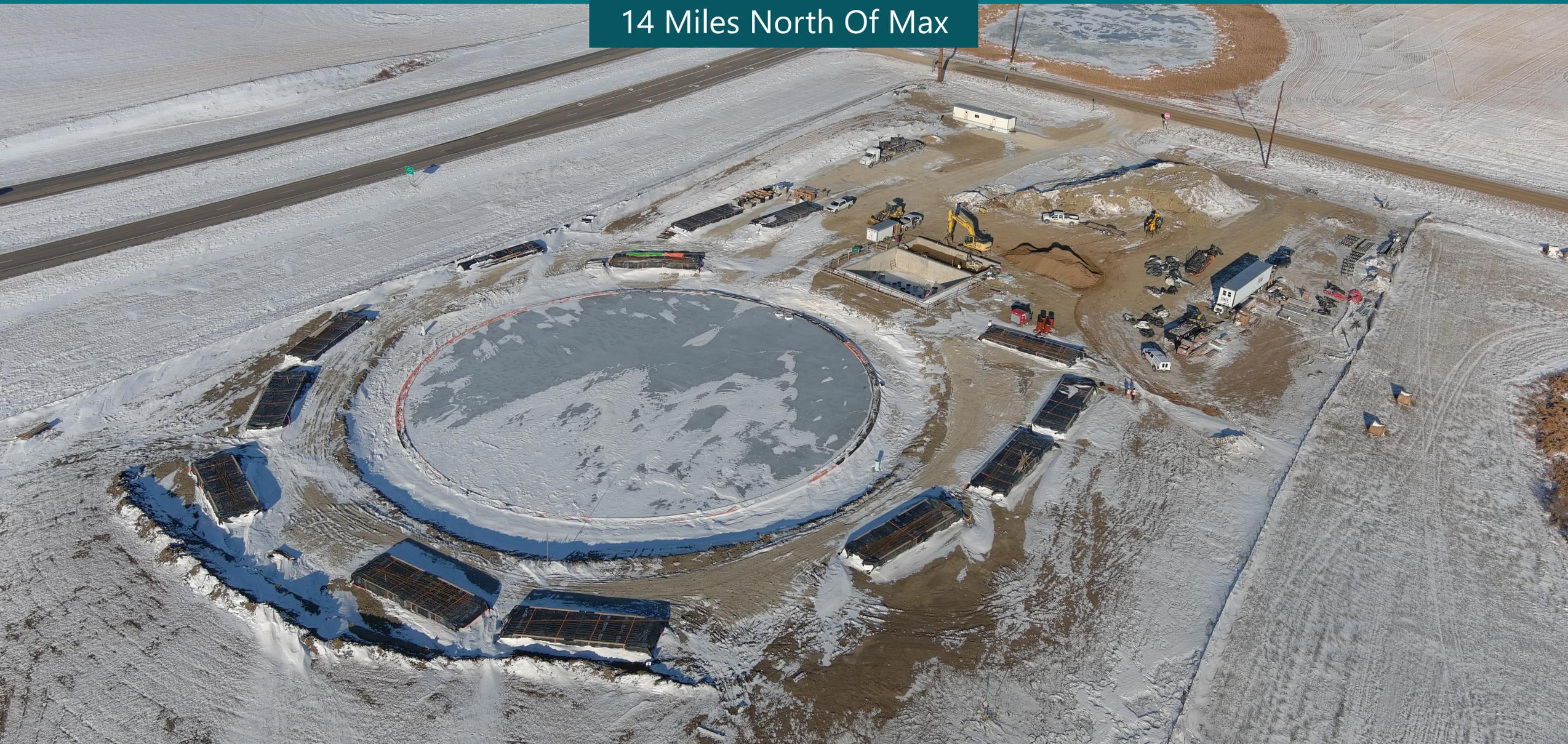


Located 8 Miles North Of Max At Continental Divide

The Hydraulic Control Structure Protects The Pipeline By Eliminating Pressure Spikes

SOUTH PRAIRIE RESERVOIR & FLOW CONTROL FACILITY

14 Miles North Of Max





- Current Objective Is To Deliver Lake Water To Minot **Summer/Fall Of 2024**
 - Intake Contract 1 Completion - **Summer 2024**
 - Contract 2 - Discharge Pipeline - **Anticipated Completion Summer/Fall 2024**
- Delays In Construction May Delay Delivery
 - Supply Chain Issues
 - Pandemic Disruptions
 - Timely Permitting
 - Funding Limitations
 - Operational Conflicts With Minot WTP/Peak Usage

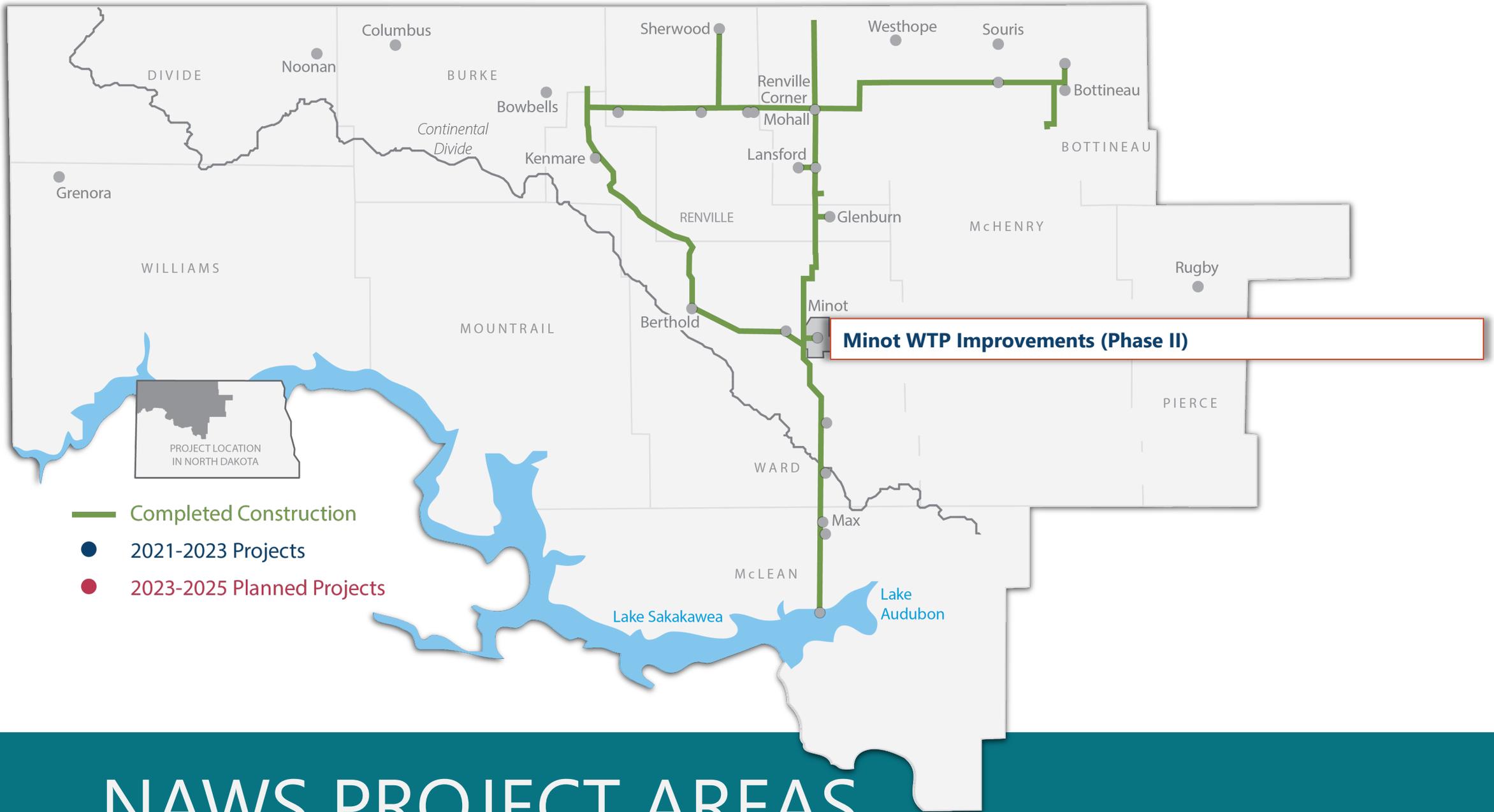
TIMELINE FOR LAKE WATER TO MINOT

MINOT INTERIM WATER SUPPLY

- Raw Water Supply For NAWS From Ground Water Until The Intake For NAWS Is Complete
- Summer Of 2021 & 2022 - Ground Water Wells Had Some Operational Issues
- Issues Resolved & City of Minot Has Signed The Amendment to The Interim Water Supply Agreement

**Total Raw Water Capacity From
Ground Water -17 MGD**





- Completed Construction
- 2021-2023 Projects
- 2023-2025 Planned Projects



NAWS PROJECT AREAS

MINOT WATER TREATMENT PLANT



Minot WTP Capacity Is **18 Million Gallons** Per Day - Built In 1950s & 1960s

Phase I Construction Completed In 2013 Replaced The Filtration Units, Controls

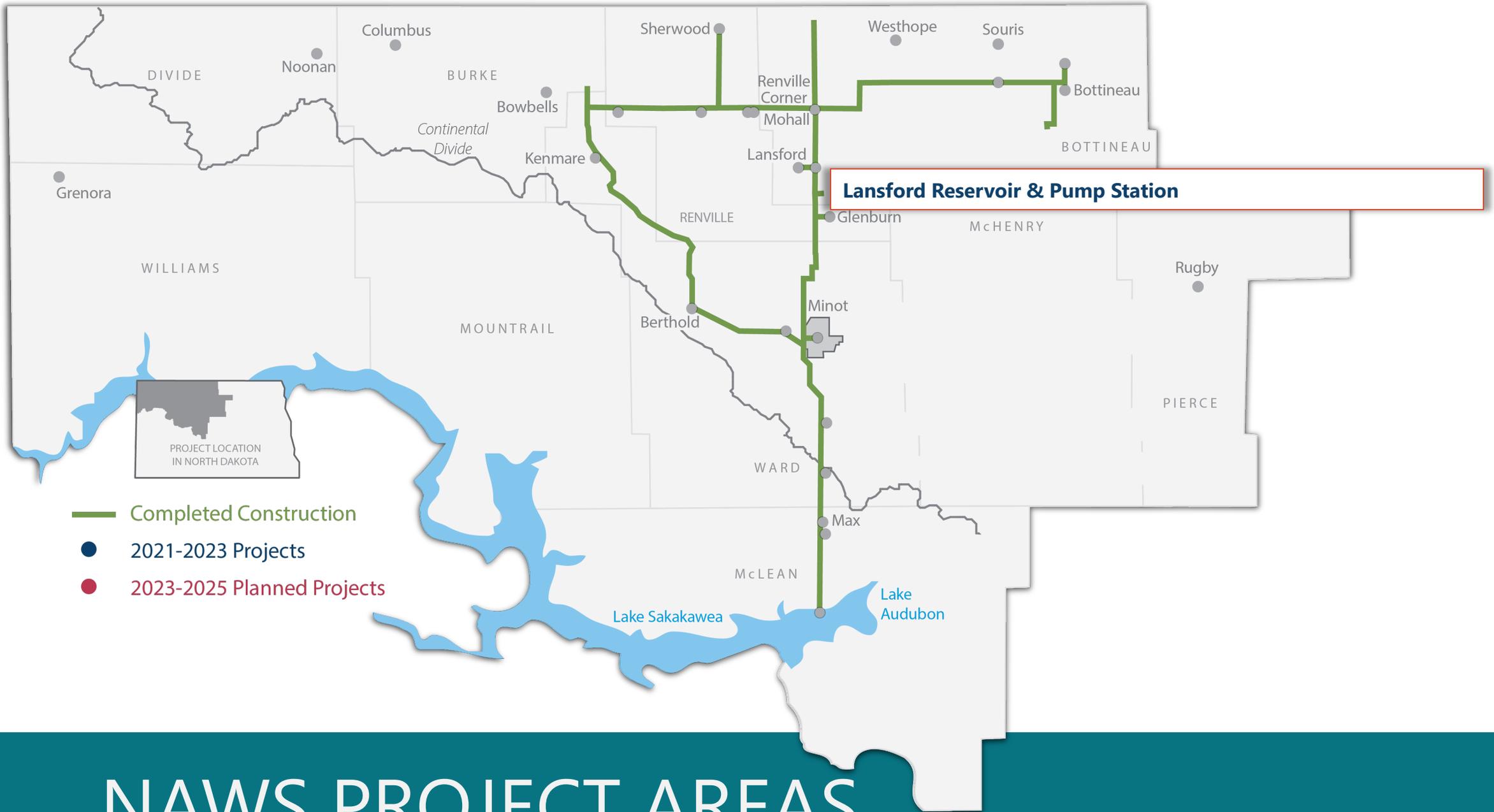
Phase II Construction Replaced Softening Basins, Added Pretreatment Building, Replaced Chemical Feed Systems

PHASE II

MINOT WATER TREATMENT PLANT



- Currently Working Through Finishing Details
- Both Basins Operational
- Final Commissioning Likely When Weather Allows
- Substantially Complete, A Few Weather-Dependent Items Remain
- Expected Final Commissioning - **May-June 2023**



NAWS PROJECT AREAS

LANSFORD

LANSFORD RESERVOIR & PUMP STATION

Reservoir

4.5 Million Gallons

Pump Station & Operation Center

2500 GPM Capacity

Operational Since October 2022



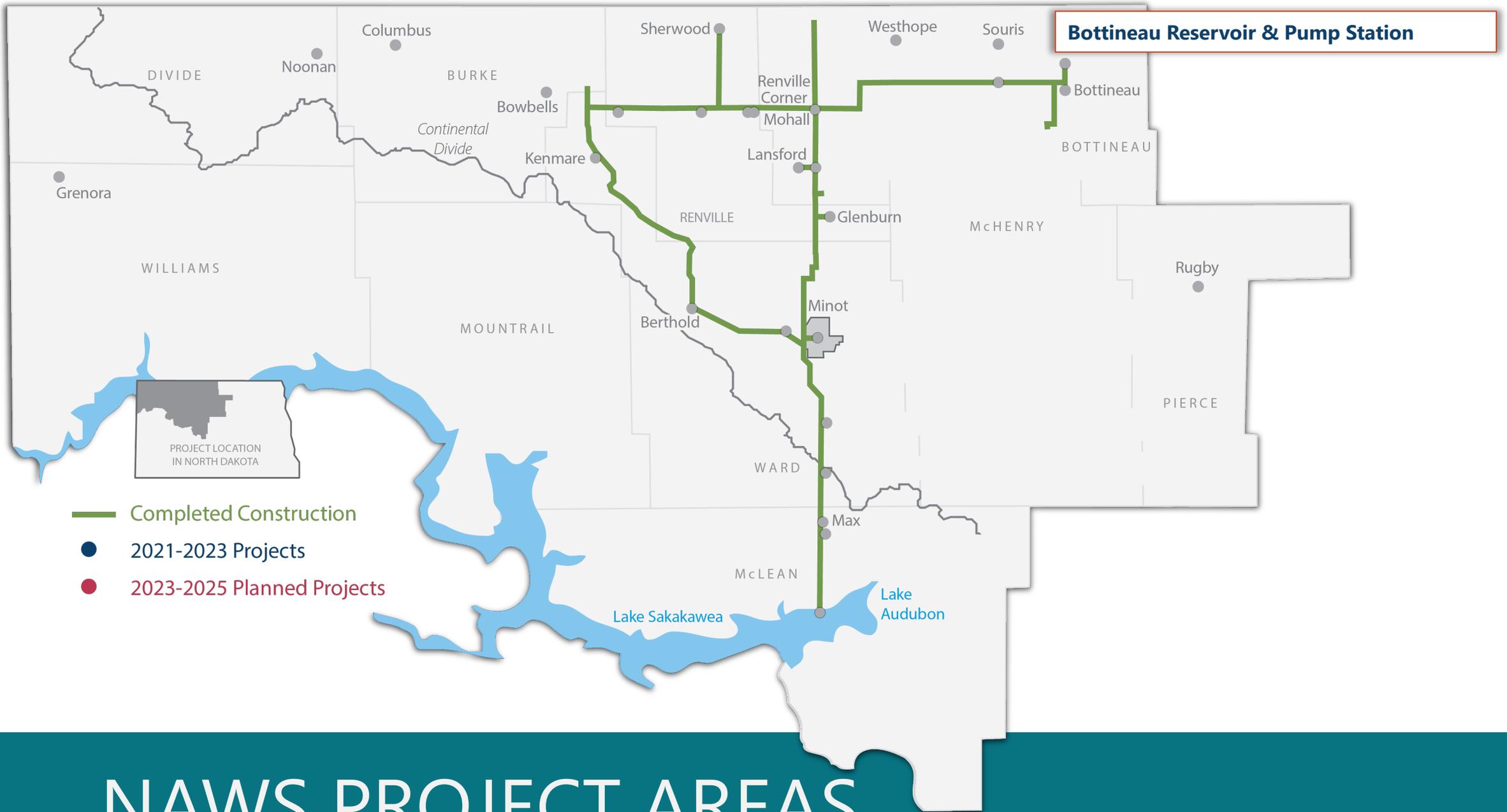
LANSFORD RESERVOIR & PUMP STATION



BOTTINEAU/ASWUD PIPELINE

Began Water Service To Bottineau - **October 19, 2022**





NAWS PROJECT AREAS

BOTTINEAU

BOTTINEAU RESERVOIR & PUMP STATION

Reservoir

1 Million Gallons

Pump Station

1400 GPM Capacity

Completion Date

June 2024



PROJECT FUNDING NEEDS

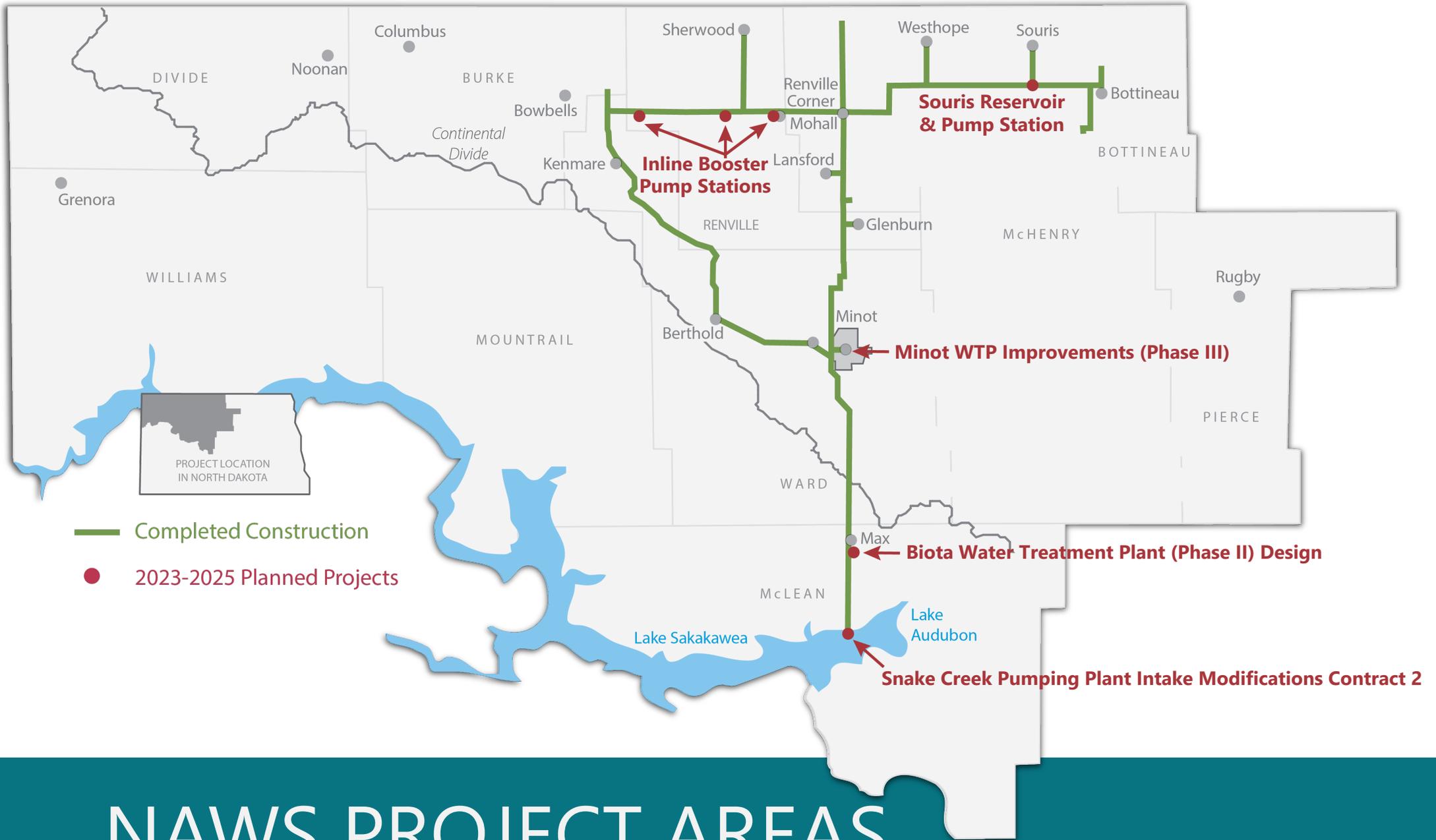
2023-2025 BIENNIUM EXECUTIVE BUDGET



Total New Authority Request For 2023-2025
\$61 Million

\$36 Million From City of Minot , RTF

\$25 Million Federal



NAWS PROJECT AREAS



THANK YOU

 ND Department of Water Resources

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 dwr.nd.gov

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