



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

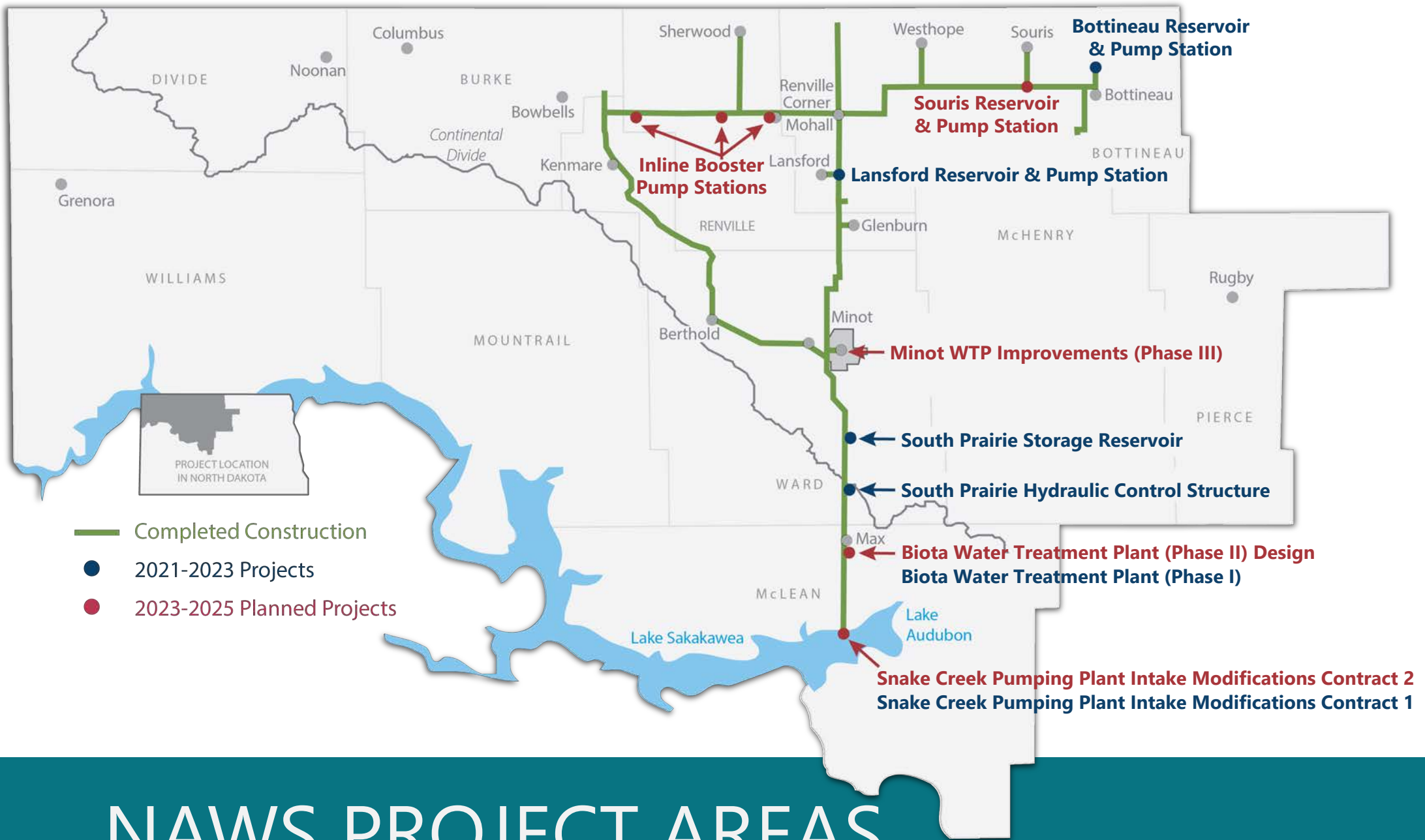




# NAWS

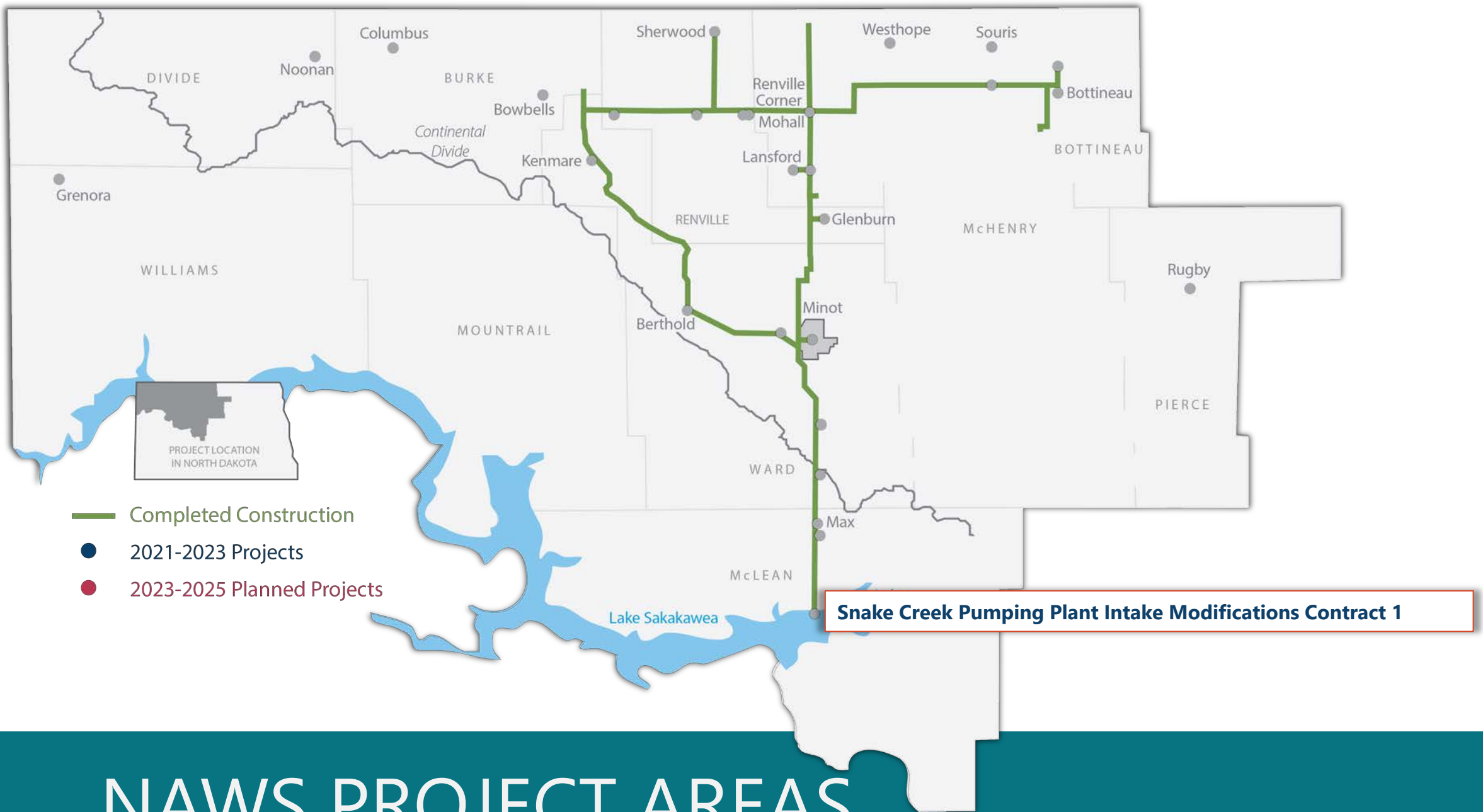
## NORTHWEST AREA WATER SUPPLY

- 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) Has Passed Both Chambers



# NAWS PROJECT AREAS





# NAWS PROJECT AREAS

# SNAKE CREEK PUMPING PLANT INTAKE MODIFICATIONS

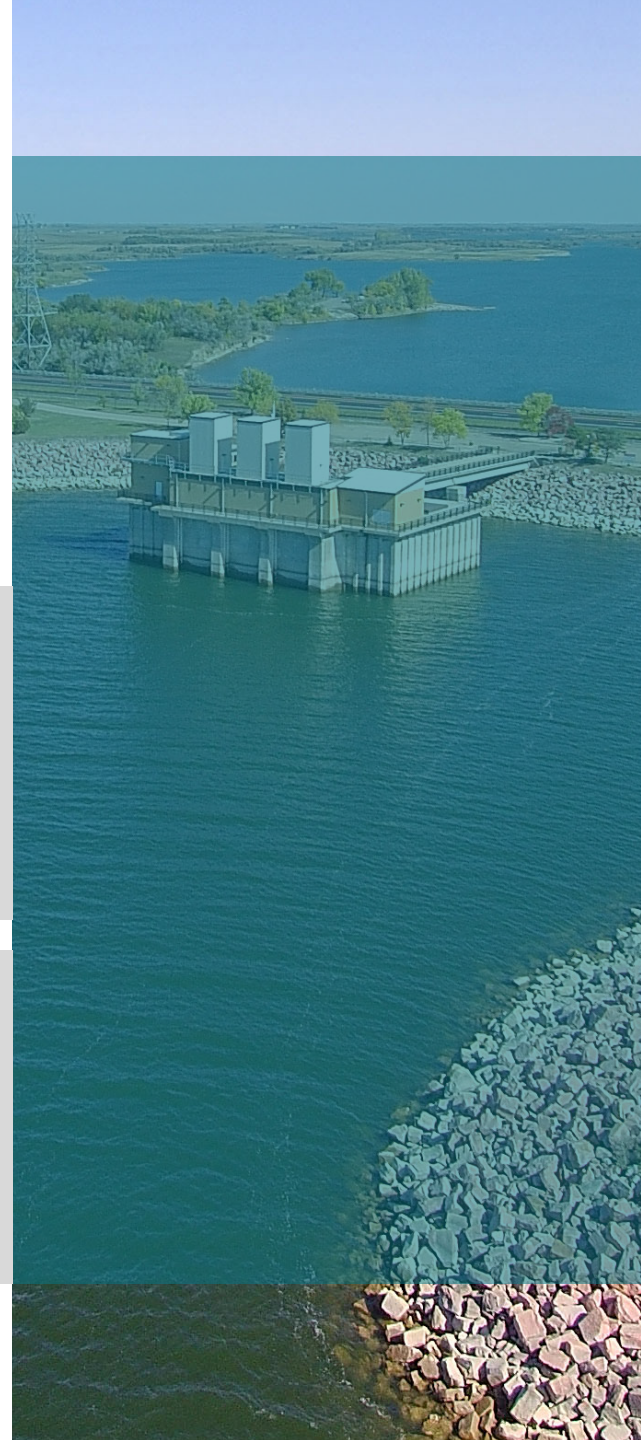
The Project Was Broken Up Into Two Contracts

## **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



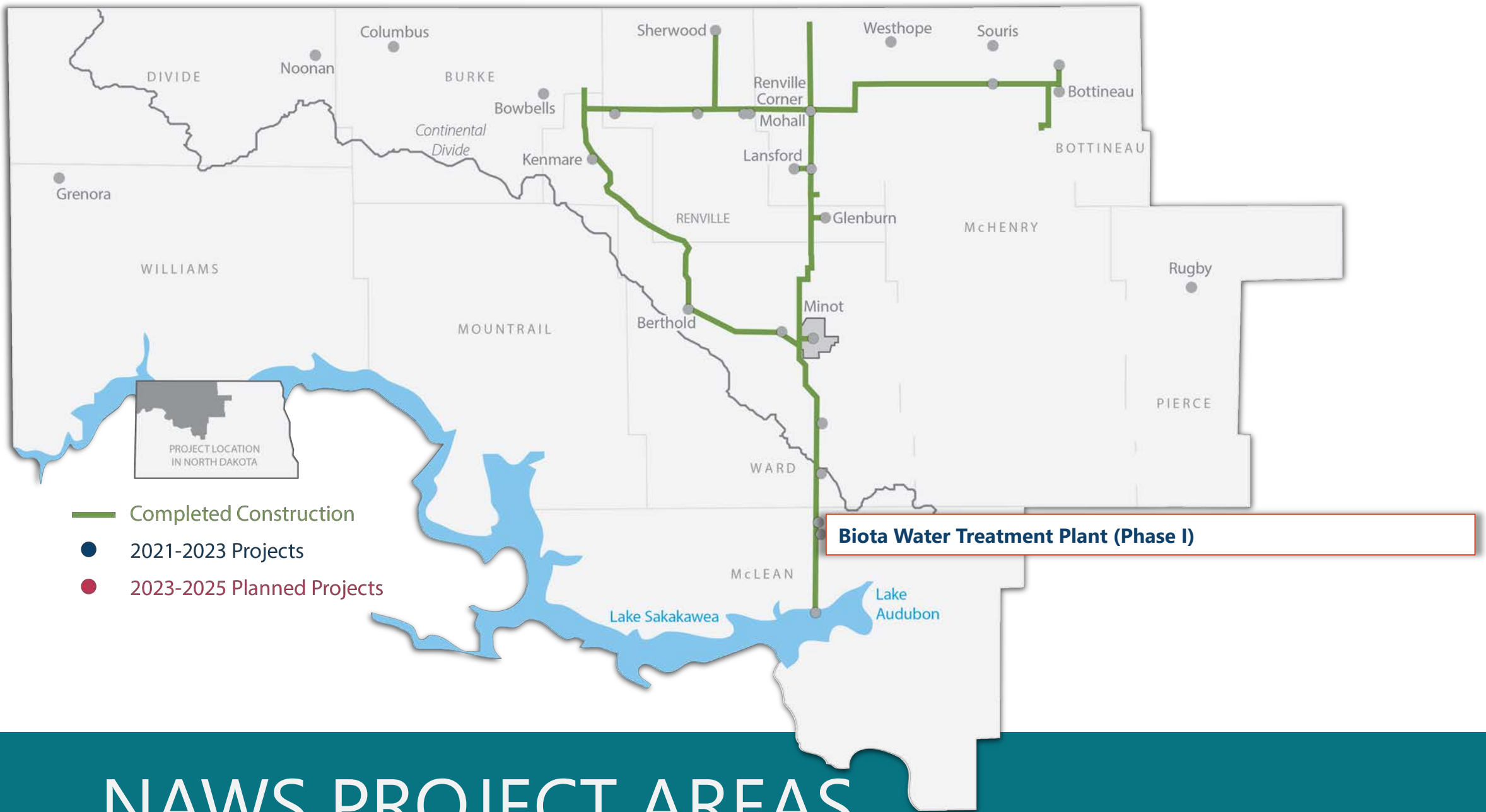
### Contract 2 Will Be Divided Into **2 Bid Schedules**

- **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





# 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

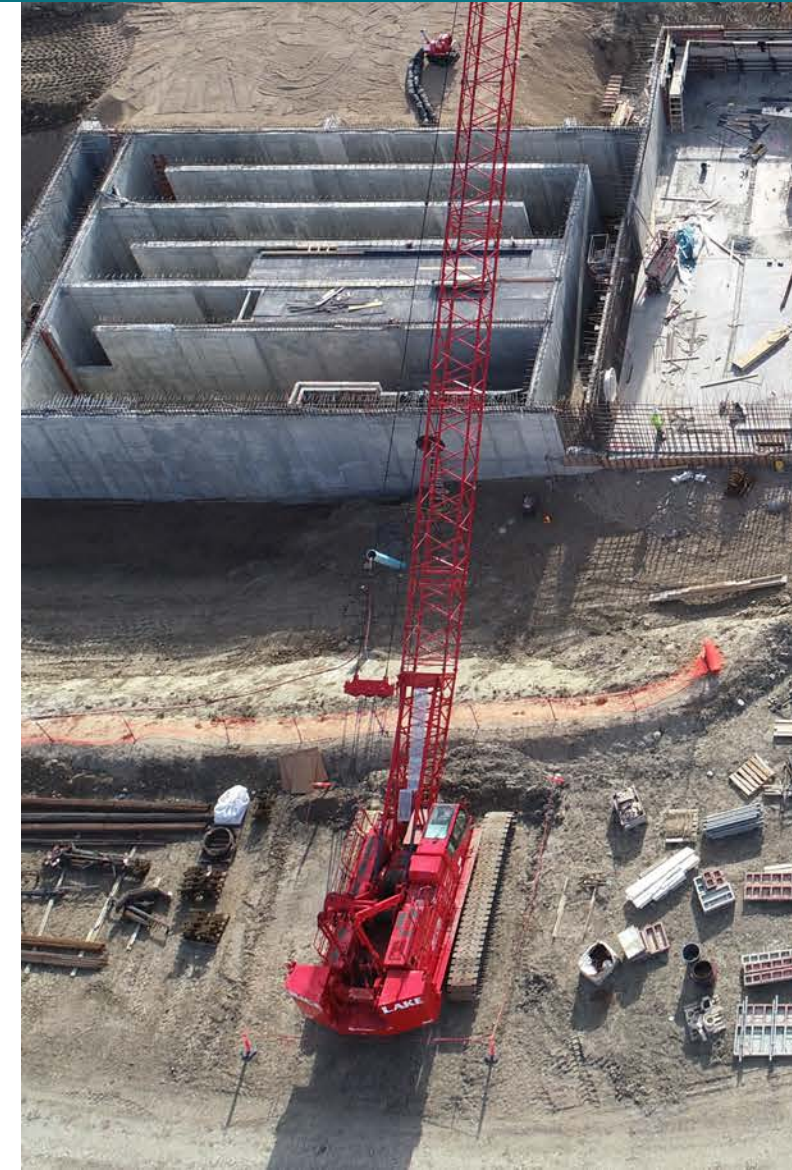


# PHASE I

## 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



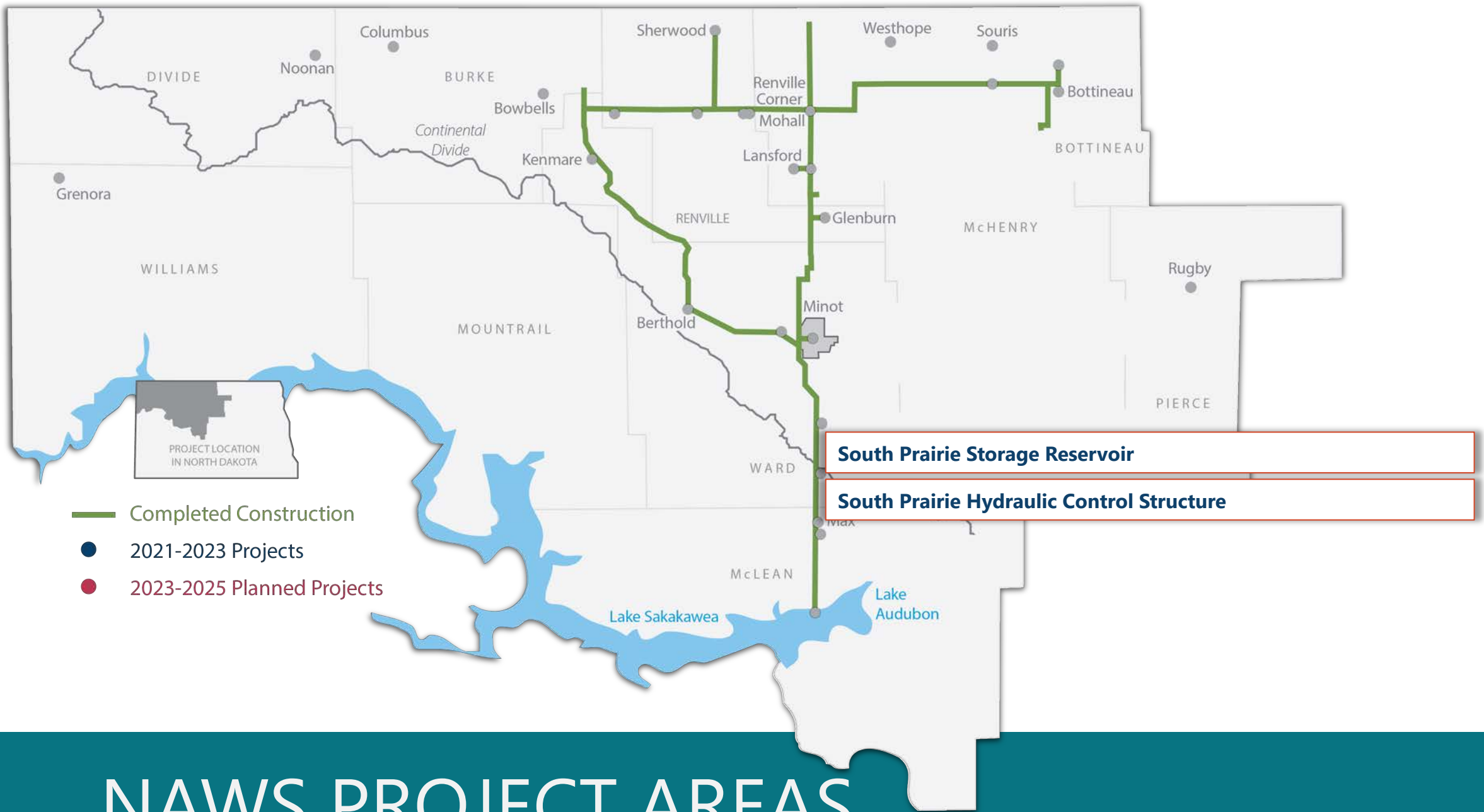
# PHASE I

## 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 **Summer 2024**





# 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



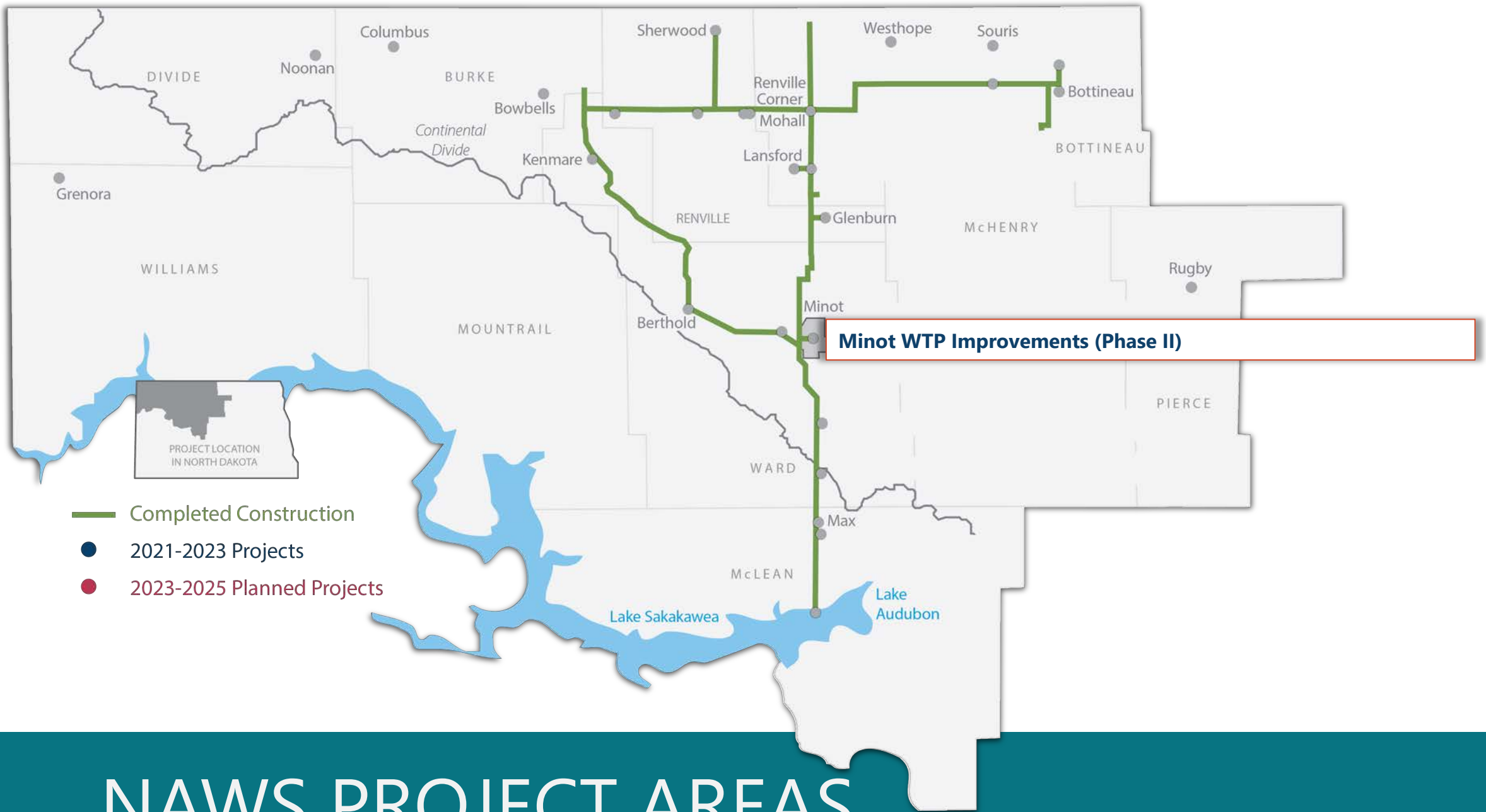
# MINOT INTERIM WATER SUPPLY

- 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**

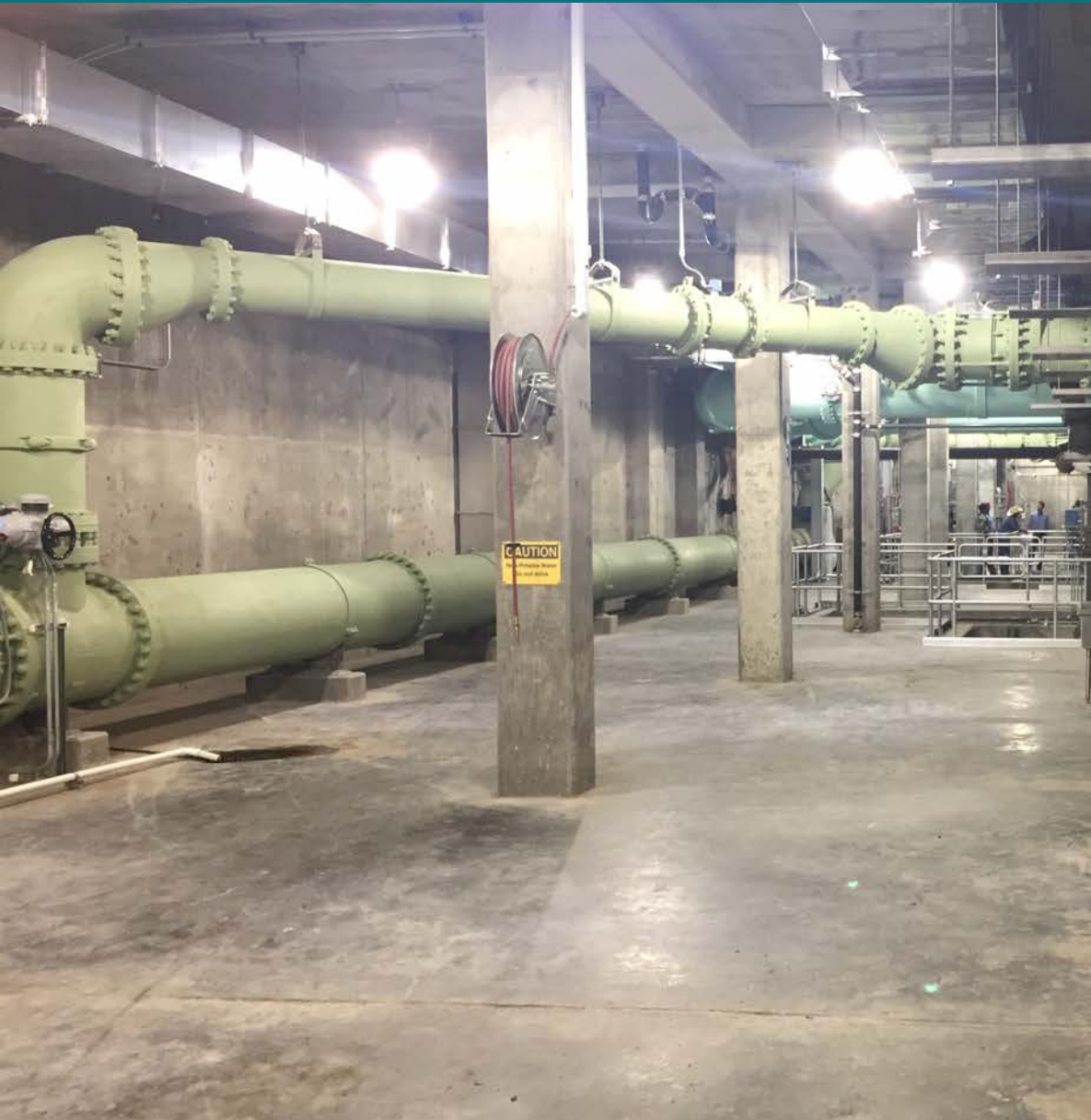






# NAWS PROJECT AREAS

# 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

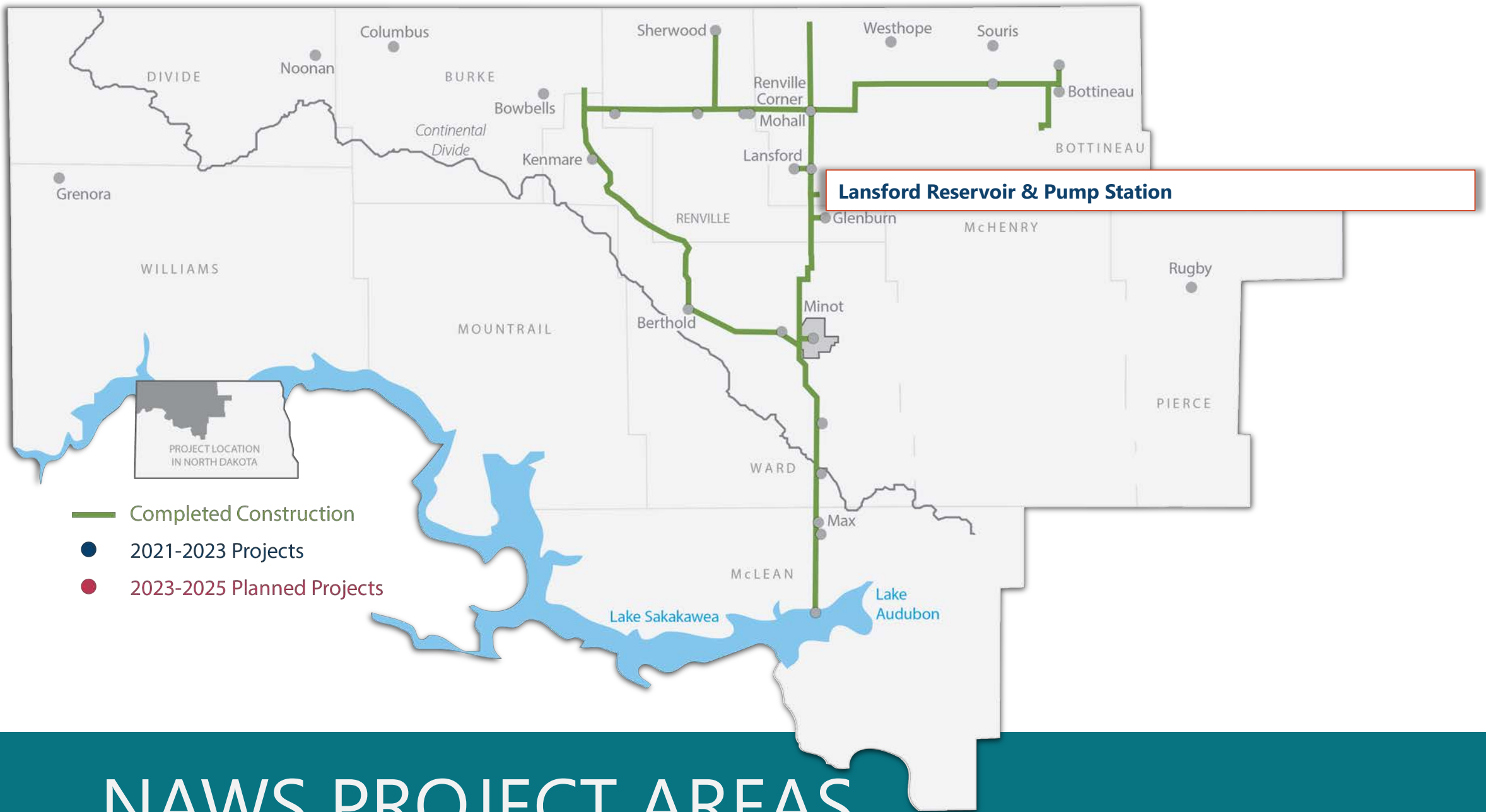


# PHASE II

## MINOT WATER TREATMENT PLANT



- Currently Working Through Finishing Details
- Both Basins Operational
- Substantially Complete, A Few Weather-Dependent Items & Replacement Items With Long Lead Times Remain
- Expected Final Commissioning - **Summer 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**



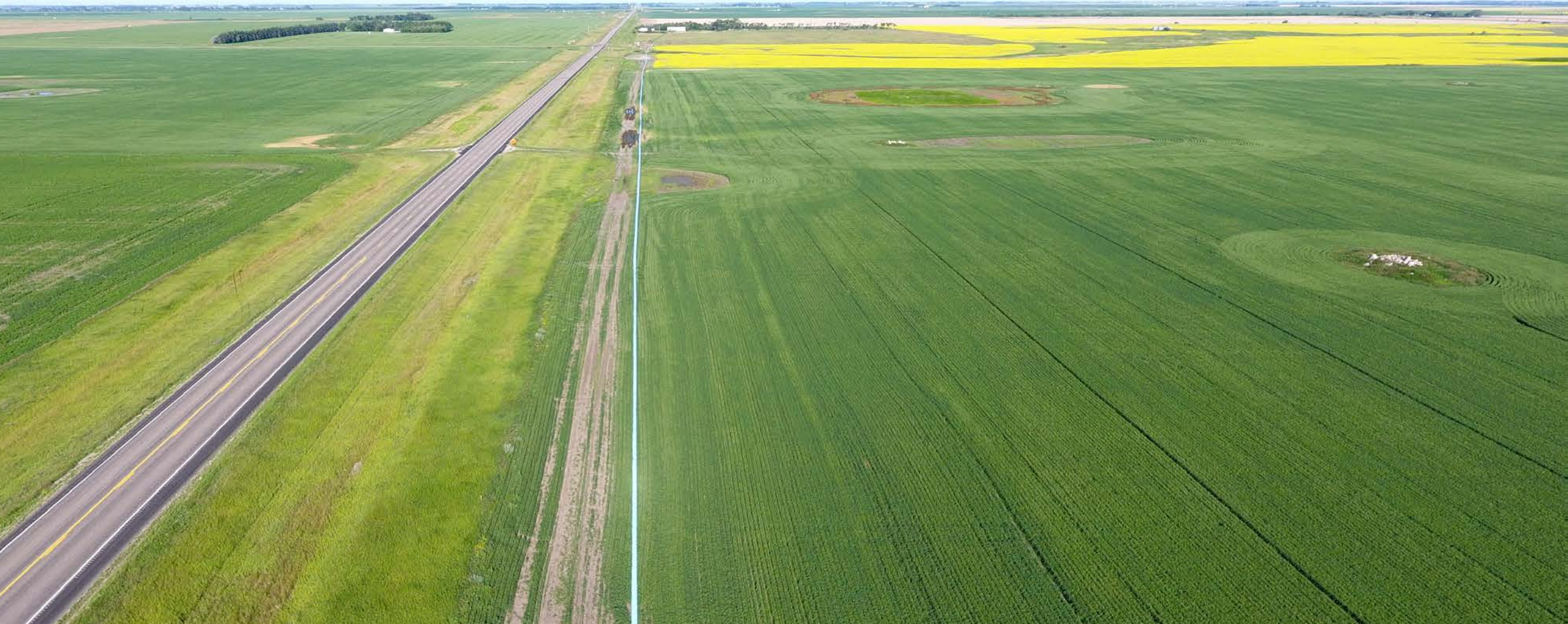
# LANSFORD RESERVOIR & PUMP STATION



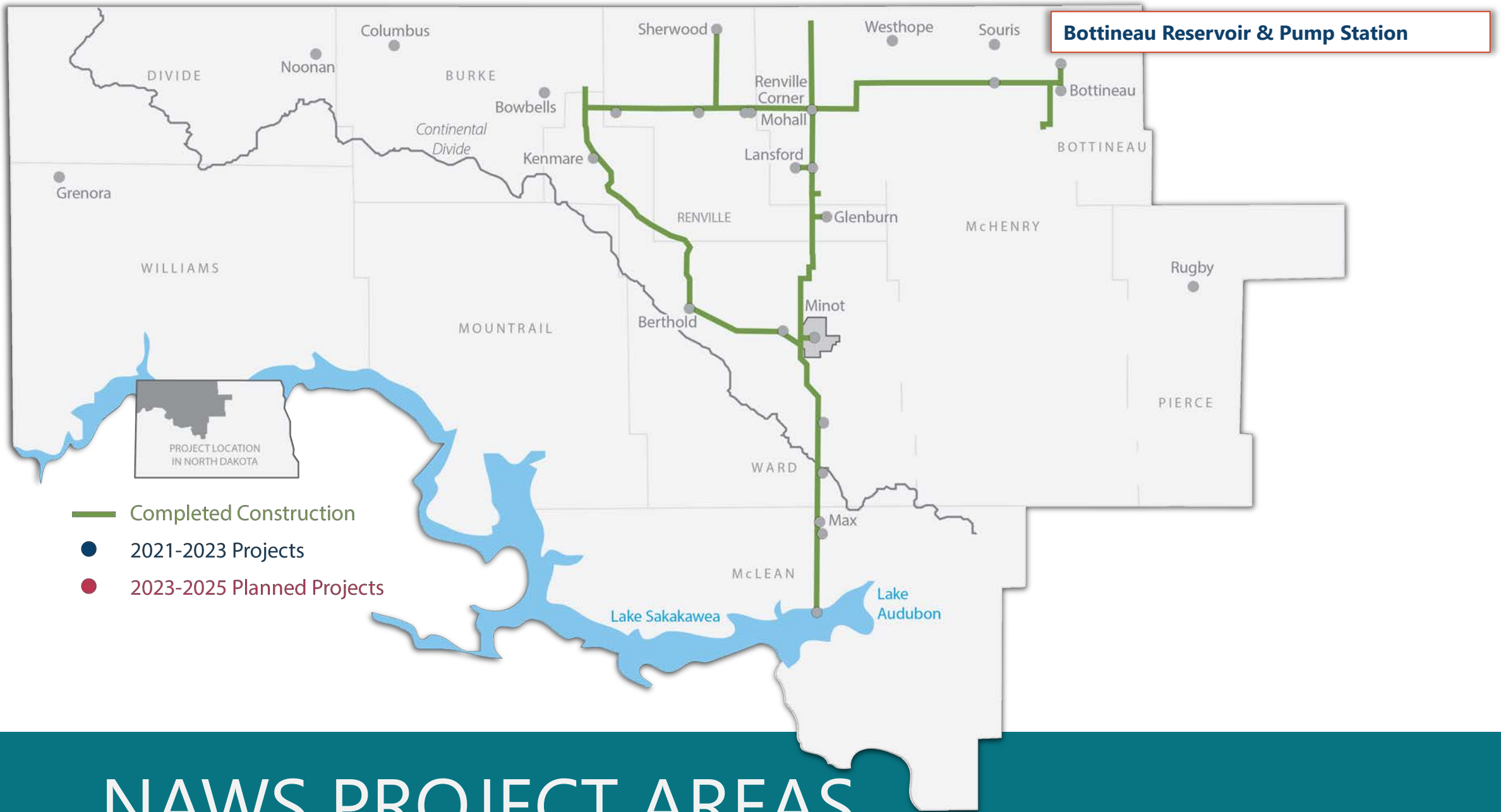


# BOTTINEAU/ASWUD PIPELINE

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







# NAWS PROJECT AREAS



# BOTTINEAU

## BOTTINEAU RESERVOIR & PUMP STATION

Reservoir

3 Million Gallons

Pump Station

1400 GPM Capacity

Completion Date

November 2024





# PROJECT FUNDING NEEDS

## 2023-2025 BIENNIUM EXECUTIVE BUDGET

A photograph of a construction site. Large blue pipes are laid out in a trench, receding into the distance. The ground is dark brown soil. In the background, there are green fields, a line of trees, and a clear blue sky. A yellow excavator is visible in the distance.

Total New Authority Request For 2023-2025  
**\$61 Million (Includes \$11.4 Million in Operations)**

\$36 Million From City of Minot , RTF

\$25 Million Federal



# PROJECT FUNDING - ENGROSSED SB 2020



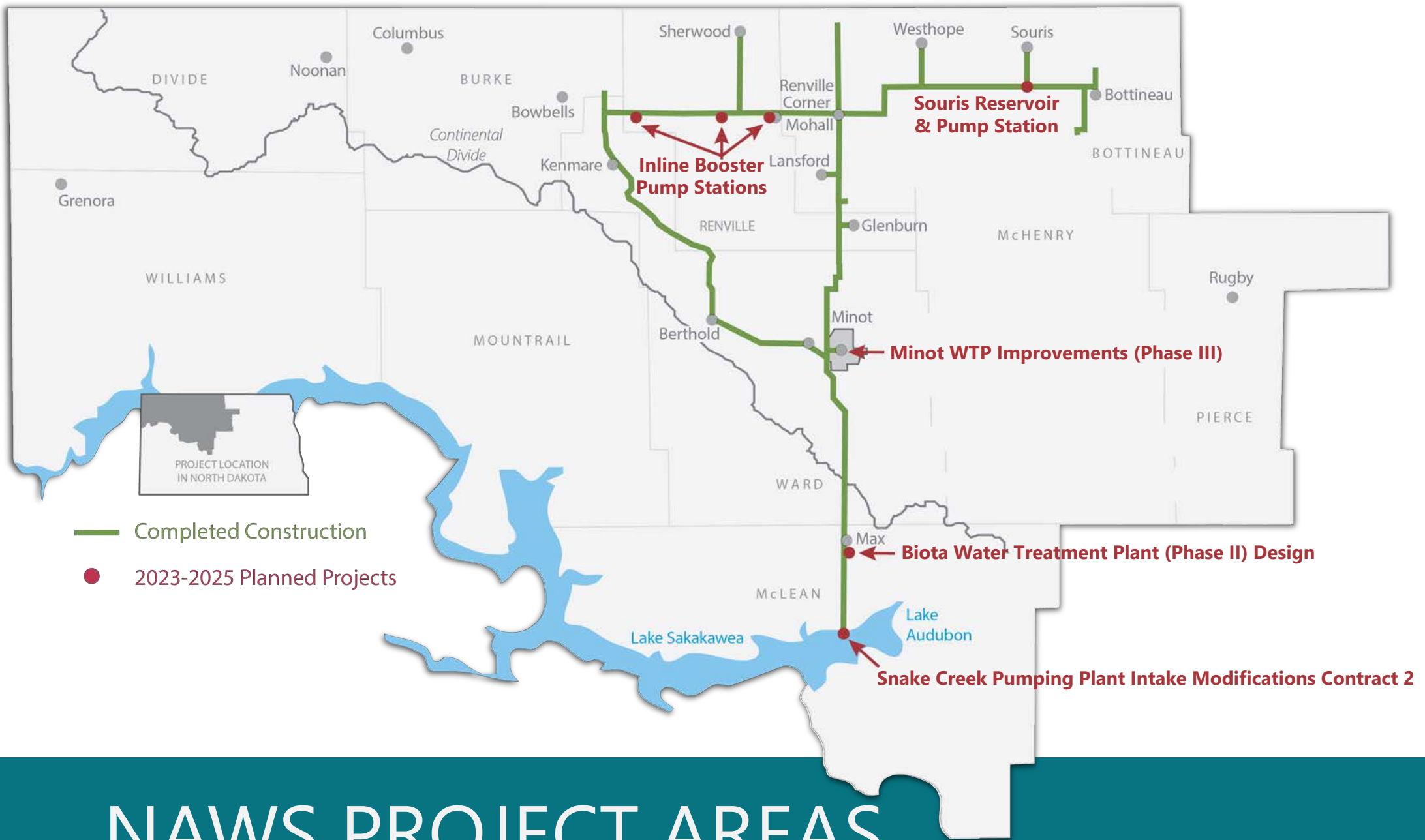
Total New Authority

**\$175.4 Million (Includes \$11.4 Million in Operations)**

\$47.4 Million From City of Minot , RTF

\$78 Million Federal

\$50 Million Line of Credit



# NAWS PROJECT AREAS





# THANK YOU



ND Department of Water Resources



701.328.2750



[dwr@nd.gov](mailto:dwr@nd.gov)



[dwr.nd.gov](http://dwr.nd.gov)



[www.facebook.com/NDWaterResources](https://www.facebook.com/NDWaterResources)



NORTH  
**Dakota**  
Be Legendary.

| Water Resources