

January 11, 2023



# DWR OVERVIEW AGENCY & BUDGET

Senate Appropriations Committee | Senate Bill 2020 | 68<sup>th</sup> Legislative Assembly

NORTH  
**Dakota** | Water Resources  
Be Legendary.



Divisions Within DWR Remain  
The Same Including:

- Administration
- Atmospheric Resources
- Planning & Education
- Regulatory
- Water Appropriation
- Water Development

ND CENTURY CODE TITLE 61

# DEPARTMENT OF WATER RESOURCES

2021 LEGISLATIVE SESSION - HB 1353 RESTRUCTURED THE AGENCY AS THE DWR,  
APPOINTED A DIRECTOR, & MADE THE AGENCY A MEMBER OF THE GOVERNOR'S CABINET

# MISSION, VISION, & VALUES

## 5-YEAR STRATEGIC PLAN



### MISSION

To responsibly manage North Dakota's water needs and risks for the people's benefit.



### VISION

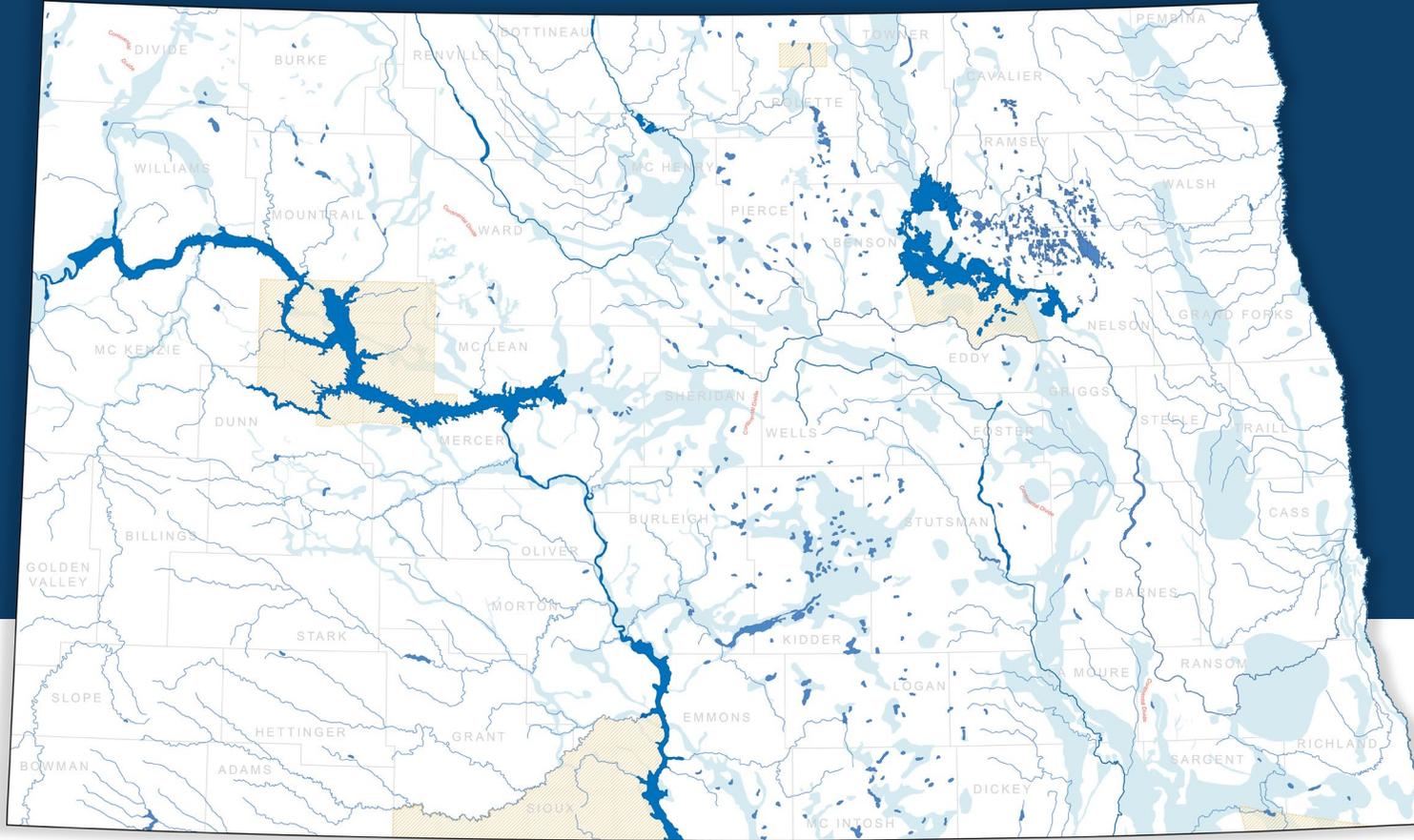
The Department of Water Resources will sustainably manage and develop North Dakota's water resources for the health, safety, and prosperity of its people, businesses, agriculture, energy, industry, recreation, and natural resources.



### VALUES

The Department of Water Resources values fairness, objectivity, accountability, responsiveness, engagement, and credibility. We pledge to use professional and scientific methods to maintain the highest of standards in our delivery of services.

# MANAGING NORTH DAKOTA'S WATER RESOURCES



**60 Million Acre-Feet** Of Water Is Stored In Major Aquifers In ND

**Over 7,000 River Miles** Are In The State, Including Major Rivers & Tributaries

**Seven** Of NDs Largest Lakes & Reservoirs Cover **863,000** Acres

# DWR ORGANIZATIONAL CHART

TOTAL FULL TIME  
EQUIVALENTS OF 92  
PERSONNEL

OFFICE OF THE GOVERNOR  
GOVERNOR DOUG BURGUM

WATER COMMISSION N.D.C.C. 61-02  
GOVERNOR DOUG BURGUM  
*Chairman*  
(8) APPOINTED MEMBERS  
AGRICULTURE COMMISSIONER  
DOUG GOEHRING  
ANDREA TRAVNICEK, PH.D.  
*Secretary*

DEPARTMENT OF WATER RESOURCES  
ANDREA TRAVNICEK, PH.D.  
*Director*  
JOHN PACZKOWSKI, P.E., CFM  
*State Engineer*  
ABBY EBACH  
*Director of Public Policy*  
CHERYL FITZGERALD  
*Administrative Officer*

ADMINISTRATIVE SERVICES  
DIVISION  
CHRIS KADRMAS  
FTE: 4

ATMOSPHERIC RESOURCES  
DIVISION  
DARIN LANGERUD  
FTE: 4

PLANNING & EDUCATION  
DIVISION  
PATRICK FRIDGEN  
FTE: 12

REGULATORY  
DIVISION  
AARON CARRANZA, P.E., CFM  
FTE: 15

WATER APPROPRIATION  
DIVISION  
CHRIS BADER  
FTE: 32

WATER DEVELOPMENT  
DIVISION  
SINDHUJA S. PILLAI-  
GRINOLDS, P.E.  
FTE: 21



# TEAM DWR

# WORKFORCE

**Asked For 3 FTE**

Approved By Emergency Commission

2 FTE + 1 Temp Approved By Budget Section  
(March 2022)

Water Appropriation | Regulatory | PRESENS

- Continued Challenges With Salary Equity
- **22.6% Turnover** In 2022
- **20 New Team Members Hired In 2022**
- Cooperating With NDSU & Others To Guide Course & Curriculum Focus To Better Prepare Students

# WATER COMMISSION



SWC Chair  
Governor Burgum



Ag. Comm.  
Goehring



Gene Veeder  
Upper Missouri River Basin



Jason Zimmerman  
Mouse River Basin



Richard Johnson  
Devils Lake Basin



Michael Anderson  
Lower Red River Basin



James Odermann  
Little Missouri, Upper  
Heart, & Upper  
Cannonball River Basins



Jay Volk  
Lower Missouri River Basin



Connie Ova  
James River Basin



April Walker  
Upper Red River Basin

# DWR DIRECTOR & STATE ENGINEER



## DWR DIRECTOR

Andrea Travnicek, Ph.D., Director  
atravnicek@nd.gov | 701-328-4942

The Director is appointed by the governor, serves as a Cabinet member, provides overall leadership and decision-making, oversees the State Engineer and DWR team members, and serves as Secretary to the State Water Commission.



## STATE ENGINEER

John Paczkowski, P.E., State Engineer  
jpaczowski@nd.gov | 701-328-4940

ND's State Engineer is responsible for several regulatory functions and responsibilities, including allocation of the state's waters, dam safety, and drainage.

# DWR DIVISIONS



## ADMINISTRATIVE SERVICES

Chris Kadrmas, Director  
ckadrmass@nd.gov | 701-328-1956

General support, budget development, records management, human resources, State Water Commission meeting preparation, and accounting.



## ATMOSPHERIC RESOURCES

Darin Langerud, Director  
dlangerud@nd.gov | 701-328-4751

Cloud Modification Program, atmospheric research, data collection, pilot intern program, licenses and permits, and radar operations.

# DWR DIVISIONS



## PLANNING & EDUCATION

Patrick Fridgen, Director  
pfridgen@nd.gov | 701-328-4964

Water Development Plan, media relations, public outreach and education, Drought Livestock Water Supply Program, Cost-Share Program, and MR&I Program.



## REGULATORY

Aaron Carranza, P.E., Director  
acarranza@nd.gov | 701-328-4813

Construction and drainage permits, sovereign lands, dam safety, floodplain management, water resource district support, and Silver Jackets Program.

# DWR DIVISIONS



## WATER APPROPRIATION

Chris Bader, Director  
cbader@nd.gov | 701-328-4771

Water rights permitting, ground and surface water management, subsurface exploration, PRESENS, data management, and water resource investigations.



## WATER DEVELOPMENT

Sindhuja S. Pillai-Grinolds, Director  
spillai@nd.gov | 701-328-4954

Investigations and surveying, construction operations, flood response and recovery, Southwest Pipeline, Northwest Area Water Supply, Red River office, and Devils Lake outlet operations.

# DWR FUNCTIONS & RESPONSIBILITIES

Allocation Of The State's Waters

Cost-Share Funding

Dam Safety

Drainage & Construction Permits

Drone Initiatives

Drought Livestock Program

Floodplain Management

Investigations & Surveys

LiDAR Collections

Map Services

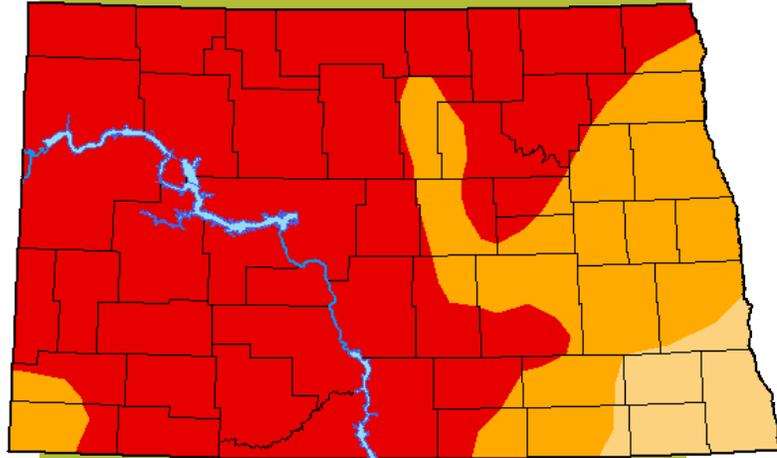
North Dakota Cloud Modification Project

PRESENS

Sovereign Land Management

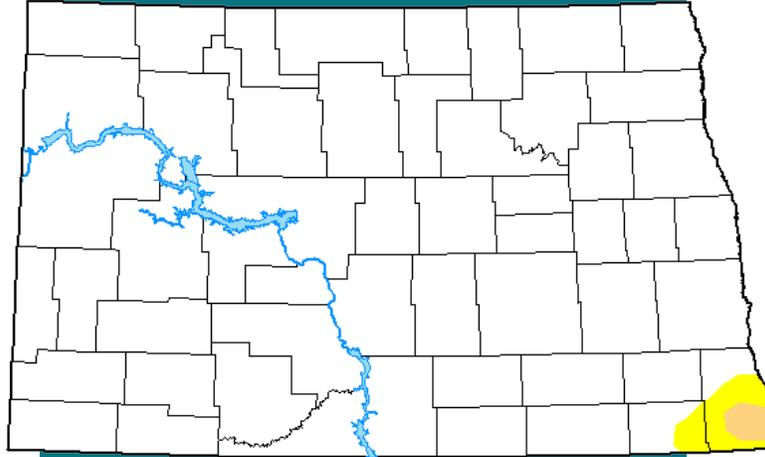
Water Project Development

# ACTIVATION



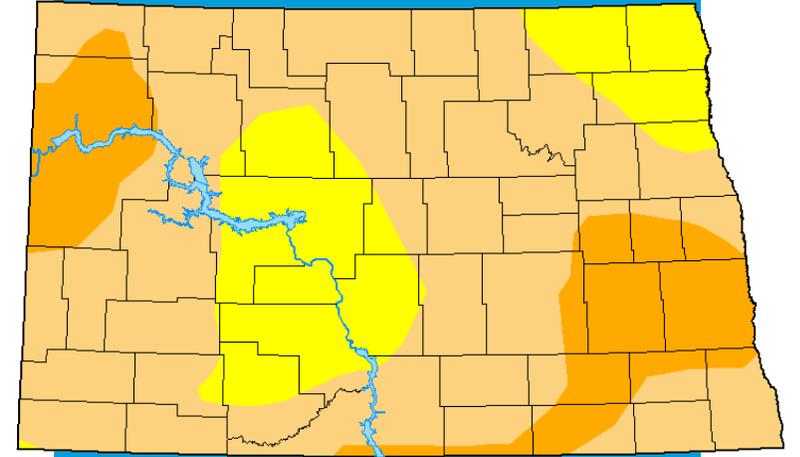
April 2021

# DEACTIVATION



September 2022

# CURRENT



January 2023

None

D0 (Abnormally Dry)

D1 (Moderate Drought)

D2 (Severe Drought)

D3 (Extreme Drought)

D4 (Exceptional Drought)

**DROUGHT DISASTER  
LIVESTOCK WATER SUPPLY  
ASSISTANCE PROGRAM**

# NAWS UPDATE

## UNDER CONTRACT

- Minot WTP Phase II
- Biota WTP Phase I
- South Prairie Reservoir & Hydraulic Control Structure

2023-2025 REQUEST: \$36M

## Recently Completed

Service To Bottineau

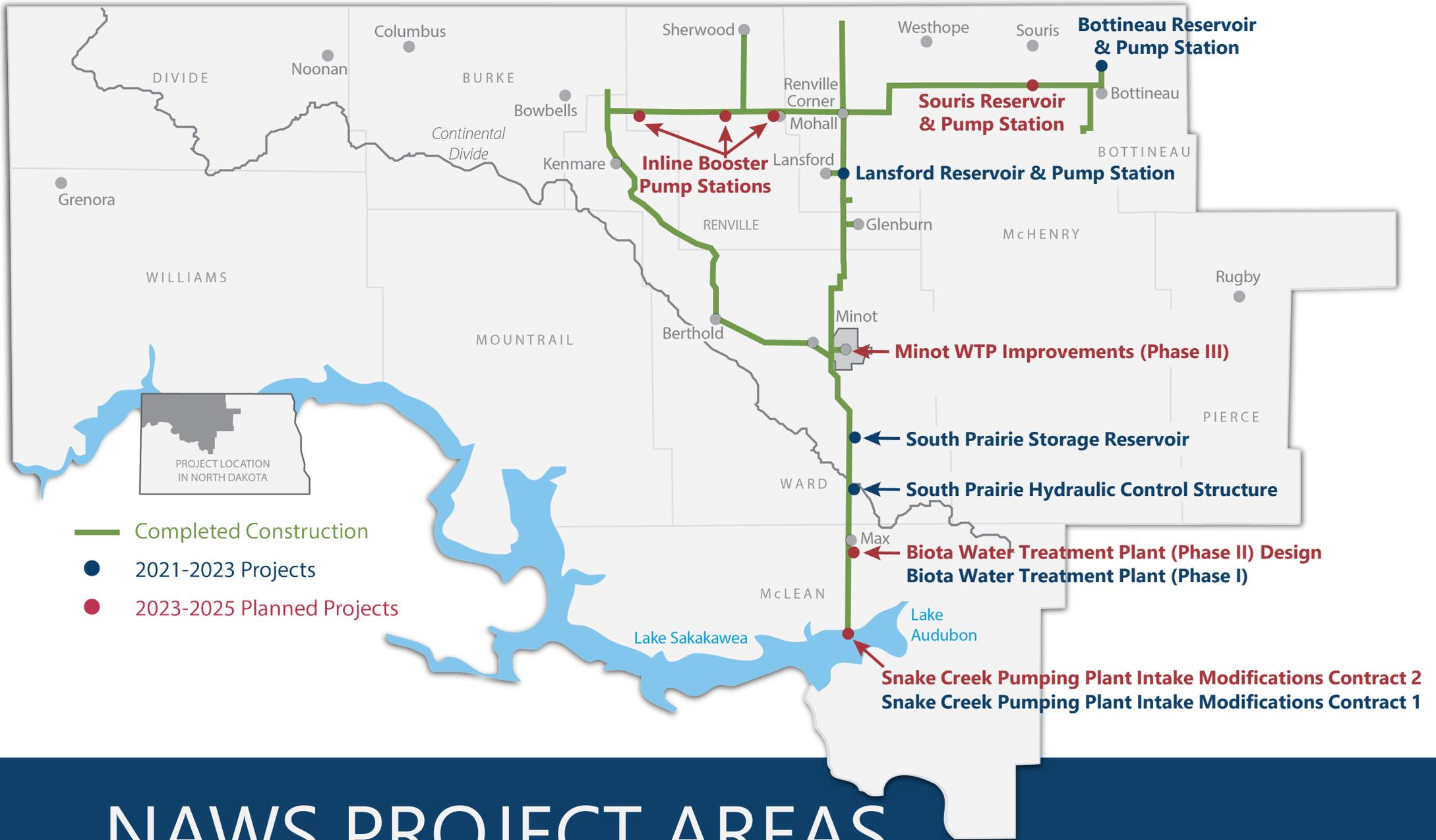
Lansford Reservoir & Pump Station

## Snake Creek Intake Modifications

Permitting & Awarded Contracts

## Goal

Deliver Missouri Water - End Of 2024



# NAWS PROJECT AREAS

# SOUTHWEST PIPELINE PROJECT UPDATE

## UNDER CONTRACT

- Elevated Tank In City Of Taylor (Substantially Complete)
- Main Transmission Line Parallel Piping (Substantially Complete)
- Supplementary Intake
- Strategic Hydraulic Improvements

2023-2025 REQUEST: \$131.6M



## Future Projects

- Strategic Hydraulic Improvements
- Water Treatment Plant Expansion
- Burt & Hebron Service Area Expansion
- West Zone Transmission Upgrades



# DEVILS LAKE OUTLETS UPDATE

## OUTLETS | PUMPS | STRUCTURE

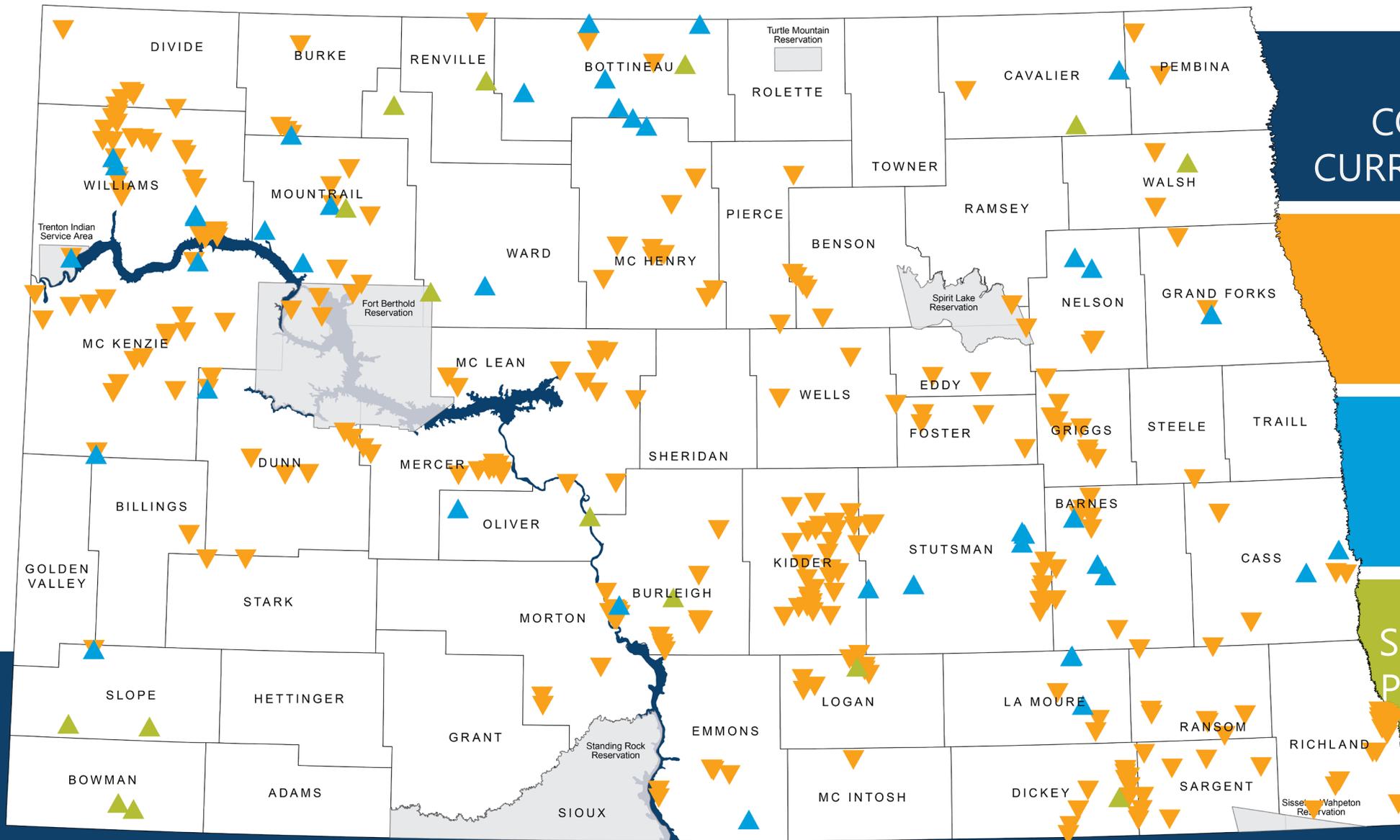
- 60,197 Acre-Feet Pumped In 2022
- Repairs Made To The West End Outlet
  - Terminal Structure
  - Drainpipe (Round Lake Pump #3)
  - Electrical Outage (Round Lake Pump #4)
- Outlet Capital Improvement Plan





- **Constantly Collecting Valuable Water Resource Data** - Publicly Accessible On Agency's Map Services
- **Collect** Water Levels, Precipitation, Soil Moisture, Soil Temperature, Barometric Pressure, Air Temperature
- **368 Locations** Measured Using PRESENS
- **287 Units** Currently Operating
  - Surface Units Are Removed In Winter To Prevent Damage
- **15 Units** Currently Have Rain Gauge & Soil Moisture Sensors
- **Goal Is 680 Units By 2025**
- 2023-2025 REQUEST: **\$1,572,800 (ONGOING)**

**PUSHING REMOTE SENSORS (PRESENS)**



**368 DATA**  
COLLECTION SITES  
CURRENT & HISTORIC

GROUND WATER  
SITES (313)

SURFACE WATER  
SITES (42)

SOIL MOISTURE &  
PRECIP SITES (15)\*

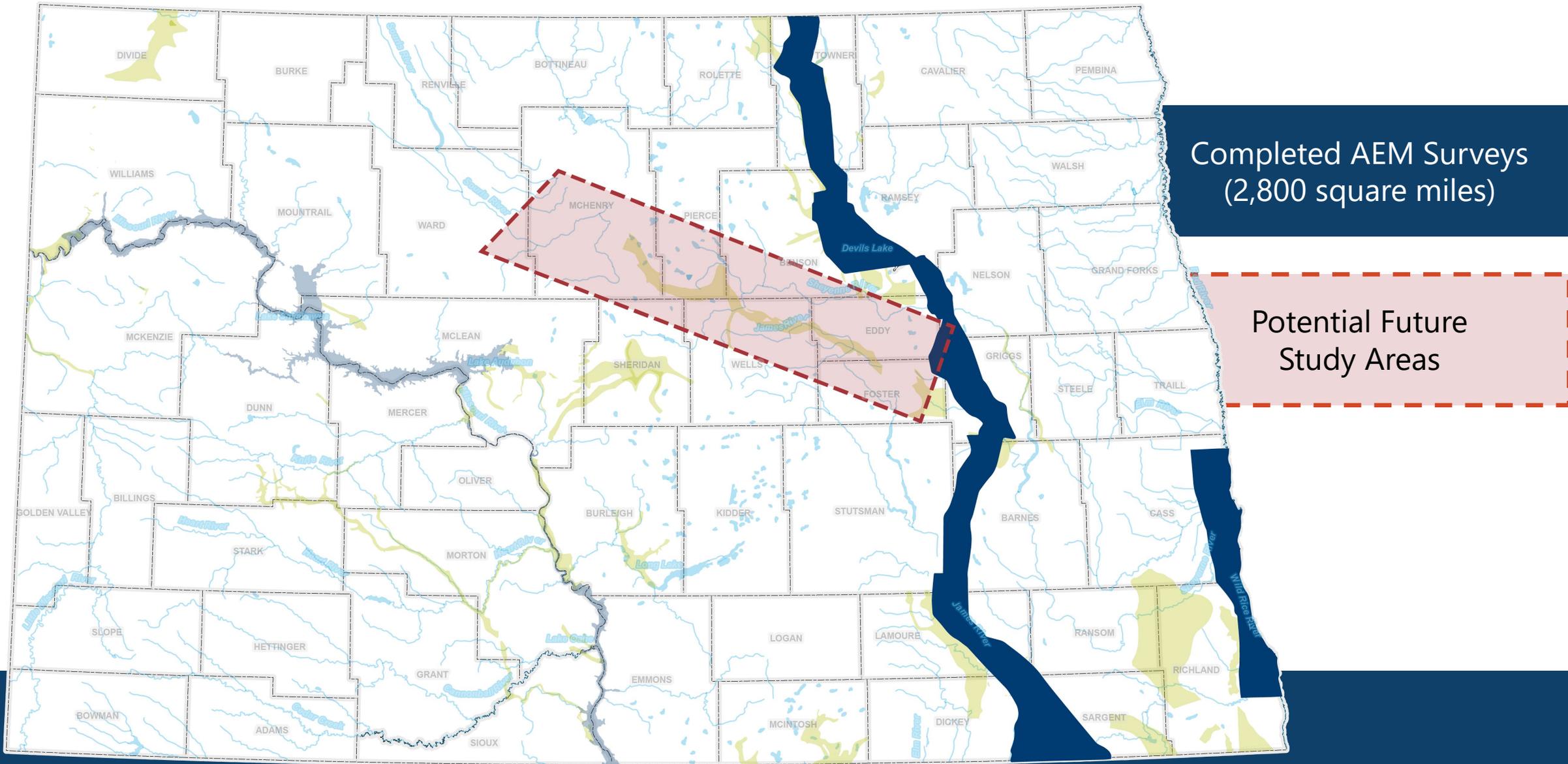
# PRESENTS LOCATIONS

\*Two soil moisture & precip sites are co-located with ground water sites.



# AIRBORNE ELECTROMAGNETIC SURVEYS (AEM)

- Provide **High-Resolution Maps** Of Aquifers That Help Water Managers Identify & Optimize Local Sources Of Available Groundwater
- **2,800 Sq. Miles Completed** - With Plans To Expand Data Collection
- 2023-2025 REQUEST: **\$750,000 (ONE-TIME)**



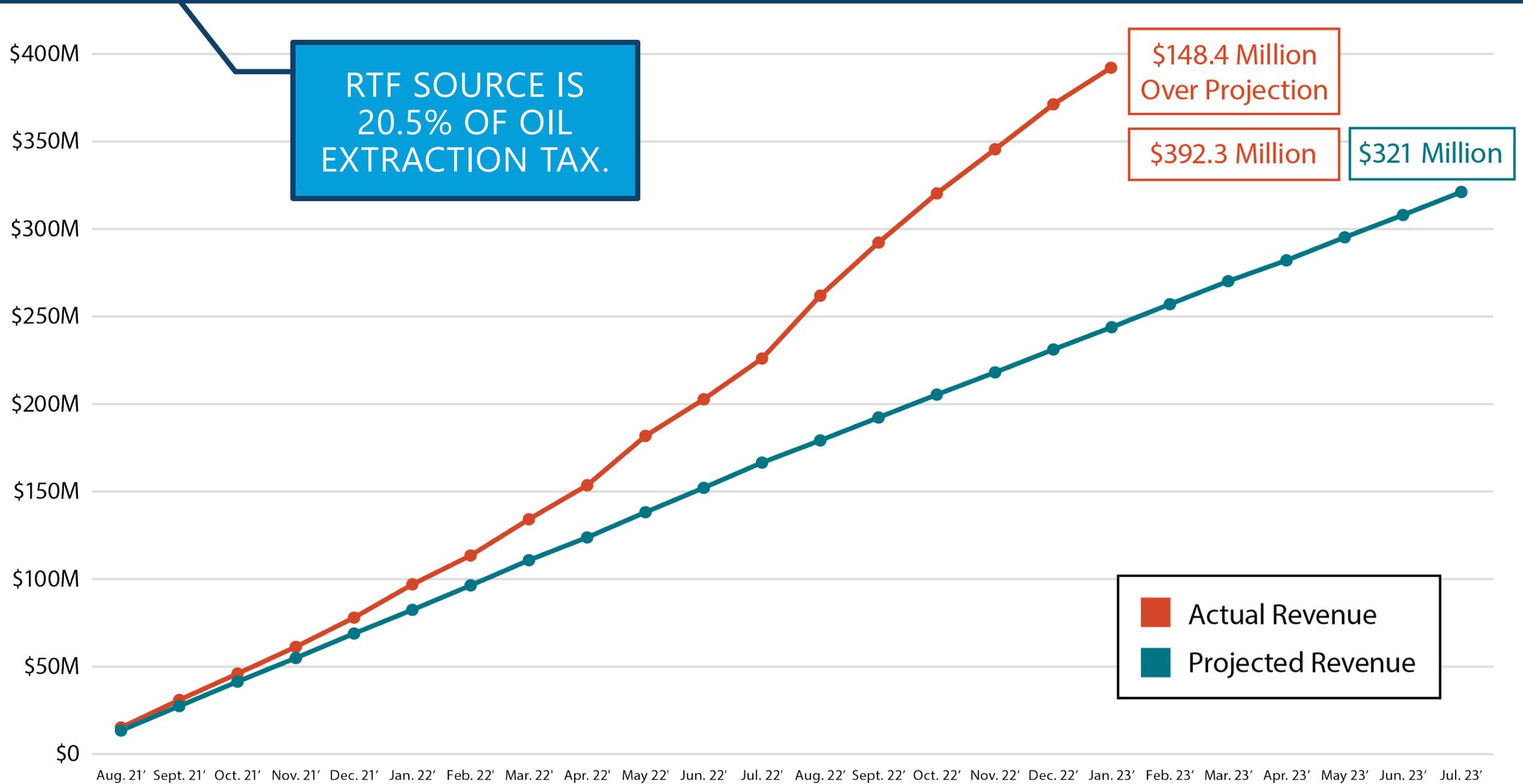
# AIRBORNE ELECTROMAGNETIC (AEM) SURVEYS

# OTHER DWR HIGHLIGHTS

- **Cost-Share Program Policy Update Completed**  
2023-2025 Implementation
- 2021-2023 Cost-Share Program
  - **\$282M** Total Approvals To Date
  - **\$181M** For Water Supply Projects In 27 Cities & 19 Rural/Regional Systems
  - **\$101M** For 98 Different Flood Protection, Water Conveyance, & General Water Projects
- Secured Almost **\$5M** In FEMA Grant Funding For LiDAR Data To Improve & Modernize Modeling & Engineering Design Data Inputs
- Launched A One-Stop-Shop Online Portal Through **WebGrants** For Water Project Sponsors Seeking Grant Funding Or Loans



# RESOURCES TRUST FUND REVENUE



# WATER PROJECTS STABILIZATION FUND



- Created By SB 2345 During 2021 Special Session
- Funded With Resources Trust Fund Revenues That Surpass Budget Projections
- Transfers To WPSF Stop In February 2023
- Executive Recommendation Includes **\$150M**
  - **\$120M** Red River Valley Water Supply Project
  - **\$30M** Western Area Water Supply Project (Loan Payoff)

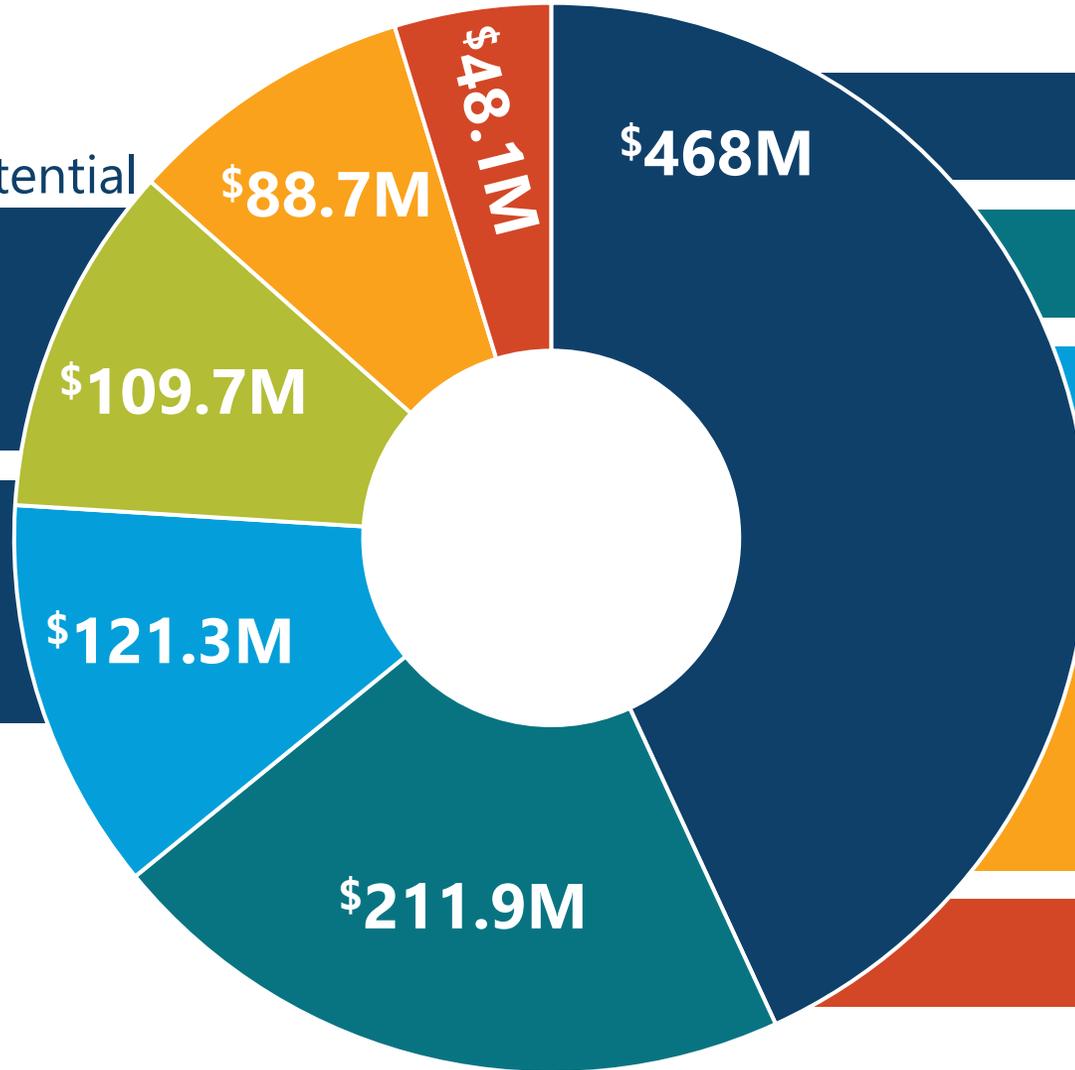
DWR Cost-Share Potential

2023-2025

**\$1.05B**

2021-2023

**\$0.64B**



REGIONAL WATER SUPPLY

MUNICIPAL WATER SUPPLY

FLOOD CONTROL

RURAL WATER SUPPLY

CONVEYANCE  
(Bank Stabilization,  
Snag & Clear, & Drains)

GENERAL WATER

# WATER DEVELOPMENT PLAN INVENTORY

# 2023-2025 PROJECT & PURPOSE FINANCIAL NEEDS SUMMARY

## ESTIMATED DWR SHARE BY PRIORITY

Project Purposes	WDP INVENTORY PROJECT NEEDS		
	High Priority	Moderate Priority	Low Priority
Flood Control (Total = \$210M)	\$120.4	\$47.2	\$42.4
F-M Area Diversion	-	-	-
Mandan Flood Risk Reduction	\$11.6	-	-
Mouse River Enhanced Flood Protection	\$76.1	-	-
Other Flood Control	\$19.5	\$0.7	\$0.2
Valley City Permanent Flood Protection	\$13.2	-	-
Water Conveyance	\$0.0	\$46.5	\$42.2
General Water Management (Total = \$48.1M)	\$2.5	\$42.4	\$3.2
Rural Water Supply (Total = \$109.7M)	\$13.7	\$18.8	\$77.2
Water Supply (Total = \$679.9M)	\$467.9	\$1.6	\$210.4
Municipal Water Supply	\$0.0	\$1.6	\$210.4
Northwest Area Water Supply	\$36.0	-	-
Red River Valley Water Supply	\$254.3	-	-
Southwest Pipeline Project	\$131.6	-	-
Western Area Water Supply	\$46.0	-	-
<b>TOTAL (\$1.05B)</b>	<b>\$605</b>	<b>\$110</b>	<b>\$333</b>

# WATER DEVELOPMENT PLAN & DASHBOARD



Web-Based  
Version

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**Launched &  
Operational**



Dashboard  
Includes

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**Interactive  
Charts**



Changing  
Conditions

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**Information Can Be  
Updated By Staff**



Access  
Any Time

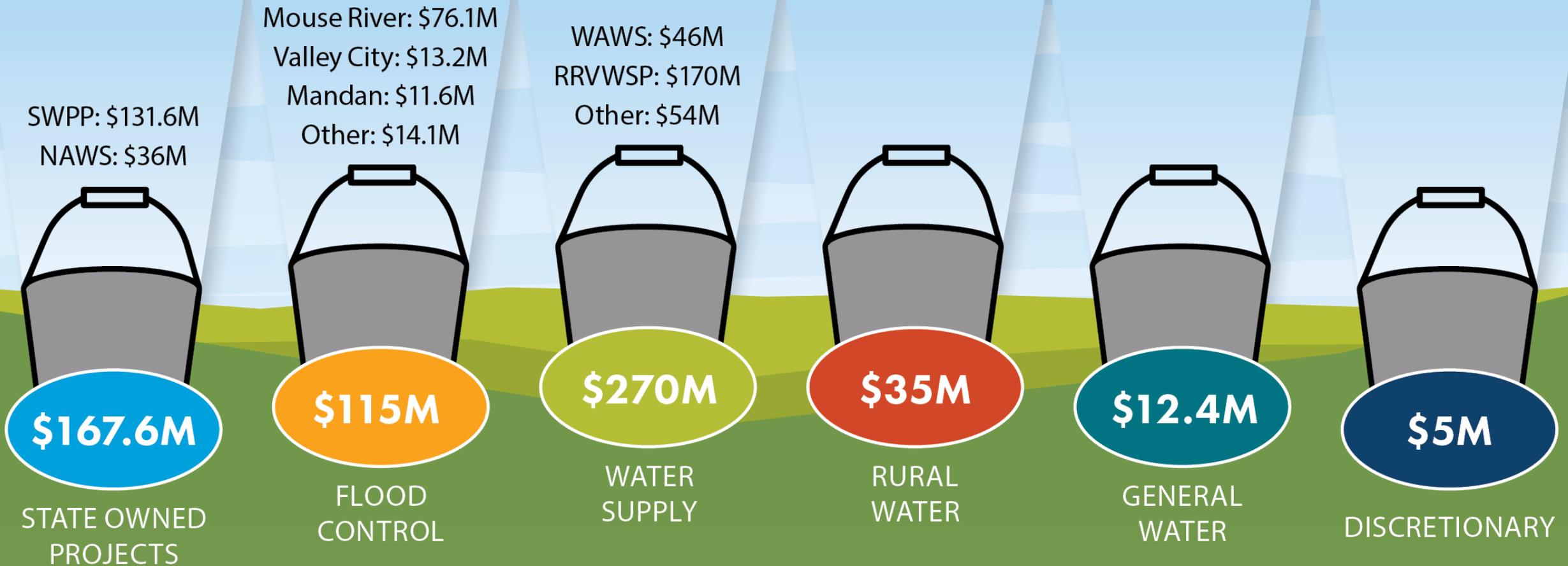
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**Phones &  
Computers**



# 2023-2025 EXECUTIVE BUDGET RECOMMENDATION

# 2023-2025 PURPOSE FUNDING RECOMMENDATIONS



# SB 2020: DWR BUDGET SUMMARY

	2021-2023 Base Level	Increase/ (Decrease)	2023-2025 Executive Rec.
Salaries & Wages	\$20,537,867	\$3,272,011	\$23,809,878
Operating Expenses	\$43,366,550	\$16,112,518	\$59,479,068
Capital Assets	\$98,467,437	\$73,928,907	\$172,396,344
Water Supply Projects	\$125,000,000	\$145,000,000	\$270,000,000
Rural Water Supply	\$59,600,000	(\$24,600,000)	\$35,000,000
Flood Control Projects	\$48,000,000	\$67,000,000	\$115,000,000
General Water Projects	\$14,227,275	\$6,000	\$14,233,275
Discretionary Projects	-	\$5,000,000	\$5,000,000
<b>TOTAL</b>	<b>\$409,199,129</b>	<b>\$285,719,436</b>	<b>\$694,918,565</b>
<b>Full Time Equivalents (FTE)</b>	<b>90</b>	<b>3</b>	<b>93</b>

# DWR BUDGET: OPTIONAL REQUESTS

OPTIONAL REQUESTS

3 FTE	\$773,062
1 Full Time Temp - NAWS	\$170,000
Motor Pool Rate Increase	\$118,180
IT Standardization, Applications, & Security	\$5,615,764
PRESENS Installations & Temp Salaries	\$1,572,800
Drilling Supply Cost Increases	\$180,000
Navigability Study	\$180,000
AEM Survey Technology	\$750,000
Groundwater Modeling/Analysis Software	\$94,665
Professional Development	\$80,000
Full Time Temp - FTE Conversion	\$61,609
Bowman Radar Replacement	\$1,800,000
New Drilling Rig	\$1,800,000
Office Modifications	\$200,000
<i>RiskMAP - *Federal Funding Spending Authority</i>	<i>\$100,000*</i>
<b>TOTAL OPTIONAL REQUESTS</b>	<b>\$13,496,080</b>

EXECUTIVE RECOMMENDATION

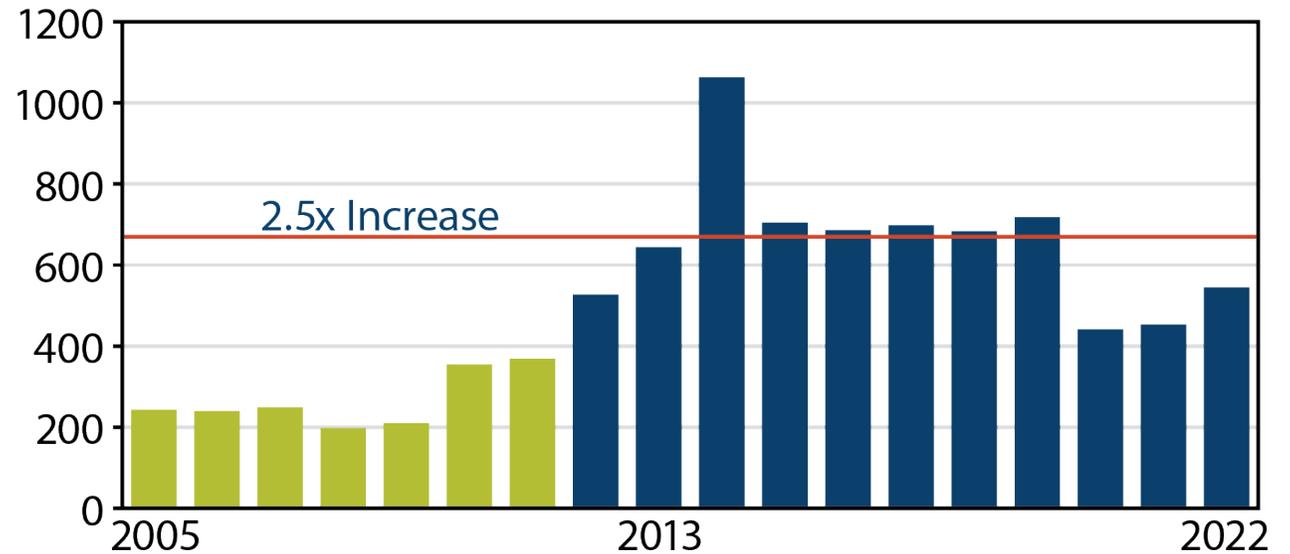
# REQUEST FOR 3 FTE

2023-2025 REQUEST:  
\$773,062

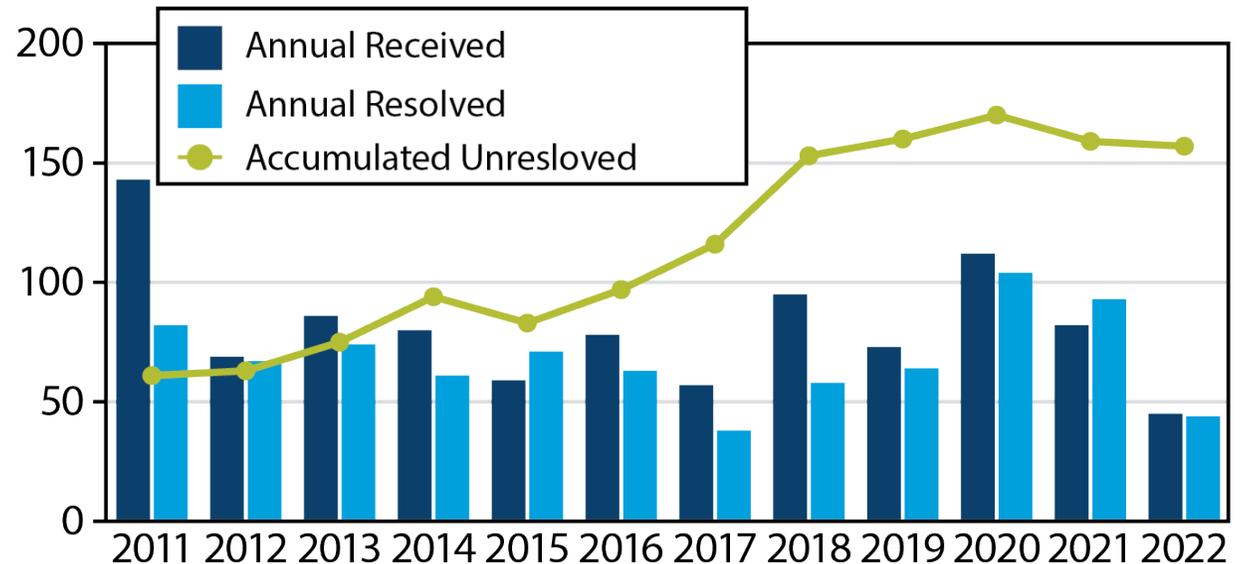
Includes One For The Regulatory Division To Assist With Permitting & Two For The Water Appropriation Division That Would Work On Water Appropriation & PRESENS System Support

Assist With Significantly Reducing Delays So Constituents Receive Permits In A Timelier Manner

## TEMPORARY WATER PERMIT APPLICATIONS (ANNUAL)



## TRENDS IN REGULATORY APPLICATIONS & REVIEWS



# IT STANDARDIZATION, APPLICATIONS & SECURITY



To Consolidate & Standardize IT Services Under One Umbrella Through NDIR:

- File Services
- Computational Infrastructure For Scientific Applications
- Big Data Development/Production For Various Data Types
- Big Data Administrative Costs
- Costs Associated With Additional FTE For NDIR
- Business Analysis
- Project Management
- Project Oversight

**2023-2025 Request:  
\$5,615,764**

# ADDRESSING SALARY CHALLENGES FOR OUR TEAM MEMBERS

## \$645K

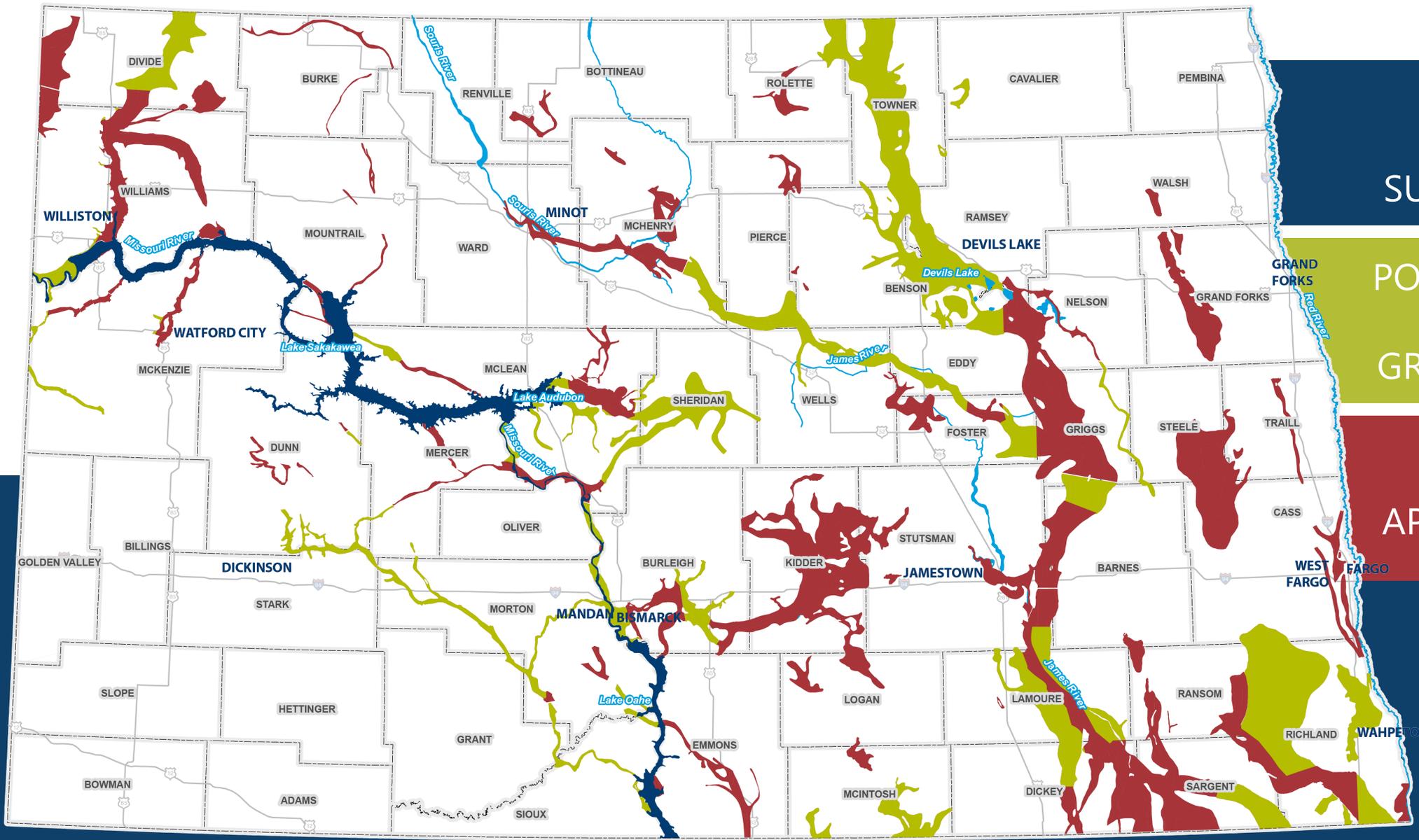
Recommended To Address Internal Equity & External Market Factors That Affect Existing Team Members. This Would Assist With Reducing Turn-over & Would Support Competitive Pay & Compression Adjustments.

## DWR SUPPORTS SENATE BILL 2015

Example:  
Hydrologist Positions Are **Well** Below Private Sector.

HYDROLOGIST  
POSITIONS

**22%**



GOOD WITH  
LIMITATIONS /  
SURFACE WATER

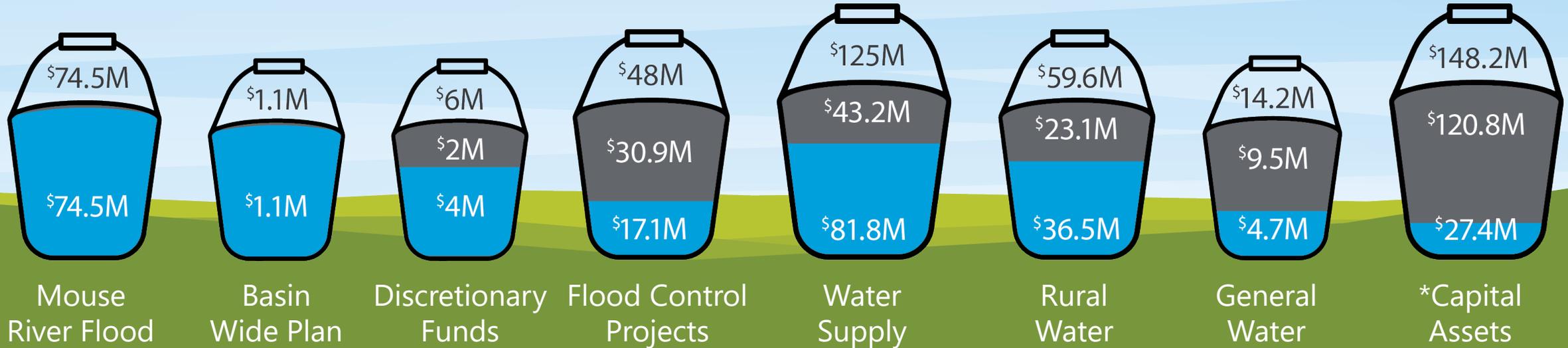
POTENTIAL WITH  
LIMITATIONS /  
GROUND WATER

NEAR FULL  
APPROPRIATION

# WATER AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT

# 2021-2023 PURPOSE FUNDING

UPDATED THROUGH NOVEMBER 2022



UNOBLIGATED

APPROVED

ESTIMATED CARRYOVER  
\$240M - \$320M



Federal Funds-State  
Fiscal Recovery Funds -  
SB 2345

Spent

\*Capital Assets bucket includes \$45.6M line of credit.



# OBJECTIVES

## 5-YEAR STRATEGIC PLAN

### **OBJECTIVE 1**

Effectively communicate with the public and stakeholders with a primary focus on collaboration and building partnerships.

### **OBJECTIVE 2**

Develop world-class, sustainable, and resilient water development and management practices.

### **OBJECTIVE 3**

Support beneficial use of Missouri River system water and other available water supply sources.

### **OBJECTIVE 4**

Implement innovative ideas, technology, and grow analytic capabilities to improve efficiencies in water management and development.

### **OBJECTIVE 5**

Improve the department's internal resilience and promote a positive culture.

Multiple Goals & Tactics Associated With Each Objective.

# THIS BUDGET SUPPORTS...



- Agency Responsiveness & Efficiencies
- Advancement Of Innovative Ideas & Technology
- Critical Water Infrastructure
- Workforce Enhancement, Retention Of Talent, Recruiting & Mentoring



NORTH  
**Dakota** | Water Resources  
Be Legendary.

# THANK YOU



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