

**Testimony by Jenifer Murray, Manager/CEO**  
**Southwest Water Authority**  
On behalf of the  
**Southwest Pipeline Project**  
to the  
**Senate Education and Environment Committee**  
**Hearing on Senate Bill 2020**  
January 19, 2023

Mr. Chairman and members of the committee, my name is Jenifer Murray. I am the Manager/CEO of Southwest Water Authority (SWA) and live in Dickinson.

The Southwest Pipeline Project (Project) was authorized by this legislature in 1981 and construction began in 1986. SWA was then authorized by the legislature in 1991 as a political subdivision to take on the task of overseeing the newly integrated rural water system. Since 1996, SWA has had the responsibility of the management, operations, and maintenance of the state-owned Project. I am here today to ask for your continued funding support of the Project which is crucial not only for the quality of life in southwest North Dakota, but for the economics of the entire state.

Senate Bill 2020 provides unprecedented support to critical water needs throughout the state. Within this budget, the State Water Commission (SWC) would provide over \$600 million in funding for critical water supply and flood control projects.

From the beginning, funding for the construction of the Project was unique. It was and remains funded with the requirement that all water customers would repay the state for the Project's construction costs. To that effort, SWA's customers have return over \$90 million back to the state through capital repayment. The financial commitment the state has made in the Project has benefitted southwest North Dakota, and through capital repayment the state is now realizing a return from its investment.

The strategy SWA has taken to building for the future is three-pronged. The first prong includes increasing the main transmission line capacity to ensure transmission capacity does not become a limiting factor to connecting future customers. The second prong includes strategic hydraulic improvements which will allow users on SWA's waiting lists to be added as subsequent customers. The third prong is the expansion of the system into under-served areas.

Projects planned for the 2023-2025 biennium include a 12-million-gallons-per-day expansion of the Southwest Water Treatment Plant. The Dickinson Water Treatment Plant was built in 1951 and due to the circumstances of the time was adopted by the SWPP to be utilized as the primary treatment source. Upgrades and modifications have been done over the years to increase capacity and treat Lake Sakakawea's source water. An assessment was done in 2021 which noted the plant is operating at or beyond its useful life at an increased risk of malfunction or failure. It was recommended to begin the migration of its capacity when funding is available. In February 2022, the decision was made by the SWC to begin with the process of design for the plant's expansion. The Southwest Water Treatment Plant expansion membrane and equipment procurement contracts are expected

to be bid in June 2023. Construction and installation funding is requested at \$83 million. Expanding the Southwest Water Treatment Plant will allow SWA to meet the water supply needs of the region now and for generations to come.

Increasing transmission capacity and upgrading transmission facilities throughout southwest North Dakota is essential to continuing to provide our communities and customers with an adequate supply of quality water both now and into the future. West Zone Transmission Facility improvements will ensure that capacity is not a limiting factor in rural development and growth. The ability to get water to those far reaches of the system such as Beach, Golva, and Medora are the first step in then distributing it to rural customers. The West Zone Transmission Facility improvements are conceptualized at \$17.5 million for nearly 28 miles of parallel main transmission line, upgrades to three separate pump stations, and addition of a 300k gallon storage reservoir.

Increasing service to under-served areas has been a focus of the SWPP over the past two years. The Burt, Hebron Service Area, including Lake Tschida, is being canvassed for potential customers and is currently under preliminary design. To date, 640 residents have financially committed to connecting to the SWPP once construction is complete. This area is vast, and sparsely populated creating challenges. SWA is requesting funding of \$11.2 million in the 2023-2025 biennium to begin construction.

Above and beyond the 640 customers signed up in the Burt, Hebron Service Area, including Lake Tschida, 670 locations system-wide have been placed on a waiting list. When the project was originally constructed additional capacity was estimated to be at 150%. Over time the need and interest in rural water has grown and the additional initial capacity has been allocated. Currently more than 30% of the SWPP customer base connected as subsequent customers. These are the people connected after the initial construction had already been completed. At this time, Strategic Hydraulic Improvements are being prioritized to enable more of these subsequent customers to connect.

Throughout the years, SWA's reliable, quality water has become an integral part of what makes southwest North Dakota a great place to live, work, and recreate. Today, SWA serves nearly 7,500 rural customers, and 33 communities, and yet there are water needs yet to be met and hundreds of people waiting for their chance to receive quality water. I am here today on behalf of SWA to express my support of Senate Bill 2020, and respectfully request your consideration of \$131.6 million for the 12-million-gallons-per-day Southwest Water Treatment Plant expansion, West Zone Transmission Facility Improvements, Strategic Hydraulic improvements, and the Supplementary Intake Pump Station. For it is only with your financial support Southwest Water Authority can continue its mission of quality water for southwest North Dakota.

Thank you.  
Jenifer Murray,  
Manager/CEO  
Southwest Water Authority  
jmurray@swwater.com

# THE SOUTHWEST PIPELINE PROJECT AND SOUTHWEST WATER AUTHORITY

## 2023-2025 PROPOSED CONSTRUCTION AND FUNDING NEEDS

JANUARY 2023



| Water Resources



| Water Commission



# Southwest Pipeline Project is a State-Owned Regional Water Supply Project



**1981**

**The SWPP Was Authorized By The North Dakota State Legislature Under NDCC §61-24.3-16**

**1986**

**Construction Began**

**1991**

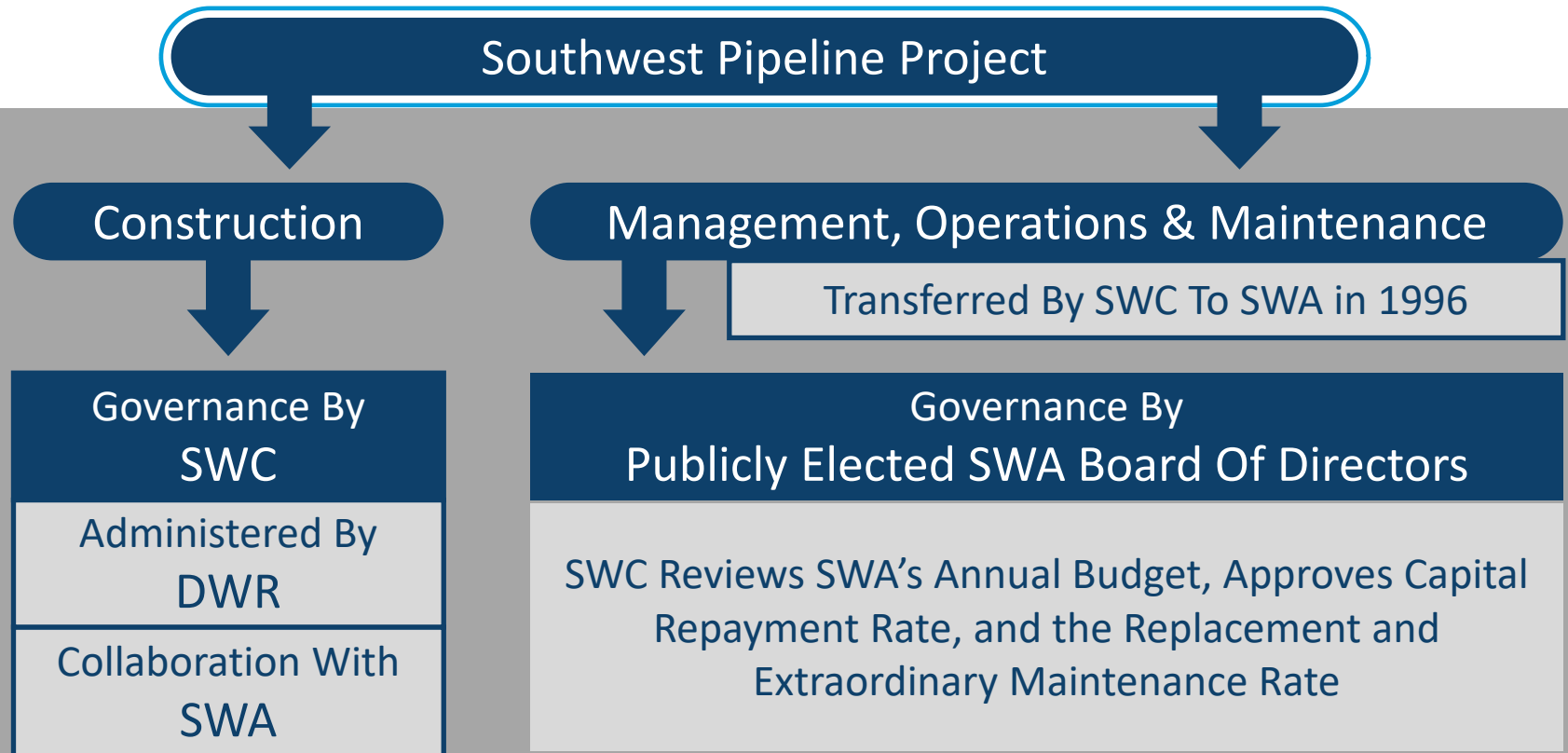
**SWA Was Authorized By The North Dakota State Legislature and Became A Political Subdivision Under NDCC §61-24.5-21**

**1996**

**Operations, Maintenance & Management Of The SWPP Transferred from SWC To SWA**



# ROLE OF SWC, DWR, AND SWA



# SWPP FUNDING MODEL



- Funded Through The Resources Trust Fund
- Local Share For SWPP = Capital Repayment
- Capital Repayment Is A Component Of SWPP's Water Rate
- Study Completed In 1982 - Capital Repayment Rate Based On Ability To Pay Adjusted Annually By The CPI

2023 Capital Repayment Rate:

Contract Customers (Cities) \$1.42/1,000 gallons sold

- Capital Repayment Rate For SWPP's Rural Customers Is Included In The Monthly Minimum/Base Rate

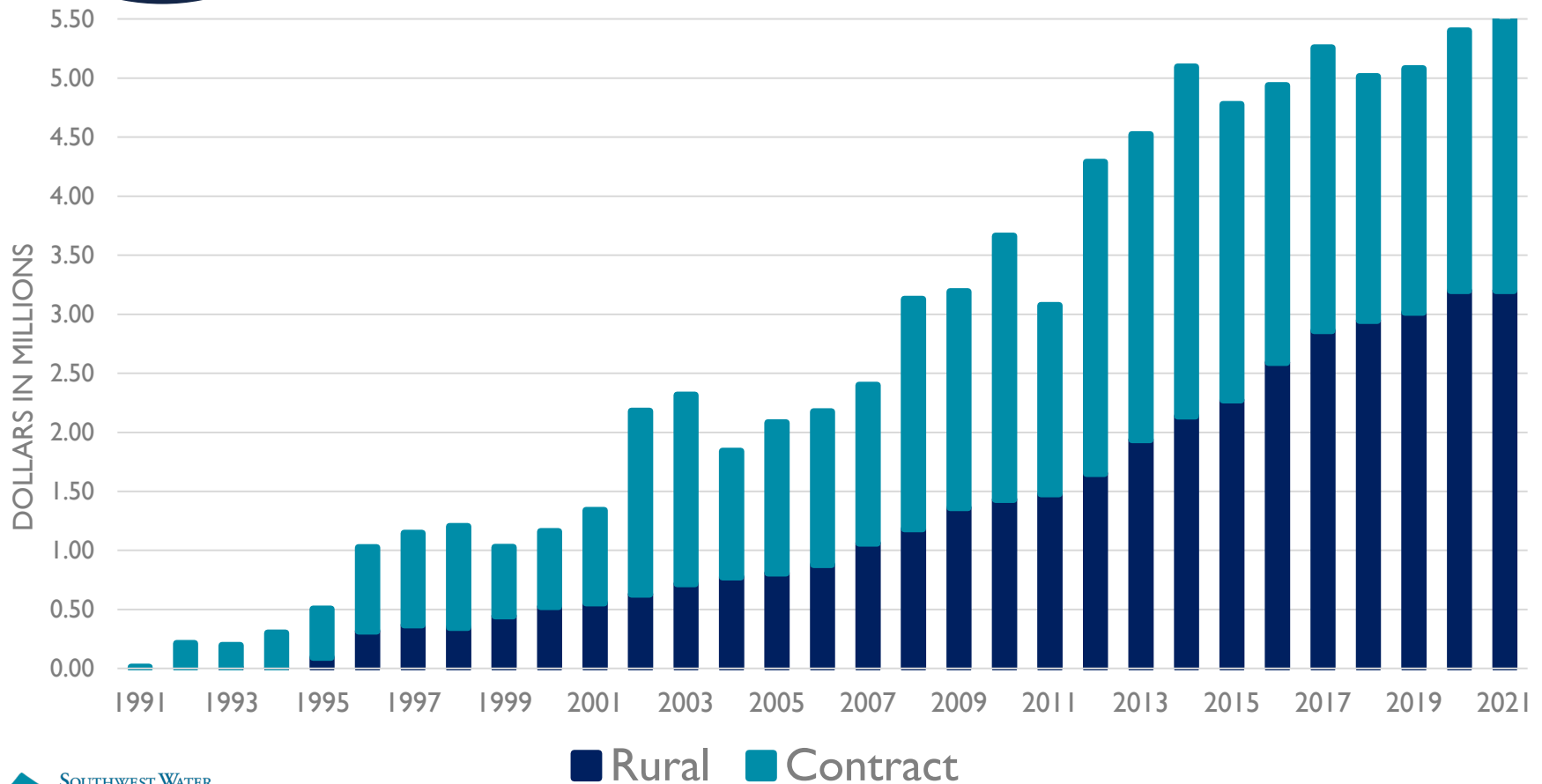
2023 Capital Repayment Rate:

Rural Customers \$43.43/month

- SWPP's Customer Growth Will Result In More Capital Repayment Back To The State

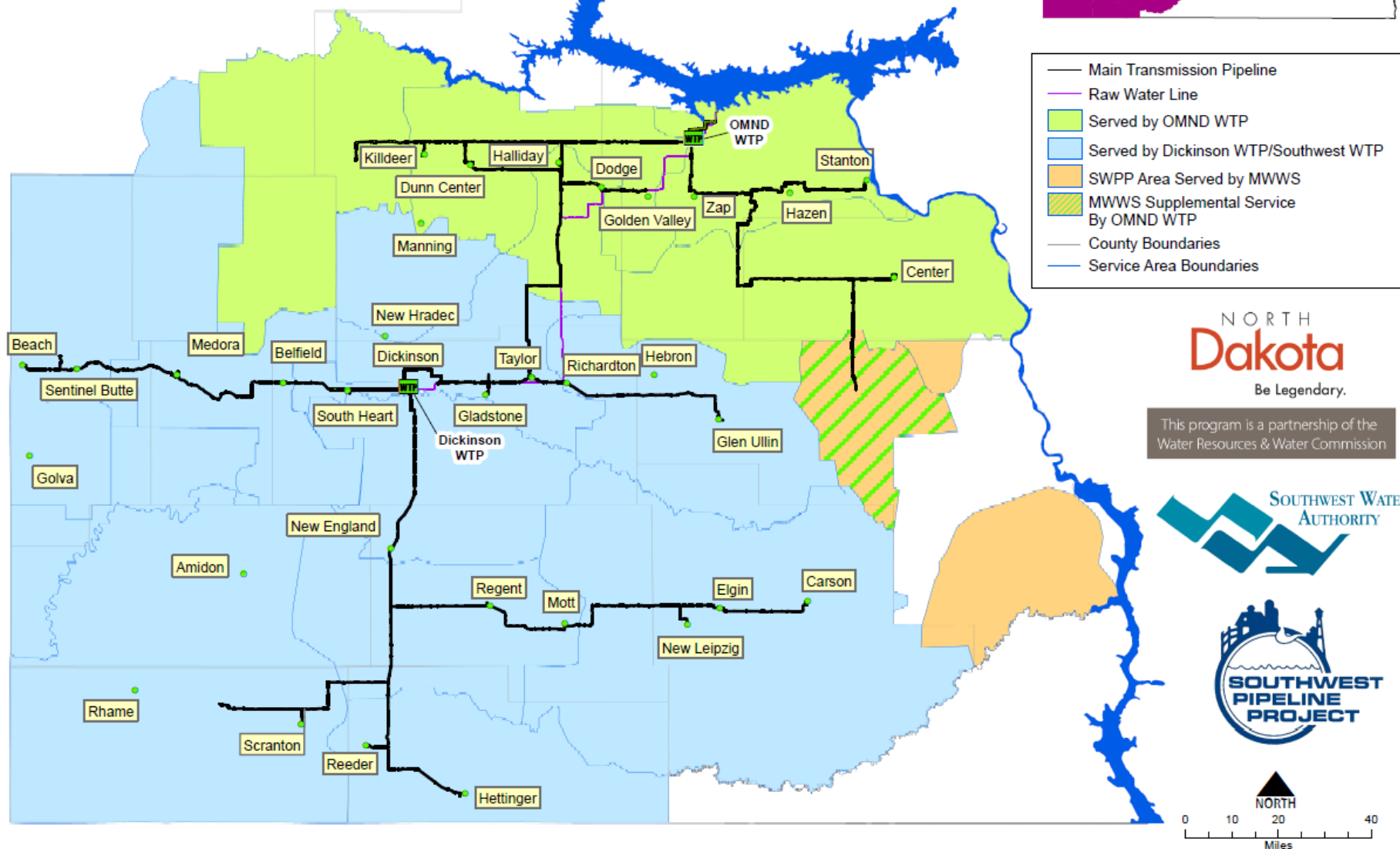
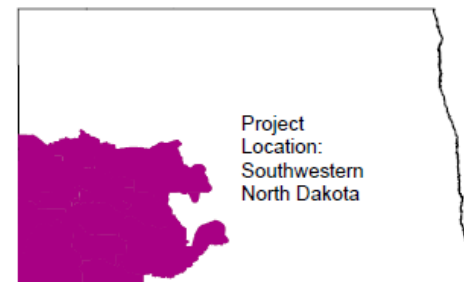
**\$90  
Million\***

# Southwest Water Authority Capital Repayment by Year



**\*32.5% of State Funding Returned**

# Southwest Pipeline Project



# THE SOUTHWEST PIPELINE PROJECT

- **Population served is ~ 58,000**
- **~7,500 rural customers**
- **5,300 Miles of Pipeline**
- **33 Communities**
- **13 Counties**
- **37 Million Gallons of Storage**
- **32 Water Storage Reservoirs**
- **35 Pump Stations**
- **3 Water Treatment Plants**
- **2 Additional Rural Water Systems**

**2022 Water Sales = 2.3 Billion Gallons**



**Mission: *Quality Water for Southwest North Dakota***  
**Vision: *People and Business Succeeding with Quality Water***



**Transmission  
Facility  
Improvements**

**Improvements and  
Upgrades to  
Transmission Pipelines  
and Facilities  
Throughout the  
Southwest Pipeline  
Project**

**Strategic  
Hydraulic  
Improvements**

**Addressing Waiting  
Lists and Areas Where  
Growth and  
Distribution is Limited  
by Existing  
Infrastructure**

**Expansion of  
Under-served  
Areas**

**Capturing the Needs  
of Under-served  
Areas by Canvassing  
to Ensure All  
Potential Customers  
Have the  
Opportunity to  
Connect to Rural  
Water**

# **Three-Pronged Approach to Building for the Future**



**\$33.8  
Million**

## **2021-2023 BIENNIUM**

- **Main Transmission Line Upgrades**
  - From Ray Christensen Pump Station to Belfield Reservoirs
  - From Ray Christensen Pump Station to New England Reservoirs
  - From Ray Christensen Pump Station to the Davis Buttes Reservoirs
- **Strategic Hydraulic Improvements**
  - Improvements in 4 separate service areas
  - Approximately 18 miles of 3-6" pipeline and 5 booster pump stations
    - Will add more than 100 subsequent customers
- **Supplemental Intake Construction and Construction Administration**
- **Southwest Water Treatment Plant Expansion Membrane and Equipment Procurement**
  - Ultra Filtration Membranes and High-Rate Softening Equipment
  - Expected bid date June 2023

**\$131.6 M**

# **2023-2025 Biennium Proposed Funding Needs for the SWPP**

- **Southwest Water Treatment Plant 12 MGD Expansion - \$83 M**
- **West Zone Transmission Facility Improvements - \$17.5 M**
- **Burt, Hebron Service Area Expansion - \$11.2 M**
- **Strategic Hydraulic Improvements - \$5 M**
- **Supplementary Intake Pump Station - \$14 M**
- **DWR Agency Operations - \$750,000**







# SOUTHWEST PIPELINE PROJECT

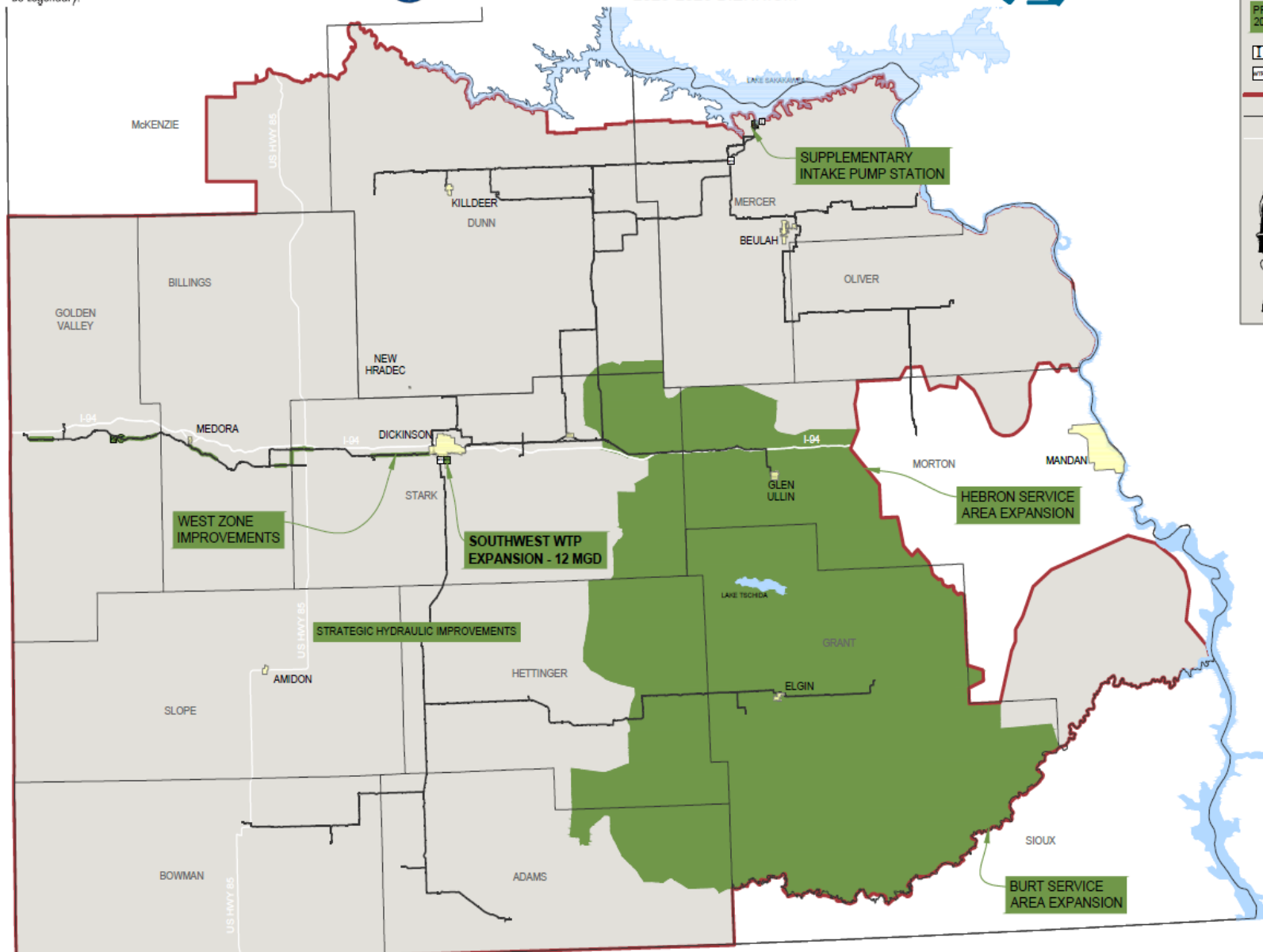
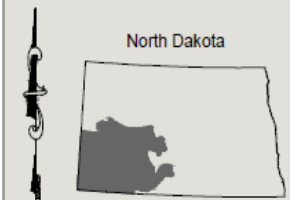
## FACILITY UPGRADE FUNDING NEEDS

### 2023-2025 BIENNIUM



#### LEGEND

- PROPOSED WATER PIPELINE
- EXISTING MAIN TRANSMISSION LINE
- PROPOSED FOR 2023-2025 BIENNIUM
- EXISTING INTAKE
- WATER TREATMENT PLANT
- SWPP BOUNDARY
- COUNTY BOUNDARY
- FEDERAL HIGHWAYS





THE ORIGINAL PLANT DATES FROM 1951, AN ADDITION BUILT IN 1966 WITH SIGNIFICANT UPGRADES IN 1988. MODIFICATIONS TO TREAT LAKE SAKAKAWEA WATER AND INCREASE THE PLANT CAPACITY WERE MADE IN 1994 AND 1996.

## 12 MGD Water Treatment Plant in Dickinson



# 6 MGD Southwest Water Treatment Plant

## Operational in 2018





Dickinson WTP

**\$83 M**

# Southwest Water Treatment Plant 12 MGD Expansion

**(18 MGD Total Capacity)**

**\$17.5 M**

# WEST ZONE TRANSMISSION FACILITY IMPROVEMENTS



Transmission Facility Improvements  
from Dickinson to Beach

- Approximately 28 miles of Parallel Main Transmission Line
- Upgrades to Three Booster Pump Stations
- 300,000 Gallon Storage Reservoir





**\$5.0 M**

# STRATEGIC HYDRAULIC IMPROVEMENTS

Distribution System  
Improvements to Serve  
Subsequent Customers

~ **670** Waiting List  
Locations



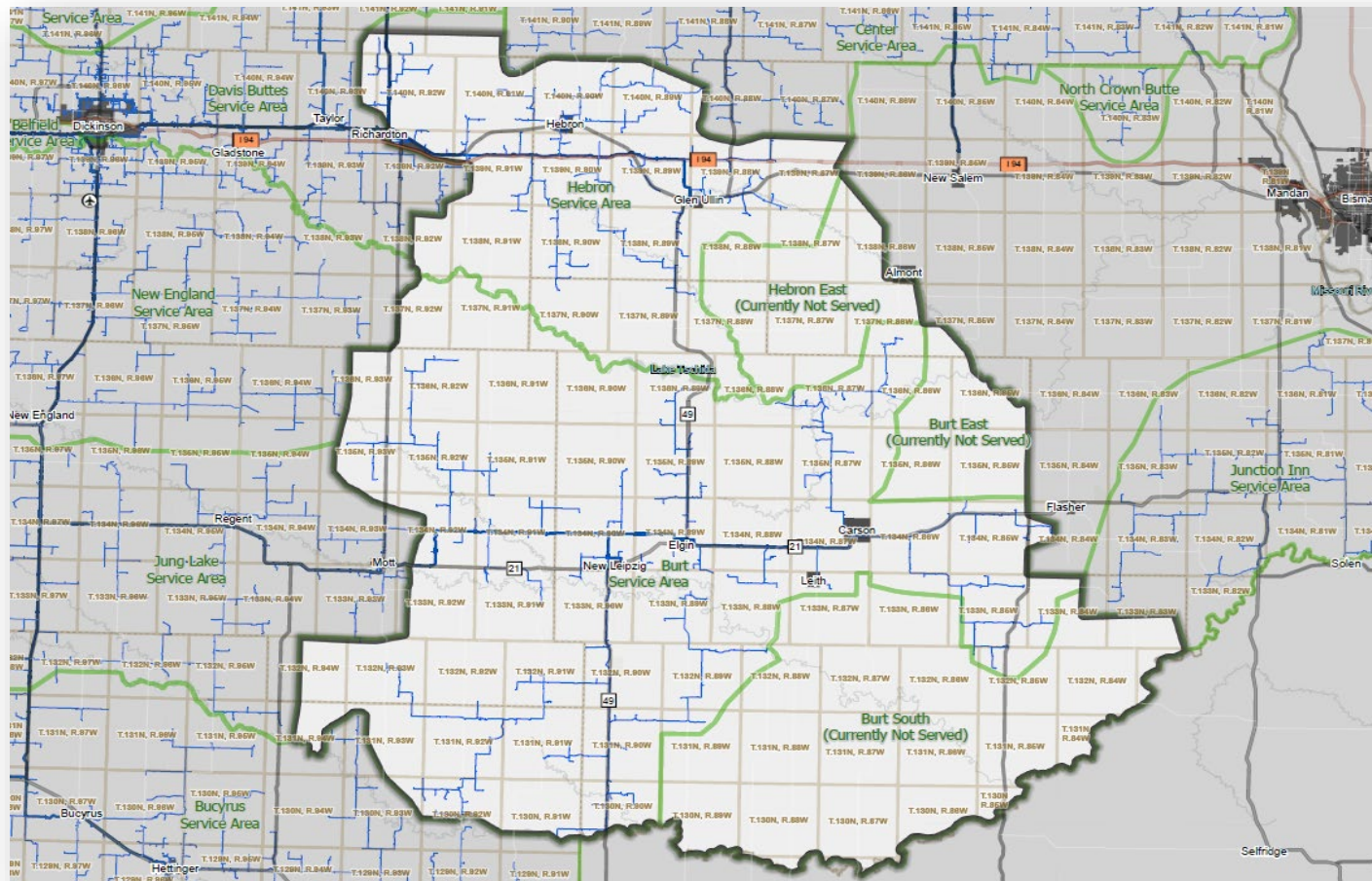
# WAITING LIST



- SWA has **7,474** active rural water customer accounts
- **2,628** are subsequent customers system-wide
- ~**35%** of customer base added after construction, using all additional capacity built into the system
- Over **4,000** additional locations across the SWPP Service Area could potentially be served based on **911** analysis

**\$11.2 M**

# RURAL CONSTRUCTION EXPANSION: BURT-HEBRON SERVICE AREA INCLUDING LAKE TSCHIDA



**640**  
Signups  
To-Date\*  
62% Rural  
38% Lake Tschida

\*In addition to Waiting Lists





Dependent on  
Intake Progress



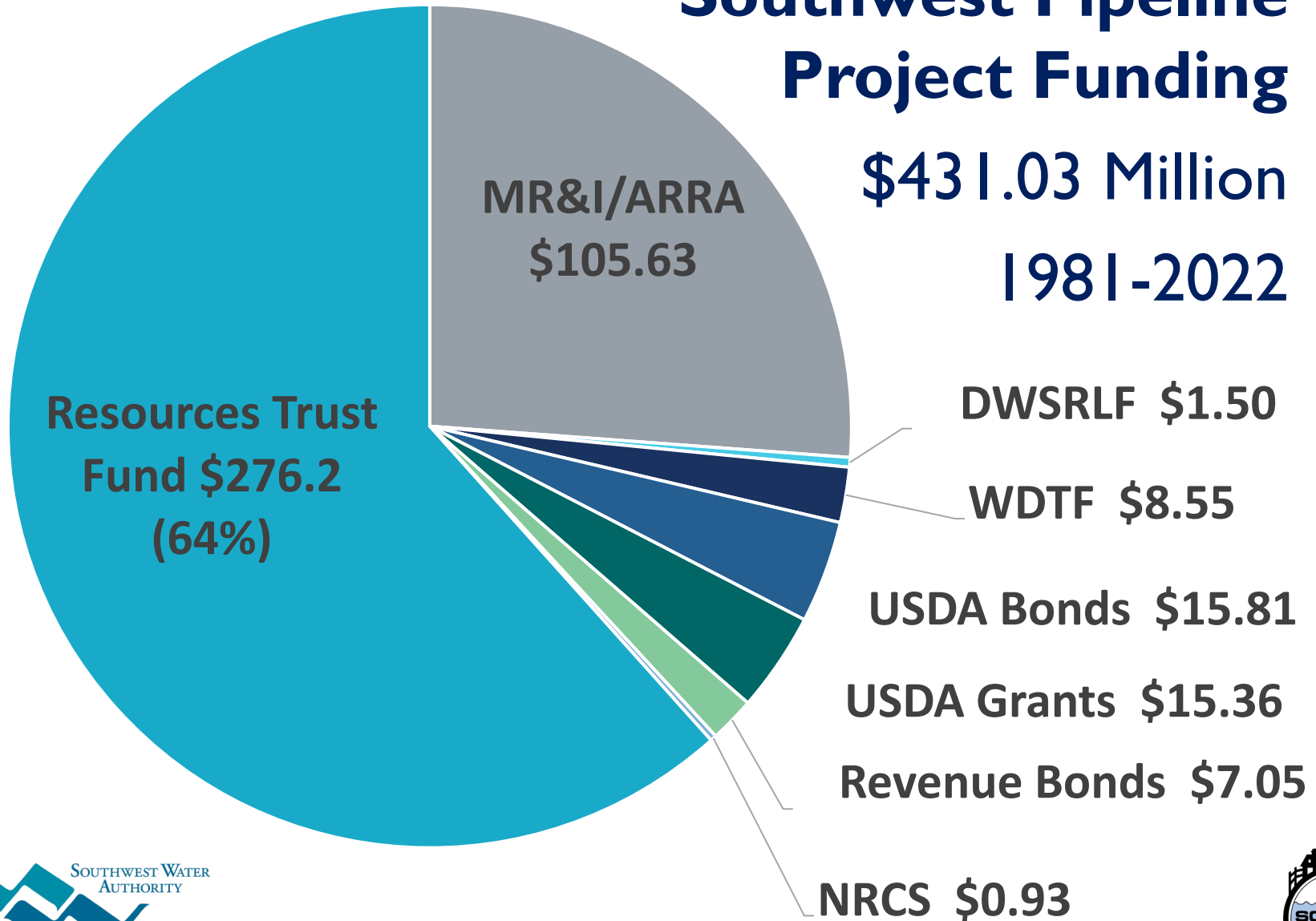
Supplementary Intake Pump Station

\$14 M

# Southwest Pipeline Project Funding

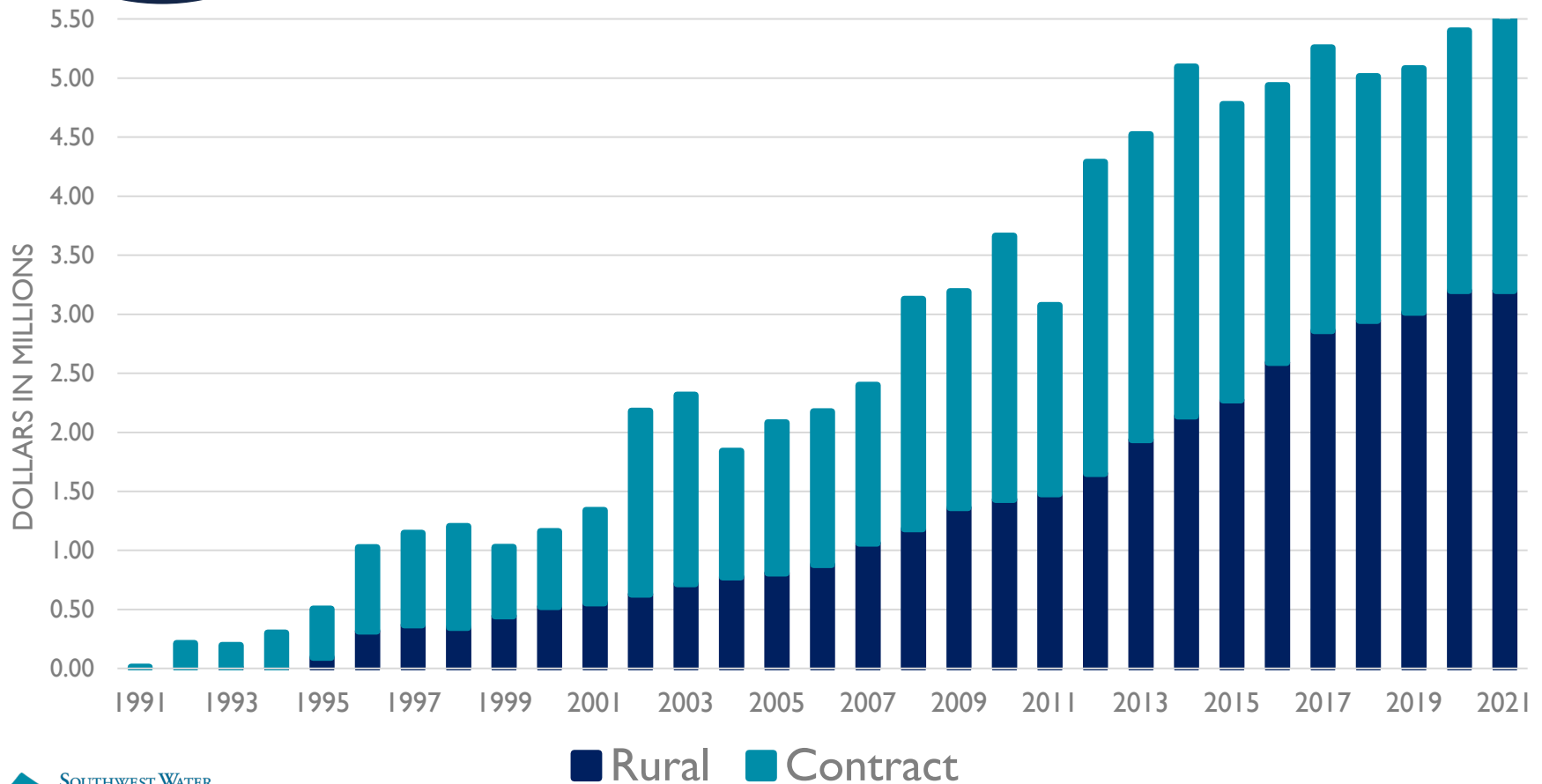
**\$431.03 Million**

**1981-2022**



**\$90  
Million\***

# Southwest Water Authority Capital Repayment by Year



**\*32.5% of State Funding Returned**



# SOUTHWEST WATER AUTHORITY





# THANK YOU

**Jen Murray, Manager/CEO**

**[jmurray@swwater.com](mailto:jmurray@swwater.com)**

**Southwest Water Authority**

**[www.swwater.com](http://www.swwater.com)**

**701.225.0241**







## Southwest Pipeline Project Proposed 2023-2025 Biennium Funding Needs



Contract	Description	Detail	2023-2025 Planned needs
HI	Strategic Hydraulic Improvements	Distribution System Expansion to Serve Subsequent Customers Prioritized by Need	\$5,000,000
3-2H	Southwest Water Treatment Plant 12 MGD Expansion	Construction and Equipment Installation	\$83,000,000
1-2B	Supplementary Intake Pump Station	Intake Pump Station Building, Pumps, Air Chamber and SCADA Dependent on Supplementary Intake Completion	\$14,080,000
	West Zone Transmission Improvements	Transmission Facility Improvements to the West Zone including Medora 27.8 miles of 10" and 12" Parallell, 300k gallon Reservoir, and Upgrades to Ray Christensen, Fryburg, and Beach Booster Pump Station	\$17,560,000
*	Burt, Hebron Service Area including Lake Tschida*	Rural Service Expansion into Under-served Areas	\$11,200,000
	Department of Water Resources Agency Operations	Per Biennium Agency Operations	\$750,000
	<b>Total 2023-2025 Biennium Funding Needs</b>		<b>\$131,590,000</b>



# SOUTHWEST PIPELINE PROJECT

## FACILITY UPGRADE FUNDING NEEDS

### 2023-2025 BIENNIUM



#### LEGEND

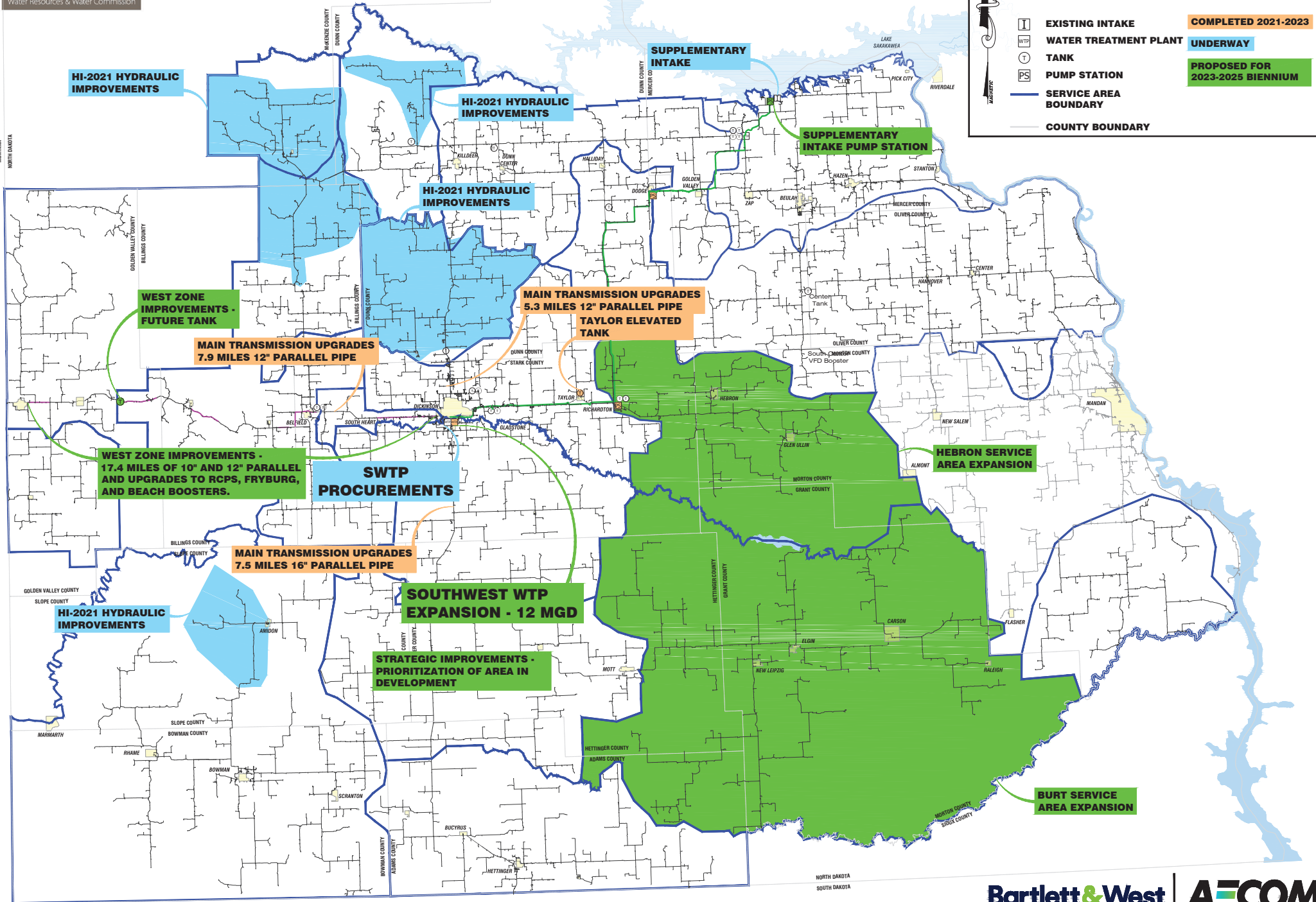
- EXISTING RAW WATER PIPELINE
- EXISTING SWWP PIPELINE
- EXISTING MWWS PIPELINE
- PROPOSED WATER PIPELINE

- I EXISTING INTAKE
- WTP WATER TREATMENT PLANT
- T TANK
- PS PUMP STATION
- SERVICE AREA BOUNDARY
- COUNTY BOUNDARY

**COMPLETED 2021-2023**

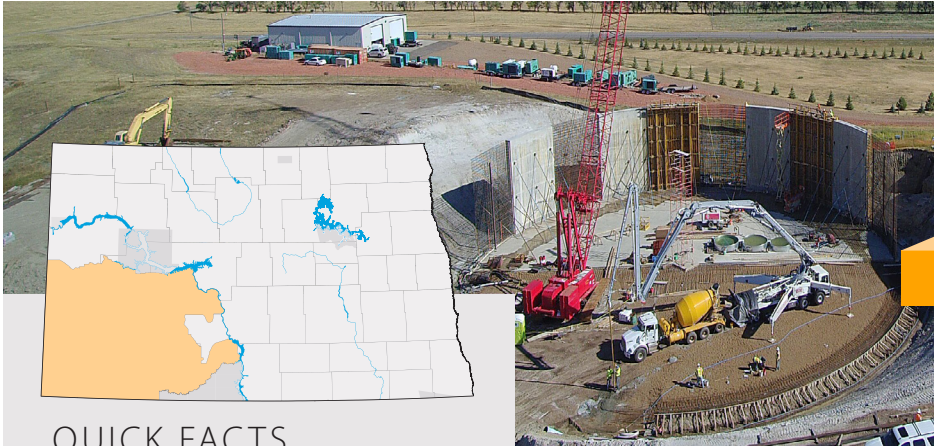
**UNDERWAY**

**PROPOSED FOR 2023-2025 BIENNIUM**





# SOUTHWEST PIPELINE PROJECT



## QUICK FACTS



WATER USERS  
(7.4% OF ND POPULATION)



COMMUNITIES SERVED



RURAL CUSTOMERS



LEGISLATIVE DISTRICTS  
(26, 31, 33, 36, 37, 39)

## DWR COST-SHARE

**100%**

Funded by State of ND with local share paid through user fees, including capital repayment (\$89.9M), and replacement and extraordinary maintenance funds (\$1.5M).

## BACKGROUND AND PURPOSE

The purpose of the Southwest Pipeline Project (SWPP) is to address water quality and quantity issues in southwest North Dakota by delivering high quality Missouri River water to the region. Authorized by the North Dakota Legislature in 1981, the SWPP transports raw water from Lake Sakakawea to water treatment plants located at Dickinson and north of Zap where it is treated and delivered to the Project's customers in southwest North Dakota and Perkins County, South Dakota. Since construction began in 1986, the Project now includes three water treatment plants, 35 pumping stations, 31 water storage reservoirs, and over 5,000 miles of pipe. Future construction efforts will address ongoing growth in the region and connection of rural customers waiting for SWPP water.

## HISTORIC FUNDING

Local	\$1.5M
State*	\$307M
Federal**	\$122M

\*Includes bonds (\$6.1M), bond payoff (\$18.3M), and State Fiscal Recovery Funds

\*\* Municipal, Rural and Industrial (MR&I) Program; and USDA Rural Development

## FUTURE FUNDING

Foreseeable Funding Needs	\$261M
State	\$261M

## LOCAL SPONSOR

The SWPP is funded and owned by the state of North Dakota and administered through the Department of Water Resources. In 1996, the operation and maintenance of the SWPP was transferred to the Southwest Water Authority (SWA), a political subdivision established by the Legislature. Capital repayment occurs through user fees.

## LOOKING AHEAD 2023-2025

**\$131.6  
MILLION**

## EXECUTIVE BUDGET REQUEST

Funding for strategic hydraulic improvements, West Zone main transmission line improvements, an intake pump station, Burt Hebron Service Area expansion, Southwest Water Treatment Plant expansion, and agency operational costs.



NORTH  
**Dakota**  
Be Legendary.

Water Resources

JANUARY 2023

