



# RED RIVER VALLEY WATER SUPPLY PROJECT

Serving the Water Supply Needs of Central North Dakota and the Red River Valley

## SENATE APPROPRIATIONS - EDUCATION AND ENVIRONMENT DIVISION SB2020 HEARING

JANUARY 19, 2023



Lake Agassiz  
Water Authority



GARRISON  
DIVISION

# RED RIVER VALLEY WATER SUPPLY PROJECT

RRVWSP is a **drought resiliency project** and an **economic development initiative**





# PROJECTED ECONOMIC BENEFITS OF RRVWSP DURING DROUGHT

**“SAVING OUR ECONOMY” FROM THE IMPACTS OF SIGNIFICANT DROUGHT**

**\$33.6  
BILLION**

Projected total positive Project impact in a “Dirty Thirties” style drought simulated from mid-2030s through the mid-2040s

# RED RIVER VALLEY WATER SUPPLY PROJECT



.....  
**GARRISON DIVERSION  
CONSERVANCY DISTRICT**

**Represents the State of ND**



.....  
**LAKE AGASSIZ  
WATER AUTHORITY**

**Represents Local Users**



# PRIMARY 2023 LEGISLATIVE REQUEST

## STATE COMMITMENT TO THE PROJECT

### ► Funding Commitment to Implement Project

Not just 23/25 Biennium Work Plan

- The State has been a vital partner in the development of the Project. Now is the time to commit to full implementation of the Project.
- A strong State commitment provides confidence to local water systems deliberating on their level of involvement.
- Cost efficient build schedule to get the project into service sooner, reducing risks and inflationary impacts.

## 2023-25 BIENNIUM REQUEST

**\$255 MILLION**

Using State Cost Share Policy (72/25)  
leverages in additional \$85M in Local  
Funding for \$340M in total capabilities

Shovel-Ready Construction (43 Miles of Pipeline!)

Continued Design (40 Miles of Pipeline)

ENDAWS Phase 1 Design (32 Miles of Pipeline)



# LEGISLATIVE REQUEST

## ADDITIONAL AFFORDABILITY CONSIDERATIONS



### STATE FINANCING OF LOCAL COST-SHARE

40-YEAR @ 2% WITH 'DEBT SCULPTING'

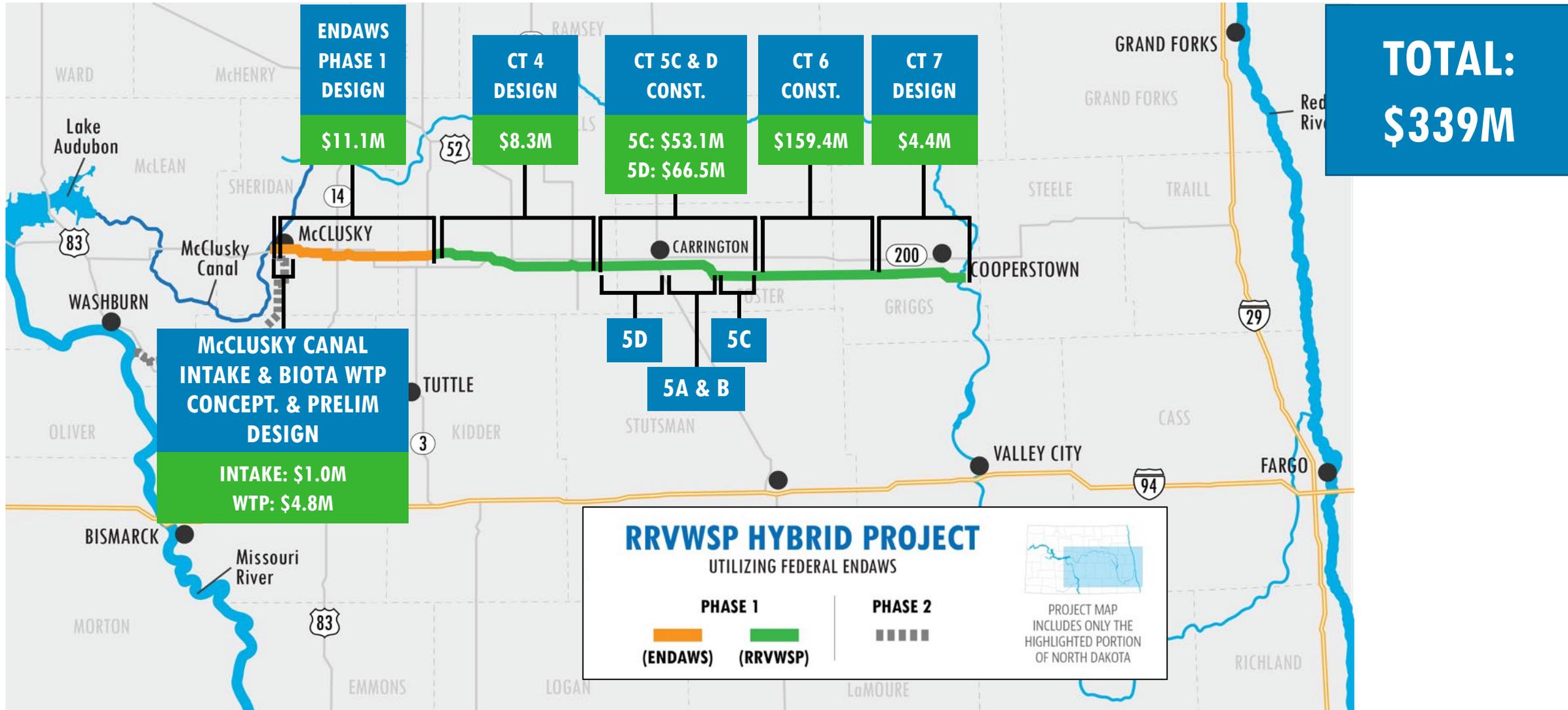
- Ability to shape debt repayment to match anticipated revenues and expenses allowing systems to 'grow' into project repayment



### PROCEED WITH FEDERAL PORTION OF THE PROJECT

- An 8-year build utilizing ENDAWS saves the State \$295 Million!

# DRAFT 2023-2025 WORK PLAN



\* OTHER PROGRAM COSTS: \$29.6M



# FORECASTED SPEND SCHEDULES

## STATE COST-SHARE AND INFLATION MITIGATION

### WHAT IF PROJECT IS FUNDED AT A SLOWER PACE THAN IS BEING REQUESTED?

STATE CONTRIBUTION (PER BIENNIUM)	RRVWSP PROJECTED COMPLETION DATE	ENDAWS PROJECTED COMPLETION DATE
<b>\$85M</b>	∞ (*Never)	∞ (*Never)
<b>\$100M</b>	∞ (*Never)	42-Years (Dec 2063)
<b>\$150M</b>	32-Years (June 2053)	22-Years (Dec 2043)
<b>\$200M</b>	21-Years (June 2042)	16-Years (June 2037)
<b>\$250M</b>	16-Years (Dec 2037)	12-Years (Dec 2033)

\* Due to inflation outpacing project spend, project timeline is indefinite.

# INDUSTRIAL WATER DEMAND EXCEEDS CURRENT SUPPLY



- 1 GRAND FORKS AGRIBUSINESS NEEDS**  
Fully Permitted City's Wastewater Effluent Discharge  
Corn Wet Mill to Approximately Double City's Water Use
- 2 CASSELTON INDUSTRY**  
Fargo Looking to Expand Effluent Reuse Facility  
CGB Soybean Plant will Approximately Double Reuse Demand
- 3 AGP SOYBEAN CRUSHING/CRACKING**  
Relocated Facility, Missed Opportunity
- 3 CARGILL (PRO GOLD)**  
Reliability & Expansion Precluded  
by Permit Restrictions
- 4 SPIRITWOOD ENERGY PARK**  
Water Options Limited
- DAIRY/POTATO WASHING/HOG & BEEF,  
MISC. WATER DISTRICTS**  
Water Options Limited

# AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT

## DEPARTMENT OF WATER RESOURCES

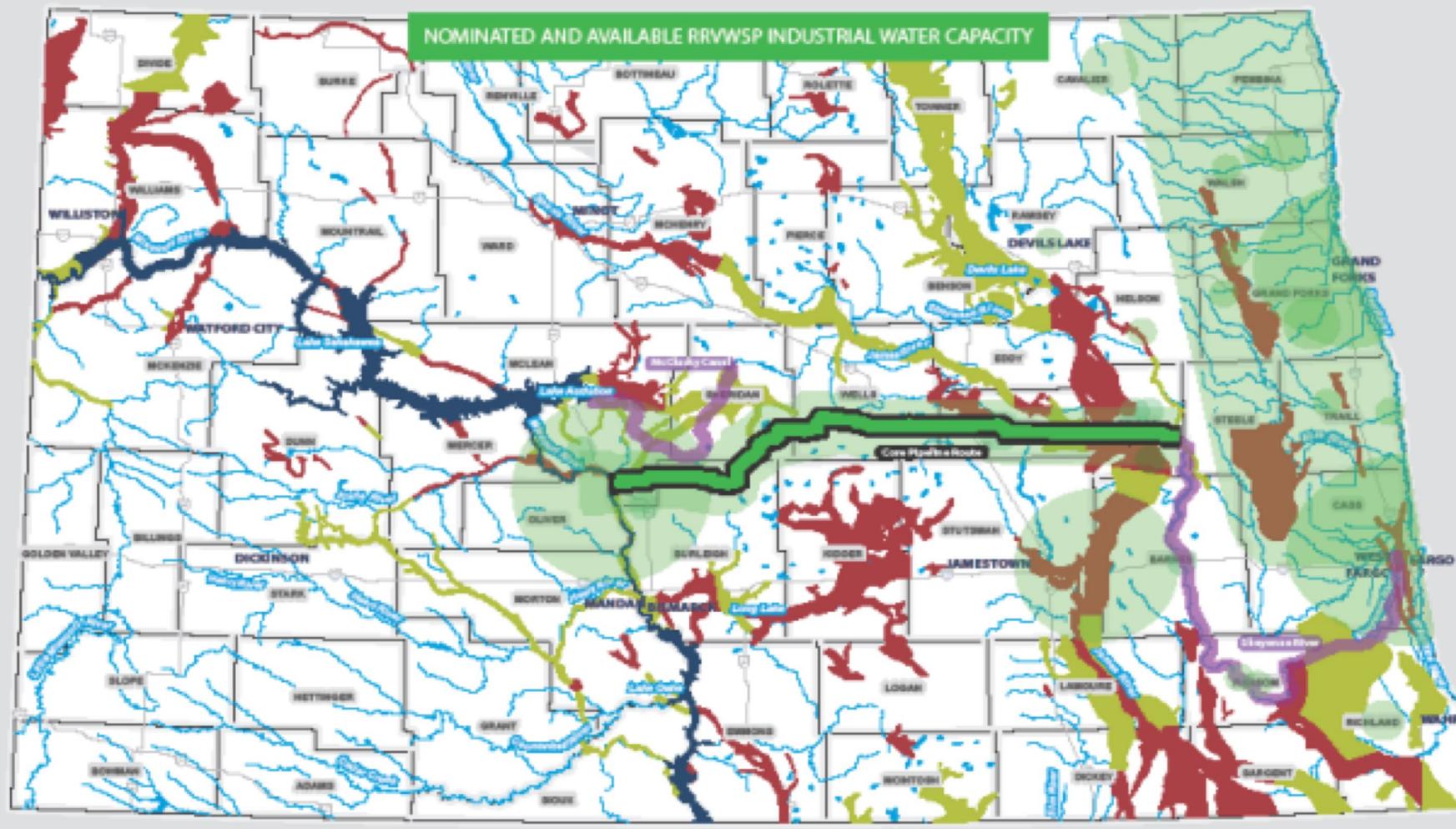
ND WATER AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT



-  **GOOD WITH LIMITATIONS / SURFACE WATER**
-  **POTENTIAL WITH LIMITATIONS / GROUND WATER**
-  **NEAR FULL APPROPRIATION**

# AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT NOMINATED & AVAILABLE RRVWSP INDUSTRIAL WATER CAPACITY

ND WATER AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT



● GOOD WITH LIMITATIONS  
/ SURFACE WATER

● POTENTIAL WITH LIMITATIONS  
/ GROUND WATER

● NEAR FULL  
APPROPRIATION



# MISSOURI RIVER



## ONE OF NORTH DAKOTA'S GREATEST NATURAL RESOURCES

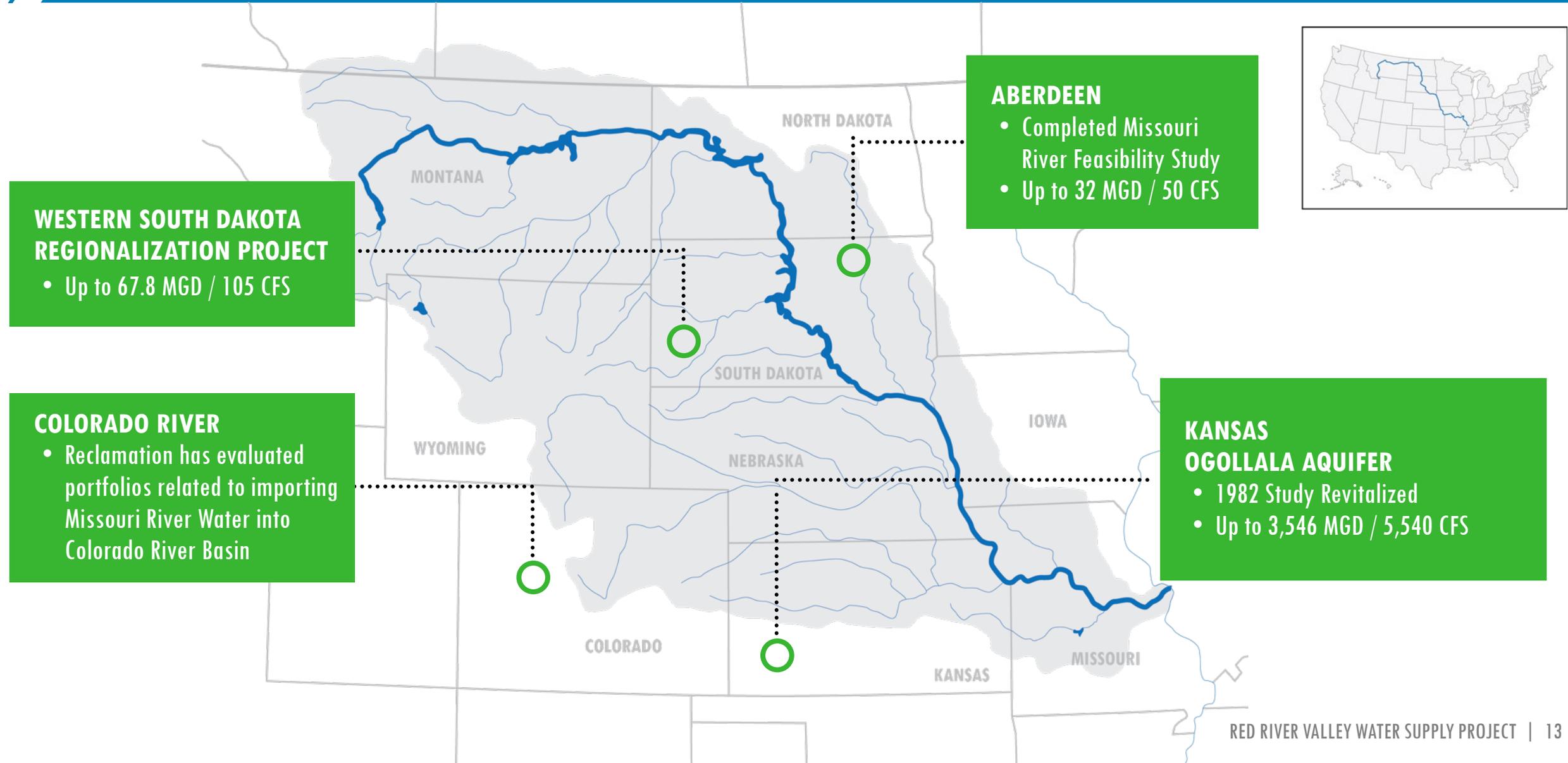
- ▶ Accounts for 95% of North Dakota's surface water — we only utilize about 1% of the water flowing through our state
- ▶ Total amount of Missouri River water needed is .5%, leaving 99.5% of Missouri River unaffected



**A DROP IN  
THE BUCKET!**

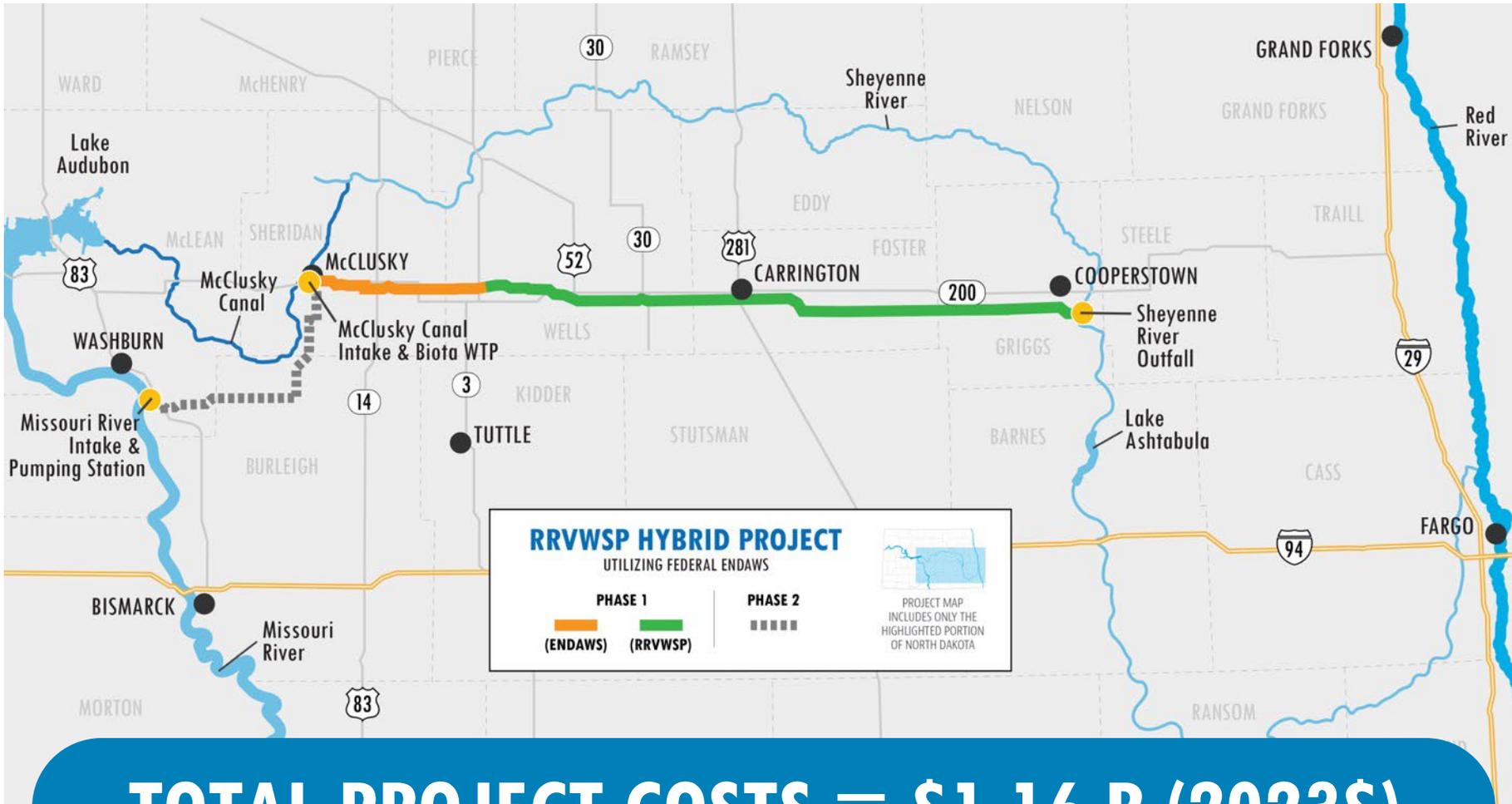
# MISSOURI RIVER

## FIRST IN TIME, FIRST IN LINE



# SYSTEM OVERVIEW

THE PROJECT IS AN EMERGENCY WATER SUPPLY FOR NEARLY 50% OF NORTH DAKOTA'S POPULATION



**Pipe Diameter**  
72" (6 foot)



**Pipe Length**  
125 Miles



**Pipe Material**  
Steel



**Pipe Flow**  
165 cfs



**Bury Depth**  
7' Top of Pipe  
15' Bottom of Trench

**TOTAL PROJECT COSTS = \$1.16 B (2023\$)**

**EASTERN ND  
ALTERNATE WATER  
SUPPLY (ENDAWS)**



# DAKOTA WATER RESOURCES ACT OF 2000

## FEDERAL RED RIVER VALLEY WATER SUPPLY PROJECT



DAKOTA WATER RESOURCES ACT OF 2000

NEEDS & OPTIONS REPORT (RELEASED 2005)

FINAL ENVIRONMENTAL IMPACT STATEMENT (RELEASED 2007)

NO RECORD OF DECISION ISSUED FOR FEDERAL RRVWSP

**FORCED DEVELOPMENT OF STATE & LOCAL PROJECT**

## FEDERAL EASTERN NORTH DAKOTA ALTERNATE WATER SUPPLY (ENDAWS)



STARTED DEVELOPMENT OF STATE & LOCAL PROJECT (2011)

CONTINUED EFFORTS TO ACCESS GDU FACILITIES (McCLUSKY CANAL)

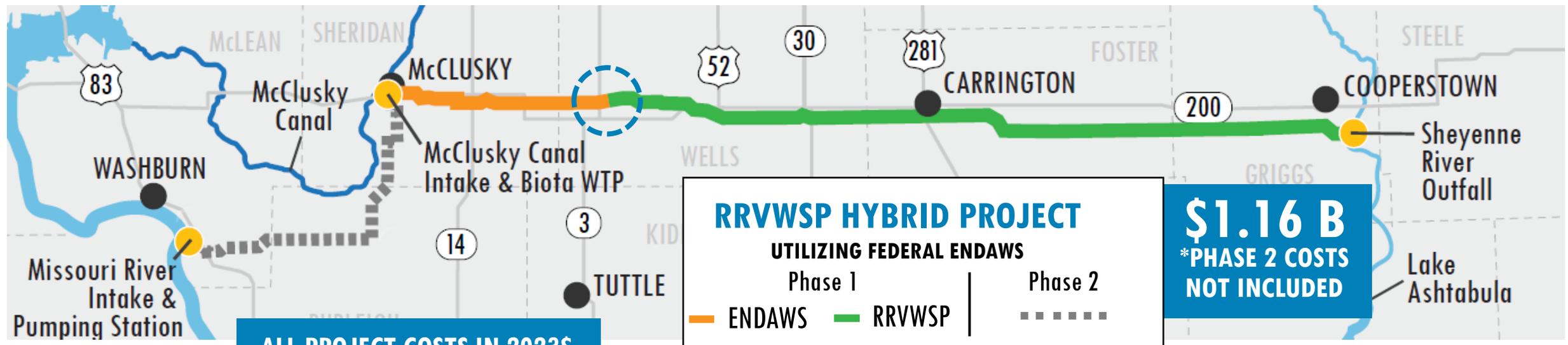
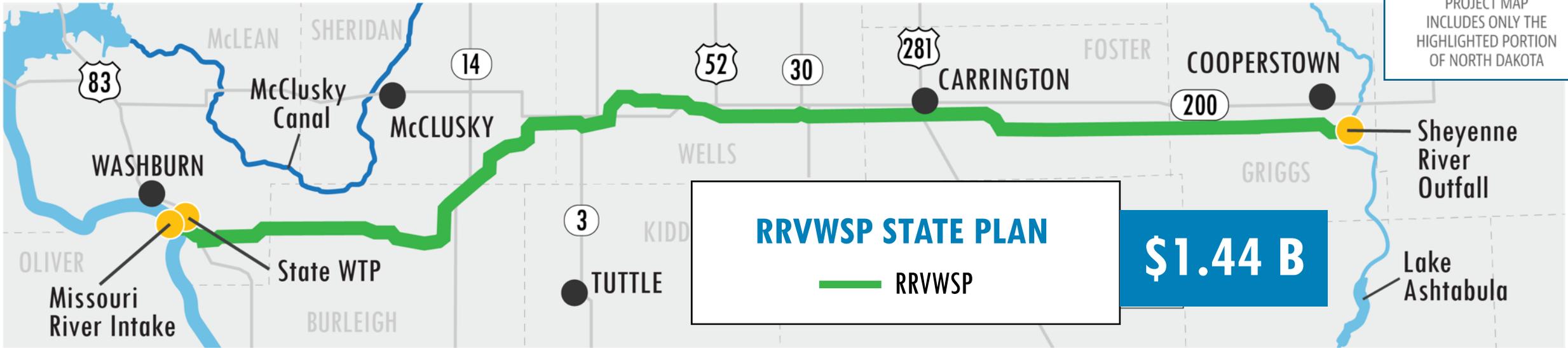
ENDAWS ENVIRONMENTAL IMPACT STATEMENT (RELEASED 2020)

**ENDAWS RECORD OF DECISION (ISSUED 2021)**

# CURRENT STATE PLAN VS HYBRID PROJECT



PROJECT MAP INCLUDES ONLY THE HIGHLIGHTED PORTION OF NORTH DAKOTA



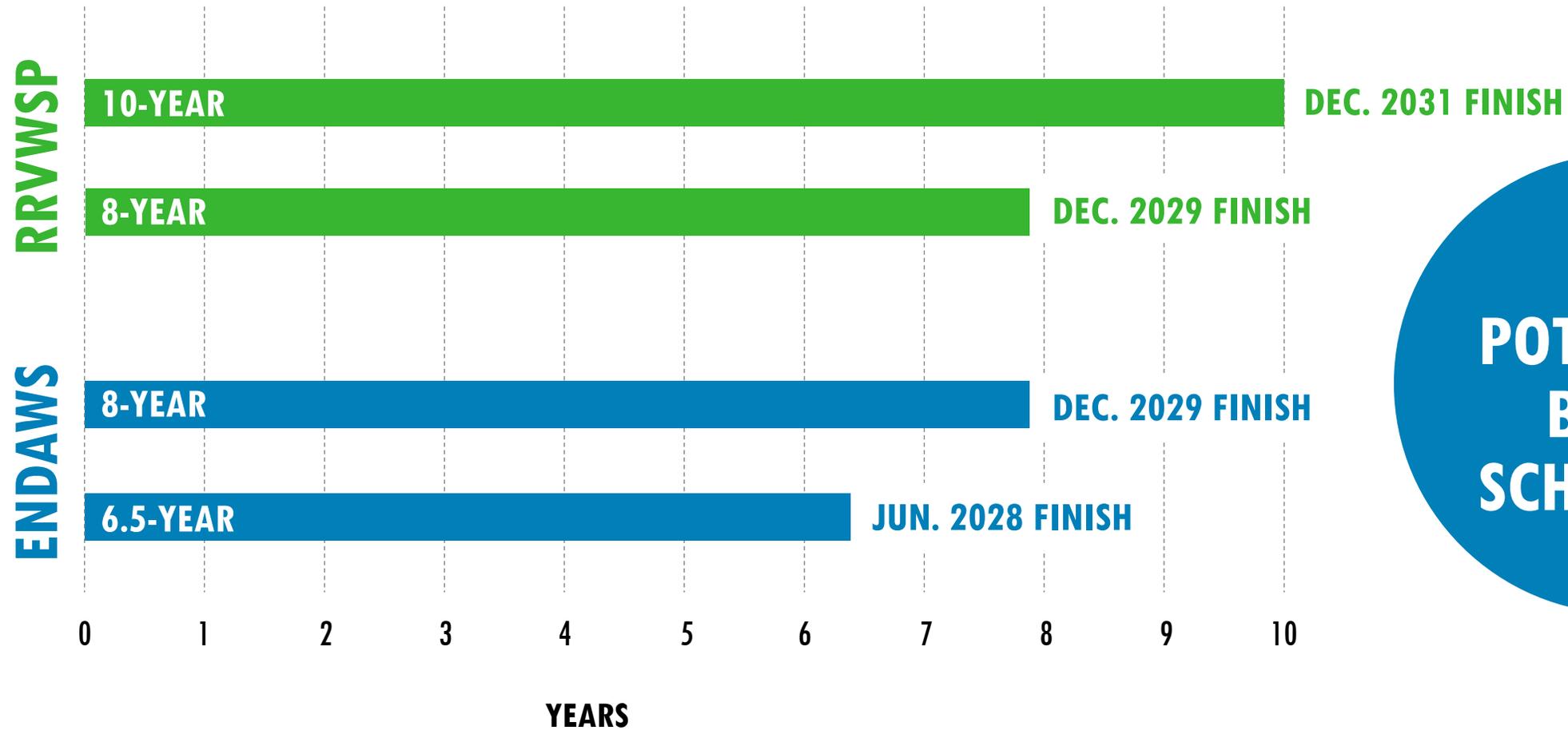
**ALL PROJECT COSTS IN 2023\$**

# **FINANCING AND BUILD SCENARIOS**



# FORECASTED SPEND SCHEDULES

## PROJECT ACCELERATION AND ENDAWS



**POTENTIAL BUILD SCHEDULES**

# FORECASTED SPEND SCHEDULES

## STATE COST-SHARE — INFLATION ADJUSTED

### PROJECTED STATE-COST SHARE BY BIENNIUM (\$M)\*

	21-23	23-25	25-27	27-29	29-31	31-33	TOTAL STATE SHARE (Savings)	REMAINING LOCAL SHARE (Savings)	TOTAL PROJECT (Savings)
RRVWSP: 10-Year	\$85.9	\$254.3	\$271.7	\$291.1	\$311.8	\$81.4	<b>\$1,296</b> (-)	<b>\$432</b> (-)	<b>\$1,728</b> (-)
RRVWSP: 8-Year	\$85.9	\$254.3	\$392.5	\$420.4	\$109.7	-	<b>\$1,263</b> (\$33)	<b>\$421</b> (\$11)	<b>\$1,684</b> (\$44)
<b>ENDAWS:</b> 8-Year	<b>\$85.9</b>	<b>\$254.3</b>	<b>\$280.9</b>	<b>\$301.0</b>	<b>\$78.5</b>	-	<b>\$1,001</b> (\$295)	<b>\$333</b> (\$99)	<b>\$1,334</b> (\$394)
ENDAWS: 6.5-Year	\$85.9	\$254.3	\$421.4	\$221.8	-	-	<b>\$983</b> (\$313)	<b>\$328</b> (\$104)	<b>\$1,311</b> (\$417)

\*State cost-share of 75% and inflation adjusted to the projected year of expenditure

# RRVWSP CONSTRUCTION IS UNDERWAY!



**MISSOURI RIVER  
WET WELL**



**MAIN TRANSMISSION  
PIPELINE**



**SHEYENNE RIVER  
DISCHARGE STRUCTURE**

# GROUNDBREAKING CEREMONY

## TRANSMISSION PIPELINE



**2021 Groundbreaking**

**Awarded Five Construction  
Contracts to Date**

**FUTURE TOURS PLANNED**





# PIPELINE EASEMENT LANDOWNER CONTACT



**SEND LETTER EXPLAINING PROJECT AND WHAT WE NEED  
(PROPERTY ACCESS, REQUEST TO SIGN OPTION OR EASEMENT)**

Certified mail with delivery confirmation receipt

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**LAND AGENT MAKES/ATTEMPTS CONTACT THROUGH CALL OR IN-PERSON**

Land agents attempt contact 3-5 times

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**QUESTIONS DIRECTED TO GARRISON DIVERSION DISTRICT ENGINEER**

Each contact is recorded

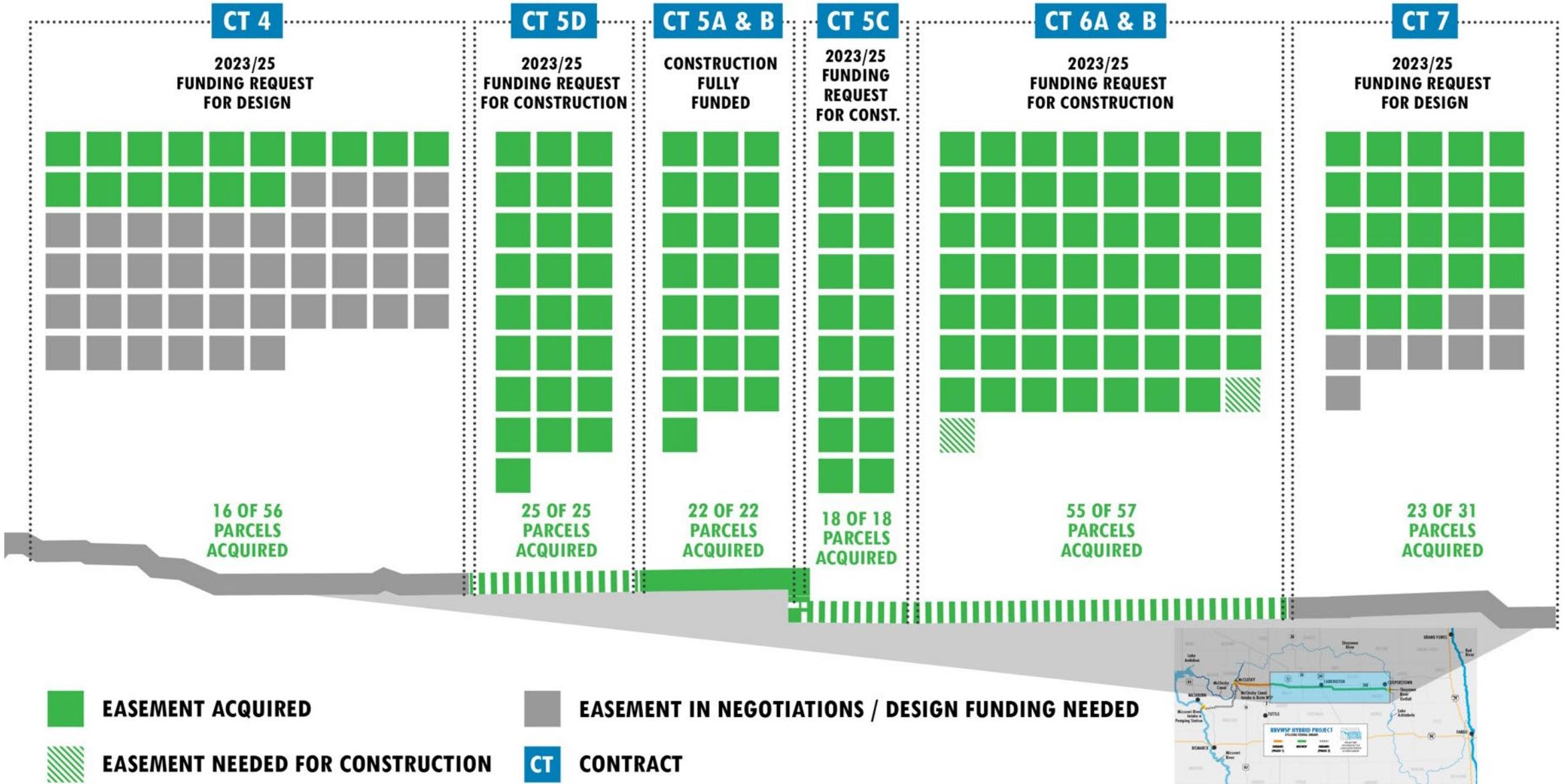
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**RESOLUTION OF LAST RESORT**

Last contact made through attorney letter

# PROPERTY ACQUISITION STATUS



# 2023 LEGISLATIVE REQUEST SUMMARY

## ➤ 2023-25 BIENNIUM REQUEST

\$255 Million (75% State Cost-Share)

## ➤ STATE FINANCING OF LOCAL COST-SHARE

40-Year @ 2% with 'Debt Sculpting'

## ➤ STATE COMMITMENT TO IMPLEMENT TOTAL PROJECT

Look Beyond the 23/25 Biennium Work Plan



## 2023-25 Workplan

Shovel-Ready Construction  
(43 Miles of Pipeline!)

Continued Design  
(40 Miles of Pipeline)

ENDAWS Phase 1 Design  
(32 Miles of Pipeline)

# THANK YOU!



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WATER SUPPLY PROJECT**

Serving the Water Supply Needs of Central North Dakota and the Red River Valley



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