



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



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

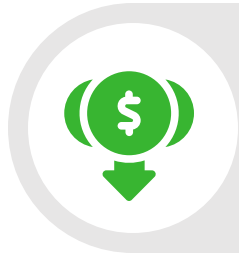
ADDITIONAL AFFORDABILITY CONSIDERATIONS



STATE FINANCING OF LOCAL COST-SHARE

LONG-TERM/LOW INTEREST WITH 'DEBT SCULPTING'

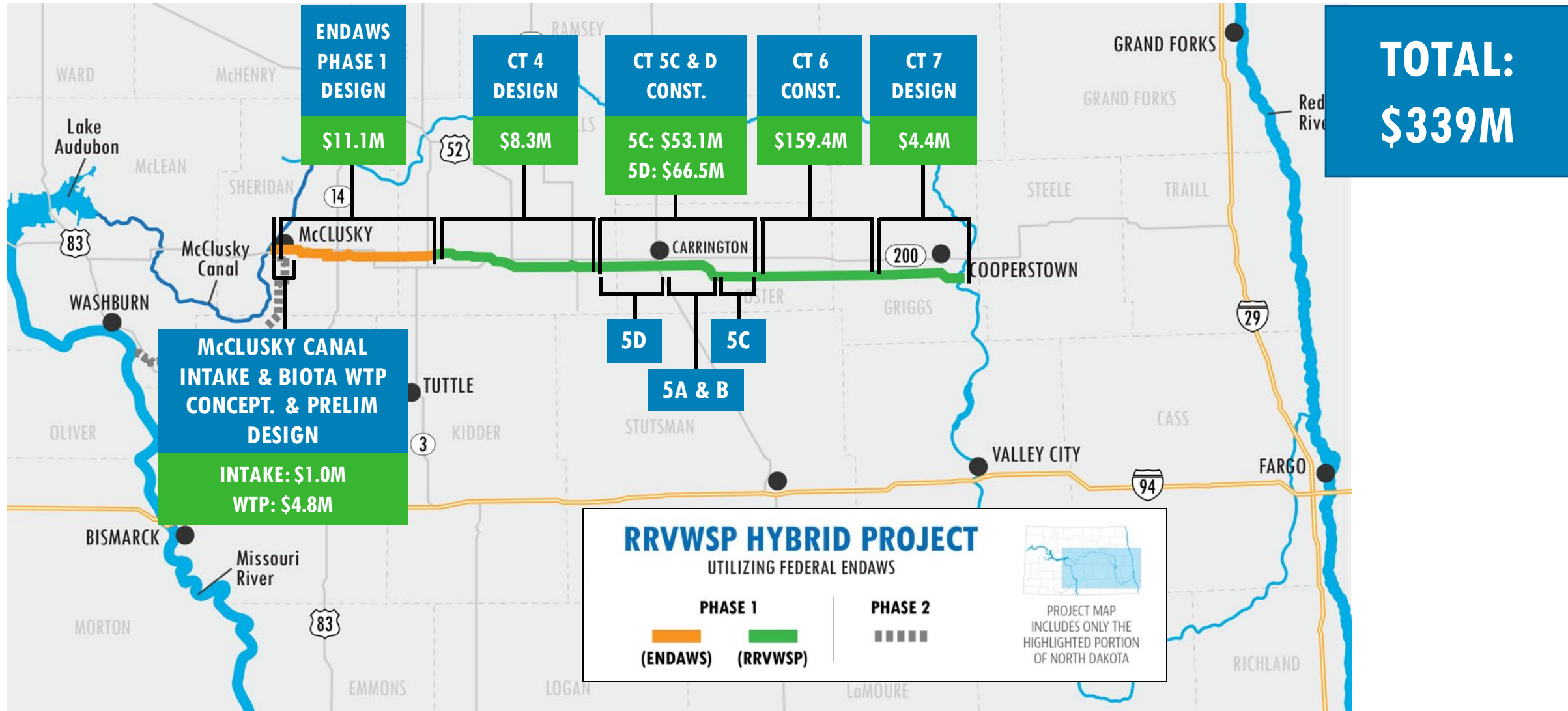
- Ability to shape debt repayment to match anticipated revenues and expenses allowing systems to 'grow' into project repayment



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

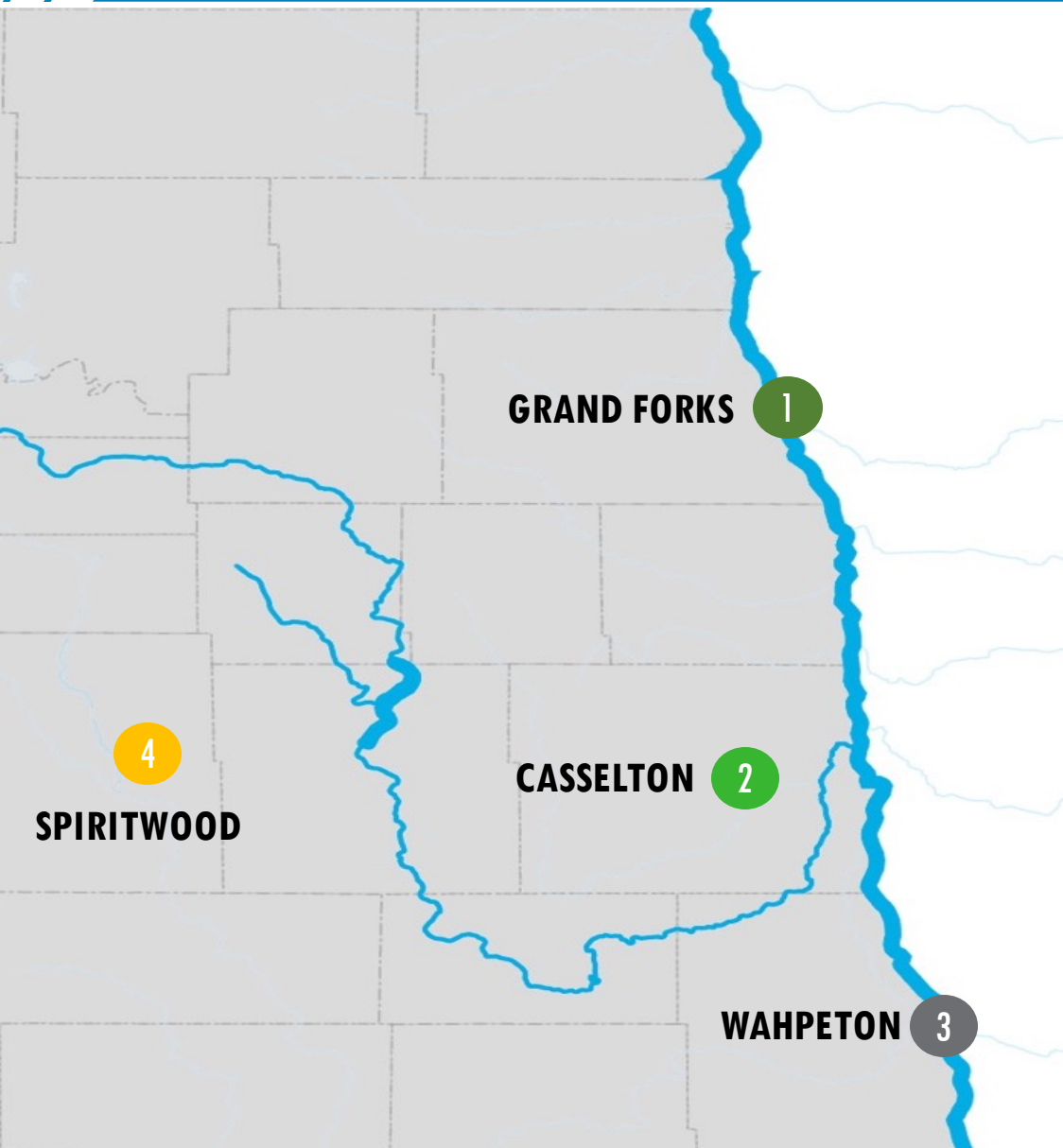
STATE COST-SHARE AND INFLATION MITIGATION

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
\$85M	∞ (*Never)	∞ (*Never)
\$100M	∞ (*Never)	42-Years (Dec 2063)
\$150M	32-Years (June 2053)	22-Years (Dec 2043)
\$200M	21-Years (June 2042)	16-Years (June 2037)
\$250M	16-Years (Dec 2037)	12-Years (Dec 2033)

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

INDUSTRIAL WATER DEMAND EXCEEDS CURRENT SUPPLY

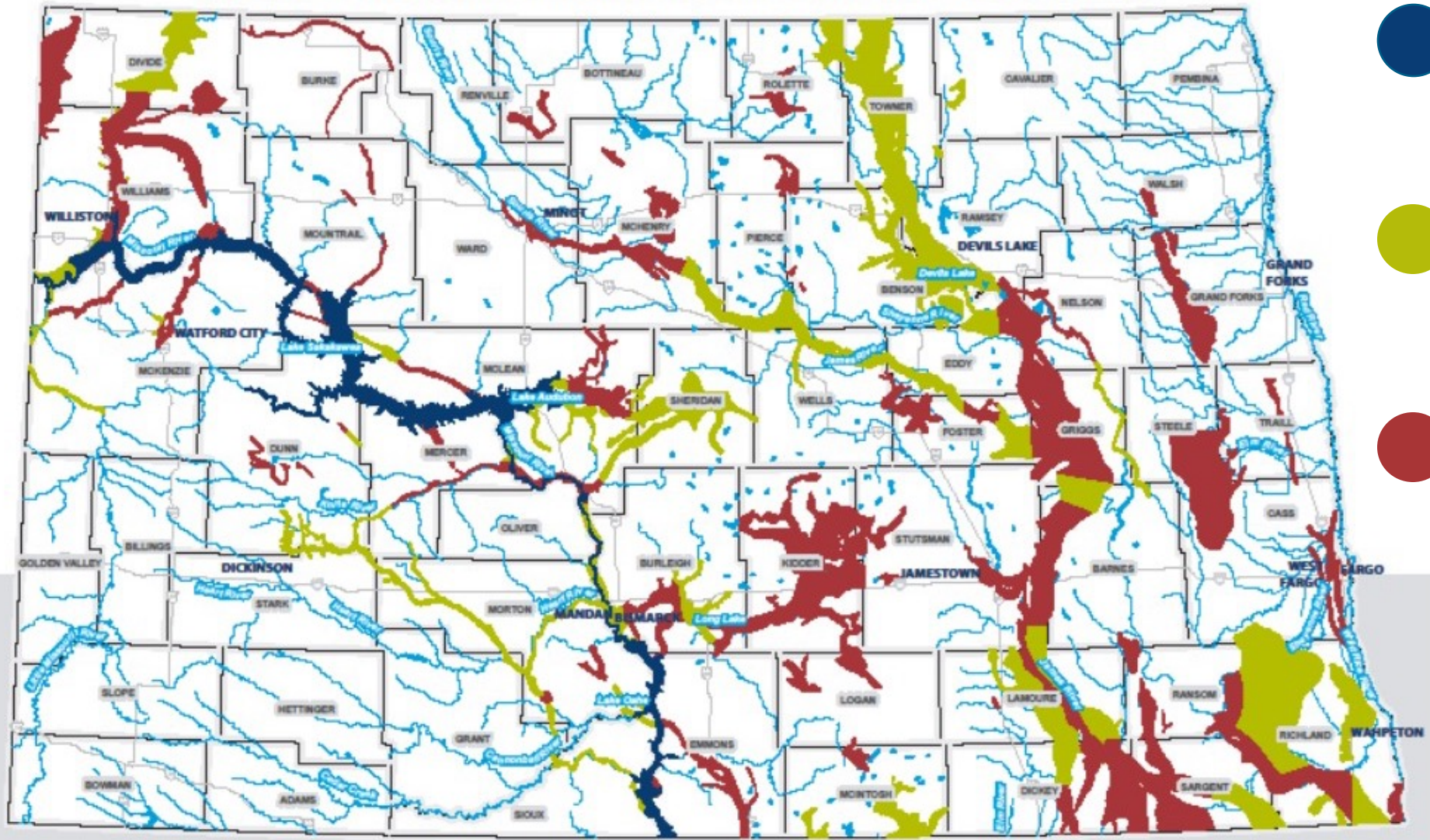


- 1 GRAND FORKS AGRIBUSINESS NEEDS**
Permitted Use of City's Wastewater Effluent Discharge
Significant Current and Proposed Industrial Use
- 2 CASSELTON INDUSTRY**
Fargo Looking to Expand Effluent Reuse Facility
CGB Soybean Plant will Approximately Double Reuse Demand
- 3 AGP SOYBEAN CRUSHING/CRACKING**
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

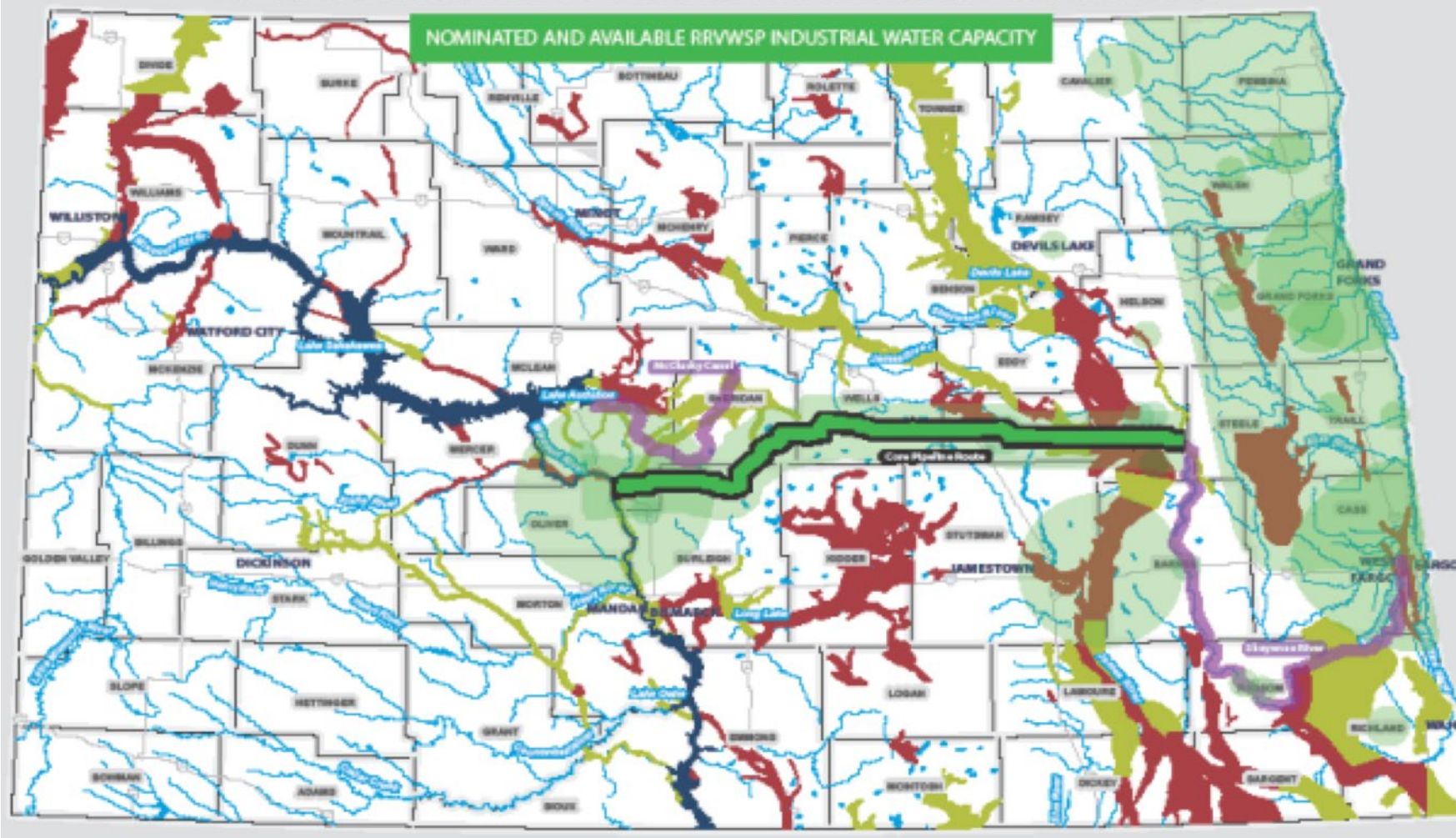
ND WATER AVAILABILITY POTENTIAL FOR ECONOMIC DEVELOPMENT



- 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

WESTERN SOUTH DAKOTA REGIONALIZATION PROJECT

- Up to 67.8 MGD / 105 CFS

COLORADO RIVER

- Reclamation has evaluated portfolios related to importing Missouri River Water into Colorado River Basin

ABERDEEN

- Completed Missouri River Feasibility Study
- Up to 32 MGD / 50 CFS

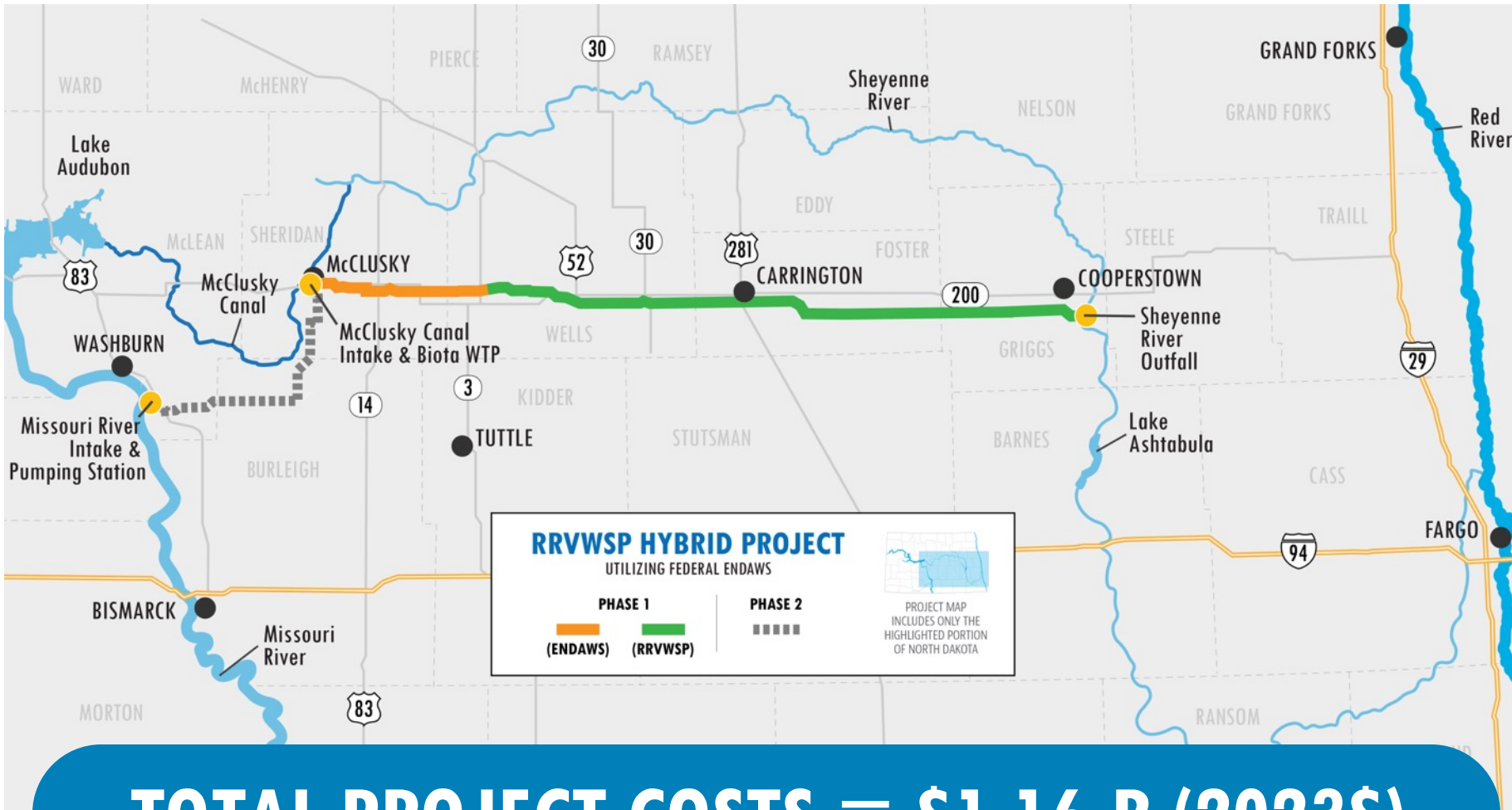
KANSAS OGOLLALA AQUIFER

- 1982 Study Revitalized
- Up to 3,546 MGD / 5,540 CFS



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)

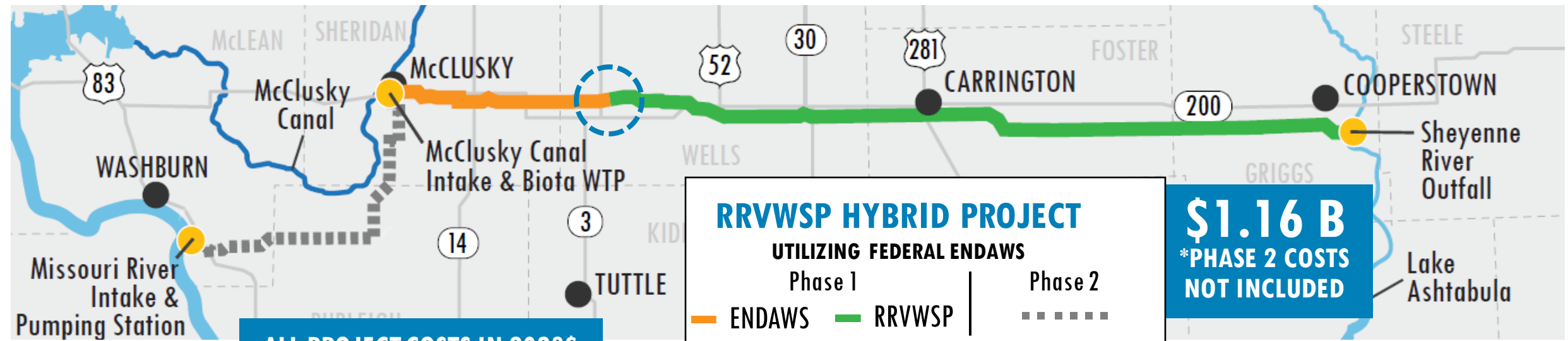
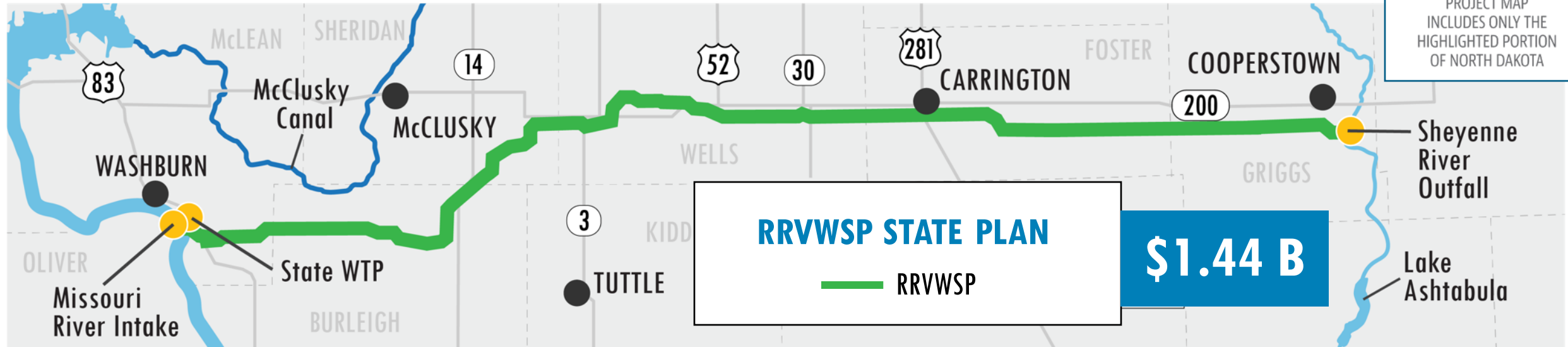
ENDAWS
ENVIRONMENTAL IMPACT
STATEMENT
(RELEASED 2020)

**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\$



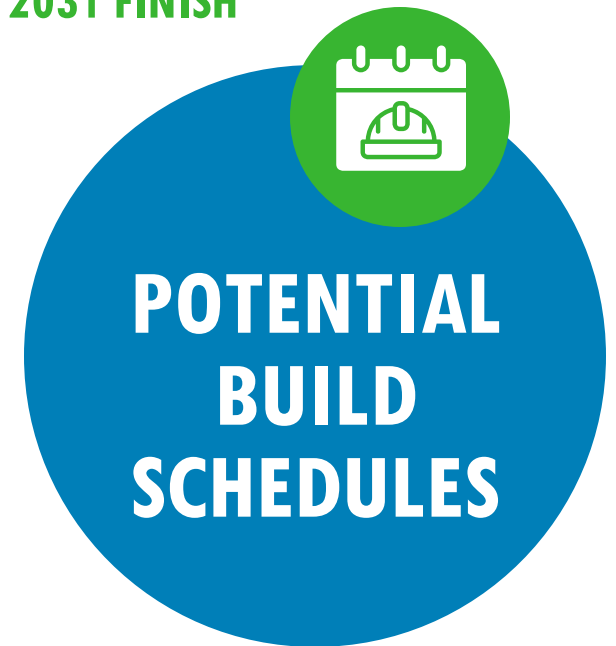
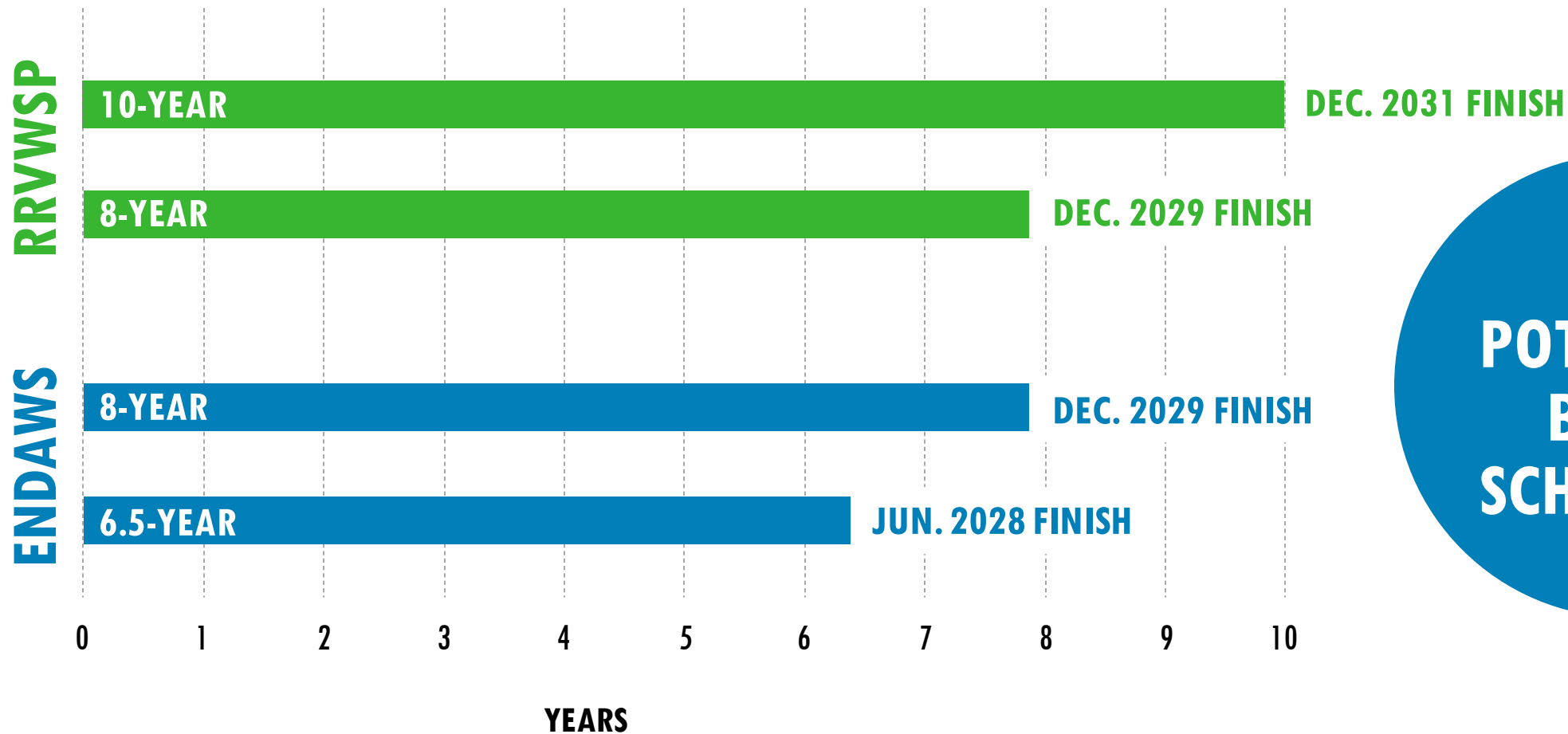
FINANCING AND BUILD SCENARIOS





FORECASTED SPEND SCHEDULES

PROJECT ACCELERATION AND ENDAWS





FORECASTED SPEND SCHEDULES

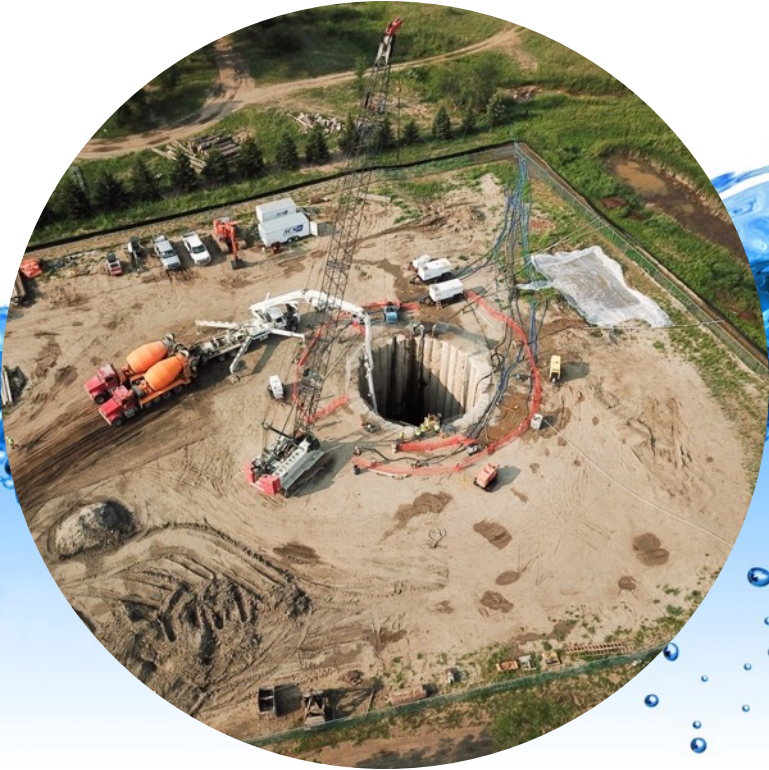
STATE COST-SHARE — INFLATION ADJUSTED

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	\$1,296 (-)	\$432 (-)	\$1,728 (-)
RRVWSP: 8-Year	\$85.9	\$254.3	\$392.5	\$420.4	\$109.7	-	\$1,263 (\$33)	\$421 (\$11)	\$1,684 (\$44)
ENDAWS: 8-Year	\$85.9	\$254.3	\$280.9	\$301.0	\$78.5	-	\$1,001 (\$295)	\$333 (\$99)	\$1,334 (\$394)
ENDAWS: 6.5-Year	\$85.9	\$254.3	\$421.4	\$221.8	-	-	\$983 (\$313)	\$328 (\$104)	\$1,311 (\$417)

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

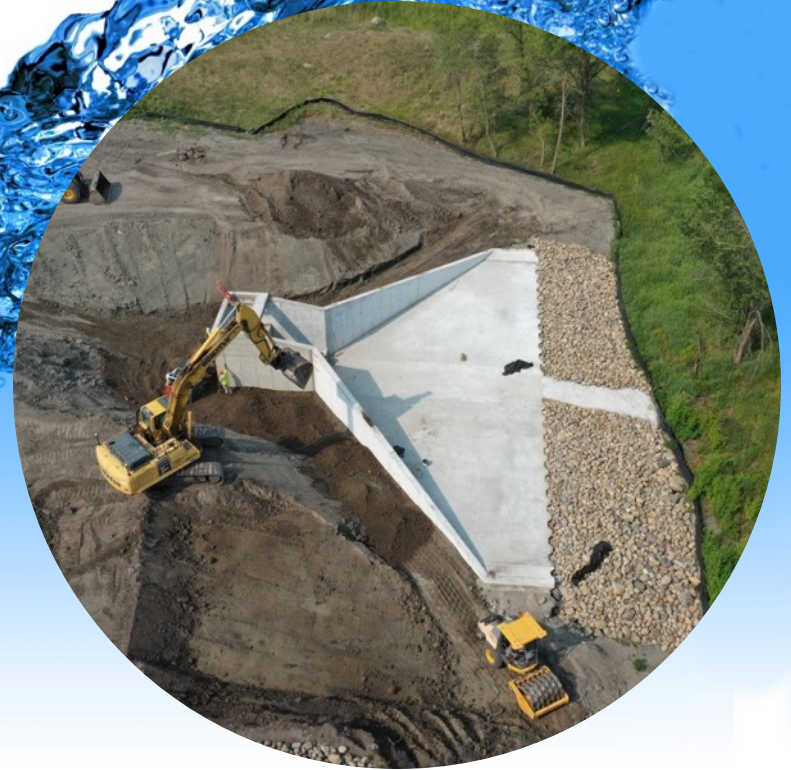
RRVWSP CONSTRUCTION IS UNDERWAY!



**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



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

Land agents attempt contact 3-5 times



QUESTIONS DIRECTED TO GARRISON DIVERSION DISTRICT ENGINEER

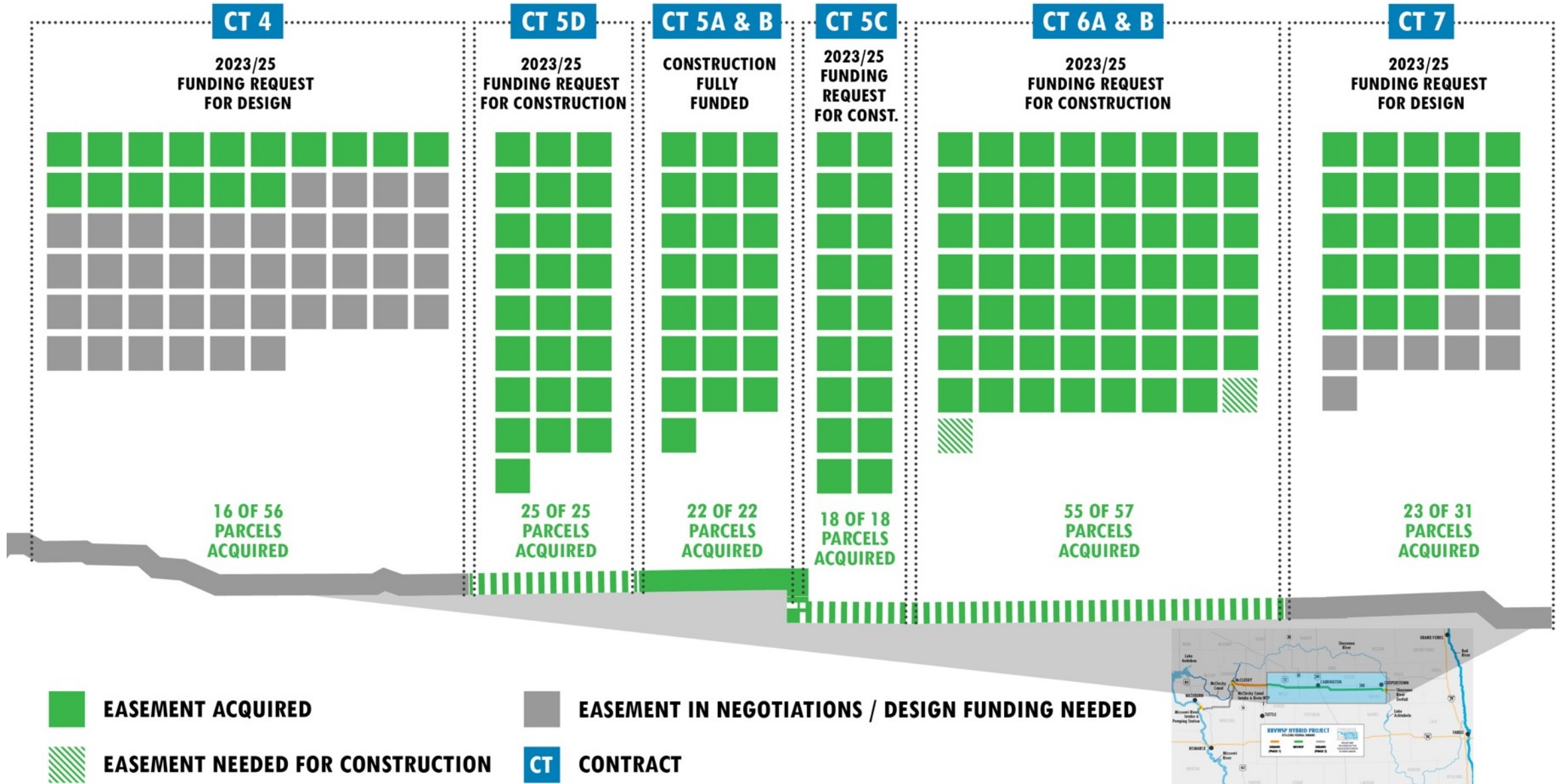
Each contact is recorded



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

Capitalization of Water Infrastructure Revolving Loan Fund

➤ 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!



**RED RIVER VALLEY
WATER SUPPLY PROJECT**

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