



# Red River Valley Water Supply Project Update

Presented To:  
Water Topics Overview Committee  
March 7, 2016



1

## Garrison Diversion Conservancy District

Created by ND legislature (Century Code Ch. 62-24)

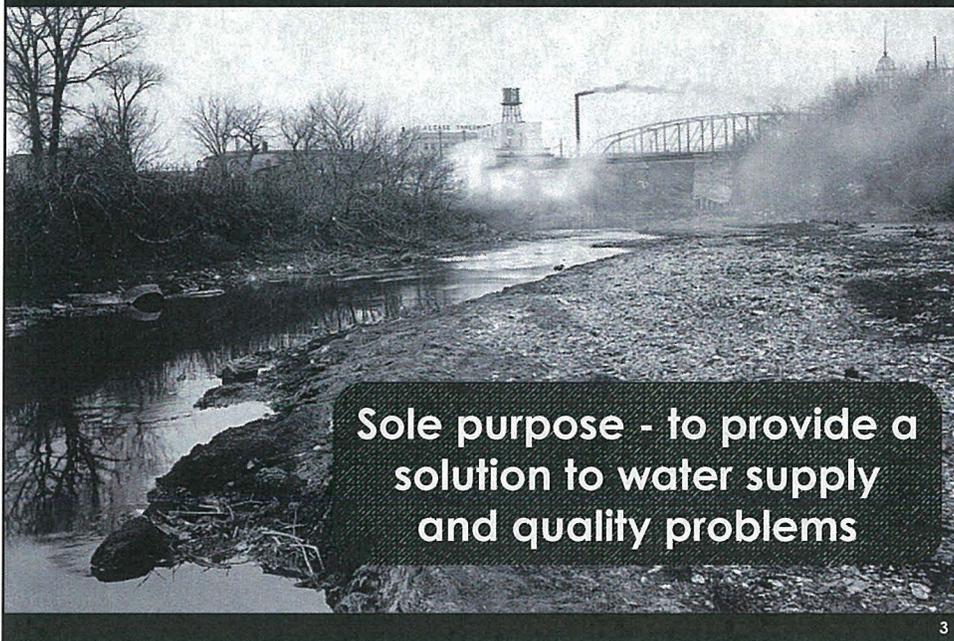


- Promote the establishment, construction, development, maintenance, and operation of the Garrison Diversion Unit, or any part thereof.
- **To make available...waters diverted from the Missouri River for irrigation, domestic, municipal, and industrial needs, and for hydroelectric power, recreation, fish, wildlife, and other beneficial and public uses.**

July 18, 1955 - First meeting of the board of directors held at Harvey, with Governor Norman Brunndale calling the meeting to order.

2

## Red River Valley Water Supply Project



Sole purpose - to provide a solution to water supply and quality problems

3

## Red River Valley Water Supply Project Lake Agassiz Water Authority

- Created by the 2003 North Dakota State Legislature
- Represent local users in RRVWSP
- Board of Directors
  - 10 members
    - 5 – city members
    - 5 – rural water system members
  - Chair – Mayor Tim Mahoney, Fargo
  - Vice-Chair – Ken Vein, Grand Forks



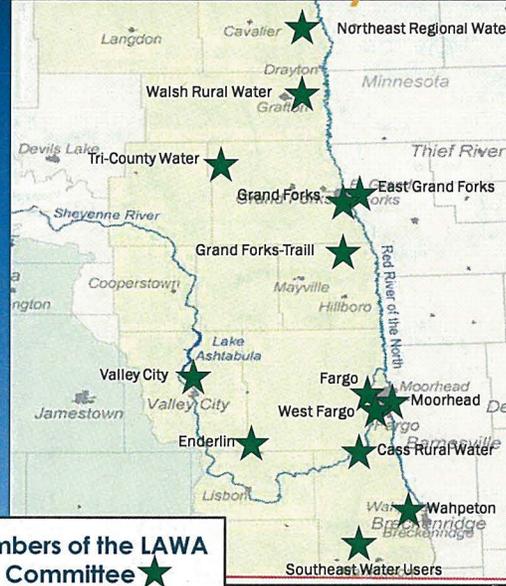
★ Members of the LAWA Board of Directors (Current)

4

## Red River Valley Water Supply Project Lake Agassiz Water Authority

- **Technical Advisory Committee (TAC)**

- Formed to review details of the study and alternatives
- Chair – Al Grasser, GF City Engineer
- Began meeting monthly in January
- 14 water systems and SWC represented

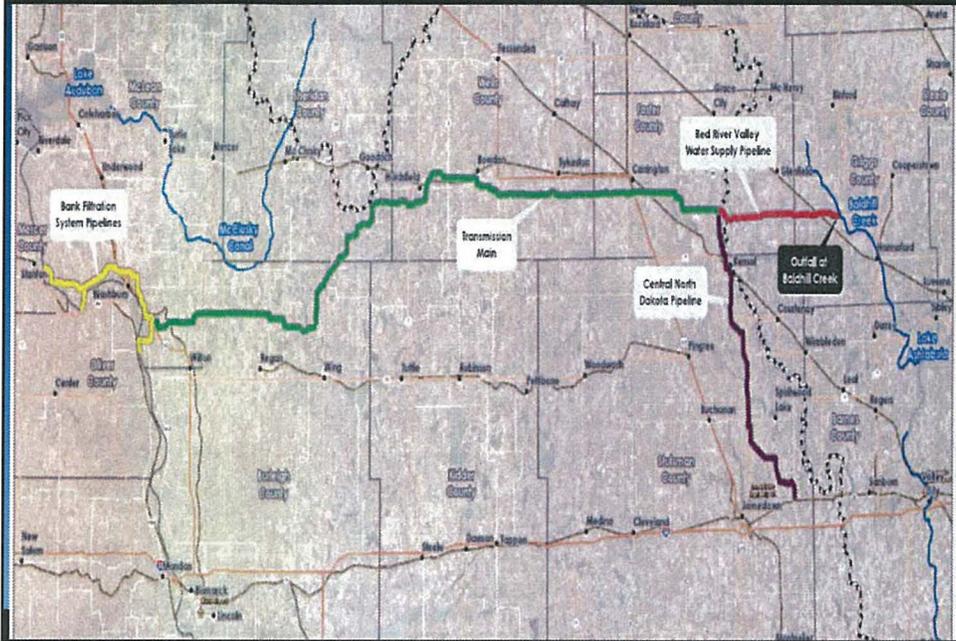


Members of the LAWA  
TAC Committee

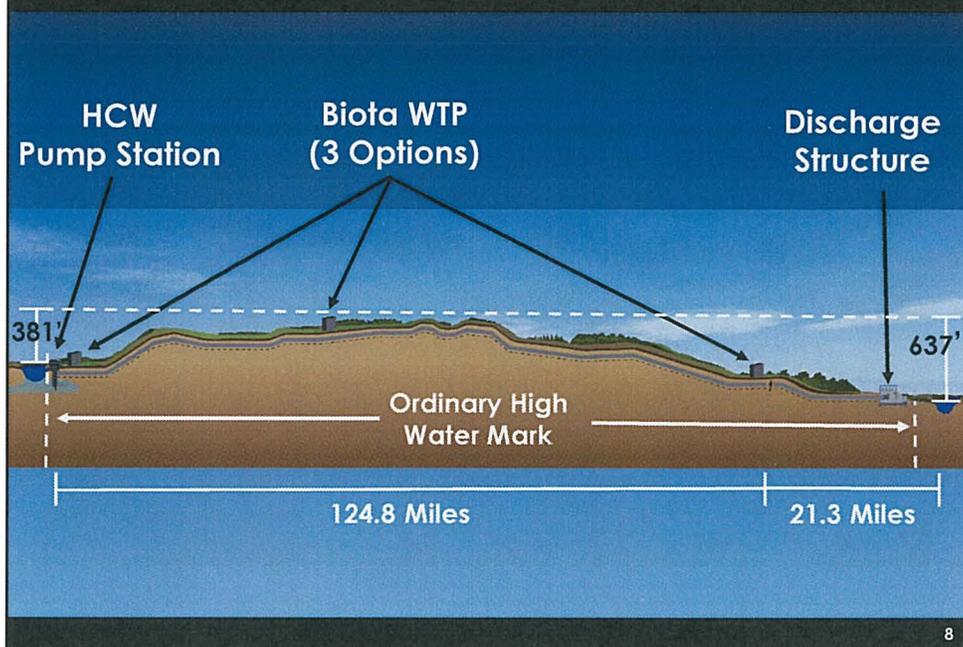
## Red River Valley Water Supply Project Project Collaboration

- Project development, engineering and specifications are reviewed and recommendations made within:
  - Lake Agassiz Water Authority Technical Advisory Committee (TAC)
  - Lake Agassiz Water Authority Board of Directors
  - Garrison Diversion Conservancy District Red River Valley Committee
  - Garrison Diversion Conservancy District Board of Directors
  - Water Topics Overview Committee
  - State Water Commission

# Pipeline Alignment

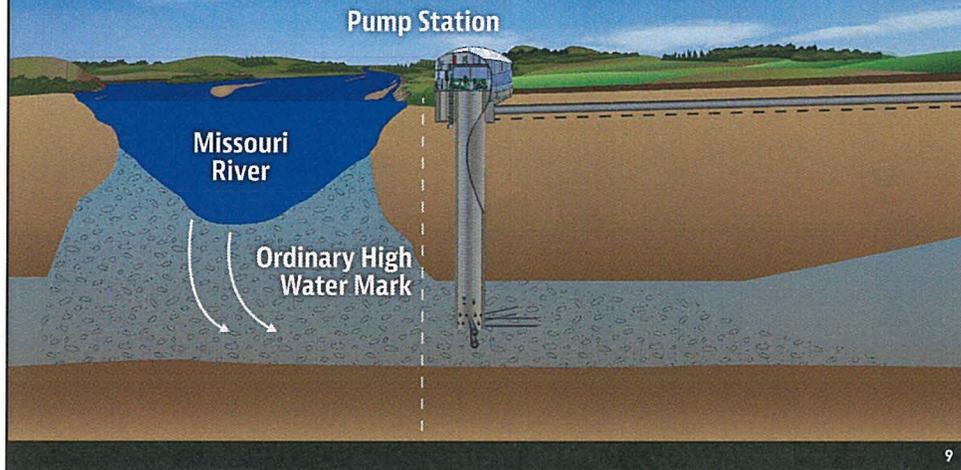


# System Overview



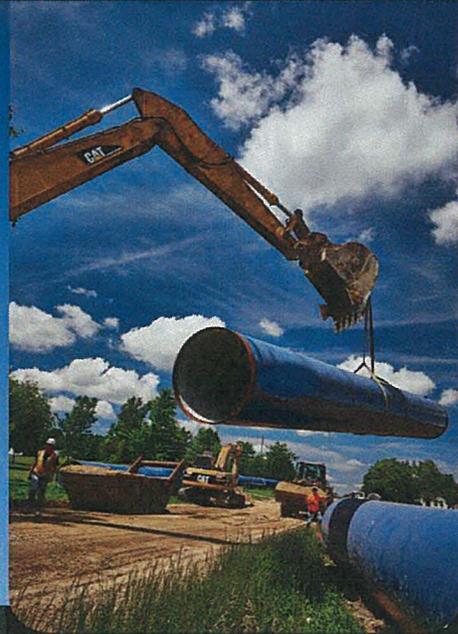
## Horizontal Collector Well

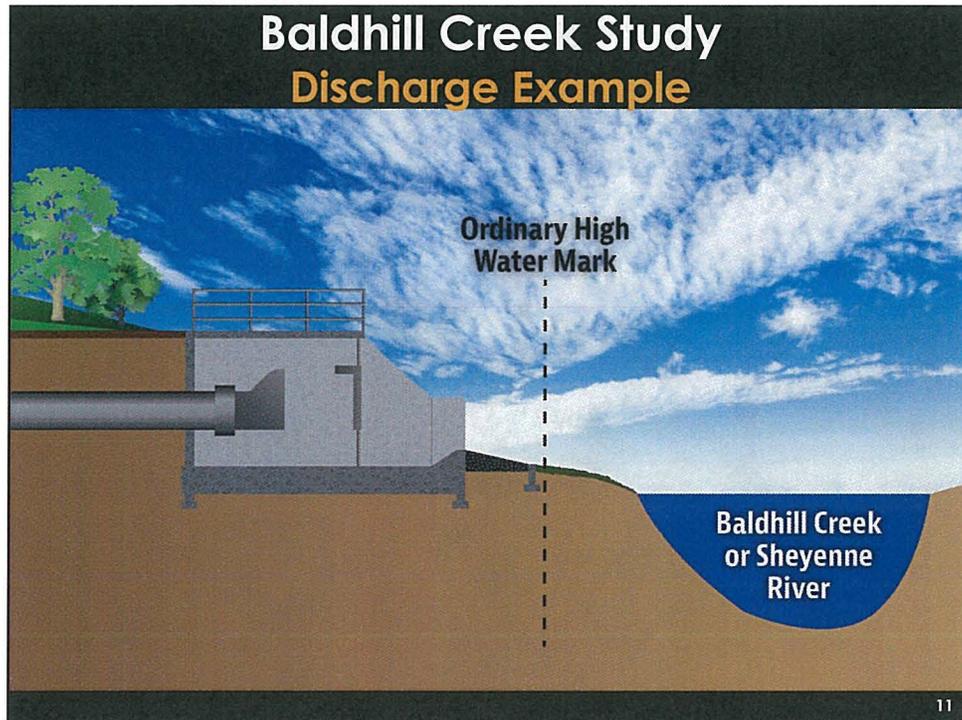
- 9-14 Collector Wells
- Supply 120 – 180 cfs



## Pipeline

- 66" – 84" buried pipeline
- 122 cfs to 180 cfs  
– Supplemental water supply





### Environmental Compliance

- Goal is to treat water to comply with Boundary Waters Treaty.
- We intend to fully comply with federal, state and local environmental laws and regulations.

12

## Project Costs

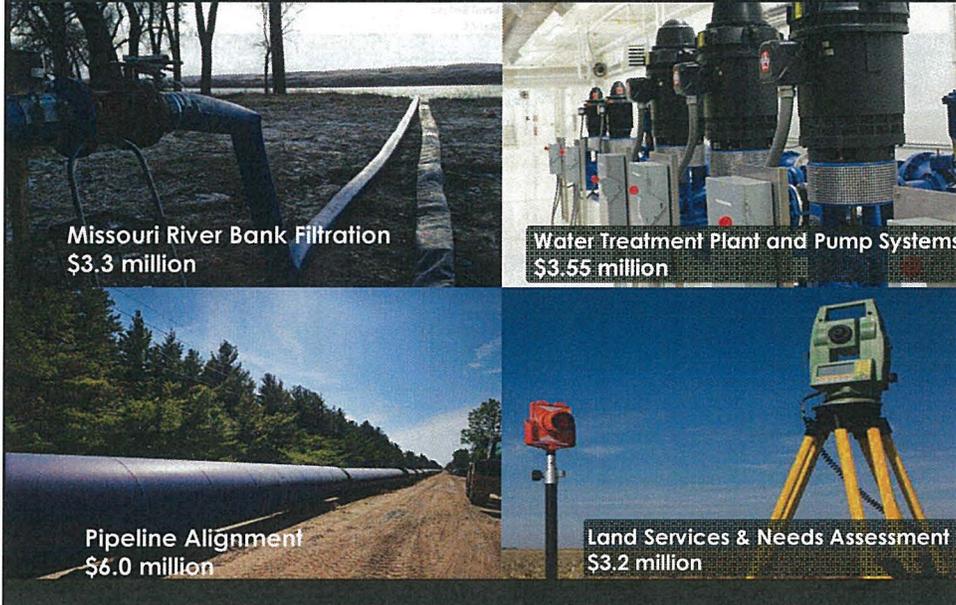
Red River Valley Water Supply Project Planning Level Budget 7-Mar-16						
July 2015 through June 2017						
	% Complete	Current Estimate	Actual			
			July-Feb. 2016	March-June 2016	July-Dec 2016	Jan.-June 2017
<b>Conceptual Engineering (July 2015 - June 2016)</b>						
Missouri River Intake Investigation	84%	\$ 1,306,790	\$ 1,100,000	\$ 206,790	\$ -	\$ -
Horizontal Collector Well	28%	\$ 400,000	\$ 110,126	\$ 289,874	\$ -	\$ -
Hydraulic and Pump System	50%	\$ 481,081	\$ 241,538	\$ 239,543	\$ -	\$ -
Pipeline Alignment	80%	\$ 960,000	\$ 763,512	\$ 196,488	\$ -	\$ -
Discharge System (Baldhill Creek)	50%	\$ 806,000	\$ 401,993	\$ 404,007	\$ -	\$ -
Land Services	8%	\$ 470,000	\$ 38,141	\$ 431,859	\$ -	\$ -
Needs Assessment	51%	\$ 150,000	\$ 76,558	\$ 73,442	\$ -	\$ -
Water Treatment Plant Analysis	37%	\$ 438,731	\$ 161,552	\$ 277,179	\$ -	\$ -
<b>Sub-Total</b>		\$ 5,012,602	\$ 2,893,420	\$ 2,119,182	\$ -	\$ -
<b>Preliminary Engineering (July 2016 - June 2017)</b>						
Horizontal Collector Well		\$ 1,600,000	\$ -	\$ -	\$ 800,000	\$ 800,000
Hydraulic and Pump System		\$ 1,200,000	\$ -	\$ -	\$ 600,000	\$ 600,000
Pipeline Alignment		\$ 3,600,000	\$ -	\$ -	\$ 1,600,000	\$ 2,000,000
Discharge System (Baldhill Creek)		\$ 700,000	\$ -	\$ -	\$ 350,000	\$ 350,000
Land Services (Survey)		\$ 900,000	\$ -	\$ -	\$ 450,000	\$ 450,000
Land Services (Easement Options)		\$ 600,000	\$ -	\$ -	\$ 300,000	\$ 300,000
Water Treatment Plant , does not include pilot		\$ 1,400,000	\$ -	\$ -	\$ 700,000	\$ 700,000
<b>Sub-Total</b>		\$ 10,000,000	\$ -	\$ -	\$ 4,800,000	\$ 5,200,000
<b>Administration, Legal and Financial</b>						
Administration (cost & schedule, communications, LAWA)		\$ 180,000	\$ -	\$ 60,000	\$ 60,000	\$ 60,000
Legal	3%	\$ 564,170	\$ 14,170	\$ 200,000	\$ 175,000	\$ 175,000
Financial		\$ 300,000	\$ -	\$ 125,000	\$ 100,000	\$ 75,000
<b>Sub-Total</b>		\$ 1,044,170	\$ 14,170	\$ 385,000	\$ 335,000	\$ 310,000
<b>Total</b>		\$ 16,056,772	\$ 2,907,590	\$ 2,504,182	\$ 5,135,000	\$ 5,510,000
90% State Cost Share		\$ 14,451,095	\$ 2,616,831	\$ 2,253,764	\$ 4,621,500	\$ 4,959,000
10% LAWA Cost Share		\$ 1,605,677	\$ 290,759	\$ 250,418	\$ 513,500	\$ 551,000

\* 2015-/2017 state appropriation \$12,359,000

## Red River Valley Water Supply Project Suggested Schedule

- **Spring 2016 Goal**
  - Conceptual Design
- **Winter 2016 Goal**
  - Preliminary Design
- **2017**
  - Implement Final Design
- **2018-2024 Goals**
  - Phased Bidding
  - Phased Construction

## Red River Valley Water Supply Project 2015-2017 Work Plan



## Municipal, Rural & Industrial Approved Projects

Project	Grant year	Grant Amount	Remaining Grant
South Central Ph. IV	FY2012	\$ 7,700,000	\$ 36,220
McLean Sheridan	FY2014	\$ 735,000	\$ 213,779
South Central (ELMK Phase 4)	FY2014	\$ 937,500	\$ 937,500
South Central (ELMK Phase 5)	FY2014	\$ 4,987,500	\$ 4,987,500
South Central (ELMK Ph 5 Expansion)	FY2015	\$ 575,000	\$ 575,000
South Central (ELMK Ph 5 Expansion)	FY2015	\$ 3,812,500	\$ 3,812,500
SWPP (raw water intake)	FY2015	\$ 2,000,000	\$ 2,000,000
Gladstone Water Main & Storage Tank	FY2016	\$ 735,000	\$ 735,000
Makoti Water Storage Expansion	FY2016	\$ 1,050,000	\$ 1,050,000
Glenburn Distribution	FY2016	\$ 712,500	\$ 712,500
Glenburn Water Storage	FY2016	\$ 525,000	\$ 525,000
Mohall Water Tower	FY2016	\$ 670,000	\$ 670,000
Sherwood System Looping	FY2016	\$ 456,000	\$ 456,000
Total		\$ 24,896,000	\$ 16,711,000

## Municipal, Rural & Industrial 2016 Projects – Pending GDCD/SWC Approval

Project	Grant Amount
Burlington Water Tower	\$ 1,156,000
Cass Rural Water Leonard Service Area	\$ 2,370,000
Carrington Water Tower	\$ 1,900,000
Casselton Water Tower	\$ 1,248,000
New England Water Tower	\$ 1,592,500
Rugby Water Treatment Plant Improvements	\$ 458,000
Wahpeton Water Treatment Plant Improvements	\$ 960,000
Westhope Water System Improvements	\$ 255,000
Southwest Pipeline Project	\$ 1,000,000
Total	\$ 10,939,500

17

# THANK YOU!



18