



# Lake Agassiz Water Authority

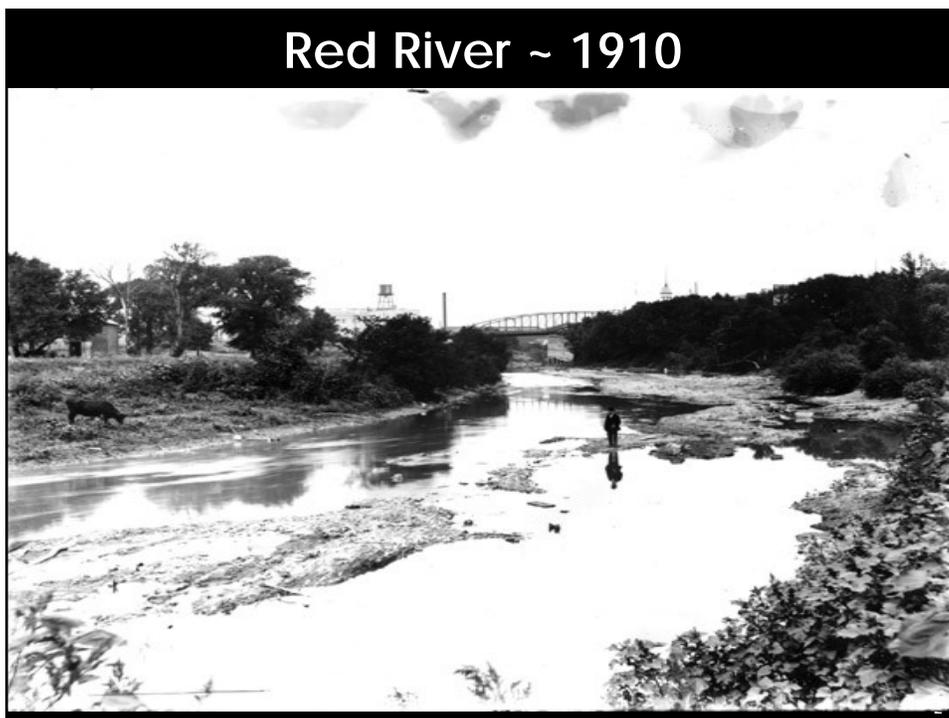
## History of Lake Agassiz Water Authority

February 4, 2014

Bruce Furness, Chairman



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## Red River ~ 1936



## Red River ~ 1970



Red River ~ 1988



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Red River ~ 2003



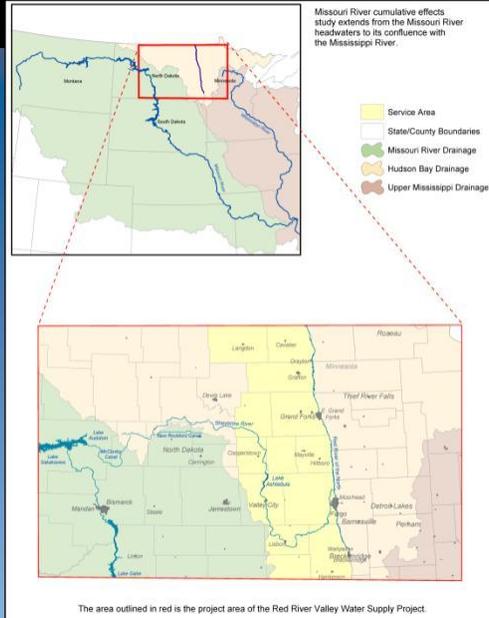
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# The Region

13 Eastern North Dakota Counties

3 Minnesota Cities:

- East Grand Forks
- Moorhead
- Breckenridge



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# Facts about the Region

Drought frequency and climatic study research concludes that a drought such as the one that occurred in the 1930s is likely to happen again before 2050.



Photo Courtesy of the Institute for Regional Studies

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# Facts about the Region

## Population

- **43.3%** of North Dakota's population resides in the Red River Valley
- Current Red River Valley population – **368,215**
- Predicted 2050 population – **479,252**



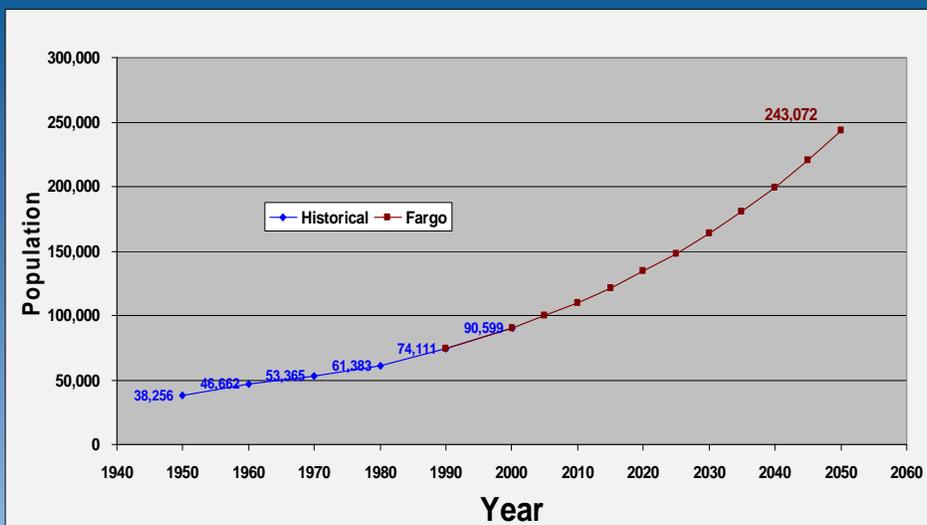
## Tax Revenue

- **40%** of ND sales & use tax collections are derived from the 13 Red River Valley counties

(Source: 2010 North Dakota Sales and Use Tax Statistical Report)

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# Population Projection Summary City of Fargo



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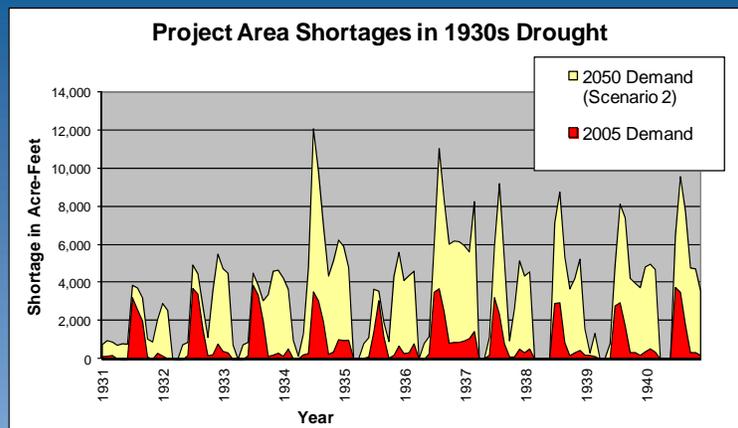
## Project Need

- Existing water supplies will be inadequate during drought
- In 1934, five months of zero flow in Red River at Fargo
- Projected 41% maximum annual water shortage during 1930s-type drought
- Expected economic impact ~ \$20.4 billion over 10 years



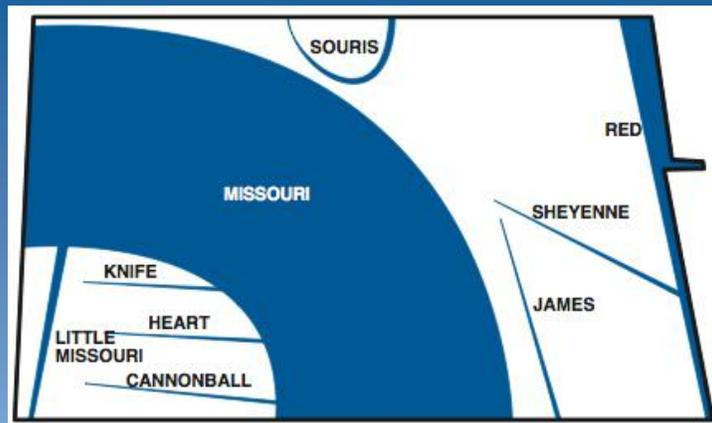
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## The Problem

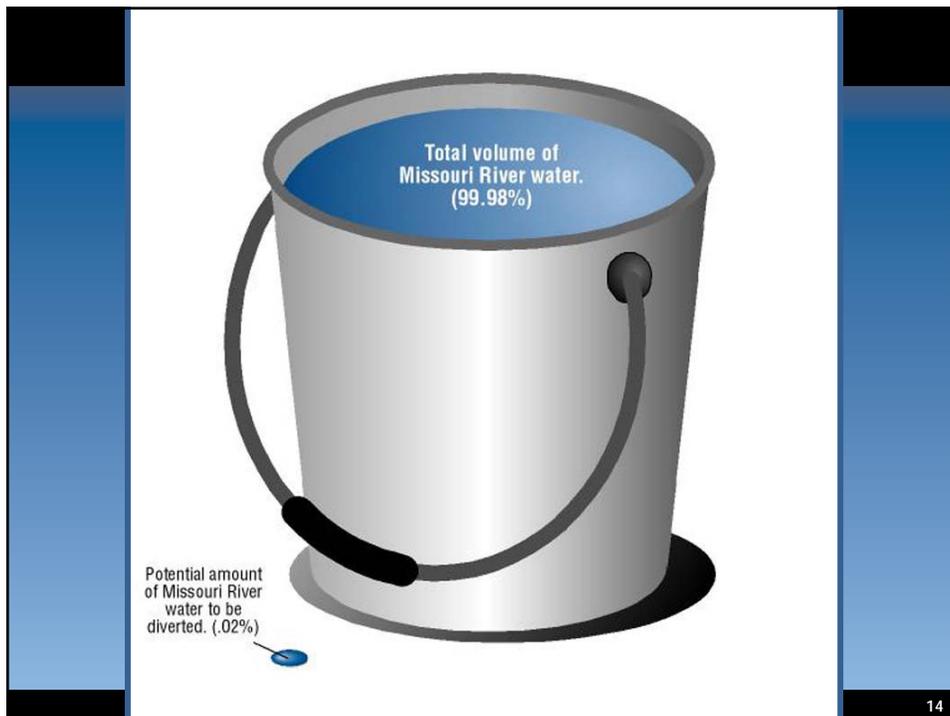


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## Relative Discharges of the Principal Rivers in ND



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# Garrison Diversion Unit History

## 1945 - Pick/Sloan Missouri Basin Program

- Dams and Hydropower structures constructed on Missouri River from Montana to Missouri
- Garrison Diversion Conservancy District established in North Dakota
- Land area the size of Rhode Island flooded in North Dakota
- 1.275 million acres pledged for irrigation in state

## 1965 - Garrison Diversion Unit was reauthorized by Congress

- Water systems and hydropower funded
- Municipal, Rural, and Industrial [MR&I] grant program developed in state
- Tribal water development funded
- Irrigation pledge reduced to 1 million acres in state

## 1986 - Garrison Diversion Unit Reformulation Act

- MR&I authorized to \$200 million
- Environmental concerns addressed
- 100 cfs of water authorized for Eastern North Dakota
- Irrigation pledge reduced to 130,000 acres in state

## 2000 - Dakota Water Resources Act

- MR&I additional authorization of \$200 million
- Tribal water funded to \$200 million
- \$200 million authorized for Eastern North Dakota water supply
- Irrigation pledge reduced to 75,000 acres in state

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# Red River Valley Water Supply Project

Authorized by the  
Dakota Water  
Resources Act



- 
- \*MR&I
  - \*Water Quality
  - \*Recreation
  - \*Aquatic Environment
  - \*Water Conservation Measures
- 

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# Steps to Securing Water for RRV

The **Dakota Water Resources Act** requires that before federal funds could be obligated for the Eastern North Dakota Water Supply project, a **Needs and Options Report** and an **Environmental Impact Statement** analysis must be completed on the options.

## Lead Agencies for the Environmental Impact Statement

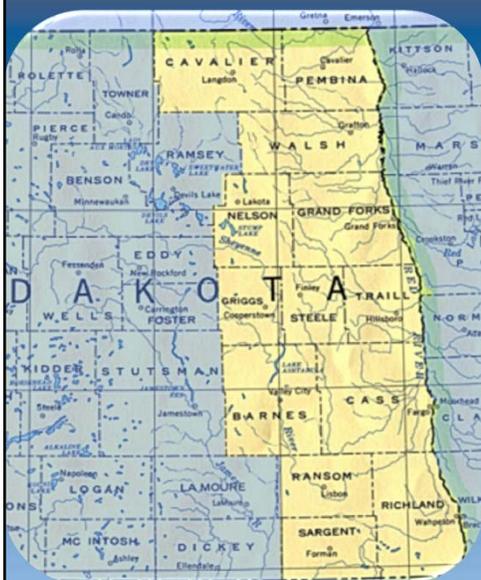
- Bureau of Reclamation
- State of North Dakota [represented by Garrison Diversion Conservancy District]

## Cooperating Agencies

- Fargo, North Dakota
- Grand Forks, North Dakota
- Lake Agassiz Water Authority
- Moorhead, Minnesota
- Minnesota Department of Natural Resources
- North Dakota State Historic Preservation Office
- Three Affiliated Tribes
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Geological Survey
- West Fargo, North Dakota

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# Lake Agassiz Water Authority



- Created by State Legislation in 2003
- 13 Eastern North Dakota Counties
- Minnesota Cities
  - Breckenridge
  - East Grand Forks
  - Moorhead

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# Lake Agassiz Water Authority

- **Nine elected ND members**
  - Fargo
  - Grand Forks
  - Valley City
  - Hunter
  - Cass Rural Water Users District
  - Agassiz Water Users District
  - Langdon Rural Water District
  - North Valley Water District
  - Southeast Water Users District
- **One MN member**
  - Moorhead Public Service

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# Lake Agassiz Water Authority

## Board of Directors

- Created by state legislature
- 10 members
  - 5 – city members
  - 5 – rural water system members



★ Members of the LAWA Board of Directors (Current)

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## Lake Agassiz Water Authority

- **Purpose of LAWA**

- Created by the 2003 North Dakota State Legislature
- Represents “affected local communities” in selecting project features to meet the comprehensive water quality and quantity needs of the Red River Valley.

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## Lake Agassiz Water Authority

- **LAWA Operations**

- Deliver water to consumers
- Purchase bulk water from Garrison Diversion delivered via the Red River Valley Water Supply Project

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## Lake Agassiz Water Authority

- **LAWA Powers**

- Enter into contracts
- Accept funds
- Issue bonds
- Operate and manage authority to distribute water

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## 3-Pronged Solution

Supplemental  
Water Supply  
Project

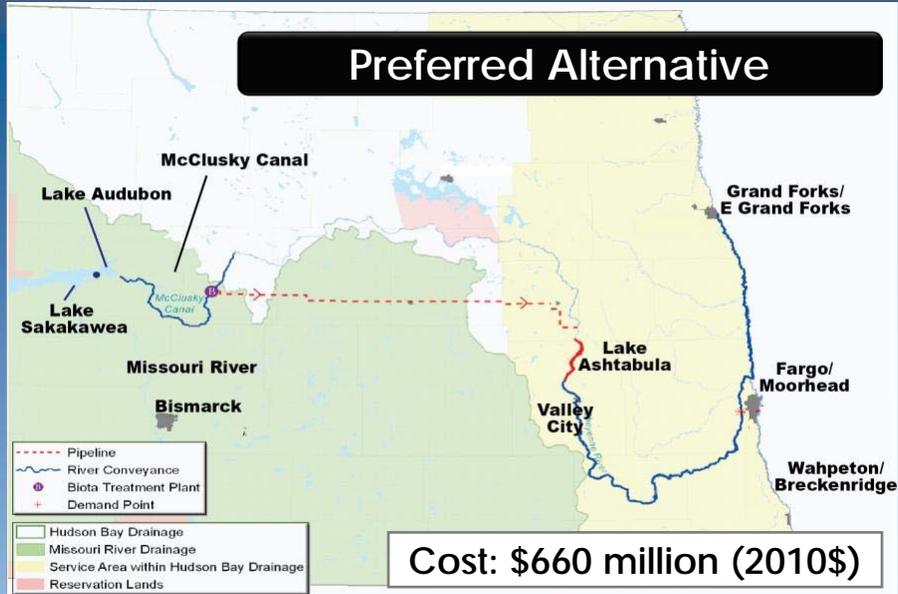
Water  
Conservation  
Measures

Drought  
Contingency  
Plans

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# GDU Import to Sheyenne River

## Preferred Alternative



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## Funding the Solution



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## Funding the Solution



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## Next Steps

**2014 –**

**Record of Decision** (no longer anticipated)

At least six years of construction is necessary before the delivery of water is feasible.



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# Questions?



**Lake Agassiz  
Water Authority**

*Planning today for tomorrow's water*