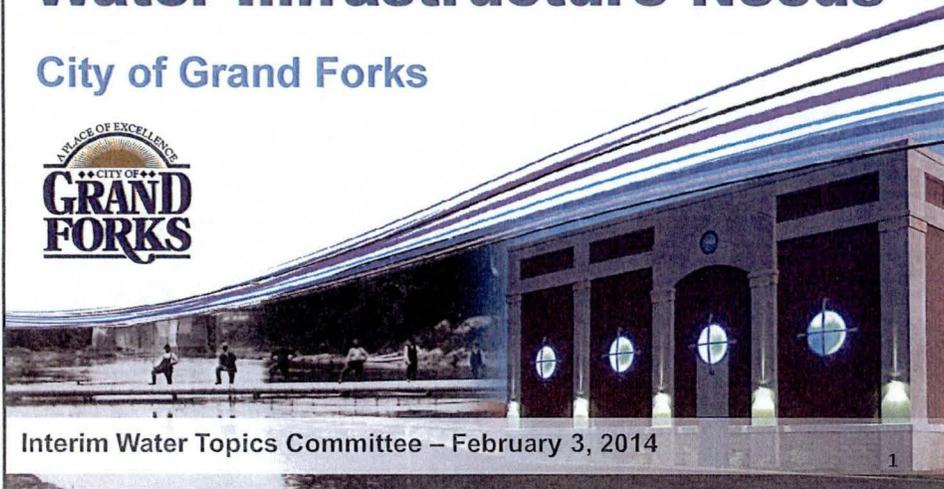


# Importance of State Investment in Strategic Water Infrastructure Needs

City of Grand Forks



Interim Water Topics Committee – February 3, 2014

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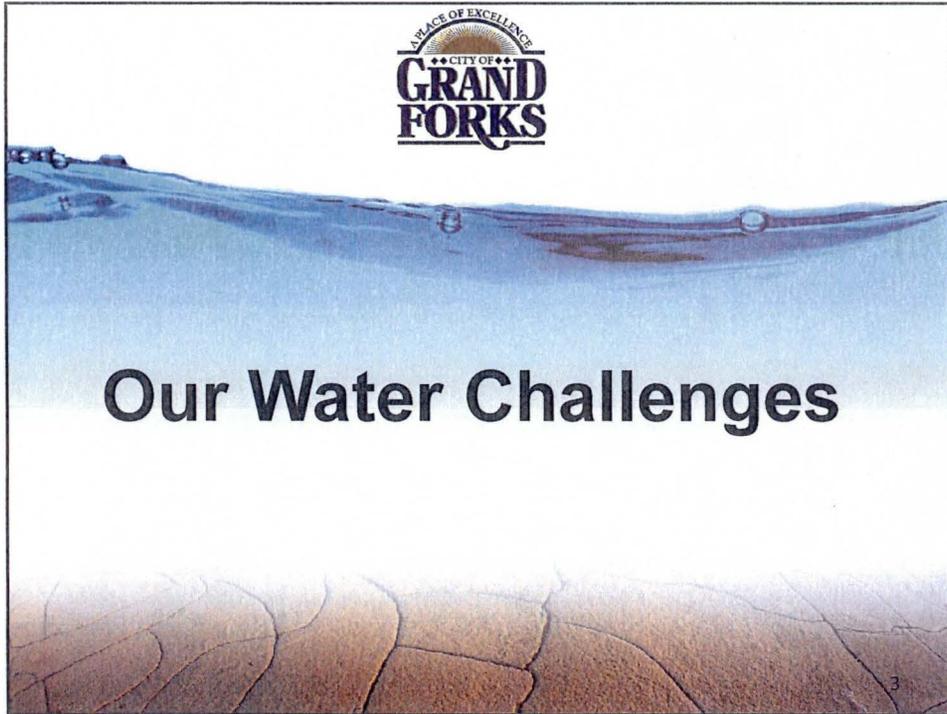
## Overview

- Grand Forks Historical Water Challenges
- Importance of Adequate and Quality Water Supply for Grand Forks
- Addressing our Water Challenges
  - RRVWSP
  - New Regional WTP
- Need for Local-Regional-State Collaboration
  - State Investment is Needed

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# Our Water Challenges



## North Dakota's Water Paradox

FIRST PERSON

A COLUMN FOR LEGISLATORS AND CONSTITUTIONAL OFFICERS



### North Dakota's water paradox

Too little supply in a dry state, along with history of severe flooding, has created constant need for infrastructure programs

By Mark A. Johnson, a Fargo, N.D., attorney and legislator

With Dakota's history of the Great Depression, the Dust Bowl, and the 1930s drought, it is not surprising that the state has a long history of water challenges. The water side of the state tends to be consistently stable, but the water side of the state has been hit hard by the drought. The water side of the state has been hit hard by the drought. The water side of the state has been hit hard by the drought.



In 2013, Fargo struck Dakota's largest single precipitation event, with 18.5 inches of rain in 24 hours. The flooding was severe, with many homes and businesses damaged.

300 million gallons of water were used in Fargo during the flood. The water was used for everything from drinking to irrigation.

The water side of the state has been hit hard by the drought. The water side of the state has been hit hard by the drought. The water side of the state has been hit hard by the drought.

Passed earlier this year, SB 2233 provides a revolving water-infrastructure loan

# Too Wet and Too Dry all at the same time!

## North Dakota's Water Paradox

### Too Wet

- We are thankful for significant past Local, State, and Federal Investment in our Flood Protection
- We fully support similar investment throughout the State including flood protection for Fargo and Grafton

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## Grand Forks Flood Protection Investment

**Local: \$83M**

**State: \$52M**

**Federal: \$135M**

Total Grand Forks Project: \$270M

Overall Project Cost: \$410M

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## North Dakota's Water Paradox

### Too Dry

- Significant droughts in the Red River Valley (RRV) have and will continue to occur
- A drought of 1930's magnitude would bring significant impacts to our residents and economy
- Expected economic impact to RRV of a 1930's-type drought has been estimated at **\$20B+** over 10 years
- It is time to take the next step to ensure a reliable and affordable water supply for our residents and current/future businesses and industries

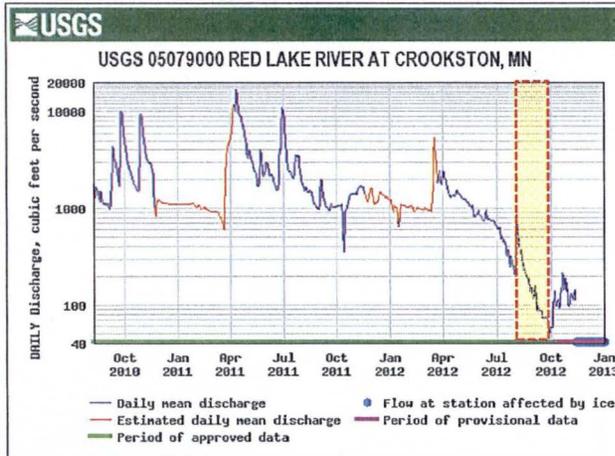
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## Increasing Sourcewater Challenges

- The quality of one of our primary source waters, the Red River, is changing with the discharges from Devils Lake
- Red River water quality has driven significant operational changes
- Utilizing primarily Red Lake River water is not fail safe

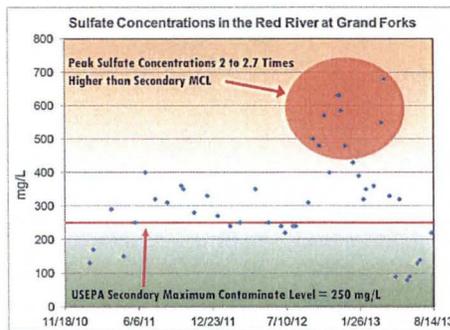


# Rapid Drought Conditions

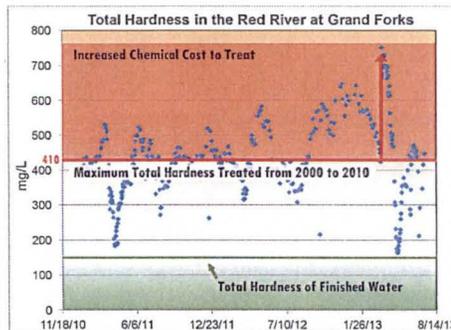


- > Very rapid drought conditions were realized in the fall of 2012
- > Red Lake River flows decreased 99% to 8 cfs in only 2 months
- > City nearly required to utilize 100% Red River Supply

# Devils Lake Impacts

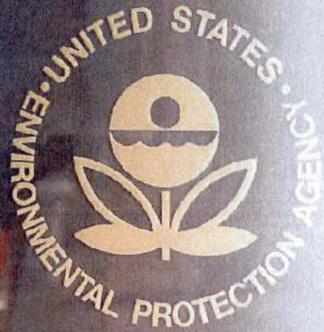


- > Experiencing increased sulfate levels
- > The City currently does not have the treatment technology to reduce to acceptable levels



- > Experiencing increased hardness levels
- > Each incremental increase requires increased chemical cost to treat

## Increasing Regulatory Challenges



- The U.S. EPA is promulgating regulations for new, previously unregulated contaminants as well as stricter regulations on previously known
- These regulations will drive the need for treatment changes

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## Importance of Adequate High Quality Water Supply



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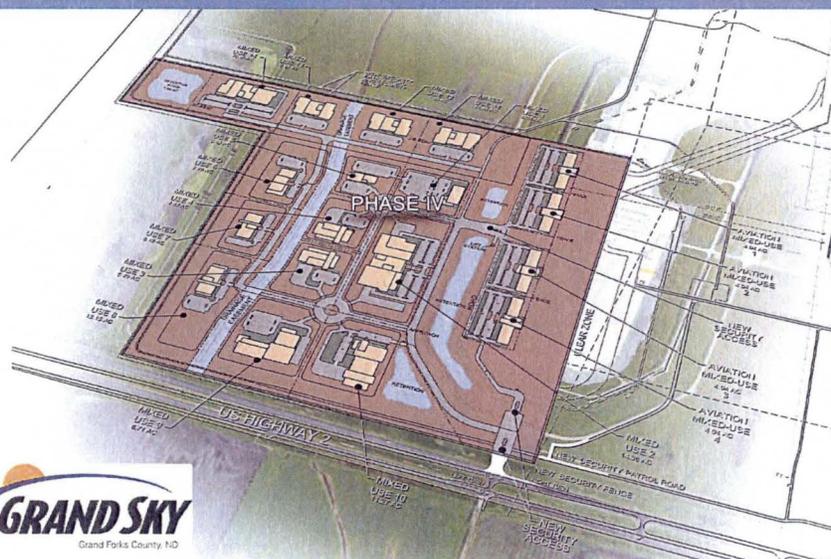


## Grand Forks Water Supply Breakdown

- **Reliable water supply is critical for our major wet industries.**
- **Who are the major players?**
  - J.R. Simplot Company
  - Northern Plains Nitrogen\*
  - North Dakota Mill and Elevator
  - Philadelphia Macaroni
  - University of North Dakota
  - Grand Forks Air Force Base and Grand Sky Enhanced Use Lease
- **Two of these entities (NPN and J.R. Simplot) comprise 66% of the City's planned water use on a daily basis.**

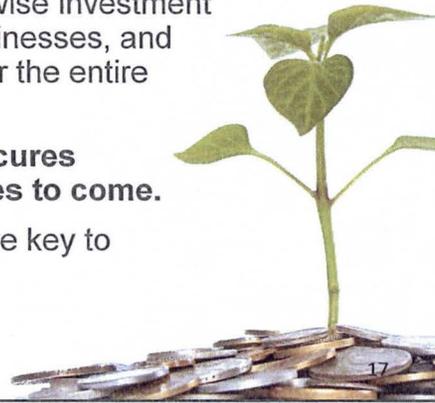
\* Northern Plains Nitrogen has secured land and begun permitting/planning a new \$1.7B Fertilizer facility in the northwest part of the City. 15

## Grand Sky EUL



## Reliability and Economic Growth

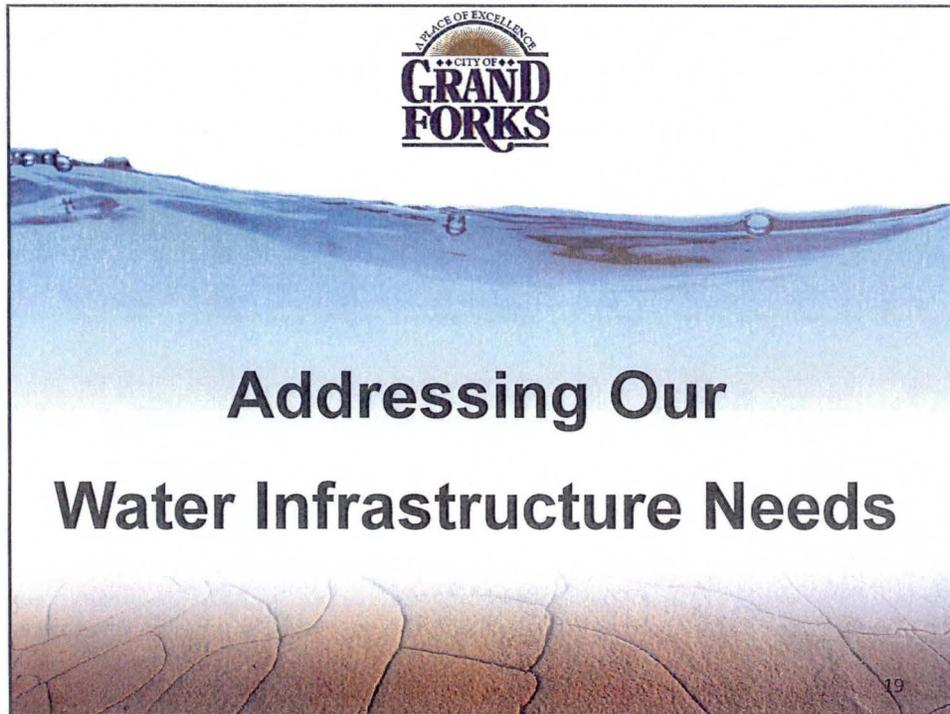
- In the absence of infrastructure investment in reliable water supply, **Grand Forks businesses and industries are at risk.**
- Addressing this problem is a wise investment not only for the residents, businesses, and industries in our region, but for the entire State.
- **Redundant water supply secures economic vitality for decades to come.**
- Both **Quantity and Quality** are key to reliability.



## Valley Prosperity Partnership

- **Formed from an initial investment by Forum Communications Company Chairman William C. Marcil.**
- **Joint strategic planning effort led by a steering committee made up of community and business leaders investing personal time and money.**
- **One result will be a strategic vision of RRV water supply and management investment implemented over the next five years.**

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## Addressing Our Water Infrastructure Needs

### Past Infrastructure Investments

What has the City done to secure our future?

- Grand Forks invested \$62M (2012\$) in water infrastructure from 2001-2012.
- These upgrades were undertaken with an eye to the future:
  - New Raw Water Intake
  - Cross-Town Transmission Mains
  - Finished Water Storage and Pumping
  - Water Distribution, Extension, and Storage

## Future Water Infrastructure Investment

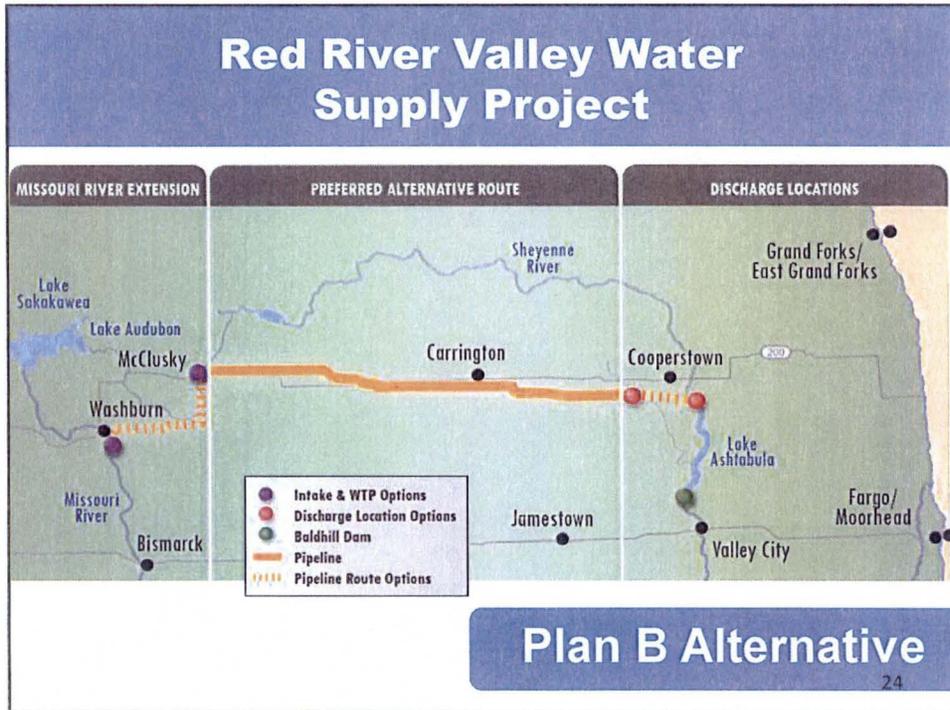
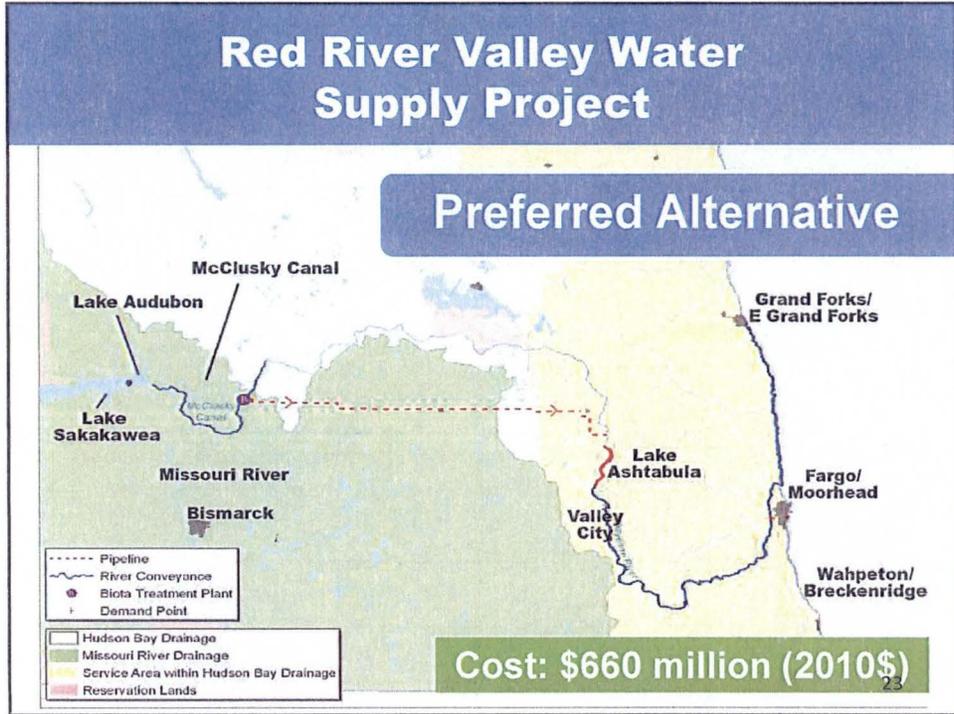
### Two Key Projects Addressing Quantity and Quality:

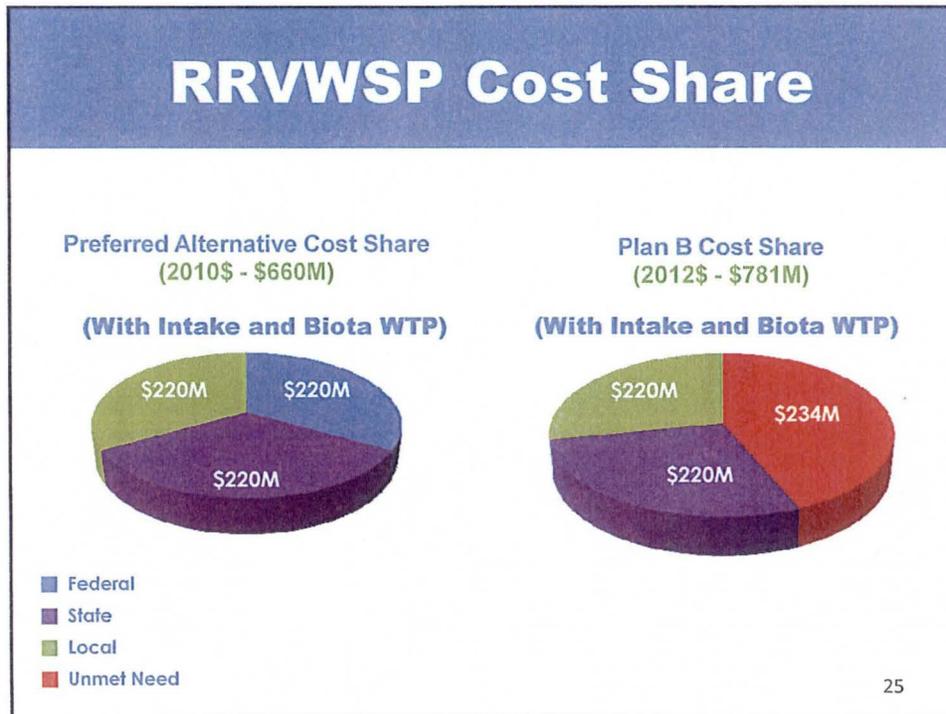
- **Red River Valley Water Supply Project**
  - Ensuring Adequate Supply for the Region
- **New Regional Water Treatment Plant**
  - Upgrading and Expanding Treatment and Supply Capabilities to Address Numerous Issues



## Near-term Drought Management

- The City currently employs a **Phased Drought Management Plan**
- Various indicators are used to determine the **stage of drought severity**
- The Plan contains triggers to alert users to **lower the water demands** they are placing on our supplies
- In addition to drought management policies, the City is also planning for significant **reuse** to supply planned industry and minimize future demands on our water supplies





## New Regional Water Treatment Plant

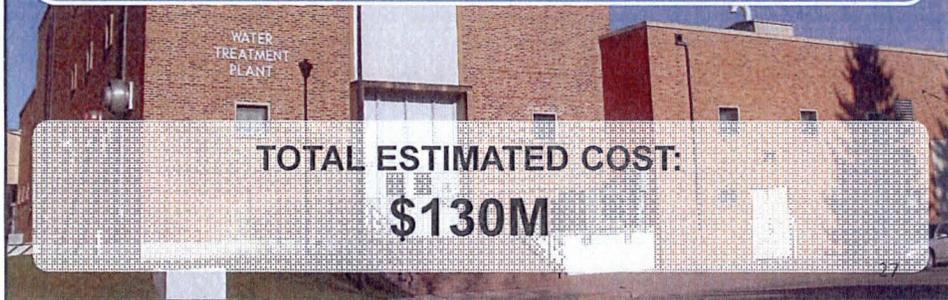
**QUANTITY AND QUALITY DRIVEN:**

- Devils Lake Impacts
- Regulatory Compliance
- Regional Domestic and Industrial Needs
- Aging Infrastructure

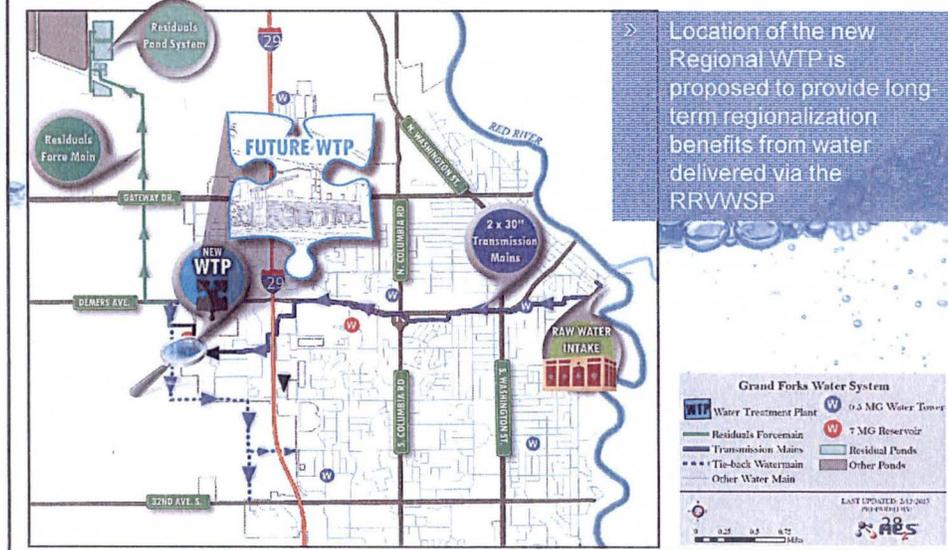
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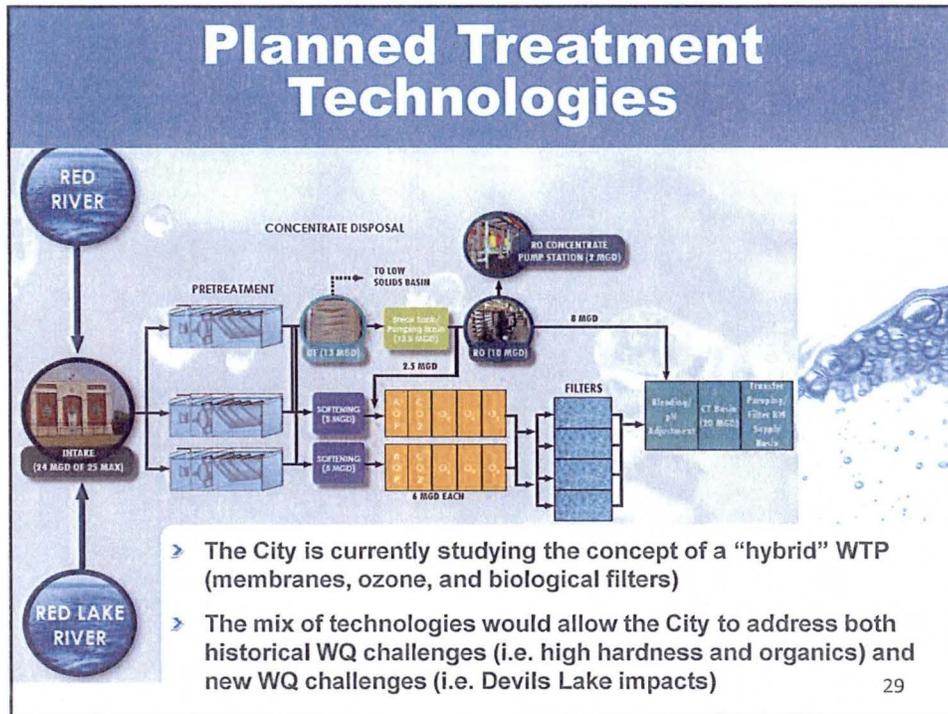
# New Regional Water Treatment Plant

Current WTP was constructed in 1956 on land from original 1892 WTP site. Additions over the years (1968, 1984) have resulted in limited space and capacity to address challenges.



# New Regional Water Treatment Plant





## Proposed Regional WTP Cost Share Summary

- > City believes it has the primary financial responsibility for capital costs and all operations and maintenance costs of the facility
- > Necessary partnership proposed between City and State
- > A prudent multi-biennia funding plan is proposed:

	City	State	Total
2013-2015	\$4,992,791	\$4,992,791	\$9,985,582
2015-2017	\$38,698,571	\$38,698,571	\$77,397,142
2017-2019	\$21,587,868	\$21,587,868	\$43,175,736
<b>Total</b>	<b>\$65,279,230</b>	<b>\$65,279,230</b>	<b>\$130,558,460</b>
<b>Share of Cost</b>	<b>50%</b>	<b>50%</b>	<b>100%</b>

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## State Participation

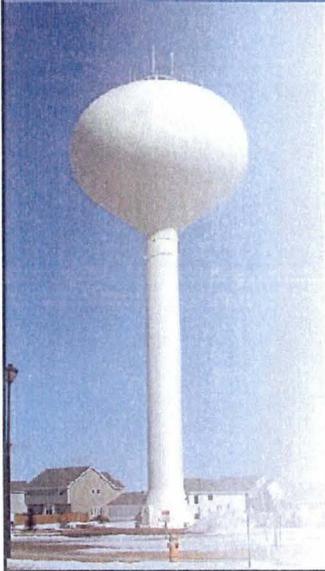
- Recent 50% State Funding laid the Groundwork for WTP Project
- Initial Cost-Share of \$5M for WTP Pre-final design during the 2013-2015 Biennium
- Continued Investment is Critical to Success of the Project



## Local-Regional-State Collaboration



## Importance of SWC Investment in Communities



- **Mission of SWC is the same as the purpose of local government – providing for the quality of life of residents and a strong economy.**
- **Grand Forks is investing in infrastructure to increase quality of life and economic development, but is facing financial challenges.**
- **Continued progress can only happen with State collaboration.**
- **Prudent policies set the stage for partnership to overcome the challenges and drive prosperity.**

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## Improving Draft Policy

1. **Economic Development Should be an Element used to Prioritize Projects**
2. **Different Policies for Water Supply, Flood Control, and General Water Management**
3. **All Prudent Water Supply Projects Should Qualify for Funding**
4. **All Project Costs Should be Eligible (Except Feasibility Studies and O&M)**
5. **State Cost-Share Should Match Local at 50% to 75%**
6. **Develop State Loan Program for Local Match Outside of Resources Trust Fund**
7. **Water Supply Projects of a more significant dollar amount (i.e. \$100M+) should be addressed on an Individual Basis**

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## State Revolving Loan Fund

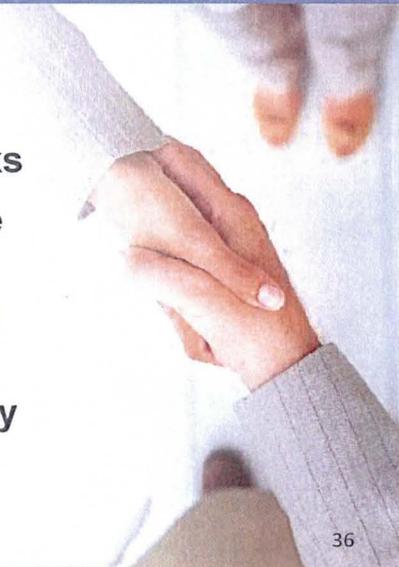
- In Addition to Grants
- Loans from outside the Resources Trust Fund would be preferred to assist w/ local cost share
- Could also Support Other Strategic Infrastructure Investments Across the State



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## Collaborating on Investments

- Planned Investments will Benefit the State, Region and the City of Grand Forks
- Collaboration Between the City and State can Ensure Long-Term Success for all of these stakeholders
- Direction of Funding Policy will Shape Collaboration



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## Summary

- **Grand Forks Historical Water Challenges**
- **Importance of Adequate and Quality Water Supply for Grand Forks**
- **Addressing our Water Challenges**
- **Need for Local-Regional-State Collaboration**

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## Summary

- **Challenges facing City of Grand Forks and our Region are significant**
- **Through collaboration with the State we have an opportunity to address these challenges**
- **Continued collaboration is paramount to fulfilling this plan and supporting continued economic vitality and maintaining quality of life throughout the Region**

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**Thank You**

