

# RECLAMATION

*Managing Water in the West*

## Red River Valley Water Supply Project



U.S. Department of the Interior  
Bureau of Reclamation

# Section 8 Dakota Water Resources Act



The purpose of the project is to meet the comprehensive water quality and quantity needs of the Red River Valley in North Dakota [Dakota Water Resources Act Section 8(c)(2)(A)].

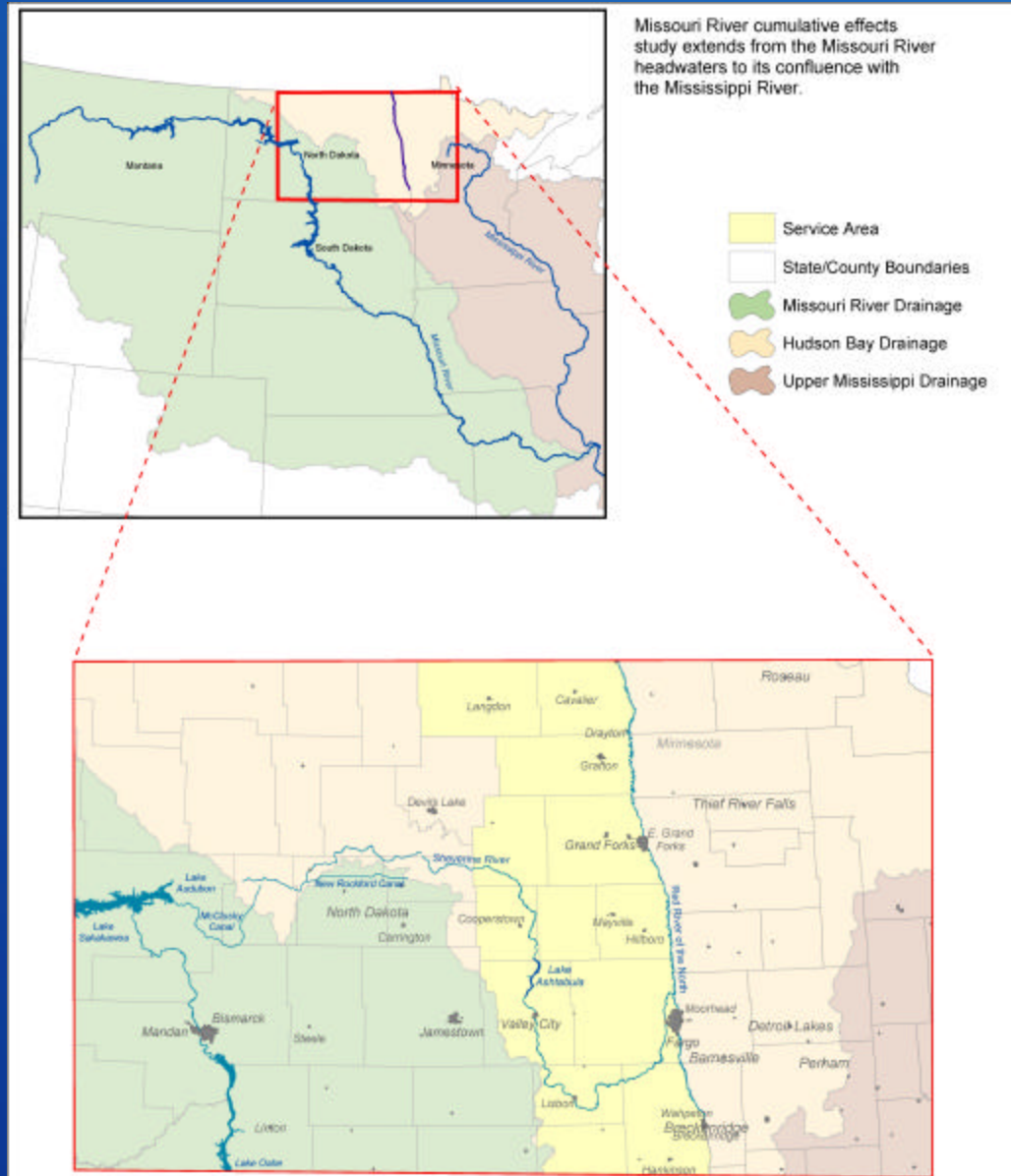
## Two Reports Required:

- Report on Red River Valley Water Needs and Options (Needs and Options Report) - Reclamation
- Environmental Impact Statement for the Red River Valley Water Supply Project (EIS) – Reclamation and the State of North Dakota (Garrison Diversion)

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# Project Area

- Service Area includes 13 eastern counties of North Dakota and 3 towns in Minnesota (East Grand Forks, Moorhead, and Breckenridge).



The area outlined in red is the project area of the Red River Valley Water Supply Project.

# Needs And Options Report



## Needs specified in DWRA:

- Municipal
- Rural
- Industrial
- Aquatic Environment
- Recreation
- Water Quality
- Water Conservation

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# Quantified Water Demand

- Reclamation used a range of demands and a surface water hydrology model to estimate future water shortages for the Red River Valley during a 1930s drought.
- The water demand range includes:
  - Scenario One - Reclamation population projection, intermediate industrial projection, and full decreed irrigation for ND & MN.
  - Scenario Two - Water user population projection, high industrial projection, and full decreed irrigation for ND & MN.

# Water Demand in Service Area

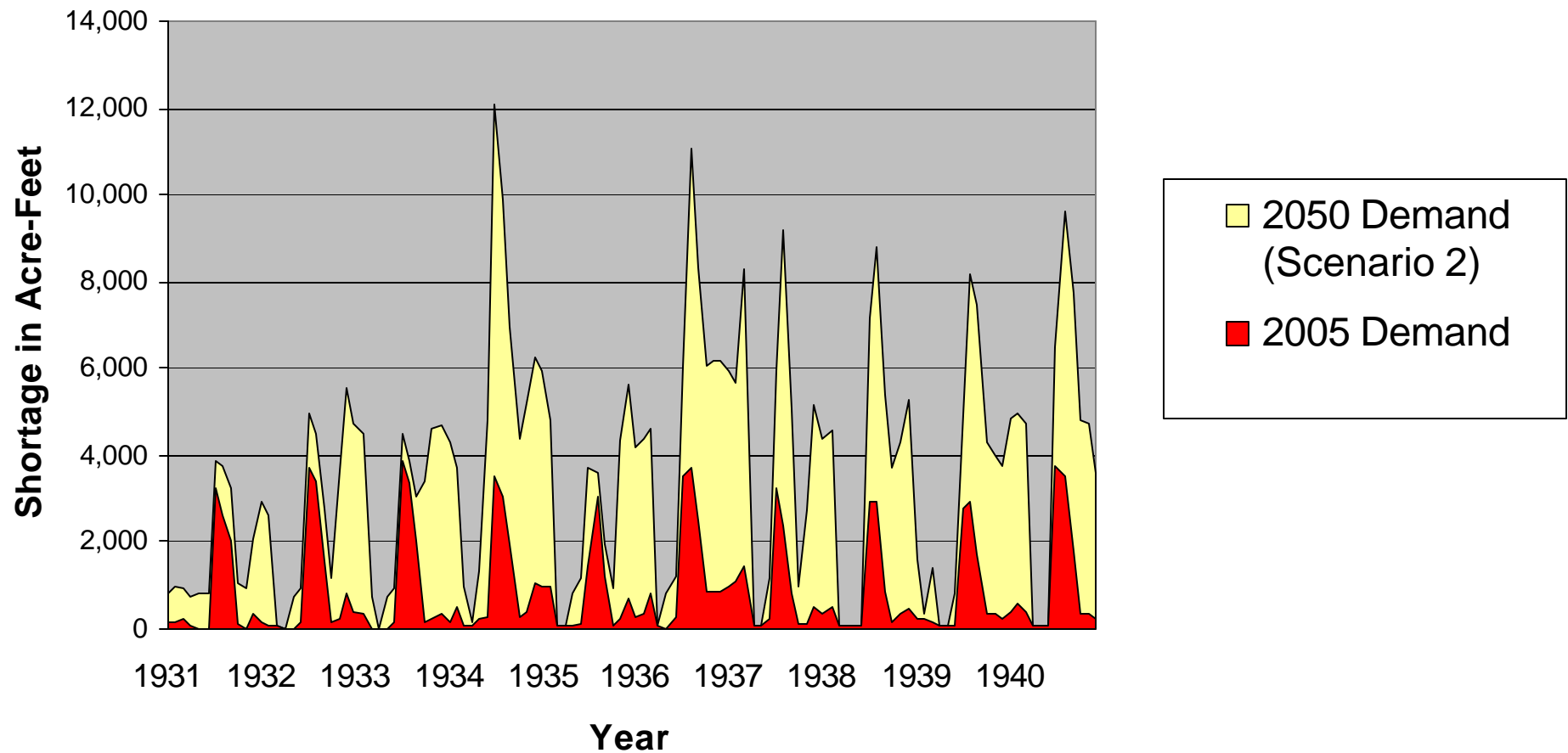
<b>Water Demand</b>	<b>Scenario One Annual Demand (acre-feet)</b>	<b>Scenario Two Annual Demand (acre-feet)</b>
<b>Total Supplemental Water Demand</b>	<b>101,033</b>	<b>128,270</b>
<b>Total Replacement Water Demand</b>	<b>113,702</b>	<b>143,097</b>

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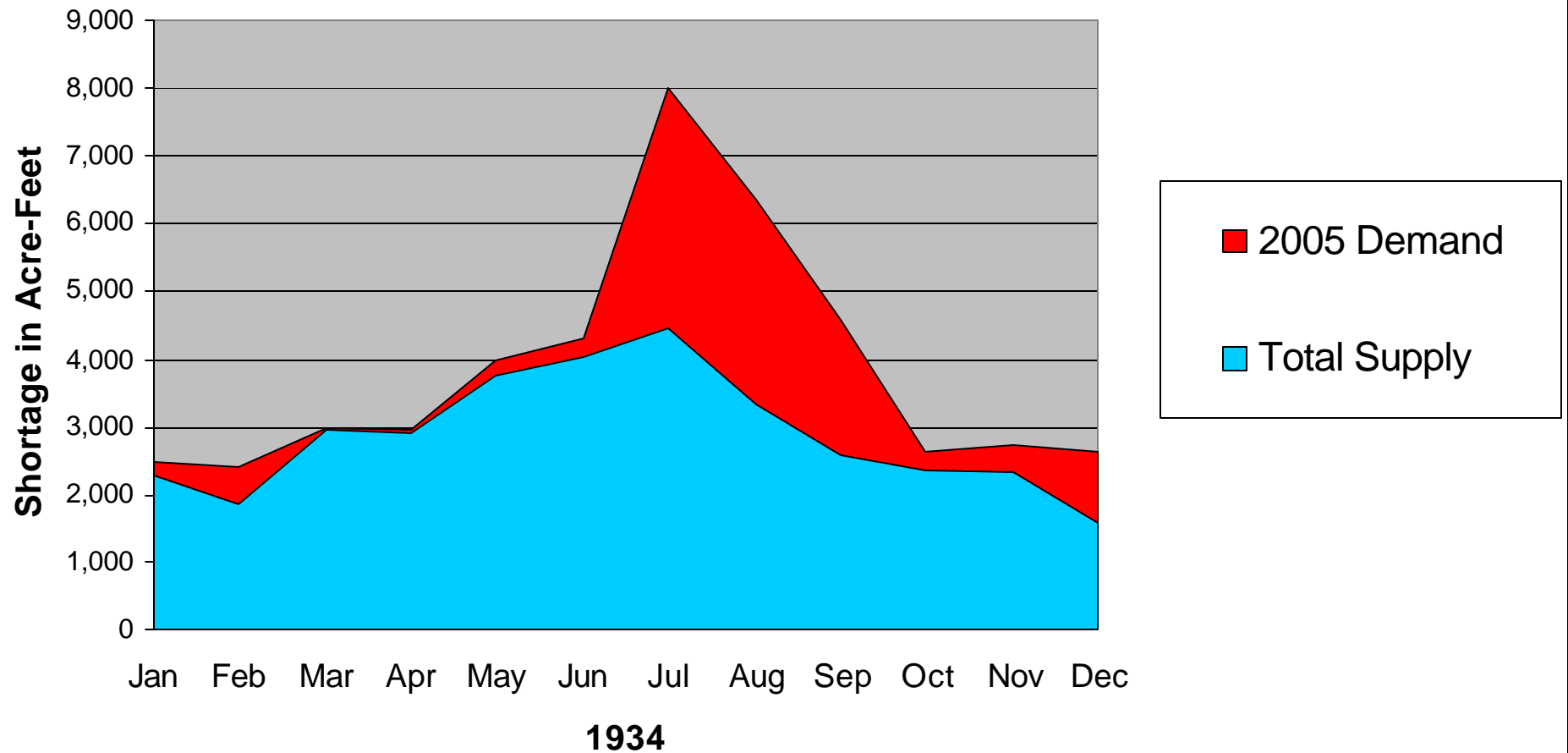
# Climate Study

- A Red River Valley climate study prepared by Meridian Environmental Technology estimated the recurrence interval for extreme droughts in the valley.
- Estimated recurrence interval is about 60 years.
- Duration between droughts is 5-6 years to as long as 30 years.
- Recommended that a 1930s drought is the best representation of a 'reference extreme drought.'

## Service Area Shortages in 1930's Drought



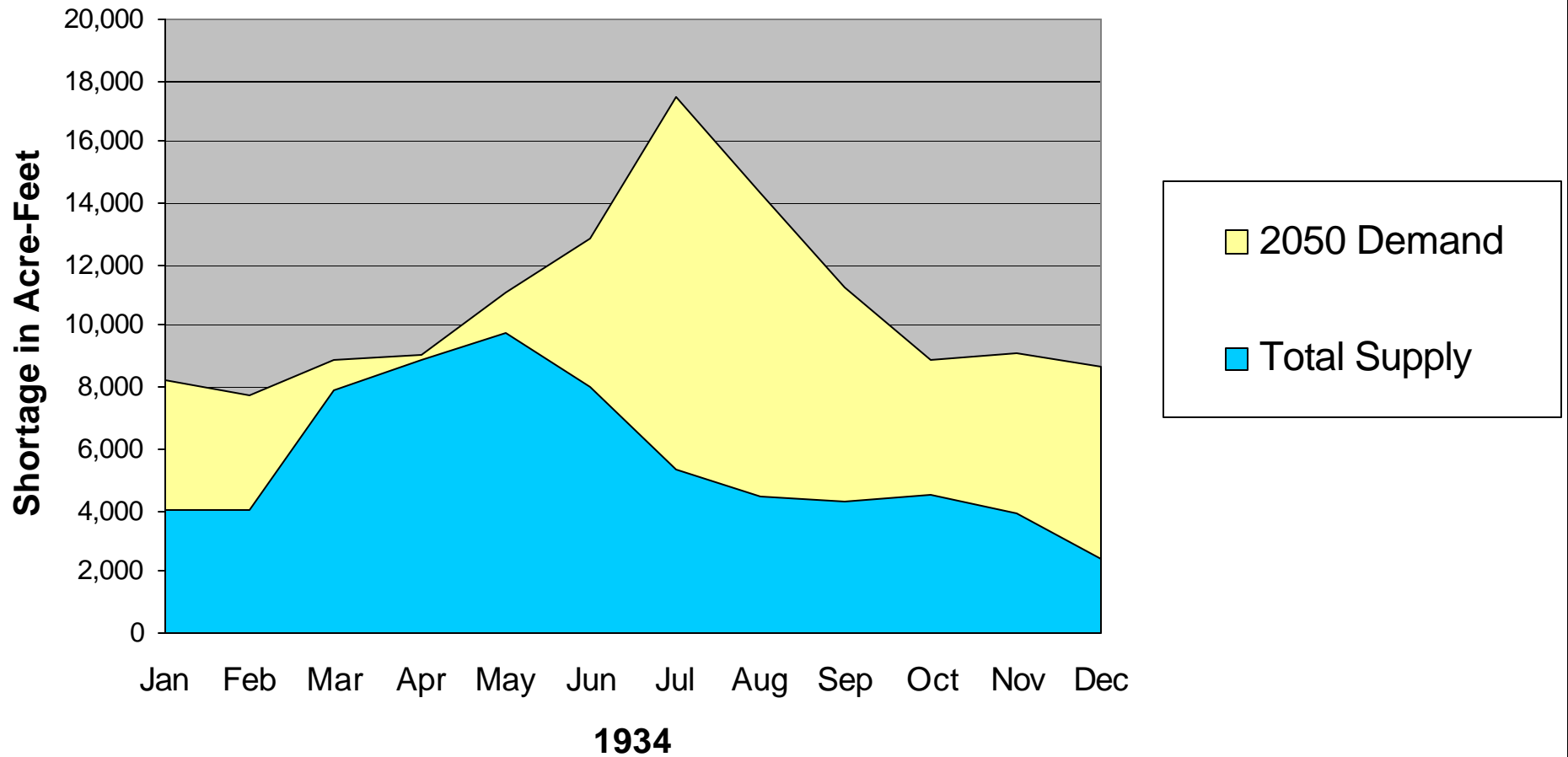
# 2005 Demand vs. Supply in 1934 Drought



# 2005 MR&I Service Area Water Shortage in a 1930s Drought

- If a 1930s drought would occur now with current water use:
  - there would be an annual municipal, rural, and industrial water shortage of 15% in the worst year of a 10 year drought (1936),
  - 7,000 acre feet is the MR&I shortage in the service area in the worst year (without irrigation).
  - the worst monthly shortage in the decade would be 45% in February 1937.

# 2050 Demand vs. Supply in 1934 Drought



# 2050 Water Shortage

## Annual 2050 Shortage (in acre-feet)

	Scenario One	Scenario Two
Total Shortage Including MR&I plus other senior permitted uses	43,000	60,000



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# Possible Water Sources

- **In-Basin Sources:**
  - Red River
  - Sheyenne River
  - Groundwater (ND and MN)
  - Lake of the Woods
- **Out-of-Basin Source:**
  - Missouri River

# Primary Environmental Issues

- **Biota Transfer Risk and Consequence**
- **Missouri River Depletion**
- **Threatened and Endangered Species** (piping plover critical habitat and threatened western prairie fringed orchid)
- **Compliance with Boundary Waters Treaty and Convention and Protocol Regarding Lake of the Woods**

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# Schedule

- **May 2005 – Needs and Options Report distributed to potentially affected states and the public for 120 day review.**
- **November 2005 – Final Needs and Options Report distributed.**
- **December 2005 – Draft environmental impact statement distributed for public review.**

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# EIS Website RRVWSP.com

Current News & Information @ rrvwsp.com for:  
**Red River Valley Water Supply Project**  
Environmental Impact Statement

Add Your Name to RRV EIS Mailing List

**Main Menu**

- RRV Project Home
- Alternatives
- About the Dakota Water Resources Act (DWRA)
- About NEPA
- Comments from Public Scoping
- Newsletters & Related Documents
- EIS Study Products
- Submit Comments

Site URL:  
[www.rrvwsp.com](http://www.rrvwsp.com)  
This site is published by the Garrison Diversion Conservancy District, and the Dakotas Area Office.

**The Bureau of Reclamation (Reclamation) as the lead federal agency and the Garrison Diversion Conservancy District (GDCCD) as the lead State of North Dakota agency will jointly prepare an Environmental Impact Statement on the Red River Valley Water Supply Project.**

**The purpose of the project is to identify reliable sources of water of sufficient quantity and quality to supply homes, businesses, industries, wildlife, and recreation in the Red River Valley within North Dakota through at least the next five decades. This project is required, and authorized, by the Dakota Water Resources Act of 2000.**

**Reclamation and GDCCD have a strong desire to include the public in the preparation of reports and in the implementation of the National Environmental Policy Act (NEPA) process. NEPA procedures ensure environmental information is available to the public before decisions are made or actions implemented. This includes providing public notice of NEPA related hearings, public meetings, and the availability of environmental documents to inform those persons and agencies that may be interested or affected.**

**NEW!** Please see our May 2004 Newsletter, just released!

*Temporary Intake Pipe, Waterworks, into Red Lake River--August 28, 1910*

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