



MINNESOTA HISTORICAL SOCIETY
Minnesota State Archives

TRI-STATE WATERS COMMISSON

An Inventory of Its Red River of the North Drainage Basin Maps and Graphs

OVERVIEW OF THE RECORDS

- Agency:** Tri-State Waters Commission (U.S.).
- Series Title:** Red River of the North Drainage Basin maps and graphs.
- Dates:** 1920, 1934-1940.
- Quantity:** 2.25 cu. ft. (3 map tube boxes and 1 half-height oversize box).
- Location:** See Detailed Description section for box locations.

SCOPE AND CONTENTS OF THE RECORDS

Maps and graphs either created or used by the commission during its inspection and approval of water control projects (e.g. dams, diversion projects, etc.), its maintenance and control of lake levels and stream flows, and its exercise of the power of eminent domain to acquire property necessary to accomplish the above activities in the drainage basin for the Red River of the North (as it ran through Minnesota, South Dakota, and North Dakota). Many were used in conjunction with the Works Progress/Work Projects Administration, particularly in its project numbers 5905 and 1758.

Topics covered in the records include precipitation and run-off, sub-basins, isohyets, weather bureau and stream gaging stations, water supply and treatment facilities, population densities, soil types, industries, conservation dams, groundwater levels, electric transmission lines, and agricultural land usage and valuation.

Many include the initials of the cartographer [exp., E.E.] and the date of creation [exp., 1-39].

INDEX TERMS

This collection is indexed under the following headings in the catalog of the Minnesota Historical Society. Researchers desiring materials about related topics, persons or places should search the catalog using these headings.

Topics:

Electric lines—Minnesota.
Flood control—Minnesota.
Flood control—North Dakota.
Flood control—South Dakota.
Groundwater—Minnesota.
Interstate relations—United States.
Lakes—Minnesota—Regulation.
Lakes—North Dakota—Regulation.
Lakes—Red River Valley (Minn. and N.D.-Man.)—Regulation.
Lakes—South Dakota—Regulation.
Land use—Minnesota.
Land—Valuation—Minnesota.
Precipitation (Meteorology)Minnesota.
Regulating.
Rivers—Minnesota—Regulation.
Rivers—North Dakota—Regulation.
Rivers—Red River Valley (Minn. and N.D.-Man.)—Regulation.
Rivers—South Dakota—Regulation.
Soils—Minnesota.
Stream measurements—Minnesota.
Water resources development—Minnesota.
Water resources development—North Dakota.
Water resources development—Red River Valley (Minn. and N.D.-Man.).
Water resources development—South Dakota.
Water—Pollution—Minnesota.
Water—Pollution—North Dakota.
Water—Pollution—Red River Valley (Minn. and N.D.-Man.).
Water—Pollution—South Dakota.
Weather—Minnesota.

Places:

Minnesota—Boundaries.
Minnesota—Population.
North Dakota—Boundaries.
Red River of the North.
South Dakota—Boundaries.

Organizations:

United States. Works Progress Administration (Minn.).
United States. Work Projects Administration (Minn.).

Types of Documents:

Graphs.
Maps.

ADMINISTRATIVE INFORMATION

Preferred Citation:

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See the Chicago Manual of Style for additional examples.

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DETAILED DESCRIPTION OF THE COLLECTION

Note to Researchers: To request materials, please note both the location and box numbers shown below.

Location	Roll	
106.I.4.8	1	Annual Precipitation, 1916-1940, [ca. 1940]. By Tri-State Waters Commission; map with small graphs at each measuring station, showing precipitation in inches for each year, 1915-1940. Watershed Map, Red River of the North, [undated]. Linen. Composite Map of the Red River of the North Drainage Basin Showing Sub-basins, Isohyetals, Weather Bureau Stations, Stream Gaging Stations, and Major Projects, Tri-State Waters Commission, WPA Project No. 5905, L.G.K. 3-39. Linen.

Location	Roll	
106.I.4.8	1	<p>Composite Map No. II of the Drainage Basin of the Red River of the North Showing Sub-basins, Isohyetals, Municipalities Having a Population of 250 and Above, and the Status of Water Supply and Pollution Abatement As Well As the Major Products, L.G.K. 10-40. Blueprint; by Tri-State Waters Commission with symbols for cities of various populations (1940 census), water supply and treatment facilities, proposed projects, and sites of Lake Traverse-Bois des Sioux Project components.</p> <p>Rural Population Density by Counties, State Planning Board, WPA Project No. 1758, No. 369-20, [undated]. Counties variously shaded to show population densities; symbols for cities of various population ranges.</p> <p>Red River of the North Drainage Basin with Sub-basins, Tri-State Waters Commission, Minnesota WPA Project No. 5905, [undated]. Plate 1; linen.</p> <p>Number of Persons per 1000 Population Gainfully Occupied by Occupational Groups, Tri-State Waters Commission, Minnesota WPA Project No. 5905, L.G.K. 7-39. Plate 45; linen; Map with each county containing a graph showing numbers of persons in all industry and in agriculture/forestry/fishing, manufacturing/mechanical, transportation/communication/trade, service, and mining.</p> <p>Weather Bureau and Stream Gaging Stations, Tri-State Waters Commission, Minnesota WPA Project No. 5905, [1936?]. Plate 4; linen; map showing locations of existing stream gaging stations, existing precipitation stations, and automatic recorders of both types.</p> <p>Sewage and Water Systems, State Planning Board, WPA Project No. 1758, No. 369-17, [undated]. Linen; map with symbols showing locations of various types of sewage systems, surface water treatment, and wells.</p> <p>Water Supply and Treatment Plants..., Tri-State Waters Commission, Minnesota WPA Project No. 5905, [undated]. Linen; map with symbols showing location of plants contemplated, being planned, under construction and completed.</p> <p>Broad Classification of Soils, Tri-State Waters Commission, Minnesota WPA Project No. 5905, No. 369-27, [1939?]. Plate 2; linen; various shadings for 8 general soil types.</p> <p>Population Density, 1930 Census, Tri-State Waters Commission, Minnesota WPA Project No. 5905, [1939?]. Linen; outline map with counties and urban locales shaded to show various population densities.</p>

Location	Roll	
106.I.4.8	1	<p>Water Conservation Projects in the Otter Tail River Sub-basin, Tri-State Waters Commission, Minnesota WPA Project No. 5905, L.J.F. 2-39. Plate 29; linen; showing sites of conservation dams completed, under construction, and proposed, with sidebar listing of water construction projects (index number, name, post office, location, and acre feet of storage). These projects were sponsored and supervised by the Department of Conservation, Division of Drainage and Waters, and constructed by the WPA with all or portions of sponsors contributions made available by the Minnesota State Executive Council.</p>
106.I.4.9	2	<p>Legislative Districts, Senators and Representatives of Minnesota, North Dakota and South Dakota within the Red River of the North Drainage Basin, Tri-State Waters Commission, Minnesota WPA Project No. 5905, L.G.K. 1-39.</p> <p>Linen; map showing boundaries and numbers of legislative districts, with sidebars listing legislators [updated lists were taped on, are now loose].</p> <p>Minnesota River Discharge in Red Lake River Basin, State Planning Board, WPA Project No. 1758, No. 369-5, [1935?]. Linen; graphs showing discharge levels at various points, 1899-1935. No graph is complete for the full span of years.</p> <p>Stream Discharge, Red River of the North, State Planning Board, WPA Project No. 1758, No. 369-14, [1935?]. Linen; graphs showing minimum and maximum discharge levels at Fargo (1902-1934), and Grand Forks (1882-1935), North Dakota, and Emerson, Manitoba (1912-1935).</p> <p>Elevation Contours, 100 Feet, State Planning Board, WPA Project No. 1758, No. 369-15, L.J.E. 3-36. Linen.</p> <p>Major Industries, State Planning Board, WPA Project No. 1758, No. 369-16, [undated]. Linen; map with symbols showing locations of creameries, gas plants, railroad roundhouses, packing plants, breweries, and sugar factories.</p> <p>Stream Gaging Stations, Dams and Power Plants, State Planning Board, WPA Project No. 1758, No. 369-18, H.L.M. 3-36. 3 items. Linen; map with symbols for existing and proposed dams, existing and discontinued stream gaging and lake elevations stations, fuel generating plants, existing and proposed hydroelectric plants, game and fish refuges, purposes of dams (flood control, domestic supply, water control, wild rice production, recreation, and spawning ground). Also blueprint and whiteprint variants of the above.</p>

Location	Roll	
106.I.4.10	3	<p>Mean Monthly Precipitation, 1916-1925, State Planning Board, WPA Project No. 1758, No. 369-21, L.J.E. 4-36. Whiteprint, outline map with graph at each measuring station showing average monthly precipitation in inches.</p> <p>Annual Precipitation, 1916-1925, State Planning Board, WPA Project No. 1758, No. 369-22, H.E.W. 4-36. Whiteprint; outline map with graph at each measuring station showing total annual precipitation in inches, for each year.</p> <p>Normal Precipitation in Red River Basin, January 1, 1936, State Planning Board, WPA Project No. 1758, No. 369-23, H.L.M. 6-36. Whiteprint; map with shadings showing ranges of precipitation in inches.</p> <p>Change in Ground Water Levels, August 1934, State Planning Board, WPA Project No. 1758, No. 369-24, M.A.S. 4-36. Whiteprint; map with shadings showing ranges of decline below normal, in feet.</p> <p>Railways and U.S. Highways, State Planning Board, WPA Project No. 1758, No. 369-25, C.A.R. 4-36. Whiteprint; showing U.S. highways (paved or improved), railroads, state highways (paved, improved, unimproved), and airports.</p> <p>Electric Transmission Lines, April 1936, State Planning Board, WPA Project No. 1758, No. 369-26, L.J.E. 6-36. Whiteprint; showing electric transmission lines, municipalities buying power wholesale and distributing retail, and locations of various types of electric generating stations.</p> <p>Principal Agricultural Products by Counties, 1930, State Planning Board, WPA Project No. 1758, No. 369-28, L.J.E. 5-36. Whiteprint; map shaded to show counties where principal products were crops, livestock products, or livestock.</p> <p>Average Value of All Farm Products Per Farm, By Counties, 1930, State Planning Board, WPA Project No. 1758, No. 369-29, M.F.M. 5-36. Whiteprint; map with counties shaded to show ranges of dollar value of farm products. Stamped Tri-State Waters Commission.</p> <p>Average Value of Land and Buildings Per Farm, By Counties, 1930, State Planning Board, WPA Project No. 1758, No. 369-30, M.A.S. 5-36. Whiteprint; map with counties shaded to show ranges of dollar value of lands and buildings. Stamped Tri-State Waters Commission.</p>

Location	Roll	
106.I.4.10	3	<p>Average Value of Farm Land and Buildings Per Acre, By Counties, 1930, State Planning Board, WPA Project No. 1758, No. 369-31, M.A.S. 7-36. Whiteprint; map with counties shaded to show ranges of dollar value of farm lands and buildings per acre. Stamped Tri-State Waters Commission.</p> <p>Assessed Valuation Per Square Mile, 1935, State Planning Board, WPA Project No. 1758, No. 369-32, C.A.R. 5-36. Whiteprint; map with counties shaded to show average assessed valuation of all land, etc. within county.</p> <p>Assessed Valuation Per Capita, 1935, State Planning Board, WPA Project No. 1758, No. 369-33, [ca. 1936]. Whiteprint; map shaded by county. Stamped Tri-State Waters Commission.</p> <p>Proposed Projects, Class A: Projects Demanding Immediate Attention, State Planning Board, WPA Project No. 1758, No. 369-34, L.J.E. 7-36. Whiteprint; showing locations of eleven specific priority projects; dams for water conservation and recreation; municipal water supply and water treatment plants; and sewage and sewage treatment.</p> <p>Proposed Projects, Class A: Projects Demanding Immediate Attention, State Planning Board, WPA Project No. 3053, E.D.B. 5-37. Whiteprint; showing locations of priority constructions and investigations.</p> <p>Estimated Costs of Proposed Improvements of Water Supply, Water Softening, Sewerage, and Sewer Treatment, State Planning Board, WPA Project No. 1758, No. 369-35, M.A.S. 7-36. Whiteprint; showing locations projects in various cost ranges.</p> <p>Sub-basins, State Planning Board, WPA Project No. 1758, No. 369-36, A.J.R. 7-36. Whiteprint; showing boundaries and names of sub-basins.</p> <p>Duration of Stream Flow Records for the Various Gaging Stations in the Red River of the North Drainage Basin, Tri-State Waters Commission, WPA Project No. 5905, L.G.F. 4-39. Plate 43; linen; graph covering 1880-1936.</p> <p>Length of Precipitation Records of the United States Weather Bureau Stations in the Red River of the North Drainage Basin, Tri-State Waters Commission, WPA Project No. 5905, L.G.K. 3-39. Plate 5; linen; graph covering 1870-1938.</p>

Location

108.G.18.7B-2

Drainage Basin, Red River of the North, Minnesota, North Dakota, South Dakota Sub-divisions, Tri-State Waters Commission, WPA Project No. 5905, L.G.K. 8-38.

Plate 6; linen.

Tri-State Waters Commission, WPA Project No. 5905, 1938. 5 maps stapled together.

Precipitation and Run-off, Red River of the North Watershed Above Grand Forks, North Dakota, for Selected Months 1882-1937, L.G.K. 7-38.

Plate 8; linen.

Monthly Precipitation and Run-off, Red River of the North Watershed Above Grand Forks, North Dakota, [ca. 1938].

Plate 9; linen; covers 1882, 1896, 1897, 1916, 1920, 1927.

Precipitation and Run-off, Red River Basin Above Grand Forks, North Dakota, L.G.K. 8-38.

Plate 10; linen; covers 1882-1937.

Annual Precipitation and Run-off, Red River of the North Watershed Above Grand Forks, North Dakota, L.G.K. 8-38.

Plate 11; linen; covers 1882-1937.

Precipitation on Sub-divisions of Red River Watershed, L.G.K. 7-38.

Plate 7; linen; covers 1893-1922.

Tri-State Waters Commission, WPA Project No. 5905, 1938-1939. 9 maps stapled together.

Annual Precipitation and Run-off, Red River Above Grand Forks, [North Dakota], Depth (Inches), E.E. 1-39.

Plate 12; linen; covers 1883-1940.

Annual Precipitation and Run-off, Red River Above Grand Forks, [North Dakota], Depth (Inches), (In Order of Maximum Precipitation), E.E. 2-39.

Plate 13; linen; covers 1916-1936.

Annual Precipitation and Run-off, Red River at Fargo, [North Dakota], Depth (Inches), E.E. 2-39.

Plate 14; linen; covers 1914-1938.

Annual Precipitation and Run-off, Sheyenne and Pembina Rivers, Depth (Inches), L.E. 10-38.

Plate 15; linen; covers 1920-1938.

Annual Precipitation and Run-off, Bois des Sioux River, Near Fairmont, North Dakota, E.E. 10-38.

Plate 24; linen; covers 1919-1937.

Location

108.G.18.7B-2

Annual Precipitation and Run-off, Otter Tail River, Depth (Inches), L.J.E. 12-38.

Plate 30; linen; covers 1900-1938.

Annual Precipitation and Run-off, Otter Tail, Buffalo, and Wild Rice Rivers, Depth (Inches), L.J.E. 10-38.

Plate 31; linen; covers 1931-1939.

Annual Precipitation and Run-off, Red Lake River Above Crookston, Minnesota, Depth (Inches), E.E. 12-38.

Plate 35; linen; covers 1906-1937.

Annual Precipitation and Run-off, Roseau River, Depth (Inches), E.E. 1-39.

Plate 38; linen; covers 1922-1937.

Tri-State Waters Commission, WPA Project No. 5905, 1938-1939. 9 maps stapled together.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Sheyenne River Sub-basin, L.G.K. 11-38.

Plate 16; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Pembina River Sub-basin, E.E. 10-27-38.

Plate 18; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Goose River Sub-basin, E.E. 1-39.

Plate 20; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Park River Sub-basin, L.G.K. 3-39.

Plate 22; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Bois des Sioux River Sub-basin, L.G.K. 12-38.

Plate 25; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, North Dakota Wild Rice River Sub-basin, L.G.K. 10-38.

Plate 27; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Otter Tail, Buffalo, and Wild Rivers Sub-basin, L.G.K. 12-38.

Plate 32; linen.

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Red Lake River Sub-basin, E.E. 12-38.

Plate 36; linen.

Location

108.G.18.7B-2

Annual Precipitation 1915-1940, Red River of the North Drainage Basin, Snake-Roseau Rivers Sub-basin, L.G.K. 2-39.
Plate 39; linen.

Tri-State Waters Commission, WPA Project No. 5905, 1938-1939. 10 maps stapled together.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Snake-Roseau Rivers Sub-basin, L.G.K. 1-39.
Plate 40; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Otter Tail River Sub-basin, L.G.E. 3-39.
Plate 33; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Buffalo-Wild Rivers Sub-basin, L.G.K. 1-39.
Plate 34; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Park River Sub-basin, E.E. 3-39.
Plate 23; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Sheyenne River Sub-basin, E.E. 12-38.
Plate 17; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Red Lake River Sub-basin, L.G.K. 9-38.
Plate 37; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Wild Rice River Sub-basin, E.E. 1-39.
Plate 28; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Bois des Sioux River Sub-basin, L.G.K. 11-38.
Plate 26; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Goose River Sub-basin, E.E. 1-39.
Plate 21; linen.

Monthly Precipitation 1935-1939, Red River of the North Drainage Basin, Pembina River Sub-basin, L.G.K. 12-38.
Plate 19; linen.

Location

108.G.18.7B-2

Tri-State Waters Commission, WPA Project No. 5905, 1939. 8 maps stapled together.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Campbell, Fergus Falls, Minnesota, 1892-1938, L.G.K. 7-39.

Plate 47A; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Moorhead, Ada, Minnesota, 1892-1938, L.G.K. 7-39.

Plate 47B; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Crookston, Gonvik, Minnesota, 1892-1938, L.G.K. 7-39.

Plate 47C; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Angus, Hallock, Minnesota, 1892-1938, L.G.K. 7-39.

Plate 47D; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Forman, Valley City, North Dakota, 1892-1938, E.E. 7-39.

Plate 47E; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Grafton, Mayville, North Dakota, 1892-1938, E.E. 7-39.

Plate 47F; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Larimore, North Dakota, 1892-1938, L.G.K. 7-39.

Plate 47G; linen.

Annual Precipitation Mass Diagram: Representative Stations, Red River of the North Drainage Basin, Grand Forks, Langdon, North Dakota, 1892-1938, E.E. 7-39.

Plate 47H; linen.

Mean Monthly Precipitation 1935-1939, Existing Weather Bureau Stations, Red River of the North Drainage Basin, Tri-State Waters Commission, WPA Project No. 5905, E.E. 6-39.

Plate 41; linen.

Population by Counties 1920-1930 in the Red River of the North Drainage Basin, Tri-State Waters Commission, WPA Project No. 5905, E.E. 6-39.

Plate 44; linen.

Location

108.G.18.7B-2

Mean Monthly and Annual Precipitation 1915-1939, Little Minnesota River Basin, Tri-State Waters Commission, WPA Project No. 5905, E.E. 7-39.

Plate 46; linen.

Map of South Dakota, Roberts County, 1936.

Whiteprint.

Map of South Dakota, Marshall County, 1936.

Whiteprint.

Physiographic Diagram Showing Red River Drainage Basin, North Dakota, State Planning Board, 1935.

Whiteprint.

Discharge Records Red River Drainage Area, [undated].

Whiteprint; covers [1880s] – 1934.

Watershed Map of the Red River of the North, 1920.

Whiteprint; Bureau of Public Roads.

Otter Tail River Sub-basin, [undated].

Linen.