Water Resources of North Dakota
Supplement "B"

of the

Fourth Biennial Report

of the

State Water Conservation Commission

and the

Twenty-First Biennial Report

of the

State Engineer

of

North Dakota

From December 1, 1942, to November 1, 1944

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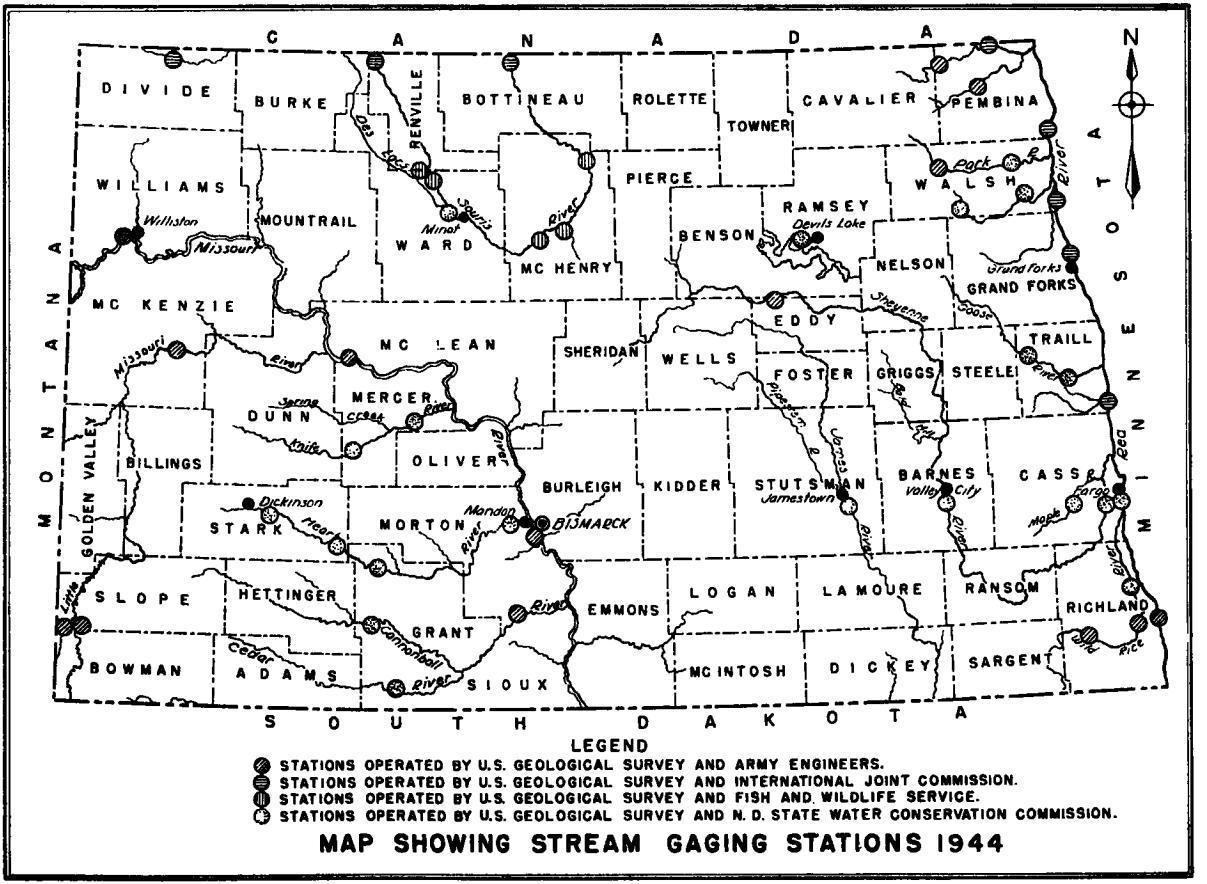

LEGEND

- STATIONS OPERATED BY U.S. GEOLOGICAL SURVEY AND ARMY ENGINEERS.
- STATIONS OPERATED BY U.S. GEOLOGICAL SURVEY AND INTERNATIONAL JOINT COMMISSION.
- STATIONS OPERATED BY U.S. GEOLOGICAL SURVEY AND FISH AND WILDLIFE SERVICE.
- STATIONS OPERATED BY U.S. GEOLOGICAL SURVEY AND N. D. STATE WATER CONSERVATION COMMISSION.

MAP SHOWING STREAM GAGING STATIONS 1944

Stream-Flow Information

Practical and reliable development of water power, irrigation and flood control works must have dependable data on the flow of streams on which to base plans. Otherwise immense sums may be expended only to find by experience that the money has been wasted and the project fails.

The stream-flow information contained in this Supplement "B" of the Biennial Report of the State Water Conservation Commission is the result of years of careful, painstaking recording of the maximum, minimum and average flow by many patriotic citizens of North Dakota, in a cooperative effort directed by the U. S. Geological survey, with the State of North Dakota, through its State Water Conservation Commission and State Engineer.

With the increased use of water for many purposes, the necessity for data relating to the supply of both surface and ground waters becomes urgent, and will continue to increase as time passes and the limits of the possible use of water is approached.

The need of water extends to all people and to most of the principal activities of North Dakota. The available water supply establishes the limit of development. Unfortunately, the available water in any region is not constant. Precipitation is erratic and follows no discoverable law, and varies widely from year to year. There is no fixed relation between the rainfall and the water which flows in the streams, so the records of rainfall alone will not serve as a measure of the supply of water available for use.

The records of the stream flow are used as a guide in making plans for the development of lands by irrigation, for water conservation and water power. The proposed Missouri River diversion is a gigantic project and requires construction to control the flood waters and divert them for use for irrigation and other purposes and is dependent on the records of the stream flow affected. This supplement is a compilation of all of the information so far recorded for North Dakota streams.

MISSOURI RIVER NEAR WILLISTON, NORTH DAKOTA

Location: Lat. 48° 8'. Long. 103° 44'. Section 31, Township 154 North, Range 101 West, at Lewis and Clark Highway Bridge, 7 miles West of Williston.

Drainage Area: 164,500 square miles.

Records Available: May 1905 to Nov. 1905, June 1906 to May 1907, October 1928 to September 1944.

Extremes: Maximum discharge 231,000 sec. ft. April 4, 1930; Min. discharge 1,300 Sec. ft. Dec. 28, 1939.

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1905					
May 23-31	.....	40,800	14,800	30,200	539,000
June	.....	83,800	38,600	68,100	4,050,000
July	.....	73,300	34,500	54,900	3,380,000
August	.....	43,900	7,880	19,400	1,190,000
September	.....	7,880	6,000	7,100	422,000
1905-06					
October	.....	9,830	6,400	7,700	473,000
November	.....	8,600	7,220	8,060	480,000
May 26-31	.....	90,200	73,300	82,800	985,000
June	.....	155,000	61,800	93,600	5,570,000
July	.....	74,400	36,600	52,700	3,240,000
August	.....	45,000	13,100	25,200	1,550,000
September	.....	25,400	10,500	15,400	916,000
1906-07					
October	.....	10,200	8,340	8,840	544,000
November 1-24	.....	23,500	8,600	10,100	481,000
March	.....	124,000	55,400	77,900	4,790,000
April	.....	109,000	50,200	67,500	4,020,000
May 1-22	.....	60,700	43,900	50,100	2,190,000
1928					
September 14-30	.....	16,100	13,400	14,800	499,000
1928-29					
October	.....	17,800	13,400	14,700	904,000
November	.....	15,400	12,300	13,600	809,000
December	.....	12,300	9,080	11,600	713,000
January	.....	13,400	5,650	9,020	555,000
Feburary	.....	9,660	5,910	8,170	454,000
March	.....	97,300	8,380	28,500	1,750,000
April	.....	52,400	17,800	26,800	1,590,000
May	.....	92,400	19,800	38,800	2,390,000
June	.....	105,000	50,600	69,000	4,110,000
July	.....	58,300	12,900	35,800	2,200,000
August	.....	13,400	8,380	11,100	682,000
September	.....	14,700	8,380	11,700	696,000
Water year 1928-29	.....	105,000	5,650	23,300	16,900,000
1929-30					
October	.....	15,000	12,600	13,900	855,000
November	.....	13,800	.....	11,400	678,000
December	.....	.....	.....	8,870	545,000
January	.....	.....	.....	10,900	670,000
February	.....	.....	.....	18,800	1,040,000
March	.....	.....	.....	21,200	1,300,000
April	.....	77,800	22,700	31,900	1,900,000
May	.....	37,600	24,500	29,400	1,810,000
June	.....	49,200	26,400	36,800	2,190,000
July	.....	30,400	13,000	21,100	1,300,000
August	.....	33,300	10,000	17,400	1,070,000
September	.....	15,800	10,700	12,800	762,000
Water year 1929-30	.....	77,800	.....	19,500	14,100,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1930-31					
October	.....	17,500	10,400	13,400	824,000
November	.....	13,000	8,560	11,400	678,000
December	.....	14,200	5,920	10,300	633,000
January	.....	10,700	4,600	7,260	446,000
February	.....	14,200	11,100	12,900	716,000
March	.....	20,200	8,380	12,500	769,000
April	.....	25,600	10,400	12,700	756,000
May	.....	40,000	8,560	17,800	1,090,000
June	.....	50,600	20,900	37,100	2,210,000
July	.....	19,300	3,930	10,000	615,000
August	.....	15,500	4,640	8,400	516,000
September	.....	11,100	4,340	6,120	364,000
Water year 1930-31	.....	50,600	3,930	13,300	9,620,000
1931-32					
October	.....	11,100	7,890	9,040	556,000
November	.....	9,170	3,800	6,900	416,000
December	.....	7,710	3,340	5,020	309,000
January	.....	9,170	4,640	6,540	402,000
February	.....	8,980	4,340	5,630	324,000
March	.....	18,800	7,890	10,600	652,000
April	.....	45,100	12,700	20,800	1,240,000
May	.....	67,700	22,100	37,800	2,320,000
June	.....	95,600	37,600	69,100	4,110,000
July	.....	83,000	14,300	35,600	2,190,000
August	.....	17,300	10,700	13,100	806,000
September	.....	13,900	9,550	11,000	655,000
Water year 1931-32	.....	95,600	3,340	19,300	14,000,000
1932-33					
October	.....	13,500	9,930	11,000	676,000
November	.....	.....	.....	9,140	544,000
December	.....	.....	.....	6,690	411,000
January	.....	.....	.....	7,660	471,000
February	.....	.....	.....	7,100	394,000
March	.....	44,600	.....	24,800	1,520,000
April	.....	19,800	15,500	17,300	1,030,000
May	.....	58,100	20,900	34,000	2,090,000
June	.....	88,100	43,500	71,400	4,250,000
July	.....	39,600	9,910	22,100	1,360,000
August	.....	30,500	7,230	10,400	640,000
September	.....	31,500	9,320	13,600	809,000
Water year 1932-33	.....	88,100	.....	19,600	14,200,000
1933-34					
October	.....	10,300	8,590	9,343	574,500
November	.....	26,600	5,550	12,050	717,000
December	.....	12,000	3,300	5,974	367,300
January	.....	13,500	4,200	8,877	545,900
February	.....	20,200	12,400	15,370	853,500
March	.....	48,500	13,100	19,030	1,170,000
April	.....	24,100	15,600	19,260	1,146,000
May	.....	31,700	20,800	26,040	1,601,000
June	.....	47,400	19,000	28,450	169,300
July	.....	20,200	6,150	11,000	676,100
August	.....	10,000	4,040	6,249	384,200
September	.....	5,290	3,980	4,561	271,400
Water year 1933-34	.....	48,500	3,300	13,810	10,000,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1934-35					
October	254,170	9,290	7,720	8,199	504,100
November	256,170	9,450	7,260	8,539	508,100
December	197,760	8,420	4,200	6,379	392,300
January	165,430	8,250	3,520	5,336	328,100
February	244,080	9,850	5,320	8,717	484,100
March	374,450	18,100	8,420	12,080	742,700
April	465,200	19,000	12,100	15,510	922,700
May	564,300	33,900	13,100	18,200	1,119,000
June	1,630,300	83,800	33,800	54,340	3,234,000
July	1,040,300	66 000	20,000	33,560	2,063,000
August	326,680	18,500	7,750	10,540	648,000
September	221,310	8,420	6,490	7,377	439,000
Water year 1934-35	5,740,150	83,800	3,520	15,730	11,390,000
1935-36					
October	253,260	9,130	6,940	8,170	502,300
November	214,650	9,850	4,100	7,155	425,800
December	216,300	9,850	4,200	6,977	429,000
January	174,530	6,940	4,200	5,630	346,200
February	147,730	6,940	3,800	5,094	293,000
March	704,910	50,500	6,640	22,740	1,398,000
April	657,920	46,500	8,420	21,930	1,305,000
May	990,500	51,700	19,500	31,950	1,965,000
June	1,258,900	62,500	25,000	41,960	2,497,000
July	471,480	24,800	8,650	15,210	935,200
August	300,890	13,700	7,260	9,706	596,800
September	215,540	7,920	6,470	7,185	427,500
Water year 1935-36	5,606,610	62,500	3,800	15,320	11,120,000
1936-37					
October	262,400	8,850	7,400	8,465	520,500
November	287,580	14,600	5,810	9,586	570,400
December	192,340	9,850	2,490	6,205	381,500
January	149,320	7,420	3,420	4,817	296,200
February	155,780	6,080	5,000	5,564	309,000
March	376,340	17,100	5,940	12,140	746,500
April	486,200	27,200	11,300	16,210	964,400
May	559,700	30,700	10,600	18,050	1,110,000
June	1,450,000	88,300	27,000	48,330	2,876,000
July	925,400	52,900	11,800	29,850	1,836,000
August	239,430	14,300	4,570	7,724	474,900
September	187,570	8,880	4,570	6,252	372,000
Water year 1936-37	5,272,060	88,300	2,490	14,440	10,460,000
1937-38					
October	346,690	19,200	8,800	11,180	687,600
November	220,930	9,140	4,980	7,364	438,200
December	143,500	5,830	2,820	4,629	284,600
January	205,430	8,000	5,190	6,627	407,500
February	121,670	5,300	3,160	4,345	241,300
March	875,070	57,300	4,770	28,360	1,736,000
April	301,750	12,100	7,100	10,060	598,500
May	512,270	34,300	8,950	16,520	1,016,000
June	1,722,600	90,500	40,800	57,420	3,417,000
July	1,643,600	106,000	28,100	53,020	3,260,000
August	712,400	29,200	19,300	22,980	1,413,000
September	625,300	33,500	18,300	20,840	1,240,000
Water year 1937-38	7,431,210	106,000	2,820	20,360	14,740,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	427,190	25,100	9,030	13,780	847,300
November	518,800	21,500	10,200	17,290	1,029,000
December	364,290	15,300	8,830	11,750	722,600
January	325,470	13,800	7,930	10,500	645,600
February	188,710	8,520	5,240	6,740	374,300
March	1,008,310	128,000	8,520	32,530	2,000,000
April	816,300	50,900	18,100	27,210	1,619,000
May	1,024,000	42,200	18,100	33,030	2,031,000
June	1,337,400	56,400	34,100	44,580	2,653,000
July	703,700	39,900	12,100	22,700	1,396,000
August	362,200	14,200	7,650	11,680	718,400
September	220,920	8,420	6,630	7,364	438,200
Water year 1938-39	7,297,290	128,000	5,240	19,990	14,470,000
1939-40					
October	274,110	11,000	7,650	8,842	543,700
November	306,590	11,600	8,520	10,220	608,100
December	205,050	9,330	1,320	6,615	406,700
January	94,310	4,450	1,760	3,042	187,100
February	138,650	5,580	2,970	4,781	275,000
March	238,890	11,400	4,830	7,706	473,800
April	478,350	23,800	8,520	15,940	948,800
May	575,900	26,200	11,000	18,580	1,142,000
June	908,000	41,300	17,500	30,270	1,801,000
July	572,100	27,000	14,100	18,450	1,135,000
August	571,100	23,400	17,000	18,420	1,133,000
September	249,760	17,200	5,150	8,325	495,400
Water year 1939-40	4,612,810	41,300	1,320	12,600	9,150,000
1940-41					
October	385,770	30,200	8,680	12,440	765,200
November	209,530	9,850	3,800	6,984	415,600
December	203,650	10,500	4,000	6,570	403,900
January	143,700	6,600	3,200	4,635	285,000
February	160,250	6,300	4,850	5,723	317,900
March	269,700	23,300	4,400	8,700	534,900
April	539,300	25,400	15,600	17,980	1,070,000
May	668,600	39,000	16,200	21,570	1,326,000
June	927,600	40,800	22,400	30,920	1,840,000
July	597,700	29,600	16,700	19,280	1,186,000
August	642,000	30,100	18,100	20,710	1,273,000
September	602,200	42,000	12,800	20,070	1,194,000
Water year 1940-41	5,350,000	42,000	3,200	14,660	10,610,000
1941-42					
October	486,100	26,200	12,400	15,680	964,200
November	314,600	12,400	6,700	10,490	624,000
December	259,900	11,700	4,800	8,384	515,500
January	173,800	8,300	2,600	5,606	344,700
February	202,600	7,800	5,600	7,236	401,900
March	549,600	28,000	6,100	17,730	1,090,000
April	500,500	24,200	13,400	16,680	992,700
May	748,200	54,800	13,800	24,140	1,484,000
June	1,420,200	68,600	31,000	47,340	2,817,000
July	777,800	36,200	15,600	25,090	1,543,000
August	564,000	21,400	16,900	18,190	1,119,000
September	560,900	21,100	17,400	18,700	1,113,000
Water year 1941-42	6,558,200	68,600	2,600	17,970	13,008,500

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	584,300	21,100	17,500	18,850	1,159,000
November	421,910	21,400	4,800	14,060	836,800
December	174,800	10,400	2,400	5,639	346,700
January	167,310	8,000	2,400	5,397	331,900
February	433,040	70,000	2,800	15,470	858,900
March	906,700	168,000	7,500	29,250	1,798,000
April	1,045,400	131,000	21,100	34,850	2,074,000
May	650,900	28,900	17,500	21,000	1,291,000
June	1,812,700	84,600	35,600	60,420	3,595,000
July	1,503,500	80,600	25,500	48,500	2,982,000
August	806,600	33,500	19,700	26,020	1,600,000
September	807,900	28,400	25,900	26,930	1,602,000
Water year 1942-43	9,315,060	168,000	2,400	25,520	18,475,300
1943-1944					
October	820,100	28,900	24,400	26,450	1,627,000
November	686,900	26,800	19,400	22,900	1,362,000
December	575,000	20,500	10,000	18,550	1,140,000
January	410,600	20,000	5,250	13,250	814,400
February	278,900	17,800	6,720	9,617	553,200
March	553,300	50,000	5,200	17,850	1,097,000
April	535,400	40,000	7,230	17,850	1,062,000
May	653,710	51,900	7,640	21,090	1,297,000
June	2,118,100	117,000	30,200	70,600	4,201,000
July	1,194,700	81,400	17,500	38,540	2,370,000
August	717,700	28,400	20,700	23,150	1,424,000
September	556,600	21,400	16,900	18,550	1,104,000
Water year 1943-44	9,101,010	117,000	5,200	24,870	18,051,600

MISSOURI RIVER AT SANISH, NORTH DAKOTA

Location: Section 14, Township 152 North, Range 93 West at Highway bridge at Sanish.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928					
September 23-30	111,700	15,400	13,500	14,000	222,000
1928-29					
October	458,600	18,300	12,900	14,800	910,000
November	427,600	15,400	12,900	14,300	851,000
December	329,120	.....	.....	10,600	652,000
January	284,820	.....	.....	9,190	565,000
February	211,620	9,700	5,180	7,560	420,000
March	450,620	85,800	8,820	27,200	1,670,000
April	888,300	50,900	19,900	29,600	1,760,000
May	1,309,300	84,400	28,700	42,200	2,590,000
June	2,084,800	90,000	52,200	69,500	4,140,000
July	1,121,400	58,700	16,800	36,200	2,230,000
August	313,360	15,400	7,620	10,100	621,000
September	348,460	14,100	8,000	11,600	690,000
Water year 1928-29	8,229,000	.....	.....	23,571	17,099,000
1929-30					
October	422,700	14,900	12,500	13,600	836,000
November	350,220	14,100	.....	11,700	696,000
December	275,150	.....	.....	8,880	546,000
January	297,990	.....	.....	9,610	591,000
February	462,151	.....	.....	16,500	916,000
March	559,200	.....	.....	18,000	1,110,000
April	980,100	81,000	24,000	32,700	1,950,000
May	950,500	40,100	24,700	30,700	1,890,000
June	1,171,500	50,700	26,200	39,000	2,320,000
July	733,000	34,000	13,700	23,600	1,450,000
August	540,700	32,200	10,200	17,400	1,070,000
September	417,700	17,900	11,800	13,900	827,000
Water year 1929-30	7,160,910	.....	.....	19,600	14,200,000
1930-31					
October	460,400	21,400	11,500	14,900	916,000
November	343,310	15,900	7,100	11,400	678,000
December	303,160	12,900	7,100	9,780	601,000
January	214,650	9,880	4,900	6,920	425,000
February	328,700	12,900	10,500	11,700	650,000
March	378,860	15,900	9,560	12,200	750,000
April	386,700	41,200	10,500	12,900	768,000
May	545,840	34,000	9,560	17,600	1,080,000
June	1,103,900	47,400	19,200	36,800	2,190,000
July	343,480	22,600	5,120	11,000	676,000
August	261,110	16,000	5,120	8,420	518,000
September	169,360	9,640	4,700	5,650	336,000
Water year 1930-31	4,838,470	47,400	4,700	13,300	9,590,000
1931-32					
October	277,220	10,400	8,000	9,400	550,000
November	210,490	8,930	3,250	7,020	418,000
December	156,300	7,400	3,400	5,040	310,000
January	205,860	9,270	5,000	6,640	408,000
February	164,150	8,000	4,400	5,660	326,000
March	359,440	18,600	8,600	11,600	713,000
April	720,700	50,700	15,000	24,000	1,430,000
May	1,126,200	68,400	19,800	36,300	2,230,000
June	2,112,200	100,000	42,300	70,400	4,190,000
July	1,163,100	84,800	15,500	37,500	2,310,000
August	419,100	18,600	10,800	13,500	830,000
September	339,370	16,500	9,270	11,300	672,000
Water year 1931-32	7,254,130	100,000	3,250	19,800	14,400,000

MISSOURI RIVER NEAR ELBOWOODS, NORTH DAKOTA

Location: Latitude 47° 34', Longitude 102° 12'. NE¼NE¼ Section 12, Township 147 N, Range 91 W, at bridge on State Highway No. 8, 2 miles down stream from Little Missouri River. 2½ miles west of Elbowoods.

Drainage Area: 179,800 square miles.

Records Available: October 1939 to September 1944.

Extremes: Maximum discharge 65,000 second-feet April 10, 1941; Min. 1,500 Sec-Ft. Dec. 30, 1919.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	274,900	10,800	8,120	8,868	545,300
November	306,650	11,400	8,820	10,220	608,200
December	220,360	9,980	1,500	7,108	437,100
January	98,900	4,200	1,700	3,190	196,200
February	133,800	5,400	3,200	4,614	265,400
March	209,700	10,100	4,900	6,765	415,900
April	535,500	24,900	10,300	17,850	1,062,000
May	580,400	24,900	13,700	18,720	1,151,000
June	902,100	37,800	22,400	30,070	1,789,000
July	574,400	24,100	15,200	18,530	1,139,000
August	606,300	26,800	17,700	19,560	1,203,000
September	302,160	18,500	6,000	10,070	599,300
Water year 1939-40	4,745,170	37,800	1,500	12,960	9,411,400
1940-41					
October	404,000	31,200	9,520	13,030	801,300
November	205,140	9,820	2,200	6,838	406,900
December	211,400	10,000	4,400	6,819	419,300
January	159,700	6,800	4,000	5,152	316,800
February	161,500	6,100	5,200	5,768	320,300
March	235,000	13,000	4,900	7,581	466,100
April	642,200	38,800	15,000	21,410	1,274,000
May	635,000	32,300	16,500	20,480	1,260,000
June	1,095,800	60,300	24,900	36,530	2,173,000
July	609,200	26,500	17,200	19,650	1,208,000
August	698,300	37,600	18,600	22,530	1,385,000
September	641,100	47,000	14,400	21,370	1,272,000
Water year 1940-41	5,698,340	60,300	2,200	15,610	11,302,000
1941-42					
October	528,300	28,300	14,000	17,040	1,048,000
November	337,550	13,900	6,000	11,250	669,500
December	253,870	11,200	5,000	8,189	503,500
January	167,400	8,300	2,900	5,400	332,000
February	213,500	8,500	5,700	7,625	423,500
March	536,400	37,000	5,600	17,300	1,064,000
April	571,900	30,000	15,000	19,060	1,134,000
May	770,700	54,500	15,700	24,860	1,529,000
June	1,531,600	72,800	30,400	51,050	3,038,000
July	870,600	43,000	17,200	28,080	1,727,000
August	598,800	23,100	17,800	19,320	1,188,000
September	596,100	21,800	18,900	19,870	1,182,000
Water year 1941-42	6,976,720	72,800	2,900	19,110	13,838,500

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-1943					
October	608,500	21,500	18,800	19,630	1,207,000
November	454,600	22,800	6,000	15,150	901,700
December	174,100	8,000	3,800	5,616	345,300
January	179,600	7,100	3,100	5,794	356,200
February	419,500	70,000	3,000	14,980	832,100
March	898,500	200,000	10,000	28,900	1,782,000
April	1,457,200	224,000	23,200	48,570	2,890,000
May	681,600	28,800	16,400	21,990	1,352,000
June	1,858,400	82,000	29,900	61,950	3,686,000
July	1,581,900	84,000	27,200	51,030	3,138,000
August	831,300	35,800	20,700	26,820	1,649,000
September	813,600	29,100	26,400	27,120	1,614,000
Water year 1942-43	9,958,000	224,000	3,000	27,280	19,753,300
1943-1944					
October	839,900	28,800	25,200	27,090	1,666,000
November	714,900	27,200	21,100	23,830	1,418,000
December	481,500	21,100	12,200	15,530	955,000
January	385,100	18,400	7,100	12,240	763,800
February	333,700	16,400	8,000	11,510	661,900
March	463,500	66,000	8,000	14,950	919,300
April	1,206,820	110,000	9,710	40,230	2,394,000
May	657,800	53,500	9,260	21,220	1,305,000
June	2,217,000	114,000	29,000	73,900	4,397,000
July	1,280,700	84,000	20,000	41,310	2,540,000
August	755,400	30,400	21,800	24,370	1,498,000
September	592,700	22,500	18,800	19,760	1,176,000
Water year 1943-44	9,929,020	110,000	7,100	27,130	19,690,000

MISSOURI RIVER AT BISMARCK, NORTH DAKOTA

Location: At Memorial Highway Bridge one mile West of Bismarck and about four miles above the Heart River. Latitude 46° 48′ 30″. Longitude 100° 49′ 5″. Section 31, Township 139 North, Range 80 West. Prior to April 10, 1936, water stage recorder was located at Bismarck City Water Plant, 2,000 feet upstream with datum 0.47 feet higher. Zero of gage is 1,618.38 feet above mean sea level.

Drainage Area: 186,400 Square Miles.

Records Available: October 1927 to September 1944.

Extremes: Maximum discharge 273,000 sec. ft. April 3, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1927-28					
October	673,900	25,000	19,600	21,700	1,330,000
November 1-14	285,000	22,200	17,300	20,400	566,000
November 15-30	.....	.....	.....	.....	* 500,000
December	.....	.....	.....	.....	* 500,000
January	.....	.....	.....	.....	* 600,000
February	.....	.....	.....	.....	* 800,000
March 1-14	.....	.....	.....	.....	*1,500,000
March 15-31	2,062,200	201,000	68,600	121,000	4,080,000
April	1,135,400	101,000	25,900	37,800	2,250,000
May	1,952,600	107,000	26,800	63,000	3,870,000
June	2,328,600	125,000	54,400	77,600	4,620,000
July	2,471,400	122,000	41,800	79,700	4,900,000
August	870,600	45,400	14,600	28,100	1,730,000
September	419,600	15,900	12,800	14,000	833,000
Water year 1927-28	.....	201,000	12,800	.....	28,079,000
* Estimated					
1928-29					
October	455,600	18,000	12,800	14,700	904,000
November	454,300	17,600	13,000	15,110	898,000
December	297,560	.....	.....	9,600	590,000
January	322,320	.....	.....	10,400	640,000
February	228,920	10,800	5,800	8,180	454,000
March	543,720	77,300	9,040	17,500	1,080,000
April	1,028,000	60,900	22,300	34,300	2,040,000
May	1,243,100	93,900	29,500	40,100	2,470,000
June	2,194,000	105,000	51,700	73,100	4,350,000
July	1,168,500	58,100	23,200	37,700	2,320,000
August	436,900	21,900	10,200	14,100	867,000
September	334,250	13,100	9,850	11,100	660,000
Water Year 1928-29	8,707,970	105,000	5,800	23,900	17,273,000
1929-30					
October	428,300	14,900	12,200	13,800	848,000
November	376,940	13,500	7,540	12,600	750,000
December	265,080	14,400	5,720	7,920	487,000
January	262,620	.....	.....	8,770	539,000
February	509,600	.....	.....	16,000	889,000
March	885,200	.....	.....	28,600	1,760,000
April	1,072,300	72,400	24,600	35,700	2,120,000
May	995,300	40,300	25,400	31,700	1,950,000
June	1,165,500	59,800	28,600	38,800	2,310,000
July	717,300	36,600	15,400	23,100	1,420,000
August	544,200	39,000	10,600	17,600	1,080,000
September	452,000	20,600	11,400	15,100	898,000
Water year 1929-30	7,664,300	72,400	5,720	20,800	15,100,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1930-31					
October	411,600	19,500	11,400	13,300	818,000
November	376,350	15,400	6,970	12,500	744,000
December	272,630	11,800	6,190	8,790	540,000
January	207,490	7,690	5,840	6,690	411,000
February	281,820	12,600	7,690	10,100	561,000
March	416,900	23,300	10,400	13,400	824,000
April	393,100	26,900	11,000	13,100	780,000
May	506,300	31,500	10,400	16,300	1,000,000
June	1,035,900	45,700	15,400	34,500	2,050,000
July	390,980	23,900	6,410	12,600	775,000
August	280,600	15,300	6,200	9,050	556,000
September	183,570	8,930	5,460	6,120	364,000
Water year 1930-31	4,757,240	45,700	5,460	13,000	9,420,000
1931-32					
October	291,400	10,600	8,360	9,400	578,000
November	218,170	8,930	3,820	7,270	433,000
December	160,250	6,630	3,690	5,170	318,000
January	201,800	8,640	4,530	6,510	400,000
February	161,190	9,560	4,380	5,560	320,000
March	388,700	25,100	10,600	12,500	769,000
April	837,100	79,900	15,300	27,900	1,660,000
May	1,131,100	79,900	18,500	35,900	2,210,000
June	2,075,100	116,000	33,300	69,200	4,120,000
July	1,345,600	101,000	19,000	43,400	2,670,000
August	426,900	18,000	11,000	13,800	848,000
September	356,580	16,600	9,880	11,900	708,000
Water year 1931-32	7,593,900	116,000	3,690	20,700	15,100,000
1932-33					
October	359,500	14,500	10,600	11,600	713,000
November	278,060	14,500	7,340	9,270	552,000
December	240,880	13,600	3,820	7,770	478,000
January	253,590	9,240	6,630	8,180	503,000
February	211,340	8,640	5,810	7,550	419,000
March	878,880	87,500	7,840	28,400	1,750,000
April	595,900	57,000	15100	19,900	1,180,000
May	1,215,300	79,200	18,000	39,200	2,410,000
June	2,125,000	88,800	46,200	70,800	4,210,000
July	777,400	52,100	12,000	25,100	1,540,000
August	281,120	12,000	7,810	9,070	558,000
September	479,810	38,600	9,710	16,000	952,000
Water year 1932-33	7,696,780	88,800	3,820	21,100	15,300,000
1933-34					
October	289,630	10,300	8,590	9,343	574,500
November	361,500	26,600	5,500	12,050	717,000
December	185,200	12,000	3,300	5,974	367,300
January	275,200	13,500	4,200	8,877	545,900
February	430,300	20,200	12,400	15,370	853,500
March	590,000	48,500	13,100	19,030	1,170,000
April	577,900	24,100	15,600	19,260	1,146,000
May	807,100	31,700	20,800	26,040	1,601,000
June	853,400	47,400	19,000	28,450	1,693,000
July	340,890	20,200	6,150	11,000	676,100
August	183,720	10,000	4,040	6,249	384,200
September	136,830	5,290	3,980	4,561	271,400
Water year 1933-34	5,041,670	48,500	3,300	13,810	10,000,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1934-35					
October	233,140	8,200	5,620	7,521	462,400
November	259,730	8,900	8,240	8,658	515,200
December	169,900	7,500	3,400	5,481	337,000
January	155,900	6,500	4,000	5,029	309,200
February	230,600	9,900	5,800	8,236	457,400
March	321,900	14,900	8,500	10,380	638,500
April	523,400	29,000	10,900	17,450	1,038,000
May	520,700	34,100	13,600	16,800	1,033,000
June	1,614,100	82,600	32,200	53,800	3,202,000
July	1,215,300	104,000	21,000	39,200	2,411,000
August	371,550	23,000	8,340	11,990	737,000
September	236,280	9,250	7,140	7,876	468,700
Water year 1934-35	5,852,500	104,000	3,400	16,030	11,609,000
1935-36					
October	246,090	8,730	7,410	7,938	488,100
November	191,400	9,800	4,100	6,380	379,600
December	258,200	10,300	5,800	8,329	512,100
January	176,100	7,000	4,800	5,681	349,300
February	182,000	7,900	5,200	6,276	361,000
March	680 200	68,500	7,100	21,940	1,349,000
April	705,800	95,200	8,500	23,530	1,400,000
May	943,400	55,000	18,100	30,430	1,871,000
June	1,214,500	61,400	30,100	40,480	2,409,000
July	528,000	28,900	10,300	17,030	1,047,000
August	303,990	12,300	8,280	9,806	603,000
September	226,920	9,130	6,920	7,564	450,100
Water year 1935-36	5,656,600	95,200	4,100	15,460	11,220,000
1936-37					
October	257,420	9,400	7,250	8,304	510,600
November	306,500	18,000	8,200	10,220	607,900
December	163,000	9,700	3,100	5,258	323,300
January	186,850	10,500	4,100	6,027	370,600
February	151,700	5,700	5,200	5,418	300,900
March	378,400	21,700	5,400	12,210	750,500
April	573,700	42,000	14,200	19,120	1,138,000
May	518,500	29,700	11,700	16,730	1,028,000
June	1,446,500	94,500	23,400	48,220	2,869,000
July	1,031,100	72,200	16,200	33,260	2,045,000
August	295,910	15,200	5,080	9,545	586,900
September	186,800	7,810	4,750	6,227	370,500
Water year 1936-37	5,496,380	94,500	3,100	15,060	10,900,000
1937-38					
October	326,850	15,300	6,290	10,540	648,300
November	224,110	9,430	4,800	7,470	444,500
December	139,080	4,720	4,400	4,486	275,900
January	196,150	7,350	4,700	6,327	389,100
February	118,750	6,200	3,500	4,241	235,500
March	969,000	148,000	4,100	31,260	1,922,000
April	336,900	20,200	9,100	11,230	668,200
May	478,900	28,800	10,900	15,450	949,900
June	1,634,100	85,500	21,800	54,470	3,241,000
July	1,798,600	111,000	30,600	58,020	3,567,000
August	741,900	32,600	19,400	23,930	1,472,000
September	614,200	28,600	18,900	20,470	1,218,000
Water year 1937-38	7,578,540	148,000	3,500	20,760	15,030,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	467,490	23,100	9,710	15,080	927,300
November	458,700	21,000	9,100	15,290	909,800
December	328,600	12,700	9,300	10,600	651,800
January	334,700	12,100	9,500	10,800	663,900
February	199,300	9,100	5,700	7,118	395,300
March	1,115,500	212,000	7,800	35,980	2,213,000
April	961,600	73,900	18,400	32,050	1,907,000
May	979,100	44,600	18,400	31,580	1,942,000
June	1,415,200	67,000	37,600	47,170	2,807,000
July	837,200	47,900	14,800	27,010	1,661,000
August	395,700	15,100	10,000	12,760	784,900
September	235,000	9,400	7,120	7,833	466,100
Water year 1938-39	7,728,090	212,000	5,700	21,170	15,330,000
1939-40					
October	274,460	9,480	8,040	8,854	544,400
November	306,360	11,000	9,280	10,210	607,700
December	234,080	10,000	2,100	7,551	464,300
January	104,300	4,400	1,800	3,365	206,900
February	133,700	5,200	3,600	4,610	265,200
March	192,500	9,500	5,100	6,210	381,800
April	530,500	32,200	10,000	17,680	1,052,000
May	571,300	22,800	14,200	18,430	1,133,000
June	912,700	49,900	17,600	30,420	1,810,000
July	574,800	23,000	15,200	18,540	1,140,000
August	611,800	28,100	17,600	19,740	1,213,000
September	324,420	18,000	6,040	10,810	643,500
Water year 1939-40	4,770,920	49,900	1,800	13,040	9,462,000
1940-41	.....	.....	.....	.....	.....
October	401,800	27,600	8,700	12,960	797,000
November	192,600	10,900	3,200	6,420	382,000
December	227,800	8,900	4,900	7,348	451,800
January	163,100	6,500	4,000	5,261	323,500
February	163,300	6,300	5,300	5,832	323,900
March	233,100	12,000	5,100	7,519	462,300
April	648,700	41,600	16,000	21,620	1,287,000
May	621,300	31,800	16,700	20,040	1,232,000
June	1,115,200	49,400	25,000	37,170	2,212,000
July	625,600	30,600	17,200	20,180	1,241,000
August	669,600	33,200	18,700	21,600	1,328,000
September	666,900	47,300	14,700	22,230	1,323,000
Water year 1940-41	5,729,000	49,400	3,200	15,700	11,360,000
1941-42					
October	540,400	26,500	14,200	17,430	1,072,000
November	343,500	14,000	6,400	11,450	681,300
December	235,500	10,700	4,700	7,597	467,100
January	168,400	8,800	3,000	5,432	334,000
February	224,200	8,700	6,700	8,007	444,700
March	509,900	43,800	5,700	16,450	1,011,000
April	599,600	65,200	12,000	19,990	1,189,000
May	750,600	53,000	15,600	24,210	1,489,000
June	1,586,900	76,000	32,000	52,900	3,148,000
July	901,900	41,400	16,700	29,090	1,789,000
August	586,100	21,400	17,000	18,910	1,163,000
September	584,500	22,300	17,800	19,480	1,159,000
Water year 1941-42	7,031,500	76,000	3,000	19,260	13,947,100

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	609,500	20,500	18,900	19,660	1,209,000
November	485,800	22,600	6,900	16,190	963,600
December	171,300	8,600	3,900	5,526	339,800
January	184,300	8,200	4,300	5,945	365,600
February	237,800	40,000	3,600	8,493	471,700
March	847,100	108,000	13,500	27,330	1,680,000
April	1,864,200	273,000	21,700	62,140	3,698,000
May	686,800	25,600	19,100	22,150	1,362,000
June	1,787,900	88,500	22,200	59,600	3,546,000
July	1,666,900	84,900	27,800	53,770	3,306,000
August	830,800	34,100	21,700	26,800	1,648,000
September	835,900	32,500	26,600	27,860	1,658,000
Water year 1942-43	10,208,300	273,000	3,600	27,970	20,247,700
1943-44					
October	868,300	29,500	25,300	28,010	1,722,000
November	738,600	28,900	21,500	24,620	1,465,000
December	486,400	20,700	11,200	15,690	964,800
January	437,300	20,000	9,600	14,110	867,400
February	381,200	18,300	9,400	13,140	756,100
March	460,800	66,000	8,800	14,860	914,000
April	1,245,600	120,000	10,400	41,520	2,471,000
May	624,220	52,700	9,090	20,140	1,238,000
June	2,175,600	114,000	30,000	72,520	4,315,000
July	1,357,500	84,200	21,100	43,790	2,693,000
August	788,200	29,200	23,100	25,430	1,563,000
September	606,800	23,900	18,600	20,230	1,204,000
Water year 1943-44	10,170,520	120,000	8,800	27,790	20,170,000

LITTLE MISSOURI RIVER AT MARMARTH, NORTH DAKOTA

Location: Lat. 46°14', long. 103°54', in SE¼ Sec. 30, T, 133 N., R. 105 W. at highway bridge in Marmarth, 1½ miles downstream from Little Beaver Creek.

Drainage Area: 4,724 square miles.

Records available: March 1938 to September 1941—October 1943 to September 1944.

Extremes: Maximum discharge recorded 21,600 second-feet April 5, 1944; no flow at times.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	304	.....	.....	60.8	603
April	1,153	105	19	38.4	2,290
May	3,745	724	25	121	7,430
June	11,915	1,990	31	397	23,630
July	9,075	1,250	17	293	18,000
August	866	121	4	27.9	1,720
September	5,907	780	5	197	11,720
Water year 1937-38	32,965	.....	.....	.....	65,393
1938-39					
October	238.8	18	2.8	7.70	474
November	155.2	11	2.0	5.17	308
December	120.0	12	0	3.87	238
January	0	0	0	0	0
February	0	0	0	0	0
March	47,461.5	6,120	0	1,531	94,140
April	4,705	600	45	157	9,330
May	1,244	233	10	40.1	2,470
June	14,426	1,560	54	481	28,610
July	20,970	7,200	23	676	41,590
August	1,403	150	16	45.3	2,780
September	211.2	34	2.6	7.04	419
Water year 1938-39	90,934.7	7,200	0	249	180,359
1939-40					
October	394.0	35	2.6	12.7	781
November	387.2	23	8.2	12.9	768
December	343	18	.....	11.1	680
January	0	0	0	0	0
February	16	0	0	.6	32
March	11,935	1,500	25	385	23,670
April	12,193	1,500	158	406	24,180
May	2,352	1,300	12	237	14,580
June	8,292	1,160	15	276	16,450
July	14,922.4	5,830	7.0	481	29,600
August	8,202	1,160	14	265	16,270
September	2,452.0	1,110	2.1	81.7	4,860
Water year 1939-40	66,488.6	5,830	0	182	131,871

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	3,931	600	11	127	7,800
November	105.0	13	.....	3.50	208
December	15.5	.....	.....	.5	31
January	0	0	0	0	0
February	430	.....	.....	15.4	853
March	11,520	1,200	.....	372	22,850
April	17,876	2,870	114	596	35,460
May	3,658	448	11	118	7,260
June	80,431	9,320	265	2,681	159,500
July	2,551	309	18	82.3	5,060
August	4,300	675	21	139	8,530
September	15,791	1,520	49	526	31,320
Water year 1940-41	140,608.5	9,320	0	385	278,872
1943-44					
October	341.6	22	5.8	11	678
November	839	35	20	28	1,660
December	295.5	31	.....	9.53	586
January	3.1	.....	.....	.1	6.1
February	.....	.....	.....	.....	.....
March	3,945	2,750	.....	127	7,820
April	151,579	21,600	228	5,053	300,700
May	19,377	3,570	140	625	38,430
June	139,143	13,100	134	4,638	276,000
July	12,070	1,150	118	389	23,940
August	2,617	187	41	84.4	5,190
September	1,191	111	24	39.7	2,360
Water year 1943-44	331,401.2	21,600	0	905	657,400

LITTLE MISSOURI AT MEDORA, NORTH DAKOTA

Location: NE¼ of Section 27, Township 140, Range 102 West, at Highway bridge 200 feet below Northern Pacific Railway bridge at Medora, Billings County.

Drainage Area: 6,190 square miles.

Records Available: May 1903 to September 1908, October 1921 to September 1926, October 1928 to September 1934.

Maximum discharge 37,800 second feet June 7, 1929.

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1902-03					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May 12-31	.....	2,880	39	952	37,765
June	.....	830	54	237	14,102
July	.....	3,900	122	1,083	66,591
August	.....	6,100	500	2,295	141,114
September	.....	5,550	176	1,242	73,904
Water year 1902-03..	.....	6,100	39	.....	333,476
1903-04					
October	.....	147	43	68	4,181
November	.....	101	61	76	2,563
December	.....	.....	.....	.....	3,100
January	.....	.....	.....	.....	2,500
February	.....	.....	.....	.....	2,300
March	.....	2,480	452	986	37,160
April	.....	2,480	64	797	47,420
May	.....	352	86	180	11,070
June	.....	6,042	110	1,193	70,990
July	.....	352	27	103	6,333
August	.....	15	4	10.1	621
September	.....	307	4	80.3	4,778
Water year 1903-04..	.....	6,042	4	.....	193,016
Note: Partially Estimated.					
1904-05					
October	.....	86	2	33.1	2,035
November	.....	27	10	13.7	706
December	.....	.....	.....	.....	1,000
January	.....	.....	.....	.....	462
February	.....	.....	.....	.....	2,760
March	.....	2,220	29	467	28,720
April	.....	29	2.7	8.1	483
May	.....	187	2.7	60.5	3,720
June	.....	4,620	9.8	2,016	120,000
July	.....	5,580	470	2,696	165,800
August	.....	3,905	85	781	48,020
September	.....	1,280	1.9	235	13,980
Water year 1904-05..	.....	5,580	1.9	.....	388,486

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1905-06					
October	.....	720	29	271	16,660
November 1-28	.....	770	54	236	13,110
December	.....	.....	.....	.....	9,200
January	.....	.....	.....	.....	4,000
February	.....	.....	.....	.....	3,300
March 23-31	.....	7,200	503	2,150	38,400
April	.....	3,890	152	894	53,200
May	.....	4,210	260	1,010	62,100
June	.....	10,600	377	2,000	119,000
July	.....	377	85	181	11,100
August	.....	4,370	85	867	53,300
September	.....	1,560	69	449	26,700
Water year 1905-06	.....	10,600	29	.....	410,070
1906-07					
October	.....	69	15	26.3	1,620
November 1-17	.....	54	29	52.5	1,770
December	.....	.....	.....	.....	3,100
January	.....	.....	.....	.....	2,500
February 17-28	.....	6,010	688	2,890	68,800
March	.....	1,060	260	671	41,300
April	.....	260	54	143	8,450
May	.....	15,500	29	2,500	154,000
June	.....	19,000	970	4,160	248,000
July	.....	6,460	820	1,820	112,000
August	.....	1,050	44	290	17,800
September	.....	680	24	115	6,840
Water year 1906-07	.....	19,000	24	.....	666,180
1907-08					
October	.....	80	8	29.5	1,810
November	.....	8	8	8	476
December 1-14	.....	8	4	4.3	119
January	.....	.....	.....	.....	200
February	.....	.....	.....	.....	3,000
March 14-31	.....	2,270	210	936	33,400
April	.....	1,130	14	383	22,800
May	.....	4,160	80	1,280	78,700
June	.....	10,200	615	3,320	198,000
July	.....	1,700	77	473	29,100
August	.....	640	34	94.5	5,810
September	.....	243	16	58.9	3,390
Water year 1907-08	.....	10,200	4	.....	376,805

Note: Water year 1908-1909—18,100. Discontinued until 1921.

1921-22					
October 11-31	.....	12	9	10.1	421
November 1-21	.....	12	10	11.1	462
December	.....	.....	.....	.....	675
January	.....	.....	.....	.....	1,982
February	.....	.....	.....	.....	41,000
March 12-31	.....	3,000	55	1,070	42,400
April	.....	2,200	395	1,180	70,200
May	.....	4,000	440	1,490	91,600
June 1-17	.....	7,840	605	2,660	89,700
July	.....	.....	.....	.....	27,000
August	.....	.....	.....	.....	12,800
September	.....	.....	.....	.....	2,080
Water year 1921-22	.....	7,840	9	.....	380,320

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1922-23					
October	.....	.....	.....	.....	6,150
November 6-30	.....	665	150	342	17,000
December	.....	440	15	86.3	5,310
January	.....	.....	.....	.....	5,530
February	.....	.....	.....	.....	13,900
March	.....	.....	.....	.....	20,900
April	.....	.....	.....	.....	26,800
May	.....	109	50	76.1	4,680
June	.....	1,040	41	381	22,700
July	.....	1,230	69	356	21,900
August	.....	4,200	330	1,430	87,900
September	.....	5,030	69	662	39,400
Water year 1922-23	.....	5,030	15	.....	266,860
1923-24					
October	.....	10,700	240	2,050	126,000
November	.....	240	109	163	9,710
December	.....	240	59	115	7,090
January	.....	50	30	38	2,360
February	.....	1,720	40	437	25,200
March	.....	4,610	300	1,584	97,400
April	.....	18,500	650	5,590	335,000
May	.....	590	110	288	17,800
June	.....	4,100	80	634	37,800
July	.....	1,860	175	531	33,600
August	.....	650	80	233	14,300
September	.....	140	23	47.4	2,820
Water year 1923-24	.....	18,520	23	980	709,000
1924-25					
October	.....	2,450	15	528	32,500
November	.....	112	32	69	4,120
December	.....	26	15	18	1,080
January	.....	15	10	13	793
February	.....	1,040	15	663	36,800
March	.....	12,400	1,230	4,761	293,000
April	.....	1,340	176	445	26,500
May	.....	176	46	85	5,220
June	.....	5,850	210	2,130	126,000
July	.....	1,860	46	400	24,600
August	.....	210	22	70	4,290
September	.....	345	22	120	7,130
Water year 1924-25	.....	12,400	10	775	562,033
1925-26					
October	.....	46	15	27	1,690
November	.....	15	15	15	890
December	.....	32	15	24	1,460
January	.....	15	10	13	800
February	.....	210	10	49	2,730
March	.....	5,850	86	1,821	111,900
April	.....	1,720	112	654	38,900
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1925-26	.....	.....	.....	.....	158,370

Note: No Record from October 1926 to September 1928.

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1928					
September	.....	480	13	140	8,330
1928-29					
October	.....	174	20	63.7	3,920
November 1-26	.....	109	16	45.5	2,350
December	.....	.....	.....	.....	922
January	.....	.....	.....	.....	307
February	.....	.....	.....	.....	167
March 11-31	.....	13,500	1,130	6,470	269,000
April	.....	13,100	1,050	3,210	191,000
May	.....	28,800	416	3,120	192,000
June	.....	33,700	251	4,690	279,000
July	.....	368	115	212	13,000
August	.....	188	29	82.6	5,080
September	.....	234	24	55.5	3,300
Water year 1928-29	.....	33,700	16	.....	958,650
1929-30					
October	.....	580	60	185	11,400
November 1-19	.....	73	36	53.8	2,030
December	.....	.....	.....	.....	1,230
January	.....	.....	.....	.....	615
February	.....	.....	.....	.....	15,200
March 9-31	.....	2,040	305	1,080	49,300
April	.....	493	90	176	10,500
May	.....	346	51	147	9,040
June	.....	3,320	286	1,310	78,000
July	.....	674	25	148	9,100
August	.....	416	10	93.0	5,720
September	.....	3,560	32	300	17,900
Water year 1929-30	.....	3,560	10	.....	210,035
1930-31					
October	.....	58	23	35.7	2,200
November	.....	31	16	21.4	1,270
December	.....	33	16	20.7	1,270
January	.....	.....	.....	.....	1,310
February	.....	.....	.....	.....	9,220
March	.....	.....	.....	.....	7,260
April	.....	391	24	88.8	5,280
May	.....	48	17	23.6	1,450
June	.....	1,660	50	315	18,700
July	.....	814	.....	296	18,200
August	.....	1,130	70	395	24,300
September	.....	416	.....	121	7,200
Water year 1930-31	.....	1,660	16	.....	97,660
1931-32					
October	.....	268	44	91.8	5,640
November	.....	152	.....	57.5	3,420
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	2,250	1,300	1,690	20,000
April	.....	12,200	120	1,790	107,000
May	.....	3,950	188	776	47,700
June	.....	3,740	197	1,400	83,300
July	.....	3,290	56	524	32,200
August	.....	456	33	97.0	5,960
September	.....	404	11	57.7	3,430
Water year 1931-32	.....	12,200	11	622.4	308,650

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	379	10	119	7,320
November	.....	330	14	132	7,860
December	.....	83	.....	15.1	928
January	.....	.....	0	2.42	149
February	.....	735	0	56.6	3,140
March	.....	4,870	890	1,960	121,000
April	.....	1,610	322	749	44,600
May	.....	20,500	472	2,790	172,000
June	.....	1,390	91	341	20,300
July	.....	735	12	133	8,180
August	.....	12	0	4.27	263
September	.....	3.2	0	.78	46
Water year 1932-33	.....	20,500	0	531	385,786
1933-34					
October	.....	.....	0.3	2.30	141
November	.....	.....	.....	9.2	545
December	.....	.....	0	.8	52
January	.....	.....	.....	3.2	198
February	.....	.....	.....	61.2	3,400
March	.....	76	43	58.2	3,580
April	.....	330	22	115	6,850
May	.....	20	1.0	6.68	411
June	.....	1,250	.2	337	20,060
July	.....	404	1.5	100	6,180
August	.....	2.9	0	.75	46
September	.....	.8	0	.29	17
Water year 1933-34	.....	1,250	0	57.3	41,480

LITTLE MISSOURI RIVER NEAR WATFORD CITY, NORTH DAKOTA

Location: Lat. 47°36', long. 103°16', in NW¼ sec. 35, T. 148N., R. 99 W. at highway bridge 17½ miles south of Watford City.

Drainage Area: 8,490 square miles.

Records available: October 1934 to September 1941, October 1943 to September 1944.

Extremes: Maximum discharge observed 32,600 second feet April 8, 1944, no flow at times.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1934-35					
October	46.5	.....	.....	1.5	92
November	45	.....	.....	1.5	89
December	31	.....	.....	1.0	61
January	0	0	0	0	0
February	0	0	0	0	0
March	4,509	714	0	145	8,940
April	3,043	370	19	101	6,040
May	6,085	474	70	196	12,070
June	22,838	2,090	171	761	45,300
July	59,536	21,000	103	1,921	118,100
August	3,787	399	28	122	7,510
September	737.2	62	7.6	24.6	1,460
Water year 1934-35	100,657.7	21,000	0	276	199,662
1935-36					
October	201.7	8.2	3.1	6.51	400
November	64.8	3.1	1.3	2.16	129
December	81.3	48	.1	2.62	161
January	3.1	.....	.....	.1	6.1
February	0	0	0	0	0
March	73,211	8,620	24	2,362	145,200
April	30,325	2,660	230	1,011	60,150
May	3,064	220	20	98.8	6,080
June	556.6	54	3.8	18.6	1,100
July	1,860.5	548	0	60.0	3,690
August	785.4	276	0	25.3	1,560
September	41.5	4.3	.1	1.38	82
Water year 1935-36	110,194.9	8,620	0	301	218,558.1
1936-37					
October	38.9	3.8	0	1.25	77
November	53.5	3.6	.6	1.78	106
December	.4	.1	0	.01	1
January	0	0	0	0	0
February	0	0	0	0	0
March	20,681	2,070	0	667	41,020
April	26,120	2,940	62	871	51,810
May	4,090	950	30	132	8,110
June	74,899	8,430	122	2,497	148,500
July	36,423	3,800	131	1,175	72,240
August	43,562.7	5,360	6.1	1,405	86,410
September	6,773.4	1,380	9.4	226	13,430
Water year 1936-37	212,641.9	8,430	0	583	421,704

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	2,711	610	12	87.5	5,380
November	242	17	3	8.1	480
December	77	4	0	2.5	153
January	0	0	0	0	0
February	955	610	0	34.1	1,890
March	91,592	13,800	370	2,955	181,700
April	9,284	1,280	92	309	18,410
May	9,612	980	56	310	19,070
June	34,410	5,640	62	1,147	68,250
July	39,141	5,640	117	1,263	77,640
August	5,574	1,350	16	180	11,060
September	7,546	1,090	14	252	14,970
Water year 1937-38	201,144	13,800	0	551	398,903
1938-39					
October	1,869	298	18	60.3	3,710
November	370	22	.....	12.3	734
December	289	12	.....	9.32	573
January	125	.....	0	4.03	248
February	0	0	0	0	0
March	99,723	25,500	0	3,217	197,800
April	12,830	2,090	132	428	25,450
May	3,292	250	51	106	6,530
June	23,625	2,010	268	788	46,860
July	25,936	4,280	106	837	51,440
August	4,100	657	26	132	8,130
September	873.7	117	6.7	29.2	1,730
Water year 1938-39	173,032.7	25,500	0	474	343,205
1939-40					
October	224.2	12	3.0	7.23	445
November	161	.....	.....	5.4	319
December	173	.....	.....	5.6	343
January	20	.....	0	.6	40
February	0	0	0	0	0
March	13,545	1,500	0	437	26,870
April	24,462	2,920	244	815	48,520
May	13,319	1,600	89	430	26,420
June	13,717	1,390	79	457	27,210
July	11,644	2,630	66	376	23,100
August	17,450	2,120	100	563	34,610
September	10,019	2,280	13	334	19,870
Water year 1939-40	104,734.2	2,920	0	286	207,747
1940-41					
October	7,396	800	83	239	14,670
November	778	81	0	25.9	1,540
December	18.5	0	0	.60	37
January	7.5	0	0	.24	15
February	290	50	0	10.0	575
March	17,020	2,180	0	549	33,760
April	21,079	1,590	254	703	41,810
May	6,985	360	123	225	13,850
June	95,608	10,600	165	3,187	189,600
July	9,965	2,500	85	321	19,770
August	12,380	1,910	79	399	24,560
September	35,208	11,600	172	1,174	69,830
Water year 1940-41	206,735.0	11,600	0	566	410,017

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	14,018	1,380	107	452	27,800
November	1,976	103	28	65.9	3,920
December	783	.....	.....	25.3	1,550
January	10	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	59,333	10,500	1	1,914	117,700
April	27,733	4,260	86	924	55,010
May	36,704	2,550	582	1,184	72,800
June	50,942	4,620	254	1,698	101,000
July	5,734	498	35	185	11,370
August	4,412	350	30	142	8,750
September	4,729	300	30	158	9,380
Water year 1941-42	206,374	10,500	.....	565	409,300
1942-43					
October	1,124	84	16	36.3	2,230
November	1,121	71	13	37.4	2,220
December	239	.....	.....	7.7	474
January	218	150	.....	7.0	432
February	84,639	25,000	.....	3,023	167,900
March	94,010	20,000	130	3,033	186,500
April	36,606	5,620	146	1,220	72,610
May	6,482	648	128	209	12,860
June	34,399	4,680	141	1,147	68,230
July	26,916	3,530	77	868	53,390
August	13,074	3,450	65	422	25,930
September	4,117	505	33	137	8,170
Water year 1942-43	302,945	25,000	0	830	600,946
1943-44					
October	790	37	16	25.5	1,570
November	1,663	82	10	55.4	3,300
December	116	15	0	3.7	230
January	18.5	.....	.....	.6	37
February	14.5	.....	.....	.5	29
March	2,365	500	0	76.3	4,690
April	250,543	31,600	596	8,351	496,900
May	23,051	2,460	345	744	45,720
June	169,386	13,000	838	5,646	336,000
July	28,499	4,210	252	919	56,530
August	7,937	566	120	256	15,740
September	3,787	256	98	126	7,510
Water year 1943-44	488,170	31,600	0	1,334	968,000

LITTLE BEAVER CREEK NEAR MARMARTH, NORTH DAKOTA

Location: Wire-weight gage lat. 46°14′, long. 103°57′, in S½ sec. 7, T. 132 N., R. 106W 3½ miles southwest of Marmarth and 5 miles upstream from mouth.

Drainage Area: 633 square miles.

Records Available: April 1938 to September 1944.

Extremes: Maximum discharge 4,460 second-feet July 6, 1939.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	189	21	.....	.....	375
May	1,143.3	393	3.1	.....	2,267
June	1,980.5	910	.5	.....	3,930
July	958.7	566	.....	.....	1,900
August	.....	.....	.....	.....	.....
September	464.8	209	.....	.....	922
Water year 1937-38	4,736.3	910	0	.....	9,400
1938-39					
October	.....	.....	.....	.....	.....
November	8.9	1.5	.....	.....	17.6
December	7	1.5	.....	.....	13.8
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	5,496.1	1,750	.....	.....	10,900
April	217.4	20	3	.....	431
May	411.5	208	1.5	.....	816
June	1,299.4	244	4.2	.....	2,577
July	2,876.9	1.840	.3	.....	5,705
August	44.4	22	.....	.....	88
September	.3	.2	.....	.....	.6
Water year 1938-39	10,361.9	1.840	.....	.....	20,550
1939-40					
October	.....	.....	.....	.....	.....
November	9.6	2.5	.....	.....	19
December	217.5	10	2.5	.....	431.3
January	2.5	.5	.....	.....	5
February	.....	.....	.....	.....	.....
March	2,059.8	324	3	.....	4,085
April	2,974.3	546	6.5	.....	5,900
May	248.1	96	.2	.....	492
June	101.2	42	.....	.....	200.7
July	78.6	35	.....	.....	156
August	310.2	268	.....	.....	615
September	.....	.....	.....	.....	.....
Water year 1939-40	6,001.8	546	0	.....	11,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	48.1	10	.....	1.55	95
November	9	1	.....	.3	18
December	.5	.1	.....	.02	1
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	305.5	67	.2	9.85	606
April	192.9	42	.8	6.43	383
May	173.7	27	.1	5.6	345
June	3,877	1,250	1.6	129	7,690
July	36.8	8.4	.....	1.19	73
August	432	118	.....	13.9	857
September	1,653.2	395	2.2	55.1	3,280
Water year 1940-41	6,728.7	1,250	0	18.4	13,350
1941-42					
October	.....	805	3.1	68.9	4,240
November	.....	4.3	2	2.66	158
December	.....	18	.7	3.04	187
January	.....	.....	0	.35	21
February	.....	3.5	0	1.25	69
March	.....	1,200	.5	156	9,590
April	.....	406	15	81.7	4,860
May	.....	778	11	83.2	5,110
June	.....	1,130	7.4	76.1	4,530
July	.....	18	1	4.62	284
August	.....	123	.3	9.43	580
September	.....	48	1	4.91	292
Water year 1941-42	.....	1,200	0	41.3	29,921
1942-43					
October	.....	2.6	1.6	2.25	138
November	.....	2.6	1.8	2.33	139
December	.....	10	.....	2.47	152
January	.....	100	0	8.35	514
February	.....	3,000	0	284	15,770
March	.....	2,720	1.5	271	16,670
April	.....	62	7.4	17.8	1,060
May	.....	26	5.1	8.82	542
June	.....	2,330	4.1	225	13,370
July	.....	388	2.3	42.3	2,600
August	.....	378	1.4	33	2,030
September	.....	4.6	1.6	2.21	132
Water year 1942-43	.....	3,000	0	73.4	53,117
1943-44					
October	55.6	3.7	.9	1.79	110
November	139.7	7.4	2.3	4.66	277
December	76.6	4.1	.....	2.47	152
January	12.1	.....	.....	.39	24
February	.....	.....	.....	.....	.....
March	240	150	.....	7.7	476
April	24,068	4,660	23	802	47,740
May	653	27	13	21.1	1,300
June	12,203	3,700	11	407	24,200
July	1,156.6	770	4.2	37.3	2,290
August	186.4	50	2.5	6.01	370
September	207.7	41	3.2	6.92	412
Water year 1943-44	38,998.7	4,660	0	107	77,400

LITTLE MUDDY RIVER NEAR WILLISTON, NORTH DAKOTA

Location: Sec. 31, T. 155 N., R. 100 W. half a mile upstream from bridge on U. S. Highway 2 and 4½ miles northeast of Williston.

Records Available: June 1932 to July 1933 (discontinued); February 1904 to April 1909.

Extremes: Maximum (Est.) 4,340 second-feet Feb. 1-20, 1933.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1903-04					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	6.5	400
February	.....	.....	.....	7	400
March	.....	.....	.....	9.8	600
April	.....	2,990	500	1,228.5	73,100
May	.....	684	23	164.1	10,100
June	.....	66	16	24.4	1,450
July	.....	16	6	11.9	730
August	.....	10	6	8.1	500
September	.....	10	6	8.6	510
Water year 1903-04	.....	2,990	6	.....	87,790
1904-05					
October	.....	16	10	10.4	640
November	.....	16	16	16	950
December	.....	.....	.....	14.6	900
January	.....	.....	.....	9.8	600
February	.....	.....	.....	9	500
March	.....	200	16	55.9	3,440
April	.....	16	6	9.1	540
May	.....	10	10	10	620
June	.....	150	10	27.1	1,610
July	.....	16	10	15	920
August	.....	10	6	7	430
September	.....	10	6	6.1	360
Water year 1904-05	.....	200	6	.....	11,510
1905-06					
October	.....	16	10	11.1	680
November	.....	16	10	11.1	660
December	.....	.....	.....	10.1	620
January	.....	.....	.....	8.9	500
February	.....	.....	.....	7.9	440
March	.....	60	27	12	740
April	.....	409	20	84.2	5,010
May	.....	60	20	26.3	1,620
June	.....	1,010	35	200	11,900
July	.....	35	6	20.2	1,240
August	.....	14	6	9.4	580
September	.....	9	6	8.2	490
Water year 1905-06	.....	1,010	6	.....	24,480

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1906-07					
October	.....	9	9	9	550
November	.....	14	9	9.7	580
December	.....	.....	.....	7	430
January	.....	.....	.....	6	370
February	.....	.....	.....	5.9	330
March	.....	.....	.....	21.1	1,300
April	.....	1,140	83	725.2	43,100
May	.....	114	34	64.4	3,960
June	.....	34	16	28.4	1,690
July	.....	21	7	12	740
August	.....	9	6	4.7	290
September	.....	12	7	8.2	490
Water year 1906-07	.....	1,140	6	.....	53,880
1907-08					
October	.....	9	9	9	550
November	.....	9	.....	8.2	490
December	.....	.....	.....	7	430
January	.....	.....	.....	5	310
February	.....	.....	.....	3.8	220
March	.....	27	16	10.2	630
April	.....	1,580	16	209.7	12,480
May	.....	170	16	48.1	2,960
June	.....	361	16	74.6	4,440
July	.....	21	6	8	490
August	.....	6	5	5	310
September	.....	5	5	5	320
Water year 1907-08	.....	1,580	5	.....	23,630
1908-09					
October	.....	9	5	7.2	440
November	.....	7	6	6.1	360
December	.....	.....	.....	5	310
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	284.6	17,500
April	.....	1,670	.....	54.5	3,480
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1908-09	.....	1,670	5	.....	22,090
Note: Discontinued until 1931-1932.					
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June 15-30	.....	206	16	57.6	1,830
July	.....	61	5	14.1	867
August	.....	7	4	5.3	326
September	.....	8	6	6.3	375
Water year 1931-32	.....	206	5	.....	3,398

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1932-33					
October	.....	14.0	5.4	8.27	508
November	.....	11.0	.....	8.50	506
December	.....	.....	.....	2.39	147
January	.....	.....	.....	.20	12
February	.....	546	.1	40.2	2,230
March	.....	798	207.0	414	25,500
April	.....	139	22.0	48.0	2,860
May	.....	95	15.9	27.7	1,700
June	.....	23.0	7.2	9.88	588
July 1-29	.....	6.7	2.8	4.04	232
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33	.....	798	.1	.....	34,283

KNIFE RIVER NEAR BRONCHO, NORTH DAKOTA

Location: In Southeast quarter of Section 4, Township 142 North, Range 90 West, a half mile below mouth of Elm Creek, and 15 miles above mouth of Spring Creek.

Drainage Area: 1,200 Square Miles.

Records Available: May 1903 to September 1927.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1902-03					
October					
November					
December					
January					
February					
March					
April					
May 29-31		83	64	74	440
June		64	24	30	1,785
July		840	16	60	3,689
August		311	16	46	2,828
September		217	13	62	3,689
Water year 1902-03		840	13		12.431
1903-04					
October		13	11	12	738
November 1-14		13	9	11	305
December					
January					
February					
March					
April		3,500	106	1,040	61,900
May		330	39	94.8	5,830
June		350	2	72.9	4,340
July		39	5	10.3	633
August		4	3	3.65	224
September		4	3	3.1	184
Water year 1903-04		3,500	2		74,154
1904-05					
October		5.5	3	4.42	272
November					
December					
January					
February					
March 23-31		25	14	18.3	327
April		14	4	7.4	440
May		25	4	10.4	640
June		597	4	81.4	4,840
July		555	4	58.3	3,580
August		283	1	15.8	972
September		4	0	1.42	85
Water year 1904-05		597	0		11,156
1905-06					
October		5.5	2	2.4	148
November 1-26		7	2	4.08	210
December					
January					
February					
March					
April		1,100	8.5	116	6,900
May		2,400	5.5	397	24,400
June		2,420	44	748	44,500
July		1,700	16	103	6,330
August		36	16	24.6	1,510
September		22	10	14.4	857
Water year 1905-06		2,420	5.5		84,855

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1906-07					
October	.....	10	7	9.71	597
November 1-16	.....	10	10	10	317
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	373	32	98.7	5,870
May	.....	32	19	24.6	1,510
June	.....	266	19	38.2	2,270
July	.....	40	4	12.1	744
August	.....	40	4	8.29	510
September	.....	10	2	3.86	230
Water year 1906-07	.....	373	2	.....	12,048
1907-08					
October	.....	7	2	4.23	266
November	.....	7	7	7	417
December 1-14	.....	10	7	7.1	197
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 12-21	.....	622	108	293	11,600
April	.....	586	19	102	6,070
May	.....	597	10	114	7,010
June	.....	902	19	156	9,280
July	.....	19	4	9.67	595
August	.....	7	4	4.56	282
September	.....	4	0	2.37	141
Water year 1907-08	.....	902	.....	.....	28,848
1908-09					
October	.....	14	4	5.52	339
November 1-21	.....	7	4	5.43	226
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	640	39,400
April	.....	318	25	91.8	6,460
May	.....	856	10	102	6,270
June	.....	2,530	19	373	22,200
July	.....	1,080	14	153	9,410
August	.....	960	10	159	9,780
September	.....	19	7	11.5	684
Water year 1908-09	.....	2,530	7	.....	94,769
1909-10					
October	.....	19	10	13.1	806
November	.....	.....	.....	14	883
December	.....	.....	.....	.....	.....
January	.....	.....	.....	5	307
February	.....	.....	.....	6	333
March	.....	3,210	.....	859	52,800
April	.....	70	19	32.4	1,930
May	.....	19	14	15	922
June	.....	471	10	54.3	3,230
July	.....	19	4	8.5	521
August	.....	10	4	8.5	526
September	.....	14	10	11.6	690
Water year 1909-10	.....	3,210	4	.....	62,948

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1910-11					
October	.....	10	10	10	615
November	.....	14	10	12.4	738
December	.....	.....	.....	6	369
January	.....	.....	.....	5	307
February	.....	.....	.....	4	222
March	.....	411	.....	83.1	5,110
April	.....	80	24	42	2,500
May	.....	31	6	14.8	910
June	.....	641	10	92.8	5,520
July	.....	82	2	10.2	627
August	.....	166	4	45.6	2,800
September	.....	282	7	61.1	3,640
Water year 1910-11	.....	641	2	.....	23,358
1911-12					
October	.....	32	7	11.5	707
November	.....	.....	.....	8	476
December	.....	.....	.....	5	307
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	.....	5,000	.....	2,456	24,357
April	.....	3,560	40	1,160	69,000
May	.....	2,920	40	571	35,100
June	.....	298	27	70.1	4,170
July	.....	356	4	69.4	4,270
August	.....	78	13	30.1	1,850
September	.....	40	13	18.9	1,120
Water year 1911-12	.....	5,000	4	.....	141,357
1912-13					
October	.....	57	22	28.5	1,750
November	.....	.....	.....	52.2	3,110
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	5,990	27	642	38,200
May	.....	40	22	27.4	1,680
June	.....	27	17	18.7	1,110
July	.....	13	6	11.6	713
August	.....	22	6	14.4	885
September	.....	17	6	8.9	530
Water year 1912-13	.....	.....	.....	.....	47,978
1913-14					
October	.....	13	9	11.6	712
November	.....	17	13	14.2	845
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	17.2	1,060
April	.....	1,170	17	109	6,520
May	.....	253	13	76.1	4,680
June	.....	7,700	9	1,190	70,900
July	.....	525	13	80.1	4,960
August	.....	161	17	29.3	1,800
September	.....	19	11	13.5	803
Water year 1913-14	.....	7,700	9	169.2	92,280

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1914-15					
October	.....	13	9	11.1	684
November 1-14	.....	.....	.....	13	361
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	95	32	55.4	3,290
May	.....	78	27	35.6	2,190
June	.....	2,320	44	349	20,800
July	.....	315	22	77.1	4,740
August	.....	179	11	40	2,460
September	.....	27	9	14.2	845
Water year 1914-15..	.....	2,320	9	78.2	35,370
1915-16					
October	.....	395	12	61.9	3,810
November	.....	.....	.....	12	714
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	4,600	56	1,050	62.500
May	.....	86	38	47.3	2,910
June	.....	810	27	156	9,280
July	.....	627	11	61.2	3,760
August	.....	33	7	14	861
September	.....	11	7	8.2	488
Water year 1915-16..	.....	4,600	7	174.2	84,323
1916-17					
October	.....	21	11	17.3	1,060
November 1-10	.....	16	16	16	317
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,320	164	539	32,100
May	.....	124	27	45.3	2,790
June	.....	47	21	29.5	1,760
July	.....	21	4	11.1	682
August	.....	11	4	6.35	390
September	.....	4	4	4	238
Water year 1916-17..	.....	1,320	4	88.5	39,337
1917-18					
October	.....	11	4	9.1	560
November	.....	11	11	11	524
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 17-31	.....	2,800	88	1,170	34,800
April	.....	409	25	103	6,130
May	.....	57	14	19.5	1,200
June	.....	25	7	15.6	928
July	.....	290	5	28.5	1,750
August	.....	4,680	7	730	44,900
September	.....	67	19	32.2	1,920
Water year 1917-18..	.....	4,680	4	184.7	92,712

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1918-19					
October	.....	25	19	23.8	1,460
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	3,160	25	516	30,700
May	.....	112	12	44.3	2,720
June	.....	201	4	21.8	1,300
July	.....	4	2	2.3	143
August	.....	348	2	16.1	990
September	.....	4	2	2.3	135
Water year 1918-19..	.....	.....	.....	.....	37,448
Note: No record from November 1919 to October 1921.					
1921-22					
October 10-31	.....	7	3	5.13	224
November 1-17	.....	9.5	7	8.68	293
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	703	.....	230	14,100
April	.....	1,260	28	253	15,100
May	.....	52	7	21.6	1,330
June	.....	3,200	4	319	19,000
July	.....	196	7	22.8	1,400
August	.....	3,780	4	181	11,100
September	.....	47	4	16.2	964
Water year 1921-22..	.....	3,780	3	126.6	63,511
1922-23					
October	.....	12	7	9.42	579
November	.....	62	12	24.1	1,430
December	.....	.....	.....	9	553
January	.....	.....	.....	7	430
February	.....	.....	.....	6	333
March	.....	3,060	19	765	47,000
April	.....	4,730	3	770	45,800
May	.....	3	1	1.42	87
June	.....	3	1	1.07	63
July	.....	520	2	85.3	5,240
August	.....	72	2	26.1	1,600
September	.....	452	3	51.6	3,070
Water year 1922-23..	.....	4,730	1	146.7	106,185
1923-24					
October	.....	896	7	96.3	5,920
November	.....	28	7	12.8	762
December 1-26	.....	7	4.5	4.98	258
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	416	12	92.6	5,690
April	.....	1,580	37	199	11,800
May	.....	82	28	40.8	2,510
June	.....	1,400	19	230	13,700
July	.....	378	19	90.4	5,560
August	.....	19	12	12.5	769
September	.....	19	12	14.6	869
Water year 1923-24..	.....	1,580	4.5	80.1	47,838

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1924-25					
October	.....	497	25	85	5,210
November	.....	25	12	21	1,240
December	.....	15	9	12	712
January	.....	9	7	8	480
February	.....	181	8	42	2,320
March	.....	923	7	137	8,420
April	.....	91	33	49	2,890
May	.....	33	4	20	1,220
June	.....	1,850	7	142	8,470
July	.....	12	2	7	401
August	.....	2	2	2	123
September	.....	7	2	3	196
Water year 1924-25	.....	1,850	2	44	31,700
No record for 1925-1926.					
1926-27					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	397	7	149	9,180
April	.....	71	25	51	3,040
May	.....	3,940	25	911	55,990
June	.....	126	21	66	3,930
July	.....	280	42	138	8,460
August	.....	42	33	35	2,130
September	.....	81	33	42	2,520
Water year 1926-27	.....	3,940	7	177	8,520

KNIFE RIVER NEAR GOLDEN VALLEY, NORTH DAKOTA

Location: Latitude 47°09', Longitude 102°5', in SW¼ Section 3, Township 142 North, Range 90 West, at bridge on county highway about 2½ miles downstream from Elm Creek, 10 miles south of Golden Valley, 17 miles North of Hebron, and about 29 miles upstream from Spring Creek.

Drainage Area: 1,230 square miles.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 24-30	587	113	45	83.9	1,160
May	1,220	116	23	39.4	2,420
June	6,290	1,270	22	210	12,480
July	1,579	228	6	50.9	3,130
August	1,095	136	9	35.3	2,170
September	468	51	8	15.6	928
Water year 1942-43	.....	.....	.....	.....	22,290
1943-44					
October	348	13	10	11.2	690
November	370	15	9	12.3	734
December	248	10	6	8	492
January	151	6	4	4.9	300
February	163	6	5	5.6	323
March	3,293	745	6	106	6,530
April	14,293	3,180	22	476	28,350
May	1,293	156	20	41.7	2,560
June	20,928	2,420	57	698	41,510
July	2,219	264	18	71.6	4,400
August	648	73	10	20.9	1,290
September	294	12	8	9.8	583
Water year 1943-44	44,248	3,180	4	121	87,760

KNIFE RIVER AT HAZEN, NORTH DAKOTA

Location: Latitude 47°17′, Longitude 101°37′, in NE¼ Sec. 19, Township 144N., Range 86W., at County highway bridge, 0.5 miles south of Hazen, Mercer County, and 2 miles upstream from Antelope Creek.

Drainage Area: 2,352 Square miles.

Records Available: October 1928 to August 1933, August 1937 to September 1944.

Extreme: Maximum discharge 11,400 second-feet March 26, 27, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October 19-31	.....	27	24	26.1	673
November 1-23	.....	47	24	30.6	1,400
March 26-31	.....	548	315	436	5,190
April	.....	680	35	124	7,380
May 1-4	.....	41	34	38	301
June	.....	845	26	192	11,400
July	.....	245	9	25.9	1,590
August	.....	15	1.2	8.42	518
September	.....	17	1.4	6.47	385
Water year 1928-29	.....	845	1.2	65.2	28,837
1929-30					
October	310.9	20	5.6	10.0	615
November	98.4	13	8.0	10.9	195
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	14,918	3,070	635	1,860	29,500
March	31,287	2,740	305	1,010	62,100
April	6,086	335	78	203	12,100
May	2,448	165	29	79.0	4,860
June	7,470	1,870	25	249	14,800
July	569.2	56	6.2	18.4	1,130
August	649.4	33	8.4	20.9	1,290
September	1,779	87	34	59.3	3,530
Water year 1929-30	65,597.9	3,070	6.2	240.8	130,120
1930-31					
October	1,915.8	125	8.8	61.8	3,800
November 1-18	278.4	22	8.4	15.5	553
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 16-31	1,092	81	44	68.2	2,160
April	1,200	69	18	40.0	2,380
May	528	19	15	17.0	1,050
June	1,749	496	11	58.3	3,470
July	1,235.8	194	6.2	39.9	2,450
August	1,387	170	15	44.7	2,750
September	4,099	986	3.8	137	8,150
Water year 1930-31	13,485.0	986	3.8	95.1	26,763
1931-32					
October	760	114	12	24.5	1,510
November	231.9	13	1.6	7.73	460
December	215.5	13	2.3	6.95	427
March	9,021	1,080	73	291	17,900
April	4,181	696	38	139	8,270
May	1,962	274	19	63.3	3,890
June	7,310	1,250	24	244	14,500
July	576.4	52	8.6	18.6	1,140
August	253.4	8.6	7.4	8.17	502
September	382.5	38	.....	128	762
Water year 1931-32	24,893.7	1,250	1.6	81.3	49,361

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	537	35	3.6	17.3	1,060
November	1,003	56	.....	33.4	1,990
December	354	.....	.....	11.4	701
January	210	.....	.....	6.8	418
February	2,169	1,370	.....	77.5	4,300
March	36,915	1,930	535	1,190	73,200
April	5,210	550	64	174	10,400
May	3,548	658	37	114	7,010
June	743	.....	.....	247	1,470
July	3,316	15	4.4	10.7	658
August	316	6.8	6.0	6.32	63
September	.....	.....	.....	.....	.....
Water Year 1932-33	51,052.2	1,980	0	180.3	101,270
Discontinued in 1933, and re-opened again in 1937.					
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	91	.....	.....	.....	180
September	424	.....	.....	.....	841
Water year 1936-37	515	.....	.....	.....	1,021
1937-38					
October	495	26	9	16.0	982
November	666	34	14	22.2	1,320
December	252.4	17	4.0	8.14	501
January	236	11	5	7.6	468
February	84.8	5	2.0	3.03	168
March	14,949	2,330	7	482	29,650
April	2,121	504	24	70.7	4,210
May	2,686	393	11	86.6	5,330
June	5,559	675	15	185	11,030
July	30,340	7,420	44	979	60,180
August	5,807	1,640	31	187	11,520
September	968	36	28	32.3	1,920
Water year 1937-38	64,164.2	7,420	2.0	176	127,279
1938-39					
October	916	43	20	29.5	1,820
November	710	54	15	23.7	1,410
December	519	19	14	16.7	1,030
January	411	14	13	13.3	815
February	328	13	10	11.7	651
March	45,685	9,180	10	1,474	90,610
April	4,271	357	90	142	8,470
May	2,069	96	54	66.7	4,100
June	2,215	198	44	73.8	4,390
July	2,728	485	27	88.0	5,410
August	1,023	103	22	33.0	2,030
September	653	68	15	21.8	1,300
Water year 1938-39	61,528	9,180	10	169	122,036

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	553	21	16	17.8	1,100
November	612	26	13	20.4	1,210
December	719	34	16	23.2	1,430
January	275	15	6	8.9	545
February	241	11	7	8.3	478
March	765	69	12	24.7	1,520
April	2,348	272	42	78.3	4,660
May	2,698	675	20	87.0	5,350
June	437	20	9	14.6	867
July	3,788	1,090	9	122	7,510
August	674	182	6	21.7	1,340
September	229	14	5	7.6	454
Water year 1939-40	13,339	1,090	5	36.4	26,464
1940-41					
October	686	124	11	22.1	1,360
November	360	14	8	12.0	714
December	340	13	9	11.0	674
January	228	9	6	7.4	452
February	168	6	6	6.0	333
March	7,414	660	6	239	14,710
April	3,426	600	33	114	6,800
May	2,821	504	21	91.0	5,600
June	26,036	3,920	68	868	51,640
July	882	58	14	28.5	1,750
August	684	72	14	22.1	1,360
September	1,721	152	15	57.4	3,410
Water year 1940-41	44,766	3,920	6	123	88,803
1941-42					
October	1,507	90	22	48.6	2,990
November	615	24	18	20.5	1,220
December	464	22	11	15.0	920
January	339	12	10	10.9	672
February	331	13	11	11.8	657
March	13,259	1,370	12	428	26,300
April	12,181	2,740	73	406	24,160
May	2,952	266	42	95.2	5,860
June	14,930	2,880	41	498	29,610
July	2,182	236	28	70.4	4,330
August	1,349	178	18	43.5	2,680
September	753	39	17	25.1	1,490
Water year 1941-42	50,862	2,880	10	139	100,889
1942-43					
October	707	33	19	22.8	1,400
November	601	33	6	20.0	1,190
December	218	10	5	7.0	432
January	209	16	4	6.7	415
February	9,415	2,040	7	336	18,670
March	66,155	11,000	70	2,134	131,200
April	23,961	4,600	98	799	47,530
May	2,932	164	60	94.6	5,820
June	13,639	1,500	62	455	27,050
July	5,364	450	92	173	10,640
August	2,566	377	43	82.8	5,090
September	1,427	124	19	47.6	2,820
Water year 1942-43	127,194	11,000	4	348	252,257

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	1,156	54	23	37.3	2,290
November	1,645	66	46	54.8	3,260
December	1,159	53	21	37.4	2,300
January	525	22	13	16.9	1,040
February	556	24	15	19.2	1,100
March	6,539	1,300	19	211	12,970
April	39,321	7,890	71	1,311	77,990
May	3,930	569	65	127	7,800
June	31,234	3,230	110	1,041	61,950
July	7,259	1,970	36	234	14,400
August	1,180	51	35	38.1	2,340
September	1,110	42	33	37	2,200
Water year 1943-44	95,614	7,890	13	261	189,600

HEART RIVER NEAR RICHARDTON, NORTH DAKOTA

Location: Lat. 46°45', Long. 102° 18', In NE¼, Section 29, Township 138 North, Range 92 West, 5th Principal Meridian.

Drainage Area: 1,250 Square Miles.

Note: This station is located at the bridge on State Highway Number 8, which is 300 feet above site of old bridge, and 1 mile above site of gage maintained in 1903-1922.

Records Available: May 1903 to March 1924, April to September 1944.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1902-03					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May 18-31	.....	2,504	13	611	16,969
June	.....	118	5	22	1,309
July	.....	13	0	4	246
August	.....	530	0	18	1,107
September	.....	336	8	67	3,987
Water Year 1902-03	.....	2,504	0	.....	23,618
1903-04					
October	.....	13	8	8	492
November	.....	8	8	8	222
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	4,115	142	1,128	67,120
May	.....	157	19	54.6	3,345
June	.....	400	13	87.6	5,213
July	.....	13	.2	5.62	346
August	.....	2	.2	.64	39
September	.....	1	.2	.73	43
Water Year 1903-04	.....	4,115	.2	.....	76,820
1904-05					
October	.....	4	.2	2.14	132
November	.....	4	2	3.07	183
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	400	12	83.1	5,110
April	.....	12	2	5.8	345
May	.....	9	2	5.6	344
June	.....	292	4	36.3	2,160
July	.....	812	9	125	7,686
August	.....	6	.5	3.1	191
September	.....	12	0	2.2	131
Water Year 1904-05	.....	812	0	.....	15,938

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1905-06					
October	.....	6	.5	2.2	135
November 1-23	.....	9	4	6	274
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	812	311	503	5,990
April	.....	695	11	100	5,950
May	.....	1,830	11	276	17,000
June	.....	8,020	27	1,090	64,900
July	.....	33	11	24	1,480
August	.....	33	11	19.2	1,180
September	.....	16	4	8	476
Water Year 1905-06..	.....	8,020	.5	.....	97,385
1906-07					
October	.....	7	4	4.3	264
November 1-16	.....	11	7	8	254
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 18-31	.....	2,350	311	1,060	29,400
April	.....	228	21	82.2	4,890
May	.....	33	11	16.2	996
June	.....	182	11	20.7	1,230
July	.....	651	2	156	9 590
August	.....	33	2	9.3	573
September	.....	7	1	2.6	153
Water Year 1906-07..	.....	2,350	1	.....	47,350
1907-08					
October	.....	7	4	4.2	258
November 1-9	.....	4	4	4	71
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 19-31	.....	384	98	208	5,360
April	.....	244	21	94.2	5,610
May	.....	1,120	11	156	9,590
June	.....	442	27	112	6,660
July	.....	48	7	14.3	879
August	.....	21	1	4.1	252
September	.....	4	.3	1.26	75
Water Year 1907-08..	.....	1,120	.3	.....	28,755
1908-09					
October	.....	152	4	24	1,480
November 1-27	.....	21	4	8.5	455
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	260	21	86.6	5,160
May	.....	960	11	160	9,840
June	.....	3,920	27	578	34,400
July	.....	1,420	27	257	15,800
August	.....	2,350	16	401	24,700
September	.....	37	7	17	1,010
Water Year 1908-09..	.....	3,920	4	.....	92,845

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1909-10					
October	.....	11	4	7.8	480
November	.....	.....	.....	14.4	857
December	.....	.....	.....	.....	.....
January	.....	.....	.....	3	184
February	.....	.....	.....	3	167
March	.....	4,570	.....	1,160	71,300
April	.....	86	4	26.9	1,600
May	.....	11	4	6.6	406
June	.....	98	2	24.1	1,430
July	.....	40	1	7.4	455
August	.....	4	.3	.97	60
September	.....	1	.3	.49	29
Water Year 1909-10..	.....	4,570	.3	.....	76,968
1910-11					
October	.....	1	.3	.89	55
November	.....	4	1	3	179
December	.....	.....	.....	2	123
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water Year 1910-11..	.....	.....	.....	.....	357
1911-12					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	3,960	.....	440	27,100
April	.....	3,520	125	1,060	63,100
May	.....	2,650	42	343	21,100
June	.....	424	26	128	7,620
July	.....	2,064	24	242	14,900
August	.....	211	19	34.7	2,140
September	.....	30	18	19.2	1,140
Water Year 1911-12..	.....	3,960	18	.....	137,100
1912-13					
October	.....	21	15	18.3	1,130
November	.....	180	.....	41.7	2,480
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	4,700	44	725	43,100
May	.....	62	36	43.1	2,650
June	.....	36	18	23.8	1,420
July	.....	21	4	13.4	824
August	.....	28	3	12.5	769
September	.....	6	1	288	171
Water Year 1912-13..	.....	4,700	1	.....	52,544

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1913-14					
October	.....	15	6	12	738
November	.....	15	15	15	893
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,390	.....	129	7,680
May	.....	456	20	75.4	4,640
June	.....	1,550	14	391	23,300
July	.....	1,480	.....	184	11,300
August	.....	390	.....	59.1	3,630
September	.....	.....	.....	8.	476
Water Year 1913-14	.....	1,550	.....	108.8	52,657
1914-15					
October	.....	20	8	13.1	807
November 1-14	.....	17	17	17	472
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	52.2	3,090
May	.....	102	14	34.8	2,140
June	.....	1,820	36	246	14,600
July	.....	125	28	60.3	3,700
August	.....	188	6	41.7	2,560
September	.....	20	5	8.7	516
Water Year 1914-15	.....	1,820	5	61.7	27,885
1915-16					
October	.....	91	8	36.5	2,240
November 1-20	.....	24	11	20.2	801
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	2,470	241	952	56,600
May	.....	256	45	97	5,960
June	.....	1,070	17	127	7,560
July	.....	138	2	50.7	3,120
August	.....	55	.6	7.28	448
September	.....	.....	.....	.....	.....
Water Year 1915-16	.....	2,470	.6	189.6	76,729
1916-17					
October	.....	28	17	22.4	1,380
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,850	256	814	48,400
May	.....	226	41	85.9	5,280
June	.....	65	17	35.1	2,090
July	.....	28	2.5	10.9	670
August	.....	2.5	.4	.90	55
September	.....	2.5	.6	1.54	92
Water Year 1916-17	.....	1.850	.4	136.6	57,967

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1917-18					
October	.....	4	1	2.63	162
November	.....	7	2.5	4.48	267
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 19-31	.....	1,490	80	576	14,900
April	.....	351	21	69.7	4,150
May	.....	34	9	17	1,050
June	.....	43	2	15.2	904
July	.....	12	2	5.27	324
August	.....	1,620	3	172	10,600
September	.....	9	1.2	3.75	82
Water Year 1917-18	.....	1,620	1	63.6	32,439
1918-19					
October	.....	17	6	10.4	640
November 1-23	.....	32	11	16.2	739
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	966	.2	159	9,460
May	.....	109	7	41.7	2,560
June	.....	14	1.6	6.48	386
July	.....	1.4	0	.40	25
August	.....	11	0	1.25	77
September	.....	.2	0	.07	4
Water Year 1918-19	.....	966	0	29.6	13,891
1919-20					
October	.....	2.4	.1	.85	52
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 12-31	.....	1,500	17	605	24,000
April	.....	1,130	52	256	15,200
May	.....	60	6	22.9	1,410
June	.....	690	6	96.4	5,740
July	.....	575	8	139	8,550
August	.....	6	.6	1.70	105
September	.....	10	1	1.94	115
Water Year 1919-20	.....	1,500	.1	118.9	55,172
1920-21					
October	.....	17	1.4	2.97	183
November	.....	6	1.4	3.72	221
December	.....	.....	.....	2.16	133
January	.....	.....	.....	.7	43
February	.....	.....	.....	.6	33
March	.....	170	.2	39.9	2,450
April	.....	32	11	18.4	1,090
May	.....	36	6	10.3	633
June	.....	714	1.8	65.7	3,910
July	.....	103	1.8	19.9	1,220
August	.....	110	.1	5.65	347
September	.....	28	2.6	7.77	462
Water Year 1920-21	.....	714	.1	14.8	10,725

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1921-22					
October	.....	4.6	1.4	2.6	160
November 1-10	.....	3.3	3.3	3.3	66
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 21-30	.....	410	14	127	2,770
April	.....	1,470	24	280	16,700
May	.....	203	8	43.5	2,670
June	.....	1,290	8	404	24,000
July	.....	450	16	80.8	4,970
August	.....	1,380	2.2	73.2	4,500
September	.....	2.2	.8	1.57	93
Water Year 1921-22	.....	1,470	.8	120.5	55,929

Month	Run-off In Acre Feet	
	1922-23	1923-24
October	191	10,700
November	1,250	910
December	184	430
January	307	170
February	444	179
March	17,000	4,200
April	29,800	
May	4,940	
June	9,380	
July	12,000	
August	6,980	
September	11,500	
Water Year	94,000	7,589

Note: End of Record until 1942-43.

1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	1,213	117	40	71.4	2,410
May	1,375	108	33	44.4	2,730
June	5,945	1,220	26	198	11,790
July	1,453	230	14	46.9	2,880
August	853	121	8	27.5	1,090
September	387	53	4	12.9	768
Water Year 1942-43	.....	.....	.....	.....	22,270
1943-1944					
October	238	17	5	7.7	472
November	379.3	21	1	12.6	752
December	273.2	14	1.8	8.81	542
January	148.2	8	3.2	4.78	294
February	129	5	3	4.4	256
March	5,075	1,500	4	164	10,070
April	20,355	3,340	34	678	40,330
May	1,500	175	28	48.4	2,980
June	28,175	3,580	42	939	55,880
July	3,698	750	19	119	7,330
August	635	26	17	20.5	1,260
September	535	42	12	17.8	1,060
Water year 1943-44	61,120.7	3,580	1	167	121,200

HEART RIVER NEAR GLEN ULLIN, NORTH DAKOTA

Location: Lat. 46°36'32", long. 101°51'25", NE¼SW¼ sec. 10, T. 136 N., R. 89 W., at county highway bridge, 9 miles downstream from Coal Creek, 14 miles upstream from Heart Butte Creek, 14 miles north of Elgin and 15 miles south of Glen Ullin.

Drainage area: 1,750 square miles.

Records available: April 1943 to September 1944.

Extremes: Maximum gage height 18.77 feet Mar. 25, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 13-30	2,162	221	74	120	4,290
May	1,977	98	42	63.8	3,920
June	8,595	1,240	60	286	17,050
July	2 128	160	24	68.6	4,220
August	1,031	99	15	33.3	2,040
September	607	50	8	20.2	1,200
Water year 1942-43	.....	.....	.....	.....	32,720
1943-44					
October	337	18	8	10.9	668
November	495	26	7	16.5	982
December	326	20	6	10.5	647
January	223	8	6	7.2	442
February	177	7	5	6.1	351
March	2,215	800	6	71.5	4,390
April	31,820	5,520	43	1,061	63,110
May	3,511	1,030	22	113	6,960
June	32,100	3,040	152	1,070	63,670
July	7,408	1,760	23	239	14,090
August	617	26	17	19.9	1,220
September	905	75	18	30.2	1,800
Water year 1943-44	80,134	5,520	5	219	158,900

HEART RIVER AT LEHIGH, NORTH DAKOTA

Location: Lat. 46°52', long. 102° 43', in NE¼ sec. 7 T. 139 N. R. 95 W. at county highway bridge in Lehigh, Stark County, 150 feet downstream from N. P. Ry. bridge, and about 10 miles upstream from Green River.

Drainage Area: 453 square miles.

Records Available: No records were collected at or near this site prior to March, 1943.

Extremes: Maximum stage known, 17.8 feet Mar. 25, 1943, minimum gage height about 3 feet.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 25-31	19,540	5,210	1,280	2,791	38,760
April	2,223	575	12	74.1	4,410
May	384	25	6	12.4	762
June	1,893	409	6	63.1	3,750
July	419.4	85	2.0	13.5	832
August	180.9	24	1.9	5.84	359
September	92.3	9	2.3	3.08	183
Tot. water yr. 1942-43	24,732.6	.....	.....	.....	49,056
1943-44					
October	104.4	8	2.3	3.37	207
November	130.8	9	3	4.36	259
December	83	4	2	2.7	165
January	56	3	1	1.8	111
February	13	1	0	.4	26
March	1,337	200	0	43.1	2,650
April	5,880	1,070	9	196	11,660
May	316.9	36	3.9	10.2	629
June	9,507	1,380	6	317	18,860
July	1,592	291	3	51.4	3,160
August	98	5	1	3.2	194
September	114	15	0	3.8	226
Water year 1943-44	19,232.1	1,380	0	52.5	38,150

HEART RIVER NEAR MANDAN, NORTH DAKOTA
(Formerly published as Sunny, N. Dak.)

Location: Wire-Weight Gage, Lat. 46°50', Long. 100°59', in NE¼NW¼ Sec. 25 T. 139N. R. 82W, at county highway bridge 300 feet downstream from N. P. Railway bridge, 3 miles west of Mandan, and 4 miles downstream from Sweetbriar Creek.

Drainage Area: 3,362 Square Miles.

Records Available: April to September 1924, March 1928 to June 1933, October 1937 to September 1944.

Extremes: Maximum Discharge 21,400 second-feet March 27, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1923-24					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	2,060	140	494	24,500
May	.....	293	49	131	8,060
June	.....	2,530	36	586	34,900
July	.....	1,200	83	275	16,900
August	.....	104	5	34.7	2,130
September	.....	9	2	5.1	304
Water year 1923-24	.....	.....	.....	.....	86,800
1927-28					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	4,390	1,380	368	732	8,710
April	5,290	318	77	176	10,500
May	1,803	168	24	58.2	3,580
June	2,605	368	8	86.8	5,160
July	19,954	1,610	158	64.4	39,600
August	8,176	1,550	54	264	16,200
September	1,484	137	8	49.5	2,950
Water year 1927-28	43,702	1,610	.....	.....	86,700
1928-29					
October	432	32	4	13.9	855
November	1,042	58	16	34.7	2,060
December	775	.....	.....	25	1,540
January	310	.....	.....	10	615
February	340	.....	.....	12.1	672
March	23,020	2,510	.....	743	45,700
April	12,752	2,330	103	425	25,300
May	3,702	1,180	56	119	7,320
June	22,134	2,690	96	738	43,900
July	1,278	88	10	41.2	2,530
August	310.6	27	0	10	615
September	207.2	16	2.1	6.91	411
Water year 1928-29	66,303	2,690	0	182	131,518

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October	236	14	3	7.61	468
November	300	18	12	15	595
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 21-31	19,162	3,240	662	1,740	38,000
April	13,598	990	137	453	27,000
May	3,910	198	62	126	7,750
June	13,008	2,540	52	434	25,800
July	1,921	209	17	62	3,810
August	306	17	2	9.87	607
September	339	19	7	11.3	672
Water year 1929-30..	52,780	3,240	.....	.....	104,702
1930-31					
October	568	28	10	18.3	1,130
November	530	22	16	17.7	1,050
December	380	.....	.....	12.3	756
January	610	.....	.....	19.7	1,210
February	3,325	.....	.....	119	6,610
March	2,969	198	.....	95.8	5,890
April	2,362	177	22	78.7	4,680
May	636	39	12	20.5	1,260
June	1,209	209	12	40.3	2,400
July	1,668.5	167	9.5	53.8	3,310
August	947.5	56	9.5	30.6	1,880
September	759.4	120	1.3	25.3	1,510
Water year 1930-31..	15,964.4	209	1.3	43.7	31,686
1931-32					
October	1,418	157	20	45.7	2,810
November	561	20	.....	18.7	1,110
December	492	20	11	15.9	978
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	17,023	2,250	164	549	33,800
April	4,619	618	62	154	9,160
May	1,842.8	98	7.8	59.4	3,650
June	11,310	1,240	43	377	22,400
July	1,218	76	9	39.3	2,420
August	113.2	8.4	0	3.65	224
September	42.9	2.8	.....	1.43	85
Water year 1931-32..	38,639.9	.....	.....	.....	76,637
1932-33					
October	732	32	14	23.6	1,450
November	444.5	32	.....	14.8	881
December	728	.....	.....	23.4	1,440
January	147.5	.....	0	4.92	303
February	248.5	146	0	8.83	490
March	49,908	2,530	524	1,610	99,000
April	8,040	1,020	118	268	15,900
May	10,552	2,460	72	340	20,900
June	2,672	331	13	88.4	5,260
July, Discontinued ..	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33..	73,460.5	.....	.....	.....	146,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	239	13	2	7.71	474
November	208.5	14	2	6.95	414
December	6.4	1.6	0	.21	13
January	0	0	0	0	0
February	27	25	0	.96	54
March	21,985.5	3,000	2	709	43,610
April	2,390	135	50	79.7	4,740
May	1,548	95	35	49.9	3,070
June	7,425	1,700	21	248	14,730
July	52,556	9,010	114	1,695	104,200
August	1,989	114	32	64.2	3,950
September	715	47	9	23.8	1,420
Water year 1937-38	89,089.4	9,010	0	244	176,700
1938-39					
October	365	18	9	11.8	724
November	277.4	22	2	9.25	550
December	378	22	8	12.2	750
January	166.2	8	1	5.36	330
February	.6	.4	0	.02	1.2
March	55,677	10,600	0	1,796	110,400
April	5,343	722	78	178	10,600
May	1,563	78	29	50.4	3,100
June	1,963	132	42	65.4	3,890
July	3,130	268	22	101	6,210
August	422	22	8	13.6	837
September	300.1	108	1.8	10.0	595
Water year 1938-39	69,585.3	10,600	0	191	138,000
1939-40					
October	167.6	8	3	5.41	332
November	276	15	4	9.2	547
December	351	18	7	11.3	696
January	32	5	0	1	63
February	0	0	0	0	0
March	731	93	0	23.6	1,450
April	6,862	1,220	50	229	13,610
May	14,404	3,500	47	465	28,570
June	718	43	8	23.9	1,420
July	2,131.6	722	2.4	68.8	4,230
August	1,217.3	355	3	39.3	2,410
September	70.2	10	.7	2.34	139
Water year 1939-40	26,960.7	3,500	0	73.7	53,467
1940-41					
October	418.3	35	2	13.5	830
November	221	13	5	7.4	438
December	69	4	1	2.2	137
January	16	1	0	0.5	32
February	0	0	0	0	0
March	13,915	3,000	0	449	27,600
April	5,408	962	66	180	10,730
May	5,129	2,300	32	165	10,170
June	57,745	6,940	166	1,920	114,500
July	2,705	158	33	87.3	5,370
August	1,286	260	17	41.5	2,550
September	1,505	85	13	50.2	2,990
Water year 1940-41	88,417.3	6,940	0	242	175,347

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1941-42					
October	2,183	184	38	70.4	4,330
November	932	45	21	31.1	1,850
December	419	21	8	13.5	831
January	68	8	1	2.2	135
February	66	3	2	2.4	131
March	8,130	945	2	262	16,130
April	18,077	2,680	166	603	35,860
May	11,300	995	166	365	22,410
June	16,429	3,250	118	548	32,590
July	3,947	365	62	127	7,830
August	1,459	71	28	47.1	2,890
September	983	41	24	32.8	1,950
Water year 1941-42	63,993	3,250	1	175	126,937
1942-43					
October	935	42	23	30.2	1,850
November	813	39	8	27.1	1,610
December	92	6	2	3.0	182
January	51	2	1	1.6	101
February	20,240	4,000	2	723	40,150
March	123,590	21,200	100	3,987	245,100
April	48,808	12,400	220	1,627	96,810
May	5,307	220	131	171	10,530
June	19,423	1,660	160	647	38,520
July	4,639	220	86	150	9,200
August	2,443	156	52	78.8	4,850
September	1,788	104	39	59.6	3,550
Water year 1942-43	228,129	21,200	1	625	452,453

NOTE: Highway bridge destroyed March 27, 1943. On April 9, 1943, gage was installed at Northern Pacific Railway bridge in NE¼NW¼ Section 25, Township 139 N., Range 82 W., 3 miles west of Mandan, Morton County, and 4 miles downstream from Sweetbriar Creek.

1942-43					
October	1,055	55	27	34	2,090
November	1,857	74	40	61.9	3,680
December	669	40	10	21.6	1,330
January	257	15	5	8.3	510
February	242	14	4	8.3	480
March	2,897	500	9	93.5	5,750
April	55,007	8,000	148	1,843	109,100
May	8,338	2,130	103	269	16,540
June	43,682	4,070	148	1,456	86,640
July	14,973	3,250	77	483	29,700
August	1,642	73	41	53	3,260
September	1,774	155	40	59.1	3,520
Water year 1943-44	132,393	8,000	4	362	262,600

CANNONBALL RIVER NEAR NEW LEIPZIG, NORTH DAKOTA

Location: Lateral 46°20', Longitude 101° 57', in SW¼ Section 11, Township 133 North, Range 90 W., at bridge on county highway 2½ miles south of New Leipzig, Grant County, and 8 miles downstream from Thirtymile Creek.

Drainage Area: 1,260 Square Miles.

Records Available: April 1943 to September 1944.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 13-30	1,104	113	36	61.3	2,190
May	836	50	12	27.0	1,660
June	2,777	251	17	92.6	5,510
July	8,377	1,570	8	270	16,620
August	154.4	24	.6	4.98	306
September	105.5	24	.4	3.52	209
Water year 1942-43	13,353.9	.....	.....	.....	26,495
1943-44					
October	118.5	8	1.7	3.82	235
November	168.5	9	3.6	5.62	334
December	116.5	6	2	3.76	231
January	62	3	1	2	123
February	39	2	1	1.3	77
March	133	13	2	4.3	264
April	29,027	5,700	25	968	57,570
May	904	54	17	29.2	1,790
June	18,188	2,590	13	606	36,080
July	2,788	589	19	89.9	5,530
August	551	24	14	17.8	1,090
September	348	15	9	11.6	690
Water year 1943-44	52,443.5	5,700	1	143	104,000

CANNONBALL RIVER AT STEVENSON

Note: Name changed in 1928 from Stevenson to Timmer, North Dakota.

Location: In NW¼ of Section 21, Township 133 N., Range 82 W., on the F. S. Bingenheimer ranch 3¼ miles south of Timmer, North Dakota.

Drainage Area: 3,650 square miles.

Records available: June 1903 to September 1918, October 1921 to September 1934.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1902-03					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June 10-30	.....	62	14	33.2	1,380
July	.....	104	4	25	1,540
August	.....	1,930	12	331	2,400
September	.....	1,010	4	1.89	11,200
Water Year 1902-03	.....	1,930	.....	.....	16,520
1903-04					
October	.....	50	9	21.5	1,320
November 1-21	.....	92	9	29.5	1,230
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 6-30	.....	3,000	153	849	42,100
May	.....	153	38	84.5	5,200
June	.....	1,930	50	552	32,800
July	.....	130	5	36.2	2,240
August	.....	24	0	4.7	289
September	.....	9	0	3.4	202
Water Year 1903-04	.....	3,000	0	178.8	85,381
1904-05					
October	.....	85	1.1	15.2	935
November 1-29	.....	24	3	11	633
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	2,000	86	584	35,900
April	.....	152	5	46.9	2,790
May	.....	1,080	4	231	14,200
June	.....	2,300	3	324	19,300
July	.....	810	16	304	18,700
August	.....	236	3	75	4,610
September	.....	24	0	6.1	363
Water Year 1904-05	.....	2,300	0	182.4	97,431

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1905-06					
October		24	0	6.9	424
November 1-25		55	9	27.8	1,380
December					
January					
February					
March					
April 3-30		1,010	43	236	12,600
May		2,800	24	656	40,300
June		5,900	55	2,300	137,000
July		178	2	51.6	3,170
August		128	5	46	2,830
September		69	9	37.7	2,240
Water Year 1905-06		5,900	0	426.3	199,944
1906-07					
October		55	0	12.3	756
November 1-24		55	0	13.4	638
December					
January					
February					
March		2,380	534	1,380	21,900
April		1,200	33	264	15,700
May		693	24	124	7,620
June		3,450	44	655	39,000
July		1,130	44	261	16,000
August		58		13.7	842
September		3		.47	28
Water Year 1906-07		3,450	0	185.7	102,484
1907-08					
October		3		.52	32
November		24		3	179
December					
January					
February					
March		4,000	115	1,060	44,100
April		1,060	115	358	21,300
May		1,890	115	569	35,000
June		2,640	33	1,210	73,000
July		638	3	143	8,790
August		33	0	5.45	335
September		4	0	1.72	102
Water Year 1907-08		4,000	0	378.9	181,838
1908-09					
October		372	0	40.4	2,480
November					
December					
January					
February					
March					
April					
May					
June					
July					
August					
September					
Water Year 1908-09		372	0	40.4	2,480

1909-10—No Record.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1910-11					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 22-31	.....	.....	.....	59.2	1,174
April 1-3	.....	.....	.....	43	256
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August 9-31	.....	150	2.5	26.4	1,204
September	.....	74	2	10.5	625
Water Year 1910-11	.....	.....	.....	.....	3,259
1911-12					
October 1-25 27-31	.....	36	2	5.4	318
November 1-21	.....	13	3	6.1	254
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	3,900	7	529	32,500
April	.....	6,360	212	1,220	72,600
May	.....	467	83	157	9,650
June	.....	241	56	108	6,430
July	.....	3,820	45	486	29,900
August	.....	76	22	43.5	2,600
September	.....	44	10	29.1	1,730
Water Year 1911-12	.....	.....	.....	.....	156,040
1912-13					
October	.....	30	10	20	1,230
November	.....	30	9	18.3	1,090
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	1,690	7	133	8,180
April	.....	3,820	56	887	52,800
May	.....	305	39	101	6,210
June	.....	148	5	40.7	2,420
July	.....	69	2	23.2	1,430
August	.....	15	.4	3.06	188
September	.....	7	.2	.99	59
Water Year 1912-13	.....	3,820	.2	.....	73,607
1913-14					
October	.....	19	.3	4.08	251
November	.....	4	.3	1.43	85
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	276	32	83.7	4,980
May	.....	590	28	87.3	5,370
June	.....	4,680	28	987	58,700
July	.....	1,030	17	217	13,300
August	.....	90	17	40.3	2,480
September	.....	37	2	25.6	1,520
Water Year 1913-14	.....	4,680	.3	179	86,686

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1914-15					
October	.....	37	2	13	799
November	.....	14	2	18.1	482
December 1-18	.....	9	2	5.8	207
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	462	.....	96.4	5,730
May	.....	.....	.....	250	15,400
June	.....	.....	.....	1,600	95,200
July	.....	.....	.....	600	36,900
August	.....	.....	.....	450	27,700
September	.....	120	42	73.2	4,360
Water Year 1914-15..	.....	.....	.....	359.4	186,778
1915-16					
October	.....	1,590	47	160	9,840
November 1-10	.....	47	34	43.1	855
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	3,900	535	1,840	109,000
May	.....	1,450	147	297	18,300
June	.....	175	80	114	6,780
July	.....	240	23	67.3	4,140
August	.....	122	14	36.1	2,220
September	.....	240	8	27	1,610
Water Year 1915-16..	.....	3,900	8	343.8	152,745
1916-17					
October	.....	14	8	10.1	623
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,880	350	974	58,000
May	.....	302	71	134	8,240
June	.....	134	47	72.9	4,340
July	.....	47	4	18.1	1,110
August	.....	8	2	2.77	170
September	.....	23	2	3.48	207
Water Year 1916-17..	.....	1,880	2	171.3	72,690
1917-18					
October	.....	5	1.5	2.47	152
November	.....	14	5	8.45	503
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 13-31	.....	3,500	122	1,440	54,300
April	.....	452	111	193	11,500
May	.....	142	40	77.5	4,770
June	.....	153	37	60	3,570
July	.....	24	5	13.6	836
August	.....	316	1.6	14	861
September	.....	1.6	1.1	1.27	76
Water Year 1917-18..	.....	3,500	1.1	146.2	76,568

1919-20—No Record.

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1921-22					
October	.....	94	4	12.8	787
November	.....	14	.....	6	357
December	.....	.....	.....	5	307
January	.....	.....	.....	5	307
February	.....	.....	.....	5	278
March	.....	1,520	.....	516	31,700
April	.....	4,400	90	1,140	67,800
May	.....	1,310	54	153	9,410
June	.....	2,870	111	958	57,000
July	.....	740	67	168	10,300
August	.....	184	10	63.7	3,920
September	.....	86	6	18.2	1,080
Water Year 1921-22	.....	4,400	.....	253.1	183,246
1922-23					
October	.....	10	6	7	420
November	.....	107	10	53	3,150
December	.....	35	20	26	1,580
January	.....	180	15	27	1,650
February	.....	126	15	26	1,460
March	.....	6,900	40	1,208	74,300
April	.....	.....	.....	1,000	59,400
May	.....	280	62	123	760
June	.....	1,800	62	218	13,000
July	.....	1,450	175	557	34,300
August	.....	770	100	328	20,200
September	.....	900	8	184	10,900
Water Year 1922-23	.....	6,900	6	314	228,000
1923-24					
October	.....	900	180	420	25,800
November	.....	180	56	119	7,080
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,880	40	541	32,200
May	.....	210	41	87.6	5,390
June	.....	650	33	126	7,500
July	.....	81	15	40.2	2,470
August	.....	1,590	9	163	10,000
September	.....	33	3	13.3	791
Water Year 1923-24	.....	1,880	3	187.7	91,231
1924-25					
October	.....	102	5	34	2,110
November	.....	33	9	18	1,060
December	.....	15	6	8	512
January	.....	5	5	5	306
February	.....	180	5	52	2,880
March	.....	4,400	15	913	56,200
April	.....	650	46	137	8,170
May	.....	180	9	27	1,680
June	.....	2,870	0	362	21,500
July	.....	126	3	34	2,080
August	.....	3	0	2	99
September	.....	46	0	5	317
Water year 1924-25	.....	4,400	0	133	96,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1925-26					
October	.....	3	1	2	140
November	.....	5	2	3	170
December	.....	3	3	4	250
January	.....	3	3	3	180
February	.....	54	3	10	570
March	.....	210	33	100	6,120
April	.....	81	23	42	2,470
May	.....	62	15	30	1,820
June	.....	1,590	23	284	16,900
July	.....	540	33	82	5,060
August	.....	228	23	64	3,950
September	.....	650	23	104	6,200
Water year 1925-26..	.....	1,590	1	61	43,800
1926-27					
October	.....	33	15	23	1,430
November	.....	33	16	22	1,310
December	.....	15	13	15	910
January	.....	33	8	11	670
February	.....	152	5	31	1,700
March	.....	1,240	23	550	3,380
April	.....	210	102	145	8,640
May	.....	3,230	81	1,003	61,700
June	.....	835	102	225	1,340
July	.....	868	62	153	9,420
August	.....	430	23	66	4,060
September	.....	46	9	20	1,180
Water year 1926-27..	.....	3,230	5	189	138,200
1927-28					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	.....	359	202	280	2,780
April	.....	178	31	72.3	4,300
May	.....	31	4	18.1	1,110
June	.....	960	2	127	7,560
July	.....	2,420	101	433	26,600
August	.....	2,500	43	203	12,500
September	.....	2,180	21	165	9,820
Water year 1927-28..	.....	2,500	2	173.4	64,670
*1928-29					
October	.....	21	4.2	9.79	602
November 1-23	.....	21	4.2	12.7	579
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 12-31	.....	6,390	1,140	2,980	118,000
April	.....	1,340	73	353	21,000
May	.....	573	32	70.3	4,320
June	.....	1,410	59	467	27,800
July	.....	53	2.7	19.5	1,200
August	.....	163	.1	16.2	996
September	.....	30	0	4.46	265
Water Year 1928-29..	.....	6,390	0	342.8	174,762

*In 1928 the name was changed to Timmer, North Dakota.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October	.....	256	1.3	18.8	1,160
November	.....	28	6.5	11.5	365
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February 21-25	.....	1,560	136	927	9,190
March 16-31	.....	3,220	328	1,250	39,700
April	.....	949	67	218	13,000
May	.....	530	25	114	7,010
June	.....	572	10	71.7	4,270
July	.....	169	.9	25.9	1,590
August	.....	.8	0	.32	20
September	.....	29	.2	3.84	228
Water Year 1929-30	.....	3,220	0	150.1	76,533
1930-31					
October	.....	66	.7	11.9	732
November	.....	6.8	4.1	5.33	317
December	.....	.....	.....	5	307
January	.....	.....	.....	11.8	726
February	.....	.....	.....	40.4	2,240
March	.....	.....	.....	36.5	2,250
April	.....	.....	21	52.4	3,120
May	.....	40	4.8	11.5	707
June	.....	1,080	2.6	63.1	3,750
July	.....	345	1.7	43.3	2,660
August	.....	136	2.6	16.8	1,030
September	.....	52	0	6.49	386
Water Year 1930-31	.....	1,080	0	25.2	18,225
1931-32					
October	.....	6.5	.9	2.20	135
November 1-21	.....	5.4	.....	4.35	181
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	75.3	4,630
April	.....	530	39	139	8,270
May	.....	193	31	78	4,800
June	.....	6,390	54	757	45,000
July	.....	530	8.1	88.2	5,420
August	.....	8.1	.9	2.35	144
September	.....	6.8	.3	1.23	73
Water Year 1931-32	.....	6,390	.3	130.1	68,653
1932-33					
October	.....	19	.2	5.24	322
November 1-12	.....	14	.....	8.34	198
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February 23-28	.....	160	12	65.5	1,020
March	.....	1,350	75	706	43,400
April	.....	424	62	166	9,880
May	.....	720	28	110	6,760
June	.....	110	3.8	38.6	2,300
July	.....	22	0	6.94	427
August	.....	0	0	0	0
September	.....	3.8	0	.7	42
Water Year 1932-33	.....	1,350	0	124.3	64,349

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	----------	0	0	0	0
November	----------	8.2	0	1.52	90
December	----------	8.2	0	.85	52
January	----------	0	0	0	0
February	----------	6	0	.32	18
March	----------	----------	0	9.32	573
April	----------	40	0	16.17	958
May	----------	3.9	0	1.46	90
June	----------	72	0	11.1	660
July	----------	45	0	5.26	324
August	----------	----------	----------	----------	----------
September	----------	----------	----------	----------	----------
Water Year 1933-34	----------	72	0	3.8	2,765

CANNONBALL RIVER AT BREIEN, NORTH DAKOTA

Location: Latitude 46° 23', Longitude 100° 56', in Section 36, Township 134 N., Range 82W., at bridge on State Highway 6. 950 feet downstream from Louise Creek, and one-half mile south of Breien, Sioux County.

Drainage: 4,066 square miles.

Records Available: August 1934 to September 1944.

Extremes: Maximum discharge 21,900 second-feet, March 27, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August 15-31	.....	2.65	0.01	0.605	20
September	.....	.35	.26	.306	18
Water Year 1933-34	.....	.....	.....	.....	.....
1934-35					
October	306.4	178	0.1	9.88	608
November	25.2	1.1	.6	.84	50
December	11.7	.9	.1	.38	23
January	1.0	.1	0	.03	2.0
February	0	0	0	0	0
March	3,233.3	868	0	104	6,410
April	785	97	5	26.2	1,560
May	2,837	614	22	91.5	5,630
June	4,646.5	1,060	2.5	155	9,220
July	9,918	2,050	9	320	19,670
August	1,285.1	817	.5	41.5	2,550
September	31.2	12	.4	1.04	62
Water year 1934-35	23,080.7	2,050	0	63.2	45,785
1935-36					
October	30.6	1.4	0.5	0.99	61
November	32.0	1.2	.9	1.07	63
December	26.7	1.2	.5	.86	53
January	10.7	.8	.2	.35	21
February	206.6	56	.2	7.12	410
March	17,860	2,040	69	576	35,420
April	3,541	388	36	118	7,020
May	697	73	5	22.5	1,380
June	92.9	9	.5	3.10	184
July	5.2	.4	0	.17	10
August	15.1	5	.1	.49	30
September	17.1	4.9	.2	.57	34
Water year 1935-36	22,534.9	2,040	0	61.6	44,686

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	14.7	0.7	0.2	0.47	29
November	21.8	1.3	.5	.73	43
December	15.4	.9	.3	.50	31
January	11.9	1.5	.1	.38	24
February	1.5	.1	0	.05	3.0
March	9,712.5	1,510	0	313	19,260
April	9,449	860	62	315	18,740
May	729.2	71	4.2	23.5	1,450
June	71,521	10,400	22	2,384	141,900
July	7,636	984	56	246	15,150
August	1,076	254	9	34.7	2,130
September	2,581	472	8	86.0	5,120
Water year 1936-37	102,770.0	10,400	0	282	203,880
1937-38					
October	461	22	10	14.9	914
November	305.0	20	3.0	10.2	605
December	200	8	5	6.45	397
January	206	7	6	6.65	409
February	210	44	6	7.50	417
March	11,592	1,330	36	374	22,990
April	2,163	582	26	72.1	4,290
May	1,388	306	17	44.8	2,750
June	16,280	2,740	10	543	32,290
July	37,389	4,410	89	1,206	74,160
August	1,233	89	16	39.8	2,450
September	1,663	413	13	55.4	3,300
Water year 1937-38	73,090	4,410	3.0	200	144,972
1938-39					
October	316	12	8	10.2	627
November	332	13	10	11.1	659
December	375.9	22	1.3	12.1	746
January	118.9	4.9	.9	3.84	236
February	8.5	1.0	.2	.30	17
March	22,076.3	3,280	2.3	712	43,790
April	4,277	493	50	143	8,480
May	1,019	83	15	32.9	2,020
June	6,799	1,520	17	227	13,490
July	5,278	618	12	170	10,470
August	471.2	223	.6	15.2	935
September	184.8	51	.7	6.16	367
Water year 1938-39	41,256.6	3,280	.2	113	81,840
1939-40					
October	45.2	2.4	1.1	1.46	90
November	112.3	6.2	2.0	3.74	223
December	201.1	9	2	6.49	399
January	3.4	1	0	.11	6.7
February	3.4	.6	0	.12	6.7
March	4,401	1,300	2	142	8,730
April	8,695	1,700	63	290	17,250
May	9,272	1,420	35	299	18,390
June	548.0	50	3.2	18.3	1,090
July	1,622.4	168	.3	52.3	3,220
August	2,870	395	15	92.6	5,690
September	240.0	27	.9	8.00	476
Water year 1939-40	28,013.8	1,700	0	76.5	55,571.4

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	305.4	20	2.4	9.85	606
November	208.5	8.5	5	6.95	414
December	67	6	0	2.2	133
January	0	0	0	0	0
February	0	0	0	0	0
March	27,401	3,720	0	884	54,350
April	4,744	550	56	158	9,410
May	1,620	180	16	52.3	3,210
June	43,304	8,640	41	1,443	85,890
July	1,798	144	12	58.0	3,570
August	208.5	35	2.0	6.73	414
September	1,297.8	260	5.3	43.3	2,570
Water year 1940-41	80,954.2	8 640	0	222	160,567
1941-42					
October	1,081	135	19	34.9	2,140
November	494	22	10	16.5	980
December	240	18	3	7.7	476
January	81	4	1	2.6	161
February	85	4	2	3.0	169
March	3,540	400	4	114	7,020
April	8,879	800	90	296	17,610
May	11,927	1,700	110	385	23,660
June	6,207	540	86	207	12,310
July	1,684	170	16	54.3	3,340
August	835.8	133	3.0	27.0	1,660
September	655.5	64	4.4	21.8	1,300
Water year 1941-42	35,709.3	1,700	1	97.8	70,826
1942-43					
October	344	17	8	11.1	682
November	376	15	6	12.5	746
December	100	5	2	3.2	198
January	31	4	0	10	61
February	8,850	2,400	0	316	17,550
March	132,070	20,900	160	4,260	262,000
April	35,047	7,210	210	1,168	69,510
May	4,327	197	88	140	8,580
June	25,095	6,270	146	836	49,780
July	16,264	1,830	94	525	32,260
August	1,586	85	27	51.2	3,150
September	832	55	17	27.7	1,650
Water year 1942-43	224,922	20,900	0	616	446,167
1943-44					
October	514	31	14	16.6	1,020
November	1,101	55	25	36.7	2,180
December	466	31	5	15	924
January	300	18	4	9.7	595
February	290	16	6	10	575
March	1,661	400	12	53.6	3,290
April	100,116	9,270	232	3,377	198,600
May	4,930	254	111	159	9,780
June	43,094	3,520	101	1,436	85,480
July	14,037	2,540	68	453	27,840
August	1,542	111	33	49.7	3,060
September	897	48	23	29.9	1,780
Water year 1943-44	168,948	9,270	4	462	335,100

CEDAR CREEK NEAR KELDRON, SOUTH DAKOTA

Location: Lat. 46°02′, long. 101°49′, in S½ sec. 33, T. 130N., R. 89 W. at county highway bridge about 6 miles north of North Dakota-South Dakota state line, 7 miles north of Keldron, 10½ miles south of Pretty Rock, N. Dak.

Drainage Area: 1,260.

Records available: Established April 9, 1943.

Extremes: Maximum stage of 21.8 feet, minimum gage height 3 feet.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	129	29	54.5	2,380
May	.....	29	11	19.9	1,220
June	.....	591	23	108	6,410
July	.....	754	14	156	9,570
August	.....	42	0	5.12	315
September	.....	.9	0	.09	5.4
Water year 1942-43	.....	.....	.....	.....	19.900.4

CEDAR CREEK NEAR RALEIGH, NORTH DAKOTA

Location: Lat. 46°05′30″, long. 101°20′00″, on line between sec. 8 and 9, T. 130 N., R85W at bridge on State Highway 31, about 3 miles upstream from mouth and 19 miles south of Raleigh.

Drainage area: 1,720 square miles.

Records available: April to September 1939 (Discontinued).

Extremes: Maximum discharge during period, 1,380 second feet Apr. 25, no flow on many days..

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
April (15 Days)	872	436	18	58.1	1,730
May	367.4	48	2.9	11.9	729
June	1,234.8	285	3.6	41.2	2,450
July	1,719.4	285	.6	55.5	3,410
August	5.1	1.1	0	1.6	10
September	.....	.....	.....	.....	.....
Water year 1938-39	4.198.7	.....	.....	.....	8,330

Discontinued.

GRAND RIVER AT HALEY, NORTH DAKOTA

Drainage Area: 500 Sq. Miles.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1907-08					
October					
November					
December					
January					
February					
March					
April					
May		296	1	56.7	3,490
June		227	3.5	48.7	2,900
July		36	.2	9.57	588
August		8		1.36	84
September		1.1	.5	.54	32
Water year 1907-08		296			7,094
1908-09					
October		4	.5	.83	51
November		.5	.5	.5	30
December		.5	.5	.5	31
January					
February		324	.5	39	2,170
March		356	20	103	6,330
April		20	.5	7.03	418
May		500	.5	20.3	1,250
June		396	10	98.7	5,870
July		28	3.5	11.9	732
August		149	2	11.2	689
September		2	2	2	119
Water year 1908-09		500			17,690
1909-10					
October		3.5	2	2.15	132
November		2	2	2	119
December		2	2	2	123
January				1	61
February				1	56
March				186	11,400
April		144	20	34.4	2,050
May		13	8	11.7	719
June		66	8	19.9	1,180
July		3.5	.5	1.37	84
August		.5	.5	.5	31
September		3.5	.5	.69	41
Water year 1909-10		144			15,996
1910-11					
October				.5	31
November				.5	30
December				.3	20
January					15
February					15
March		5		2.5	160
April				3.3	200
May				3	190
June				3	180
July				.6	37
August				.2	12
September				.2	13
Water year 1910-11		5			903

* Note: Fragmentary.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1911-12					
October	.....	.5	.5	.5	31
November	.....	.5	.5	.5	30
December	.....	.....	.....	.5	31
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	1,000	40	403	4,800
April	.....	185	62	112	6,660
May	.....	354	54	89.9	5,530
June	.....	84	9	60.5	3,600
July	.....	449	1	63.8	3,920
August	.....	1	1	.20	12
September	.....	.2	1	.11	7
Water year 1911-12..	.....	1,000	.....	.....	24,621
1912-13					
October	.....	.4	.4	.4	25
November	.....	3.5	.1	2.04	121
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	2,040	3	123	7,330
May	.....	3	1	1.65	101
June	.....	1	1	1	60
July	.....	81	1	6.06	373
August	.....	1	1	1	62
September	.....	1	.3	.56	33
Water year 1912-13..	.....	2,040	.3	11.3	8,105
1913-14					
October	.....	.3	.3	.3	18
November	.....	.3	.3	.3	18
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	49	2.2	18.1	646
April	.....	530	1.3	43.5	2,590
May	.....	5	.....	1.32	81
June	.....	1,940	.....	142	8,450
July	.....	213	2.2	24	1,480
August	.....	310	2.2	49.1	3,020
September	.....	3.9	2.2	3.11	185
Water year 1913-14..	.....	1,940	0	31.7	16,488
1914-15					
October	.....	2.2	2.2	2.2	135
November	.....	.....	.....	1.3	36
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	16.9	369
April	.....	19	2.2	3.9	234
May	.....	1,140	2.2	57.1	3,510
June	.....	3,230	16	199	11,900
July	.....	1,090	7.5	210	12,900
August	.....	370	5	46.9	2,880
September	.....	3.4	3.4	3.4	202
Water year 1914-15..	.....	3,230	2.2	67.9	32,166

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1915-16					
October	.....	3.4	3.4	3.4	60.7
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	240	3	60	3,570
May	.....	39	1	14	861
June	.....	96	3	17.9	1,070
July	.....	120	11	33.5	2,060
August	.....	11	1.3	3.31	204
September	.....	1.3	1.3	1.3	77.4
Water year 1915-16..	.....	240	1	20.8	7,903
1916-17					
October	.....	1.3	1.3	1.3	80
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	22.5	3.4	10.1	618
June	.....	22.5	.....	4.3	258
July	.....	.9	.2	.3	21
August	.....	.9	.2	.3	16
September	.....	.2	.2	.2	12
Water year 1916-17..	.....	22.5	0	2.8	1,005
Note: 184 day record.					
1917-18					
October	.....	.....	.....	.2	12
November	.....	.....	.....	.4	24
December	.....	.....	.....	.4	24
January	.....	.....	.....	.3	18
February	.....	.....	.....	.6	145
March	.....	.....	.....	220	13,500
April	.....	.....	.....	36	2,160
May	.....	.....	.....	1.2	74
June	.....	.....	.....	.8	49
July	.....	.....	.....	1.6	98
August	.....	2,260	.....	107	6,030
September	.....	.....	.....	.6	38
Water year 1917-18..	.....	2,260	.....	.....	22,200
1918-19					
October	.....	.....	.....	.6	37
November	.....	.....	.....	.6	35
December	.....	.....	.....	.6	35
January	.....	.....	.....	1	63
February	.....	.....	.....	.6	33
March	.....	16	.....	2.7	165
April	.....	16	3	12	710
May	.....	.....	.....	1	60
June	.....	.....	.....	.7	42
July	.....	.....	.....	.3	16
August	.....	.....	.....	.1	1
September	.....	.....	.....	.1	9
Water year 1918-19..	.....	.....	.....	.....	1,210

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1919-20					
October	.....	.....	.....	.2	15
November	.....	.....	.....	.6	41
December	.....	.....	.....	.3	18
January	.....	.....	.....	.2	12
February	.....	.....	.....	.2	12
March	.....	488	.....	155	10,100
April	.....	180	.....	40	2,370
May	.....	3,860	.....	243	15,000
June	.....	11	2	6	383
July	.....	658	5	157	6,570
August	.....	49	.1	3.4	43
September	.....	.....	.....	.....	13
Water year 1919-20	.....	3,860	.....	.....	34,600

Month	Run-off in Acre-Feet
October 1920	115

*Discontinued.

JAMES RIVER AT JAMESTOWN. NORTH DAKOTA

Location: Lat. 46°54', long. 98°41', in SE¼ sec. 36 T. 140N. R 64W, at Asylum bridge at southeast corner of Jamestown, 2.5 miles downstream from Pipestem Creek.

Drainage Area: 2,740 square miles.

Records Available: June 1928 to September 1934, August 1937 to September 1938, March 1943 to September 1944.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1927-28					
June (11 Days)	441	80	15	40.1	875
July	6,509	714	60	210	12,900
August	1,430	70	34	46.1	2,830
September	775	34	20	25.8	1,540
Water year 1927-28	9,155	714	15	88.8	18,100
1928-29					
October	328.7	15	2	10.6	652
November	166.8	10.2	2	5.66	331
December	78	4	2	2.52	155
January	62	2	2	2	123
February	56	2	2	2	111
March	5,649.2	989	2.0	182	11,200
April	1,248	53	28	41.6	2,480
May	849	43	19	27.4	1,680
June	359.1	19	8.7	12	714
July	129.6	8.4	.8	4.18	257
August	23.6	2.8	.6	.76	46.7
September	30	2.2	.2	1	59.5
Water year 1928-29	8,980	989	.2	24.6	17,809.2
1929-30					
October	61.8	2.6	1.2	1.99	122
November	48.8	2	1	1.63	97
December	26.2	1.6	.4	.85	52
January	26.4	1	.8	.85	52
February	3,116.9	550	.8	111	6,160
March	8,177	565	31	264	16,200
April	4,604	416	56	153	9,100
May	2,214	118	30	71.4	4,390
June	531	28	15	17.7	1,050
July	180.4	14	1	5.82	358
August	21.6	1.2	.4	.7	43
September	28.6	1	.8	.95	57
Water year 1929-30	19,036.7	565	.4	52.2	36,700
1930-31					
October	20.6	1.2	.4	.66	41
November	29	1.6	.6	.97	58
December	22.2	.8	.6	.72	44
January	30.8	3.4	.8	.99	61
February	134	15	1	4.79	266
March	401.1	40	2.2	12.9	793
April	936	91	2.6	31.2	1,860
May	69.4	3.2	1.2	2.24	138
June	38	1.8	.6	1.27	76
July	30.6	1.4	.6	.99	61
August	34.6	2.4	.6	1.12	69
September	51.8	4.2	1	1.73	103
Water year 1930-31	1,798.1	91.0	.4	4.93	3,570

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1931-32					
October	40.9	6.9	.4	1.32	81
November	19.2	1	.2	.64	38
December	35.2	1.8	.8	1.14	70
January	38.2	1.4	1.2	1.23	76
February	1,890.4	626	1.2	65.2	3,750
March	2,455	388	14	79.2	4,870
April	1,162	50	24	38.7	2,300
May	380.8	37	3.8	12.3	756
June	407	37	5.5	13.6	809
July	92	8.7	1.2	2.97	183
August	33	1.4	.8	1.06	65
September	118.5	11	1.8	3.95	235
Water year 1931-32	6,672.9	626	.2	18.2	13,233
1932-33					
October	302.8	36	.4	9.77	601
November	27.4	1.2	.4	.91	54
December	23.0	1.2	.6	.74	46
January	31.8	1.2	.6	1.03	63
February	792.6	520	1	28.3	1,570
March	3,328	475	38	107	6,580
April	1,649	91	18	55	3,270
May	786.9	124	4	25.4	1,560
June	60.9	4	0	2.01	120
July	21	2.4	0	.67	41
August	4.6	.....	.....	26	9
September	.....	.....	.....	.....	.....
Water year 1932-33	7,027.5	520	0	21.8	13,914
1933-34					
October	.....	.....	.....	.....	0
November	.....	.....	.....	.....	31
December	.....	.....	.....	.....	73
January	.....	.....	.....	.....	15
February	.....	.....	.....	.....	81
March	.....	.....	.....	.....	81
April	.....	.....	.....	.....	229
May	.....	.....	.....	.....	170
June	.....	.....	.....	.....	316
July	.....	.....	.....	.....	100
August	.....	.....	.....	.....	75
September	.....	.....	.....	.....	100
Water year 1933-34	.....	.....	.....	.....	1,271
Discontinued.					
1937-38					
August (9 Days)	5.8	.8	.4	.64	12
September	21.5	3	.4	.72	43
Water year 1937-38	27.3	.....	.....	.....	55
1937-38					
October	30.5	1.5	.6	.98	60
November	30.1	1.9	.7	1	60
December	26.9	1	.6	.87	53
January	29.7	1	.8	.96	59
February	31.5	2.7	.9	1.12	62
March	477.2	98	.9	15.4	94.7
April	54.9	2.3	1.5	1.83	109
May	42.7	1.7	1.2	1.38	85
June	41.6	3.5	1.1	1.39	83
July	50	3.2	.8	1.61	99
August	29.5	1.1	.7	.95	59
September	22.9	1.9	.4	.76	45
Water year 1937-38	867.5	98	.4	2.38	1,721

Discontinued Uutil:					
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 29-31	4.860	1,730	1,530	1,620	9,640
April	17,371	1,420	209	579	34,450
May	3,821	218	49	123	7,580
June	6,293	347	72	210	12,480
July	4,018	226	53	130	7,970
August	391.6	46	.....	12.6	777
September	149.9	10	1.8	5	297
Water year 1942-43	36,904.5	1,730	.....	.....	73,194

BOIS DE SIOUX AT WHITE ROCK, SOUTH DAKOTA

Location: Lat. 45°51'45", long. 96°34'25", in SW¼SW¼ sec. 27 T. 128N. R 47 W., 300 feet downstream from White Rock Dam, 4 miles south of White Rock and 5 miles northwest of Wheaton, Minn.

Drainage Area: 1,160 square miles.

Records Available: October 1941 to September 1944.

Extremes: Maximum discharge 1,120 second-feet May 24, 1943; maximum gage height June 23, 1944 9.28 feet.

Month	Second Foot D- -	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	78	34	.....	2.5	155
June	4,436	483	.....	148	8,800
July	19,322	835	118	623	38,320
August	6,130	260	105	198	12,160
September	7,315	334	105	244	14,510
Water year 1941-42	37,281	835	.....	102	37,281
1942-43					
October	1,418	154	.....	45.7	2,810
November	4.5	.6	.....	.15	8.9
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	185	55	.....	6	367
April	9,758	900	32	325	19,350
May	28,995	1,080	775	935	57,510
June	20,422	1,000	85	681	40,510
July	10,052	850	60	324	19,940
August	1,112.7	65	1.4	35.9	2,210
September	205.4	16	1.6	6.85	407
Water year 1942-43	72,152.6	1,080	0	198	143,112.9
1943-44					
October	234.3	17	2.5	7.56	465
November	331	17	6.5	11	657
December	42.9	9.5	.....	1.38	85
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	113.4	19	.....	3.66	225
April	4,709.5	320	7.5	157	9,340
May	7,837	628	16	253	15,540
June	17,942	1,080	21	598	35,590
July	6,974	775	13	225	13,830
August	490.9	27	4.9	15.8	974
September	143.9	6.6	3.8	4.8	283
Water year 1943-44	38,818.9	1,080	0	106	76,990

ANTELOPE CREEK AT DWIGHT, NORTH DAKOTA

Location: In SE¼SE¼ sec. 20, T. 133 N., R. 48 W. lat. 46°18'50", long. 96°44'05". On bridge on U. S. Highway 81 about ½ mile north of Dwight, N. Dak.

Record Available: Established March 20, 1944.

Extremes: Maximum stage about 16.0 feet, minimum .6 feet.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	9.5	.3	4.38	104
April	.....	102	2.2	20.1	1,200
May	.....	12	3.3	7.68	472
June	.....	255	.6	35.4	2,110
July	.....	388	.4	83.6	5,140
August	.....	266	.3	30.6	1,880
September	.....	56	.6	11.9	707
Water year 1943-44	.....	.....	.....	.....	11,613

BOIS DE SIOUX RIVER NEAR FAIRMOUNT, NORTH DAKOTA

Location: Chain gage, lat. 46°03'00", long. 96°33'25", on line between secs. 22 and 27 T. 130 N., R. 47W, at bridge on Minnesota Highway 55 and North Dakota Highway 11, 2 miles east of Fairmount, 5 miles west of Tenney, Minn. and 15 miles downstream from Lake Traverse.

Drainage Area: 1,540 square miles.

Records Available: April 1919 to September 1944.

Extremes: Maximum daily discharge 1,400 second-feet April 2-5, 1943, no flow during parts of several years.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1919					
April	209.3	9	6	6.91	411
May	388.5	19	6.5	12.5	769
June	376	39	8	12.5	744
July	1,230	51	17	39.7	2,440
August	1,635	77	33	52.7	3,240
September 1-6	174	32	27	29	345
Water year 1919 (159 Days)	.....	.....	.....	.....	7,949
1920					
April	5,074	214	140	169	10,100
May	4,923	194	132	159	9,780
June	4,086	184	82	136	8,090
July	2,081	82	58	67	4,120
August	1,533	58	43	49	3,010
September	1,488	58	43	50	2,980
Water year 1920 (183 Days)	.....	.....	.....	.....	38,080
1920-21					
October	1,179	43	31	38	2,340
November	698	30	18	23.5	1,400
December	74	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	280	.....	.....	.....	.....
April	1,176	64	34	39.2	2,330
May	998	36	30	32.6	2,000
June	606	38	10	20.3	1,210
July	225	11	3	6.94	426
August	18	2	0	.58	36
September	130	11	0	4.33	258
Water year 1920-21 (244 days)	.....	.....	.....	.....	10,000
1921-22					
October	53	4	1	1.7	104
November	17.3	1	.1	.6	36
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	422	38	0	13.6	836
April	7,909	390	43	264	15,700
May	6,514	321	119	210	12,900
June	1,929	116	43	64.3	3,830
July	866	42	14	27.7	1,700
August	136.9	13	.2	4.4	270
September	4.4	.3	0	.1	6
Water year 1921-22 (365 Days)	.....	390	0	48.9	35,400

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1922-23					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	21	16	0	.68	42
April	1,155	76	16	35.5	2,290
May	690	28	16	22.3	1,370
June	260	16	3	8.67	516
July	69	5	0	2.23	137
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1922-23 (365 days)	.....	76	0	6.01	4,360

No flow during year 1923-1924—366 days record.
No flow during year 1924-1925- 365 days record.

1925-26					
March ('26)	153	32	0	12.1	742
Water year "25-26" (365 days)	.....	32	0	1	742

Only flow during year was March 8 to 20th.

1927					
February	12	3	0	.43	24
March	531	56	4	17.5	1,076
April	1,249	70	16	41.7	2,481
May	36.1	16	9	11.6	713
June	616	32	11	20.5	1,220
July	659	32	11	21.3	1,310
August	91	10	0	2.94	181
September	143	11	3	4.77	284
Water year 1926-27 (365 days)	3,662	70	0	10.1	7,289
1927-28					
October	74	4	2	2.4	148
November	13	2	0	.4	24
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	462	40	0	14.9	916
April	835	40	22	27.8	1,650
May	453	22	5	14.6	898
June	125	5	2	4.2	250
July	98	4	3	3.2	197
August	67	3	2	2.6	135
September	18	2	0	.6	36
Water year 1927-28 (365 days)	.....	.....	.....	3.8	2,768.5

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	48	2	1	1.5	92
November	21	.....	.....	.8	48
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	710	48	0	24.2	1,490
April	1,109	53	11	37.1	2,210
May	1,185	53	25	36.3	2,230
June	560	25	11	18.7	1,110
July	255	11	5	8.2	504
August	72	4	1	2.3	141
September	15	1	.....	.5	30
Water year 1928-29 (365 days)	3,975	53	0	10.8	7,855
1929-30					
October	62	.....	.....	2	123
November	30	.....	.....	1	60
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	242	38	0	8.6	478
March	1,749	64	31	56.4	3,470
April	285	20	7	9.5	565
May	598	28	9	19.4	1,190
June	281	15	7	9.4	559
July	129	7	0	3.2	197
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1929-30 (365 Days)	3,376	64	0	9.2	6,640
No flow during year 1930-1931, 365 Day Record.					
" " " " 1931-1932, 366 Day Record.					
" " " " 1932-1933, 365 Day Record.					
" " " " 1933-1934, 365 Day Record.					
" " " " 1934-1935, 365 Day Record.					
" " " " 1935-1936, 366 Day Record.					
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	130	14	0	4.33	258
May	152	20	0	4.9	301
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	282	20	0	.77	559
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,453.8	239	6.7	46.9	2,880
April	169	9.7	2.8	5.65	336
May	385	30	7.6	12.4	764
June	365	40	2.2	12.2	724
July	1,542.2	267	.7	49.7	3,060
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1937-38	3,915	.....	.....	.....	7,760

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	405	100	0	13.1	803
April	407	65	0	13.6	807
May	5.5	1	0	.18	11
June	9.9	2	0	.33	20
July	4.5	2	0	.15	8.9
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1938-39	831.9	100	0	2.28	1,650

1939-1940—No record available.

1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	15.6	6	0	.50	31
April	38.9	7	.1	1.30	77
May	5.4	.8	0	.17	11
June	183.7	44	0	6.12	364
July	56.7	8	0	1.83	112
August	26.1	11	0	.84	52
September	56.9	5.4	.2	1.90	113
Water year 1940-41	383.3	44	0	1.05	760
1941-42					
October	38.2	0	0	1.23	76
November	21.4	0	0	.71	42
December	3.2	0	0	.10	6.3
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	110	0	0	3.55	218
April	360.8	40	.5	12	716
May	4,609	330	19	149	9,140
June	11,809	1,140	60	394	23,420
July	20,514	834	355	662	40,690
August	6,436	260	125	208	12,770
September	7,484	336	119	249	14,840
Water year 1941-42	51,385.6	1,140	0	141	101,900
1942-43					
October	1,778.2	180	.5	57.4	3,530
November	99.6	9.7	0	3.32	198
December	0	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2,240	1,200	0	72.3	4,440
April	18,746	1,400	66	625	37,180
May	28,757	1,110	766	928	57,040
June	21,764	1,020	130	725	43,170
July	10,563	880	62	341	20,950
August	1,080	62	3.7	34.8	2,140
September	142.5	7.8	2.5	4.75	283
Water year 1942-43	85,170.3	1,400	0	233	168,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1943-44					
October	237.6	32	3.7	7.66	471
November	255.2	16	4.2	8.51	506
December	41.2	5.5	.....	1.33	82
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	102	.....	.....	3.20	202
April	4,819	360	14	161	9,560
May	9.551	700	25	308	18,940
June	21,157	1.180	26	705	41,960
July	8,493	857	22	274	16,850
August	672	55	10	21.7	1,330
September	269.8	14	6.4	8.99	535
Water year 1943-44	45.597.8	1,180	.....	125	90,440

RED RIVER AT WAHPETON, NORTH DAKOTA

Location: Chain gage, lat. 46°15'55". long. 96°35'40", in NE¼ Sec. 8, T. 132 N, R. 47W. at Wahpeton, two blocks downstream from confluence of Bois de Sioux and Otter Tail Rivers.

Drainage Area: 4,010 square miles.

Records Available: April 1942 to September 1944.

Extremes: Maximum daily discharge 5,000 second-feet April 2-6, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
April (4 days)	1,529	.....	.....	.....	.....
May	31,665	1,750	595	1,021	62,810
June	38,159	3,220	695	1,272	75,690
July	27,965	1,200	475	902	55,470
August	12,115	695	334	391	24,030
September	14,289	625	334	476	28,340
Water year 1941-42	125,722	.....	.....	.....	246,300
1942-43					
October	12,150	450	.....	392	24,100
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	12,780	3,600	.....	412	25,350
April	64,575	5,000	660	2,152	128,100
May	51,750	1,900	1,400	1,669	102,600
June	54,540	2,980	1,400	1,818	108,200
July	33,142	2,500	334	1,069	65,740
August	17,435	1,000	400	562	34,580
September	12,085	450	334	403	23,970
Water year 1942-43	258,857	.....	.....	.....	488,540
1943-44					
October	12,873	475	355	415	25,530
November	9,925	425	150	331	19,690
December	8,730	400	200	282	17,320
January	6,090	240	140	196	12,080
February	4,420	200	120	152	8,770
March	6,050	320	130	195	12,000
April	19,236	1,050	320	641	38,150
May	29,780	1,910	487	961	59,070
June	57,304	4,360	513	1,910	113,700
July	41,464	2,620	361	1,340	82,240
August	13,691	619	361	442	27,160
September	17,778	678	487	593	35,260
Water year 1943-44	227,341	4,360	120	621	451,000

WILD RICE RIVER AT ABERCROMBIE, NORTH DAKOTA

Location: Staff gage, lat. 46°28'35", long. 96°47'15", in NE¼ SW¼ sec. 25, T. 135N, R 49 W, 160 feet upstream from rubble masonry dam which serves as control, 3½ miles northwest of Abercrombie, and 8 miles downstream from Antelope Creek.

Drainage Area: 2,170 square miles.

Records Available: April 1932 to September 1944.

Extremes: Maximum discharge 5,500 second feet Apr. 2, 1943; no flow some periods each year.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 4-30	365.8	28	5.7	13.5	723
May	179.9	11	1.6	5.8	357
June	97.8	62	1.6	3.26	194
July	219	2.6	0	.71	44
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1931-32	665.4	.....	.....	.....	1,320

Note: 119 day record, no flow in August and September.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	12	11	0	.43	24
March	1,028.6	67	5.2	33.2	2,040
April	440.2	55	3.4	14.7	875
May	231.9	15	4.3	7.48	460
June	54.7	4.6	0	1.82	108
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33	1,767.4	67	0	484	3,510

Note: 150 day record, no flow during months omitted.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 16-31	8.3	1.4	0	52	16
April	111.4	15	0	3.71	221
May	3.4	1.2	0	.11	6.7
June	40.5	5.3	0	1.35	80
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1933-34	163.6	.....	.....	.....	323.7

Note: 107 days record, no flow during months omitted.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 14-31	4,673	513	66	260	9,270
April	598.8	64	9.8	20	1,190
May	395	23	2.0	12.7	783
June	1,267	220	1.0	42.2	2,510
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1934-35..	6,933.8	.....	.....	.....	13,750
Note: 109 days, no flow during period of no record.					
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2,492	389	0	80.4	4,940
April	1,668	132	14	55.6	3,310
May	404	38	1.4	13.0	801
June	10.7	1.9	0	.36	21
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1935-36..	4,574.7	.....	.....	.....	9,070
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	3,524	540	0	117	6,990
May	2,637	310	17	85.1	5,230
June	626.6	37	3.6	20.9	1,240
July	559	94	3.0	18	1,110
August	120.5	30	1	3.89	239
September	60	0	0	2	119
Water year 1936-37..	7,527.1	540	0	20.6	14,930
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2,662.2	285	8.2	133	5,280
April	379	78	6.8	12.6	752
May	1,032	108	12	33.3	2,050
June	279.9	20	2.1	9.33	555
July	11.2	3.1	0	.36	22.2
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1937-38..	4,364.3	.....	.....	.....	8,660

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	7,824	1,700	0	252	15,520
April	1,374.3	192	2.5	45.8	2,730
May	99.6	11	0	3.21	198
June	700.8	85	0	23.4	1,390
July	726.8	70	1.2	23.4	1,440
August	57.5	11	0	1.85	114
September	.....	.....	.....	.....	.....
Water year 1938-39..	10,783	1,700	0	29.3	21,390
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	2,147	200	12	71.6	4,260
May	600.3	35	9.3	19.4	1,190
June	71.8	8.6	0	2.39	142
July	.1	.1	0	0.003	.2
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1939-40..	2,819.2	200	0	7.70	5,592.2
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2,453	402	0	79.1	4,870
April	1,904	209	27	63.5	3,780
May	587	37	4.4	18.9	1,160
June	2,338.7	402	7.4	78	4,640
July	377.4	27	2.7	12.2	749
August	139.4	18	0	4.50	276
September	298.9	22	2.7	9.96	593
Water year 1940-41..	8,098.4	402	0	22.2	16,068
1941-42					
October	226.7	11	4	7.31	450
November	169.2	6.5	4.4	5.64	336
December	98.5	4.4	1.2	3.18	195
January	2.3	.9	0	.7	4.6
February	.....	.....	.....	.....	.....
March	465	98	0	15	922
April	1,991	218	18	66.4	3,950
May	4,694	351	53	151	9,310
June	8,988	579	135	300	17,830
July	2,353	132	39	75.9	4,670
August	1,398.3	208	4.4	45.1	2,770
September	3,003	138	53	100	5,960
Water year 1941-42..	23,389	579	0	64.1	46,400

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	3,439	138	85	111	6,820
November	1,812	106	36	60.4	3,590
December	595.8	36	91	19.2	1,180
January	207.3	8.8	4	6.69	411
February	51.3	4	0	1.83	102
March	7,210.4	4,500	0	233	14,300
April	52,999	5,430	289	1,767	103,100.7
May	5,401	272	103	174	10,710
June	21,206	1,350	207	707	42,060
July	10,960	1,220	87	354	21,740
August	1,598	120	24	51.5	3,170
September	679.5	36	5.9	22.6	1,350
Water year 1942-43	106,159.3	5,430	0	291	210,500
1943-44					
October	223.9	10	5.2	7.22	444
November	347.9	19	7.4	11.6	690
December	178.1	13	.5	5.75	353
January	15.7	1.4		.51	31
February	10.7	1.4		.37	21
March	640.5	95	.8	20.7	1,270
April	4,440	248	42	148	8,810
May	5,227	238	88	169	10,370
June	7,301	790	82	243	14,480
July	14,369	925	80	464	28,500
August	4,164	478	32	134	8,260
September	2,583	261	25	86.1	5,120
Water year 1943-44	39,500.8	925		108	78,350

WILD RICE AT MANTADOR, NORTH DAKOTA

Location: SE¼ sec. 12, T. 131 N. R. 51 W., lat. 46°10'20", Long. 97°(0'35". 1½ miles west and ¼ mile north of Mantador on bridge on farm road

Record available: Established March 20, 1944

Extremes: Maximum stage about 11.8 feet.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March		20	0	3.22	198
April		137	8.5	80.8	4,810
May		187	57	123	7,560
June		142	64	115	6,830
July		400	64	244	14,990
August		137	15	64.1	3,940
September		115	17	46.2	2,750
Water year 1943-44					41,078

WILD RICE RIVER, WILD RICE, NORTH DAKOTA

Location: In T. 138N., R. 49 W. at highway bridge 3 miles southwest of Wild Rice.

Drainage area: 2,200 Square Miles.

Record Available: April to August 1919. Station was then discontinued.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1918-19					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 8th	.....	98	23	48.7	2,220
May	.....	83	4	35.2	2,160
June	.....	69	6	17.7	1,050
July	.....	.....	.....	.....	.....
August	.....	23	.1	2.86	176
September	.....	.....	.....	.....	.....
Water year 1918-19	.....	98	.1	.....	5,606

RED RIVER AT FARGO, NORTH DAKOTA

Location: Staff gage, lat 46°52'10", long. 96°47'00". in sec. 7, T. 139 N. R. 48W., just upstream from Island Park Dam, in Fargo and 10 miles upstream from Sheyenne River.

Drainage Area: 6,800 square miles

Records available: May 1901 to September 1944.

Average discharge: 42 years, 439 second-feet.

Extremes: Maximum discharge 18,000 second-feet April 7, 1943. No flow for many days in each year of period 1932-1941.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1901-02					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February 25-28		616	347	497	3,943
March		1,105	513	737	45,316
April		700	392	469	27,907
May		1,175	439	733	45,070
June		1,035	730	904	53,792
July		850	463	676	41,566
August		564	369	463	28,469
September		369	283	328	19,517
Water Year 1901-02					265,580
1902-03					
October		392	207	275	16,009
November		392	172	298	17,732
December 1-2		189	189	189	750
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31		1,560	225	965	9,570
April		2,450	564	1,260	74,975
May		643	513	566	34,802
June		538	392	460	27,372
July		439	283	363	22,320
August		325	225	268	16,479
September		369	263	317	18,863
Water Year 1902-03					238,872
1903-04					
October	.....	564	325	471	28,961
November 1-26 Incl.	.....	590	439	474	24,444
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	6,089	1,281	3,222	191,700
May	.....	1,650	878	1,043	64,130
June	.....	2,832	822	1,268	75,460
July	.....	2,354	636	1,124	69,120
August	.....	636	378	502	30,870
September	.....	512	444	488	26,900
Water Year 1903-04	.....	.....	.....	.....	511,585

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1904-05					
October	.....	512	444	488	30,010
November	.....	466	231	428	25,470
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	730	392	480	28,560
May	.....	4,250	392	1,641	100,900
June	.....	1,000	790	937	55,760
July	.....	1,140	880	1,032	63,460
August	.....	1,525	910	1,131	69,540
September	.....	1,000	790	908	54,030
Water Year 1904-05	.....	.....	.....	.....	427,730
1905-06					
October	.....	880	671	751	46,180
November 1-29	.....	700	590	641	36,870
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	3,050	1,230	2,050	122,000
May	.....	2,430	1,200	1,630	100,000
June	.....	1,910	1,570	1,680	100,000
July	.....	1,910	1,260	1,550	95,300
August	.....	1,460	1,100	1,290	79,300
September	.....	1,330	949	1,070	63,700
Water Year 1905-06	.....	.....	.....	.....	643,350
1906-07					
October	.....	1,160	781	940	57,800
November	.....	1,160	.....	942	56,100
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 18-31	.....	.....	.....	2,970	82,500
April	.....	.....	.....	2,920	174,000
May	.....	1,640	1,200	1,370	84,200
June	.....	4,420	1,170	2,200	131,000
July	.....	1,370	691	1,010	62,100
August	.....	691	425	568	34 900
September	.....	515	360	428	25,500
Water Year 1906-07	.....	.....	.....	.....	708,100
1907-08					
October	.....	515	403	456	28,000
November	.....	469	220	400	23,800
December	.....	403	.....	315	19,400
January	.....	.....	.....	290	17,800
February	.....	.....	.....	250	14,400
March	.....	.....	.....	500	30,700
April	.....	.....	563	1,100	65,500
May	.....	1,010	563	691	42,500
June	.....	2,600	885	1,720	102 000
July	.....	1,850	945	1,230	75,600
August	.....	945	515	696	42,800
September	.....	539	403	462	27,500
Water Year 1907-08	.....	.....	.....	.....	490,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1908-09					
October	.....	492	381	414	25,500
November	.....	450	.....	360	21,400
December	.....	.....	.....	300	18,400
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 14-31	.....	.....	.....	523	18,700
April	.....	.....	.....	947	56,400
May	.....	1,780	797	937	57,600
June	.....	1,610	743	1,110	66,000
July	.....	743	450	609	37,400
August	.....	853	565	685	42,100
September	.....	970	690	791	47,100
Water Year 1908-09..	.....	.....	.....	.....	390,600
1909-10					
October	.....	825	664	762	46,900
November	.....	.....	.....	574	34,200
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	2,130	131,000
April	.....	1,960	1,120	1,430	85,100
May	.....	1,280	662	967	59,500
June	.....	635	380	491	29,200
July	.....	356	131	220	13,500
August	.....	131	43	85.3	5,240
September	.....	60	43	47.9	2,850
Water Year 1909-10..	.....	.....	.....	.....	407,490
1910-11					
October	.....	102	30	58.3	3,580
November	.....	.....	.....	45.0	2,680
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	556	60	246	15,100
April	.....	608	286	370	22,000
May	.....	309	242	283	17,400
June	.....	428	116	240	14,300
July	.....	131	79	102	6,270
August	.....	221	116	166	10,200
September	.....	221	116	160	9,520
Water Year 1910-11..	.....	.....	.....	.....	101,050
1911-12					
October	.....	356	147	245	15,100
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	230	120	150	1,790
April	.....	1,040	402	564	33,600
May	.....	1,100	426	727	44,700
June	.....	630	475	528	31,400
July	.....	657	355	483	29,700
August	.....	577	204	330	20,300
September	.....	304	151	224	13,300
Water Year 1911-12..	.....	1,100	120	466.3	189,890

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1912-13					
October	.....	326	220	248	15,200
November	.....	282	78	182	10,800
December 1-7	.....	93	64	76.3	1,060
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	870	290	461	27,650
May	.....	455	290	361	21,660
June	.....	382	290	339	21,015
July	.....	1,460	290	638	39,230
August	.....	536	142	270	16,200
September	.....	839	190	421	25,260
Water Year 1912-13	.....	1,460	64	357	178,075
1913-14					
October	.....	685	290	494	30,375
November	.....	625	335	436	25,944
December	.....	.....	.....	352	21,644
January	.....	.....	.....	200	12,298
February	.....	.....	.....	140	7,775
March	.....	610	.....	327	20,107
April	.....	1,330	550	666	39,630
May	.....	2,220	550	877	53,925
June	.....	3,060	580	1,550	92,232
July	.....	2,330	550	1,010	62,103
August	.....	550	433	511	31,421
September	.....	710	435	542	32,252
Water Year 1913-14	.....	3,060	290	594	429,706
1914-15					
October	.....	650	543	583	35,800
November	.....	622	.....	532	31,700
December	.....	.....	.....	410	25,200
January	.....	.....	.....	340	20,900
February	.....	.....	.....	310	17,200
March	.....	.....	.....	390	24,000
April	.....	2,430	494	1,000	59,500
May	.....	906	708	788	48,500
June	.....	2,620	679	1,530	91,000
July	.....	3,110	1,220	1,900	117,000
August	.....	1,220	906	1,060	65,200
September	.....	943	708	790	46,900
Water Year 1914-15	.....	3,110	.....	805	502,900
1915-16					
October	.....	836	739	794	48,800
November 1-18	.....	770	471	652	23,300
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	3,840	836	2,130	25,400
April	.....	7,440	4,480	6,080	362,000
May	.....	4,560	1,810	2,540	156,000
June	.....	3,760	1,140	2,120	126,000
July	.....	7,720	2,710	5,450	335,000
August	.....	3,110	1,100	1,850	114,000
September	.....	1,510	1,020	1,250	74,400
Water Year 1915-16	.....	7,440	471	267.5	1,264,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1916-17					
October	.....	1,240	876	1,030	63,300
November 1-17	.....	876	424	746	25,200
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 26-31	.....	4,640	784	3,100	36,900
April	.....	5,200	2,130	3,180	189,000
May	.....	2,800	976	1,810	111,000
June	.....	976	486	722	43,000
July	.....	486	231	330	20,300
August	.....	231	92	144	8,850
September	.....	142	42	90.4	5,380
Water Year 1916-17	.....	5,200	42	1,069.9	502,930
1917-18					
October	.....	156	70	108	6,640
November	.....	185	70	132	7,860
December 1-17	.....	156	70	105	3,540
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	700	299	376	22,400
May	.....	750	272	445	27,400
June	.....	570	272	440	26,200
July	.....	342	153	251	15,400
August	.....	265	134	186	11,400
September	.....	143	78	116	6,900
Water Year 1917-18	.....	750	70	246.8	127,740
1918-19					
October	.....	140	71	95.5	5,870
November	.....	198	83	124	7,380
December	.....	143	69	102	6,270
January	.....	113	41	77.2	4,750
February	.....	131	29	77.5	4,300
March	.....	630	42	276	17,000
April	.....	630	312	463	27,600
May	.....	630	245	468	28,800
June	.....	605	316	398	23,700
July	.....	440	178	294	18,100
August	.....	420	186	282	17,300
September	.....	248	172	209	12,400
Water Year 1918-19	.....	630	29	240	173,470
1919-20					
October	.....	245	90	189	11,600
November	.....	320	192	252	15,000
December	.....	228	55	154	9,470
January	.....	.....	.....	155	9,530
February	.....	.....	.....	150	8,630
March	.....	6,120	.....	1,680	103,000
April	.....	2,270	440	888	52,800
May	.....	1,120	655	929	57,100
June	.....	1,690	945	1,220	72,600
July	.....	1,370	555	960	59,000
August	.....	605	400	498	30,600
September	.....	580	400	458	27,300
Water Year 1919-20	.....	6,120	55	629	456,630

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1920-21					
October	.....	485	440	466	28,700
November	.....	485	300	414	24,600
December	.....	462	192	305	18,800
January	.....	.....	.....	220	13,500
February	.....	.....	.....	240	13,300
March	.....	890	280	480	29,500
April	.....	1,970	475	738	43,900
May	.....	645	452	513	31,500
June	.....	1,150	303	613	36,500
July	.....	303	159	254	15,600
August	.....	284	102	183	11,300
September	.....	344	48	140	8,330
Water Year 1920-21	.....	1,970	48	381	275,530
1921-22					
October	.....	430	32	145	8,920
November	.....	264	.....	95.3	5,670
December	.....	.....	.....	70	4,300
January	.....	.....	.....	25	1,540
February	.....	.....	.....	23	1,280
March	.....	4,600	.....	1,860	114,000
April	.....	5,200	1,200	2,640	157,000
May	.....	1,370	918	1,070	65,800
June	.....	890	474	695	41,400
July	.....	498	159	309	19,000
August	.....	210	24	88.4	5,440
September	.....	57	9	37.0	2,200
Water Year 1921-22	.....	5,200	9	590	426,550
1922-23					
October	.....	57	24	40.4	2,480
November	.....	144	39	96.4	5,740
December	.....	.....	.....	55	3,380
January	.....	.....	.....	45	2,770
February	.....	.....	.....	30	1,670
March	.....	.....	.....	55	3,380
April	.....	2,650	68	1,100	65,500
May	.....	725	365	544	33,400
June	.....	3,960	144	861	51,200
July	.....	2,720	144	533	32,800
August	.....	132	60	91.2	5,610
September	.....	102	30	68.2	4,060
Water Year 1922-23	.....	3,960	24	293	211,990
1923-24					
October	.....	98	78	87.8	5,400
November	.....	109	69	93.4	5,560
December	.....	88	12	72.8	4,480
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	.....	125	125	125	1,240
April	.....	530	125	267	15,900
May	.....	490	235	302	18,600
June	.....	252	175	205	12,200
July	.....	235	100	165	10,100
August	.....	162	42	85.1	5,230
September	.....	175	8	91.5	5,440
Water Year 1923-24	.....	530	8	151.5	84,150

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1924-25					
October	.....	252	100	162	9,960
November	.....	220	63	124	7,380
December	.....	80	24	54.5	3,350
January	.....	48	24	37.1	2,280
February	.....	48	35	39.9	2,220
March	.....	340	35	158	9,720
April	.....	670	205	297	17,700
May	.....	340	150	236	14,500
June	.....	885	235	564	33,600
July	.....	575	125	284	17,500
August	.....	175	80	138	8,480
September	.....	205	80	129	7,680
Water Year 1924-25	.....	885	24	185	134,370
1925-26					
October	.....	254	66	147	9,040
November	.....	144	66	117	6,960
December	.....	102	41	64.2	3,950
January	.....	51	38	48.3	2,970
February	.....	83	38	62.7	3,480
March	.....	1,600	83	474	29,100
April	.....	534	223	352	20,900
May	.....	288	144	204	12,500
June	.....	254	122	172	10,200
July	.....	122	27	57.6	3,540
August	.....	122	18	47.9	2,950
September	.....	102	18	55.3	3,290
Water Year 1925-26	.....	1,600	18	151	108,880
1926-27					
October	.....	144	51	103	6,330
November	.....	144	38	76.0	4,520
December	.....	66	18	45.9	2,820
January	.....	66	18	39.7	2,440
February	.....	254	27	70.3	3,900
March	.....	2,650	288	846	52,000
April	.....	1,690	488	918	54,600
May	.....	684	402	520	32,000
June	.....	794	488	629	37,400
July	.....	488	223	343	21,100
August	.....	254	122	186	11,400
September	.....	324	144	228	13,600
Water Year 1926-27	.....	2,650	18	335	242,110
1927-28					
October	.....	288	168	208	12,800
November	.....	223	122	174	10,400
December	.....	.....	.....	92	5,660
January	.....	.....	.....	97	5,960
February	.....	.....	.....	86	4,950
March	.....	3,840	102	951	58,500
April	.....	1,520	288	499	29,700
May	.....	534	254	371	22,800
June	.....	974	168	295	17,600
July	.....	444	144	294	18,100
August	.....	128	48	78.2	4,810
September	.....	212	74	113	6,720
Water Year 1927-28	.....	3,840	48	273	198,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	212	74	136	8,360
November	.....	212	108	153	9,100
December	.....	152	108	123	7,560
January	.....	108	60	75.6	4,650
February	.....	90	38	70.3	3,900
March	.....	4,440	74	1,420	87,300
April	.....	670	374	513	30,500
May	.....	420	248	357	22,000
June	.....	248	108	174	10,400
July	.....	108	38	75.2	4,620
August	.....	30	20	23.3	1,430
September	.....	38	16	24.6	1,460
Water Year 1928-29	.....	4,440	16	264	191,000
1929-30					
October	.....	74	38	53.7	3,300
November	.....	108	30	62.2	3,700
December	.....	38	30	33.7	2,070
January	.....	38	30	36.5	2,240
February	.....	620	38	149	8,280
March	.....	1,340	265	711	43,700
April	.....	780	265	398	23,700
May	.....	1,120	310	590	36,300
June	.....	410	225	290	17,300
July	.....	265	60	145	8,920
August	.....	90	20	38.3	2,360
September	.....	22	11	16.2	964
Water Year 1929-30	.....	1,340	11	211	153,000
1930-31					
October	.....	48	13	30.5	1,880
November	.....	61	26	37.7	2,240
December	.....	32	16	24.6	1,510
January	.....	30	13	21.1	1,300
February	.....	102	28	39.3	2,180
March	.....	207	90	128	7,870
April	.....	365	118	190	11,300
May	.....	295	101	168	10,300
June	.....	275	33	132	7,860
July	.....	130	21	64.8	3,980
August	.....	33	7	20.8	1,280
September	.....	141	2.1	15.6	928
Water Year 1930-31	.....	365	2.1	72.7	52,600
1931-32					
October	.....	98	10	26.6	1,640
November	.....	51	15	28	1,670
December	.....	33	17	21.6	1,330
January	.....	45	25	36.1	2,320
February	.....	177	31	47.3	2,720
March	.....	340	31	135	8,300
April	.....	868	49	232	13,800
May	.....	92	25	55.6	3,420
June	.....	63	9.2	33.2	1,980
July	.....	16	.....	7.73	475
August	.....	0	0	0	0
September	.....	13	2.8	8.78	522
Water Year 1931-32	.....	868	0	52.4	38,177

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	21	11	14.1	867
November	.....	17	0	6.74	401
December	.....	10	0	1.93	119
January	.....	0	0	0	0
February	.....	4	0	0.18	10
March	.....	255	8	129	7,930
April	.....	605	41	207	12,300
May	.....	152	48	73.6	4,530
June	.....	139	12	51.1	3,040
July	.....	42	.2	15.3	941
August	.....	5.7	0	1.59	98
September	.....	2.2	0	.08	5
Water Year 1932-33	.....	605	0	41.7	30,200
1933-34					
October	.....	11	0	4.72	290
November	.....	10	0	2.49	148
December	.....	30	1.3	13.3	819
January	.....	19	9	14	859
February	.....	36	13	20.5	1,140
March	.....	62	18	43	2,640
April	.....	323	22	102	6,070
May	.....	35	0	8.12	499
June	.....	27	0	3.31	197
July	.....	0	0	0	0
August	.....	0	0	0	0
September	.....	0	0	0	0
Water Year 1933-34	.....	323	0	17.5	12,660
1934-35					
October	.....	.....	.....	.....	.....
November	17.7	9.9	0	.59	35
December	17.8	8.9	0	.57	35
January	0	0	0	0	0
February	328	34	0	11.7	651
March	11,974	930	22	386	23,750
April	4,546	347	65	152	9,020
May	3,492	231	25	113	6,930
June	2,600.6	309	6.8	86.7	5,160
July	5,694	366	65	184	11,290
August	1,006.6	103	6.8	32.5	2,000
September	253.6	25	.2	8.45	503
Water Year 1934-35	29,930.3	930	0	82	59,370
1935-36					
October	151.4	11	.2	4.88	300
November	57.3	7.8	0	1.91	114
December	18.2	8.9	0	.59	36
January	431.8	18	7.8	1.39	856
February	168.4	8.9	2.6	5.81	334
March	4,999.5	695	8.9	161	9,920
April	12,841	1,050	125	428	25,470
May	2,688.9	165	1.5	86.7	5,330
June	86.2	9.9	0	2.87	171
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water Year 1935-36	21,442.7	1,050	0	58.6	42,530

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	131.2	14	0	4.23	260
January	136.3	24	0	4.40	270
February	27.2	12	0	.97	54
March	830.8	59	0	26.8	1,650
April	13,337	1,300	63	445	26,450
May	7,834	836	53	253	15,540
June	5,502	299	83	183	10,910
July	3,332	212	51	107	6,610
August	1,727	117	30	55.7	3,430
September	4,180	222	59	139	8,290
Water Year 1936-37..	37,037.5	1,300	0	101	73,460
1937-38					
October	2,758	165	44	89	5,470
November	1,769.2	158	.2	59	3,510
December	.....	.....	.....	.....	.....
January	165.5	12	.....	5.34	328
February	417.3	22	8.1	14.9	828
March	7,329	606	21	236	14,540
April	4,909	383	123	164	9,740
May	13,197	1,160	300	426	26,180
June	9,902	502	184	330	19,640
July	3,067	244	24	98.9	6,080
August	574.5	37	7.3	18.5	1,140
September	1,731.7	226	3.8	57.7	3,430
Water Year 1937-38..	45,820.2	1,160	0	126	90,890
1938-39					
October	900	54	18	29	1,790
November	574	32	8	19.1	1,140
December	675	40	14	21.8	1,340
January	2,910	132	40	93.9	5,770
February	2,747	106	76	98.1	5,450
March	22,917	3,600	101	739	45,450
April	21,169	3,600	231	706	41,990
May	6,604	274	158	213	13,100
June	3,911	244	49	130	7,760
July	2,646	279	24	85.4	5,250
August	372.0	28	0	12	738
September	.....	.....	.....	.....	.....
Water Year 1938-39..	65,425	3,600	0	179	129,800
1939-40					
October	305.4	21	0	9.85	606
November	521	21	12	17.4	1,030
December	433.5	18	6	14	860
January	33.5	5.5	.....	1.08	66
February	248.6	20	0	8.57	493
March	1,242	57	18	40.1	2,460
April	13,399	970	55	447	26,580
May	11,917	546	193	384	23,640
June	5,564	407	53	185	11,040
July	469.1	55	0	15.1	930
August	99.3	20	0	3.20	197
September	.....	.....	.....	.....	.....
Water Year 1939-40..	34,232.4	970	0	93.5	67,902

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	177	24	0	5.71	351
November	1,049	82	10	35	2,080
December	1,168	46	30	37.7	2,320
January	1,323	58	26	42.7	2,620
February	2,436	127	58	87	4,830
March	7,824	1,040	89	252	15,520
April	19,328	1,390	355	644	38,340
May	10,057	402	178	324	19,950
June	14,560	1,290	166	485	28,880
July	4,031	310	54	130	8,000
August	784	45	6.6	25.3	1,560
September	2,445	136	39	81.5	4,850
Water Year 1940-41	65.182	1,390	0	179	129,300
1941-42					
October	2,855	185	69	93.1	5,720
November	3,752	175	78	125	7,440
December	3,043	127	67	98.2	6,040
January	3,476	156	78	112	6,890
February	3,073	139	67	110	6,100
March	5,889	504	80	190	11,680
April	9,767	702	99	326	19,370
May	40,267	2,130	614	1,299	79,870
June	49,937	3,330	863	1,665	99,050
July	30,654	1,120	702	989	60,800
August	14,566	968	310	470	28,890
September	18,246	733	452	608	36,190
Water Year 1941-42	185,555	3,330	67	508	368,040
1942-43					
October	16,441	643	427	530	32,610
November	12,950	531	273	432	25,690
December	9,736	355	234	314	19,310
January	9,886	355	280	319	19,610
February	7,617	307	210	272	15,110
March	14,371	3,380	269	464	28,500
April	193,860	18,000	1,590	6,462	384,500
May	57,650	2,370	1,590	1,860	114,300
June	84,100	3,880	2,130	2,803	166,800
July	54,712	4,240	580	1,765	108,500
August	23,895	1,390	506	771	47,400
September	12,846	530	329	428	25,480
Water Year 1942-43	498,064	18,000	210	1,365	987,800
1943-44					
October	12,929	459	336	401	24,650
November	11,137	482	250	371	22,090
December	9,005	409	178	290	17,860
January	6,268	246	140	202	12,430
February	4,733	211	116	163	9,390
March	7,914	553	140	255	15,700
April	26,046	1,490	387	868	51,660
May	37,080	1,910	687	1,196	73,550
June	63,842	4,120	659	213	126,600
July	62,404	3,740	715	2,013	123,800
August	21,368	1,390	409	689	42,380
September	23,094	1,120	659	770	45,800
Water Year 1943-44	285,320	4,120	116	780	565,900

SHEYENNE RIVER AT SHEYENNE, NORTH DAKOTA

Location: Staff gage lat. 47°50'20", long. 99°07'30", in NE¼ sec. 5, T. 150 N., R. 66W at recreation-pond dam 1 mile north of Sheyenne.

Drainage Area: 1,980 square miles.

Records Available: April 1929 to June 1933, October 1939 to September 1944.

Extremes: Maximum discharge 1,140 second-feet April 15, 1942; no flow during parts of most years.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 26-30	39.2	.....	.....	7.84	77.8
May	341.3	41	5.5	11	676
June	303.4	37	1	10.1	601
July	8	.....	.....	.258	15.9
August	1.6	.....	.....	.052	3.2
September	.....	.....	.....	.....	.....
Water Year 1928-29	693.5	.....	.....	.....	1,370
1929-30					
October	3.5	.....	.....	.113	6.9
November	98.6	5.5	.....	3.29	196
December	15.5	.....	.....	.50	30.7
January	.....	.....	.....	.....	.....
February	6,087	990	.....	217	12,100
March	7,654	425	114	247	15,200
April	1,430	114	13	47.7	2,840
May	792	56	9	25.5	1,570
June	47.9	7	.....	1.6	95.2
July	6.9	.....	.....	.2	12.3
August	1.5	.....	.....	.05	3.07
September	.....	.....	.....	.....	.....
Water year 1929-30	16,136.2	990	.....	44.2	32,054.17
1930-31					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	45	.....	.....	5	89
April	801	58	2.6	26.7	1,590
May	67.9	3.4	.7	2.19	135
June	10.5	1.1	.....	.35	21
July	10.5	1.3	.....	.34	21
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1930-31	934.9				1,860

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	905	.....	.....	29.2	1,800
April	937.7	73	4.9	31.3	1,860
May	304.1	30	2.5	9.81	603
June	263	19	1.9	8.77	522
July 1-15	18.7	2.3	.6	1.25	37
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1931-32..	2,428.5	.....	.....	.....	4,820
1932-33					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	245.2	161	.....	8.76	487
March	3,457	296	38	112	6,890
April	2,531	214	23	84.4	5,020
May	234.7	18	.9	7.57	465
June	10.6	1.4	.....	.35	21
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33..	6,478.5				12,900
Discontinued June 30th					
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	5,781	57	.....	19.3	1,150
May	3,809	26	3.7	12.3	756
June	503	44	.....	1.68	100
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1939-40..	1,009.3	57	0	2.76	2,006
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,537	647		49.6	3,049
April	7,874	796	17	262	15,620
May	389.2	27	6	12.6	772
June	122.8	17	.8	4.09	244
July	196.8	16	.....	6.35	390
August	29	5	.....	.94	58
September	624	40	1	20.8	1,238
Water year 1940-41..	10,772.8	796	.....	29.5	21,370

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	186	.....	.....	6	369
November	170	.....	.....	5.67	337
December	100.6	.....	1.5	3.25	200
January	21	.....	.....	.68	42
February	14	.....	.....	.5	28
March	372	27	.....	12	738
April	6,416	1,140	11	214	12,730
May	1,303	77	21	42	2,580
June	753.2	41	5.4	25.1	1,490
July	287.4	41	2	9.27	570
August	746	123	11	24.1	1,480
September	119.9	14	.5	4	238
Water year 1941-42	10,489.1	1,140	0	28.7	20,800
1942-43					
October	94.6	54	1.1	3.05	188
November	49.1	3.3	.7	1.64	97
December	16.9	.7	.4	.55	34
January	6	.....	.....	.19	12
February	2.6	.....	.....	.09	5.2
March	7,036.5	1,100	.....	227	13,960
April	5,313	750	12	177	10,540
May	1,084	75	16	35	2,150
June	1,445	100	17	48.2	2,870
July	266.9	21	.6	8.61	529
August	5.6	1.5	.....	.18	11
September	.....	.....	.....	.....	.....
Water year 1942-43	15,320.2	1,100		42	30,400
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	9	.....	0	.29	18
April	242.7	15	2.2	8.09	481
May	1,813.3	321	.2	58.5	3,600
June	921	76	15	30.7	1,830
July	269.9	25	0	8.71	535
August	343.5	203	0	11.1	681
September	1,202	409	.2	40.1	2,380
Water year 1943-44	4,801.4	409	0	13.1	9,520

SHEYENNE RIVER AT VALLEY CITY, NORTH DAKOTA

Location: Water stage recorder and concrete control. lat. 46°55', long. 98°01', in SE¼NW¼ sec. 28, T. 140 N., R. 58W, about 100 feet downstream from College dam in Valley City, and 15 miles downstream from mouth of Baldhill Creek

Drainage area: 8,360 square miles (includes 3,940 sq. mi. in closed Devils Lake Basin).

Records available: March to August 1919 and March 1938 to September 1944

Extremes: Maximum discharge, 2,750 second-feet April 18, 1919; no flow during several periods in 1938-41.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1918-19					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 24-31	.....	445	100	219	3,480
April	.....	2,750	630	1,580	94,000
May 1-22	.....	1,020	275	405	24,900
June 12-30	.....	260	107	198	11,800
July	.....	.....	.....	.....	5,770
August	.....	.....	.....	.....	1,860
September	.....	.....	.....	.....	.....
Water year 1918-19					141,810

Month	Run-off in Acre-Feet 1919-1920	1920-1921
October	.....	.....
November	.....	.....
December	.....	.....
January	.....	.....
February	.....	.....
March	20,000	193
April	49,800	8,930
May	6,300	2,460
June	.....	1,020
July	.....	.....
August	.....	.....
September	.....	.....
Water Year	76,100	12,603

Recording suspended

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 18-31	1,672	244	60	119	3,320
April	1,358	131	20	45.3	2,690
May	825	36	15	26.6	1,640
June	253	29	2.2	8.43	502
July	1,635.9	131	4.2	52.8	3,240
August	267.7	41	.....	8.64	531
September	3.9	.7	.....	.13	7.7
Water year 1937-38	6,015.5				11,930.7

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	6.9	.7	.....	.22	14
November	6.4	.5	.....	.21	13
December	4.9	.4	.1	.16	9.7
January	7.8	.4	.1	.25	15
February	9.3	1.4	.....	.33	18
March	2,098	240	.7	67.7	4,160
April	3,434	293	41	114	6,810
May	655	39	11	21.1	1,300
June	437.9	28	5.8	14.6	869
July	51	7.2	.....	1.65	101
August	.8	.2	.....	.03	1.6
September	.3	.2	.....	.01	.6
Water year 1938-39..	6,712.3	293		18.4	13,310
1939-40					
October	1.5	.7	.....	.05	3
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	5,162	484	.....	172	10,240
May	1,921	98	32	62	3,810
June	255.1	28	.1	8.5	506
July	9.8	8.4	.....	.32	19
August	53.4	9.1	.....	1.72	106
September	1.9	.2	.....	.06	4
Water year 1939-40..	7,404.7	484		20.2	14,688
1940-41					
October	1.5	.6	.....	.05	3
November	.....	.....	.....	.....	.....
December	.5	.1	.....	.02	1
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2,106.9	700	.....	68	4,180
April	28,600	1,590	193	953	56,730
May	3,622	324	50	117	7,180
June	3,950	183	75	132	7,830
July	1,854	123	16	59.8	3,680
August	559.5	126	2.6	18	1,110
September	1,332.2	177	7	44.4	2,640
Water year 1940-41..	42,026.6	1,590	0	115	83,350
1941-42					
October	1,609	62	35	51.9	3,190
November	1,166	49	26	38.9	2,310
December	670.5	34	8.5	21.6	1,330
January	124.9	8	.5	4.03	248
February	146.2	6.5	3.8	5.22	290
March	826.4	118	3.8	26.7	1,640
April	22,097	1,190	125	737	43,830
May	7,423	380	155	239	14,720
June	4,888	435	77	163	9,700
July	1,727	93	29	55.7	3,430
August	1,535	178	22	49.5	3,040
September	1,368	95	28	45.6	2,710
Water year 1941-42..	43,581	1,190	.5	119	86,440

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	75.2	42	2.2	25	1,540
November	716	29	16	23.9	1,420
December	333.5	14	8.5	10.8	661
January	296.5	12	6.5	9.56	588
February	560	100	6	20	1,110
March	14,571.5	1,900	8	470	28,900
April	27,125	1,900	186	904	53,800
May	5,784	266	120	187	11,470
June	12,203	693	202	407	24,200
July	4,051	188	84	131	8,040
August	1,230	89	18	39.7	2,440
September	240	18	2.4	8	476
Water year 1942-43	67,885.7	1,900	2.2	186	134,600
1943-44					
October	112.7	16	.3	3.64	224
November	565	22	15	18.8	1,120
December	370.8	20	5	12	735
January	119.8	5	2.4	3.86	238
February	131.3	5.3	3.4	4.53	260
March	482.3	52	4.6	15.6	957
April	3,273	167	21	109	6,490
May	2,298	173	52	74.1	4,560
June	4,843	357	74	161	9,610
July	1,940	179	11	62.6	3,850
August	2,311	199	10	74.5	4,580
September	2,999	230	31	100	5,950
Water year 1943-44	19,445.9	357	.3	53.1	38,570

MAPLE RIVER AT MAPLETON, NORTH DAKOTA

Location: Wire-weight gage at loose rock dam, lat. 46°53'20", long. 97°03'20", in NE¼NE¼ sec. 1, T. 139N., R, 51W., in Mapleton and 10.5 miles upstream from mouth.

Drainage: 1,480 square miles:

Records available: April to September 1944

Extremes: Maximum daily discharge during period, 150 second-feet Apr. 9, May 22: maximum gage height observed, 8.16 feet April 8; minimum observed 2.0 second-feet, Aug. 2.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 6-30	1,732	150	30	69.3	3,440
May	1,746	150	30	56.3	3,460
June	697.1	60	4	23.2	1,380
July	398.9	30	3.4	12.9	791
August	399.8	35	2.1	12.9	793
September	298.6	22	4	9.95	592
Water year 1943-44	.....	.....	.....	.....	10,460

SHEYENNE RIVER AT HAGGART, NORTH DAKOTA

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1901-02					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 29-31	.....	1,204	840	994	5,915
April	.....	2,030	616	1,492	88,780
May	.....	644	299	535	32,896
June	.....	448	124	262	15,590
July	.....	158	67	106	6,518
August	.....	113	53	82	5,042
September	.....	113	67	84	4,998
Water year 1901-02..					159,739
1902-03					
October	.....	146	53	92	5,657
November 1-8	.....	103	93	97	1,539
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 8-30	.....	1,568	406	1,003	45,757
May	.....	1,120	158	369	22,689
June	.....	299	84	163	9,699
July	.....	146	47	80	4,919
August	.....	67	19	46	2,828
September	.....	113	53	82	4,879
Water year 1902-03..					97,967
1903-04					
October	.....	124	53	99	6,087
November	.....	146	67	100	2,777
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,974	1,036	1,553	92,410
May	.....	1,946	368	1,043	64,130
June	.....	654	285	420	24,990
July	.....	296	130	217	13,340
August	.....	130	36	88	5,411
September	.....	112	32	85.1	5,064
Water year 1903-04..					214,209
1904-05					
October	.....	148	80	93.2	5,731
November	.....	103	80	91.3	5,433
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 3-30	.....	385	113	201	11,200
May	.....	814	96	326	20,000
June	.....	333	169	206	12,300
July	.....	398	88	177	10,900
August	.....	684	104	303	18,000
September	.....	159	80	120	7,140
Water year 1904-05..					90,704

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1905-06					
October	.....	104	65	79.7	4,900
November	.....	96	.....	76.5	4,550
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,060	346	682	40,600
May	.....	476	169	311	19,100
June	.....	411	245	295	17,600
July	.....	257	113	162	9,960
August	.....	169	51	104	6,400
September	.....	65	32	47.5	2,830
Water year 1905-06..					105,940
1906-07					
October	.....	51	44	44.9	2,760
November	.....	58	44	52.6	3,130
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	359	592	35,200
May	.....	632	281	442	27,200
June	.....	320	211	255	15,200
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1906-07..					83,490

Readings Suspended.

1918-19					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 21-31	.....	790	60	298	6,500
April	.....	2,220	965	1,570	93,400
May	.....	1,860	391	784	48,200
June	.....	.....	.....	305	18,100
July	.....	258	116	175	10,800
August	.....	86	52	67.6	4,160
September	.....	.....	.....	.....	.....
Water year 1918-19..					181.100

Discontinued

Month	Run-off in Acre-Feet	
	1919-1920	1920-1921
October	.....	.....
November	.....	.....
December	.....	.....
January	.....	.....
February	.....	.....
March	15,500	8,628
April	56,760	22,400
May	18,460	9,410
June	5,150	18,600
July	.....	.....
August	.....	.....
September	.....	.....
Water year	95,870	59,038

SHEYENNE RIVER AT WEST FARGO, NORTH DAKOTA

Location: Water stage recorder, lat. 46°53'20", long. 96°54'55", in sec. 31, T. 140 N., R. 49 W. half a mile north of West Fargo and 3 miles upstream from Maple River

Drainage Area: 9,460 square miles (revised includes 3,940 square miles in closed Devils L. basin).

Records Available: September 1929 to September 1944; March 1902 to June 1907 and March to August 1919 at site a quarter of a mile upstream.

Average discharge: 15 years, 103 second-feet.

Extremes: Maximum discharge 2,400 second-feet April 7-10, 1943; minimum 2 second-feet Dec. 14, 1936.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October 17-30	1,016	46	24	32.8	2,020
November	1,000	46	15	33.3	1,980
December	621	30	15	20	1,230
January	539	27	14	17.4	1,070
February	1,729	438	11	61.8	3,430
March	25,990	1,470	330	838	51,500
April	20,267	1,780	224	676	40,200
May	8,341	320	197	269	16,500
June	3,716	251	64	124	7,380
July	1,482	60	36	47.8	2,940
August	833	34	22	26.9	1,650
September	711	28	18	23.7	1,410
Water year 1929-30	66,244	1,780	11	181	131,310
1930-31					
October	715	28	17	23	1,410
November	984	61	21	32.8	1,950
December	709	44	12	22.9	1,410
January	398	30	6	12.8	787
February	1,433	159	6	51.2	2,840
March	3,796	342	.....	122	7,500
April	6,847	390	132	228	7,500
May	2,623	129	64	84.6	5,200
June	3,522	320	54	117	6,960
July	967	56	15	31.2	1,920
August	672	42	15	21.7	1,330
September	548	20	17	18.3	1,090
Water year 1930-31	23,212	390	6	63.6	45,997
1931-32					
October	643	33	16	20.7	1,270
November	1,189	47	31	39.6	2,360
December	1,069	51	20	34.5	2,120
January	791	37	19	25.5	1,570
February	604	35	13	20.8	1,200
March	6,939	412	35	224	13,800
April	16,534	1,040	179	551	32,800
May	4,460	301	87	144	8,850
June	3,847	312	102	128	7,620
July	1,846	97	31	59.5	3,660
August	942	36	25	30.4	1,870
September	633	32	17	21.1	1,260
Water year 1931-32	39,497	1,040	13	108	78,380

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	658	31	15	21.2	1,300
November	1,034	43	31	34.5	2,050
December	650	30	14	21	1,290
January	497	.....	.....	16	984
February	440	32	.....	15.7	872
March	12,883	680	41	416	25,600
April	12,045	616	206	402	23,900
May	5,481	268	113	177	10,900
June	2,046	113	34	68.3	4,060
July	1,221	77	23	39.4	2,420
August	550	37	12	17.7	1,090
September	359.4	20	7.2	12	714
Water year 1932-33..	37,864.4	680	7.2	104	75,200
1933-34					
October	370.4	18	8	11.9	735
November	515	27	13	17.2	1,020
December	416	20	10	13.4	825
January	310	10	10	10	615
February	380	17	11	13.6	754
March	2,018	221	19	65.1	4,000
April	6,020	312	92	201	11,940
May	1,742	95	24	56.2	3,460
June	757	34	20	25.2	1,500
July	455	31	6.8	14.7	902
August	298.8	27	4.6	9.64	593
September	268.4	14	4.8	8.95	532
Water year 1933-34..	13,551.6	312	4.6	37.1	26,880
1934-35					
October	529	24	11	17.1	1,050
November	485	21	.....	16.2	962
December	304.2	12	7.4	9.81	603
January	282	12	6.8	9.1	559
February	427.4	33	8.2	15.3	848
March	3,686	285	39	119	7,310
April	5,354	268	97	178	10,620
May	3,294	156	69	106	6,530
June	2,794	176	44	93.1	5,540
July	3,357	211	46	108	6,660
August	4,233	274	64	137	8,400
September	1,025	60	20	34.2	2,030
Water year 1934-35..	25,770.6	285	68	70.6	51,110
1935-36					
October	822	40	21	26.5	1,630
November	543	22	15	18.1	1,080
December	605	21	18	19.5	1,200
January	500	18	14	16.1	992
February	425	15	14	14.7	843
March	1,645	241	14	53.1	3,260
April	9,256	718	74	309	18,360
May	6,202	552	77	200	12,300
June	1,650	114	25	55	3,270
July	704.6	77	8.5	22.7	1,400
August	231.3	12	5	7.46	459
September	251	14	5.4	8.37	498
Water year 1935-36..	22,834.9	718	5	62.4	45,292

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	306.2	16	4.8	9.88	607
November	371.1	17	4.8	12.4	736
December	231.8	30	2.2	7.48	460
January	241	12	4	7.77	478
February	153.1	8.2	3	5.47	304
March	1,136	124	4.4	36.6	2,250
April	5,858	443	63	195	11,620
May	3,157	191	52	102	6,260
June	3,095	187	55	103	6,140
July	1,139	67	24	36.7	2,260
August	687.5	49	7.6	22.2	1,360
September	640	49	10	21.3	1,270
Water year 1936-37	17,015.7	443	2.2	46.6	33,745
1937-38					
October	417.5	19	9	13.5	828
November	495	20	12	16.5	982
December	351.4	15	8.8	11.3	687
January	372	17	9.6	12	738
February	362	18	10	12.9	718
March	2,905	222	12	93.7	5,760
April	3,489	222	75	116	6,920
May	2,914	105	58	70.8	4,360
June	1,182	59	24	39.4	2,340
July	598	27	13	19.3	1,190
August	1,275	124	16	41.1	2,530
September	505	26	11	16.8	1,000
Water year 1937-38	14,145.9	222	8.8	38.8	28,050
1938-39					
October	367.6	16	8.8	11.9	729
November	455	20	12	15.2	902
December	373	16	9.5	12	740
January	354.5	13	9.5	11.4	703
February	282.5	12	9	10.1	560
March	3,255	550	10	105	6,460
April	7,764	600	105	259	15,400
May	1,912	102	27	61.7	3,790
June	1,667	98	16	55.6	3,310
July	828	56	13	26.7	1,640
August	350.6	15	9	11.3	695
September	271.8	11	7	9.06	539
Water year 1938-39	17,881	600	7	49	35,470
1939-40					
October	383.9	14	8	12.4	761
November	516	24	12	17.2	1,020
December	471.5	20	7.5	15.2	935
January	197.5	7	6	6.37	392
February	165.3	7	4.8	5.7	328
March	209.5	8.5	6	6.76	416
April	6,303.5	527	8.5	210	12,500
May	3,763	206	77	121	7,460
June	1,324	70	25	44.1	2,630
July	458	23	11	14.8	908
August	340.7	24	6	11	676
September	259.7	15	5	8.66	515
Water year 1939-40	14,392.5	527	4.8	39.3	28,541

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	336.2	19	5.8	10.8	667
November	474	23	11	15.8	940
December	401	14	12	12.9	795
January	392	14	12	12.6	778
February	352	13	12	12.6	698
March	1,002	280	11	32.3	1,990
April	31,150	1,340	400	1,040	61,780
May	7,143	633	114	230	14,170
June	6,560	402	106	219	13,010
July	3,507	180	50	113	6,960
August	1,495	160	22	48.2	2,970
September	1,589	83	26	53	3,150
Water year 1940-41	54,401.2	1,340	5.8	149	107,900
1941-42					
October	2,285	87	63	73.7	4,530
November	1,962	92	44	65.4	3,890
December	1,590	60	36	51.3	3,150
January	751	34	13	24.2	1,490
February	633	30	17	22.6	1,260
March	1,438	95	18	46.4	2,850
April	19,930	1,020	100	664	39,530
May	12,577	937	269	406	24,950
June	8,948	500	163	298	17,750
July	3,407	170	72	110	6,760
August	2,394	191	42	77.2	4,750
September	3,275	240	60	109	6,500
Water year 1941-42	59,190	1,020	13	162	117,400
1942-43					
October	1,993	74	54	64.3	3,950
November	1,700	88	38	56.7	3,370
December	1,132	44	34	36.5	2,250
January	1,030	34	32	33.2	2,040
February	1,022	42	32	36.5	2,030
March	8,344	2,200	40	269	16,500
April	49,675	2,400	485	1,656	98,530
May	11,504	457	288	371	22,820
June	23,066	1,010	283	769	45,750
July	8,425	569	176	272	16,710
August	4,092	366	72	132	8,120
September	1,888	112	32	62.9	3,740
Water year 1942-43	113,871	2,400	32	312	225,900
1943-44					
October	1,268	5.3	32	40.9	2,520
November	1,779	76	44	59.3	3,530
December	1,301	55	30	42	2,580
January	850	30	24	27.4	1,690
February	922	38	24	31.8	1,830
March	1,208	60	34	39	2,400
April	6,667	386	65	222	13,220
May	8,106	776	150	261	16,080
June	7,522	467	129	251	14,920
July	5,653	238	88	182	11,210
August	5,113	338	82	165	10,140
September	5,563	285	108	185	11,030
Water year 1943-44	45,952	776	24	126	91,150

RED RIVER AT HALSTAD, MINNESOTA

Location: Wire-weight gage, lat. 47°21′, long. 96°51′, on line between sec. 24 and 25, T. 145N., R. 49W on highway bridge half a mile west of Halstad and 2½ miles below mouth of Wild Rice River.

Drainage Area: 21,800 square miles, (includes 3,940 Sq. Mi. in closed Devils Lake basin).

Records Available: March 1936 to June 1937, April 1942 to September 1944 (fragmentary).

Maximum discharge 21,800 second feet April 11, 1943; Minimum observed 5.4 second-feet Oct. 8, 9, 12-14, 1936.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 15-31	8,137	1,860	39	479	16,140
April	86,975	7,580	800	2,899	172,500
May	24,882	1,460	437	803	49,250
June	5,825	411	97	194	11,550
July	1,808	153	16	58.3	3,590
August	268.7	15	5.8	8.67	533
September	354	32	6.6	11.8	702
Water year 1935-36	128,249.7	.....	.....	.....	254,365
1936-37					
October	325.5	36	5.4	10.5	646
November 1-21	475	43	17	226	942
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	34,667	2,660	160	1,156	68,700
May	27,359	1,920	359	883	54,270
June	15,496	667	385	517	30,740
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	78,222.5	.....	.....	.....	155,928
1941-42					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 13-30	25,740	1,920	1,260	1,430	51,050
May	91,660	4,950	1,860	2,957	181,800
June	77,840	4,480	1,310	2,595	154,400
July 1-11	15,590	1,610	1,310	1,417	30,920
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1941-42	210,830	.....	.....	.....	418,200

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 5-30	308,480	21,800	2,950	11,860	611,900
May	99,510	4,220	2,830	3,210	197,400
June	177,890	8,320	4,280	5,930	352,800
July	97,150	6,300	1,020	3,134	192,700
August	39,670	2,560	710	1,280	78,680
September	.....	.....	.....	.....	.....
Water year 1942-43	722,700	.....	.....	.....	1,433,000
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 12-30	38,610	3,200	1,260	2,032	76,580
May	73,230	3,490	1,460	2,362	145,200
June	102,520	6,040	1,860	3,417	203,300
July	128,210	7,200	1,610	4,136	254,300
August	93,100	4,930	1,460	3,003	184,700
September	78,720	4,280	1,460	2,624	156,100
Water year 1943-44	.....	.....	.....	.....	1,020,000

SOUTH FORK OF GOOSE RIVER AT PORTLAND, NO. DAKOTA

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	2,688.7	400	0	89.6	5,330
May	172.7	12	1.8	5.57	343
June	19.6	2.1	0	.65	39
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1939-40	2,881	400	0	7.87	5,712
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,050.4	700	0	33.9	2,080
April	4,212	958	11	140	8,350
May	305.1	24	3.2	9.84	605
June	817.8	72	5.7	27.3	1,620
July	78.4	5.9	.4	2.53	156
August	57	10	.2	1.84	113
September	74.4	5	.9	2.48	148
Water year 1940-41	6,595.1	958	0	18.1	13,072
1941-42					
October	151.5	5.6	4	4.89	300
November	144.5	5.6	3.4	4.82	287
December	50.3	3.4	.2	1.62	100
January	1.1	.2	0	.04	2.2
February	.....	.....	.....	.....	.....
March	277.3	55	0	8.95	550
April	2,348	420	19	78.3	4,660
May	1,468	140	17	47.4	2,910
June	421.4	28	4.2	14	836
July	94.5	6.6	1.2	3.05	187
August	47.9	4.8	.6	1.55	95
September	24	3.3	.4	.8	48
Water year 1941-42	5,028.5	420	0	13.8	9,975.2

Discontinued.

GOOSE RIVER NEAR PORTLAND, NORTH DAKOTA

Location: Chain gage lat. 47°33', long. 97°28', on line between secs. 12 and 13, T. 147N, R. 54W at highway bridge 6½ miles northwest of Portland.

Drainage Area: 544 square miles.

Records Available: October 1939 to September 1944.

Extremes: Maximum discharge observed 1,130 second-feet April 9, 1941.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,479.8	436	0	49.3	2,940
May	19.7	2.2	.2	.64	39
June	.2	.2	0	.01	.4
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1939-40	1,499.7	436	0	4.10	2,979.4
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	11	10	0	.35	22
April	7,645.1	1,050	8.1	255	15,160
May	136.7	13	.7	4.41	271
June	400.9	38	3	13.4	795
July	48.6	3.8	0	1.57	96
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1940-41	8,242.3	1,050	0	22.6	16,340
1941-42					
October	.....	.....	.....	.....	.....
November	8.3	.5	0	.28	16
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	108.7	55	0	3.51	216
April	4,506	800	24	150	8,940
May	869	94	12	28	1,720
June	143.4	14	1.1	4.78	284
July	8.3	1.1	.1	.27	16
August	.4	.1	0	.01	.8
September	.....	.....	.....	.....	.....
Water year 1941-42	5,644.1	800	0	15.5	11,190

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	4,722	1,100	0	152	9,370
April	1,716.4	282	8	57.2	3,400
May	309.4	16	3.9	9.98	614
June	920.1	99	8	30.7	1,820
July	80.1	8	.1	2.58	159
August	.7	.1	0	.02	1.4
September	.....	.....	.....	.....	.....
Water year 1942-43	7,748.7	1,100	0	21.2	15,360
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,140.7	159	.....	38	2,260
May	48.1	2.8	.1	1.55	95
June	95.2	29	.....	3.17	189
July	28.5	2.6	.....	.92	57
August	116.1	30	.....	3.75	230
September	39	8.5	.....	1.30	77
Water year 1943-44	1,467.6	159	.....	4.01	2,910

GOOSE RIVER AT HILLSBORO, NORTH DAKOTA

Location: Water stage recorder, lat. 47°24', long. 97°03', in NW¼ sec. 5, T. 145 N. R50W, 50 feet upstream from city water supply dam.

Drainage Area: 1,200 square miles.

Records Available: March 1931 to September 1944 (no winter records prior to 1938).

Extremes: Maximum discharge 1,320 second-feet April 11, 1941, no flow at times in 1936, 1938-44.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1930-31					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	214	15	10	14.3	424
April	803.6	94	4.3	26.8	1,590
May	110.5	14	.4	3.56	219
June	127.3	12	.2	4.24	252
July	39.4	9.4	.2	1.27	78
August	41.3	2.4	.2	1.33	82
September	9.9	.7	.2	.33	20
Water year 1930-31..	1,346	.....	.....	.....	2,660
* 198 Day Record.					
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	8,439	911	23	272	16,740
April	7,157	537	49	239	14,200
May	849	65	10	27.4	1,680
June	377	18	3	12.6	748
July	30.5	3.2	.3	.98	60
August	9.1	.4	.2	.29	18
September	11.7	.8	.3	.39	23
Water year 1931-32..	16,873.3	.....	.....	.....	33,470
* 214 Day Record.					
1932-33					
October	16.3	.8	.4	.53	32
November	8.3	.9	.8	.83	16
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,020	140	36	68	2,020
April	3,172	261	25	106	6,290
May	511	26	10	16.5	1,010
June	180.4	14	.5	6.01	358
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33..	4,900	.....	.....	.....	9,726
* 147 Day Record.					

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 11-31	350.9	41	6.9	23.4	696
April	993.5	65	5.6	33.1	1,970
May	63.6	5.6	.8	2.05	126
June	82.4	8.3	.8	2.75	163
July	38.4	2	.8	1.24	76
August	45.1	1.8	.9	1.45	89
September	83.2	3.7	1.5	2.77	165
Water year 1933-34..	1,657.1	65	.8	8.4	3,280
Note: 198 Day Record.					
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 17-31	1,629	201	100	148	3,230
April	961	100	11	32	1,910
May	617.2	90	4.2	19.9	1,220
June	2,653.3	627	7	88.4	5,260
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1934-1935	5,860.5	627	4.2	57.4	11,620
Note: 102 Day Record. ** Records incomplete from 1931-1935.					
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 15-31	25	5	0	1.5	50
April	4,521	951	0	151	8,970
May	436.7	36	5	14.1	866
June	83.1	6.2	.6	2.77	165
July	17.9	1.8	.1	.58	36
August	3.1	.....	.....	.1	6.1
September	3	.....	.....	.1	6
Water year 1935-36..	5,089.8	951	0	.....	10,100
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	461.1	45	.6	15.4	915
May	232.1	22	1.1	7.49	460
June	289.5	20	.1	9.65	574
July	75.3	13	.2	2.43	149
August	115.7	12	.9	3.73	229
September	.....	.....	.....	.....	.....
Water year 1936-37..	1,173.7	45	.1	.....	2,330

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 13-31	1,025	104	10	53.9	2,030
April	195.3	10	3.7	6.51	387
May	165.8	8.2	.....	5.35	329
June	40.6	.....	.....	1.35	81
July	.4	.2	.....	.01	.79
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1937-38	1,427.1	104	0	.....	2,830
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	3,070	550	.....	99	6,090
April	1,126.3	160	4.1	37.5	2,230
May	34.8	2.6	.3	1.12	69
June	270.5	67	.1	9.02	537
July	3.7	.4	.....	.12	7.3
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1938-39	4,505.3	550	0	12.3	8,930
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	4,688.4	710	.....	156	9,300
May	280.6	27	2.1	9.05	557
June	49	5.3	.....	1.63	97
July	.....	.....	.....	.....	.....
August	145.4	48	.....	4.69	288
September	.4	.4	.....	.01	.8
Water year 1939-40	5,163.8	710	.....	14.1	10,242.8
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	760	250	0	24.5	1,510
April	15,515	1,320	29	517	30,770
May	434.7	34	3.1	14	862
June	1,841	152	15	61.4	3,650
July	214.7	15	1.4	6.93	426
August	39.2	5.3	.....	1.26	78
September	75.8	8	.....	2.53	150
Water year 1940-41	18,880.4	1,320	.....	51.7	37,450

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	187	8.2	3.9	6.06	373
November	157.1	.....	.....	5.24	312
December	72.3	.....	.....	2.33	143
January	2.3	1.1	0	.07	4.6
February	.....	.....	.....	.....	.....
March	286.6	50	0	9.25	568
April	7,708	1,080	58	257	15,290
May	2,514	225	36	81.1	4,990
June	942	60	11	31.4	1,870
July	187.5	13	2.3	6.05	372
August	109.9	32	.9	3.55	218
September	81.7	27	.4	2.72	162
Water Year 1941-42..	12,249.3	1,080	0	33.6	24,300
1942-43					
October	28.4	2	.5	.916	56
November	24.6	1.2	.6	.820	49
December	23	1.2	.6	.742	46
January	13.8	.6	.3	.445	27
February	9	.4	.2	.321	18
March	6,664.5	1,200	.2	215	13,220
April	3,661	550	24	122	7,260
May	1,033	60	20	33.3	2,050
June	2,743	207	39	91.4	5,440
July	665	73	1.6	21.5	1,320
August	65.7	3.2	1.7	2.12	130
September	13.7	2	.2	.457	27
Water year 1942-43..	14,944.7	1,200	.2	40.9	29,640
1943-44					
October	7.2	.4	.2	.23	14
November	12.2	.5	.4	.41	24
December	9.2	.4	.2	.3	18
January	5.4	.2	.1	.17	11
February	3.5	.2	0	.12	6.9
March	62.7	8.3	.1	2.02	124
April	1,964	239	4	65.5	3,900
May	514	27	11	16.6	1,020
June	636.8	93	9.6	21.2	1,260
July	177.3	30	.1	5.72	352
August	1,209.2	208	.1	39	2,400
September	379.9	38	3.4	12.7	754
Water year 1943-44..	4,981.4	239	0	13.6	9,880

RED RIVER AT GRAND FORKS, NORTH DAKOTA

Location: Water-stage recorder, lat. 47°56'26", long. 97°02'47", in SE¼NE¼ sec. 33 T. 152 N., R. 5OW in Grand Forks, 2 miles downstream from Red Lake River.

Drainage Area: 30,100 square miles (includes 3,940 square miles in closed Devils L. basin).

Records Available: May 1901 to September 1944 in reports of the Geological Survey: April 1882 to November 1912 in report of Minn. State Drainage Comm.

Average discharge: 62 years, 2,134 second-feet.

Extremes: 1882-1944: Maximum discharge observed, 43,000 second-feet April 19, 1897 from rating curve extended above 32,000 second-feet; Minimum discharge 2.4 second-feet Feb. 3-5, 12, 14, 16-19, 1937.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1881-82					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	40,800	.....	26,380	1,569,600
May	.....	26,060	10,030	13,870	852,900
June	.....	9,770	5,950	7,080	421,300
July	.....	6,990	4,530	5,660	348,000
August	.....	4,530	2,540	3,300	196,000
September	.....	2,490	1,830	2,160	128,500
Water year 1881-82	.....	.....	.....	.....	3,516,300
1882-83					
October	.....	2,430	1,830	2,180	134,000
November	.....	.....	.....	2,290	136,000
December	.....	.....	.....	2,130	131,000
January	.....	.....	.....	1,500	9,220
February	.....	.....	.....	1,630	90,500
March	.....	.....	.....	1,520	93,500
April	.....	33,400	.....	16,820	1,000,800
May	.....	28,300	6,440	14,420	886,700
June	.....	6,370	3,360	5,020	298,600
July	.....	3,300	2,030	2,660	163,600
August	.....	2,030	1,450	1,730	106,400
September	.....	1,450	1,190	1,310	77,900
Water year 1882-83	.....	.....	.....	.....	3,034,720
1883-84					
October	.....	1,360	1,190	1,260	77,500
November	.....	.....	.....	1,270	75,600
December	.....	.....	.....	1,070	65,800
January	.....	.....	.....	815	50,100
February	.....	.....	.....	697	40,100
March	.....	.....	.....	715	44,000
April	.....	20,600	.....	10,980	653,300
May	.....	6,370	3,530	4,760	292,700
June	.....	5,120	2,430	3,570	212,400
July	.....	2,480	1,780	2,270	139,500
August	.....	2,540	1,190	1,520	93,500
September	.....	2,590	2,080	2,330	138,600
Water year 1883-84	.....	.....	.....	.....	1,883,100

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1884-85					
October	.....	4,790	1,980	2,990	183,900
November	.....	2,860	.....	2,600	155,000
December	.....	.....	.....	2,080	128,000
January	.....	.....	.....	1,580	93,200
February	.....	.....	.....	1,270	70,500
March	.....	.....	.....	1,150	70,700
April	.....	13,040	.....	6,730	400,400
May	.....	6,160	4,110	4,310	265,600
June	.....	5,120	3,250	4,790	285,000
July	.....	9,430	3,810	5,670	348,600
August	.....	5,880	2,700	4,950	304,400
September	.....	3,030	1,980	2,560	152,300
Water year 1884-85..	.....	.....	.....	.....	2,457,600
1885-86					
October	.....	2,180	1,630	1,850	113,800
November	.....	1,780	1,630	1,690	100,000
December	.....	.....	.....	1,270	78,100
January	.....	.....	.....	815	50,100
February	.....	.....	.....	697	38,700
March	.....	.....	.....	560	61,500
April	.....	10,300	4,660	6,340	377,200
May	.....	9,600	3,000	6,060	372,600
June	.....	3,120	2,000	2,610	155,300
July	.....	2,180	900	1,550	95,300
August	.....	890	670	740	45,500
September	.....	560	520	540	32,100
Water year 1885-86..	.....	.....	.....	.....	1,520,200
1886-87					
October	.....	730	520	610	37,500
November	.....	.....	.....	600	43,300
December	.....	.....	.....	587	36,100
January	.....	.....	.....	410	25,200
February	.....	.....	.....	326	18,100
March	.....	.....	.....	342	21,000
April	.....	7,100	.....	3,010	179,100
May	.....	2,430	1,190	1,770	108,800
June	.....	1,400	900	1,240	73,800
July	.....	.....	.....	1,200	73,800
August	.....	.....	.....	1,240	76,200
September	.....	1,000	730	880	52,400
Water year 1886-87..	.....	.....	.....	.....	745,300
1887-88					
October	.....	730	610	660	40,600
November	.....	610	560	590	35,100
December	.....	.....	.....	410	25,200
January	.....	.....	.....	296	18,200
February	.....	.....	.....	242	13,900
March	.....	.....	.....	234	14,500
April	.....	19,000	.....	9,330	555,100
May	.....	6,580	2,700	4,340	266,900
June	.....	15,100	3,030	8,530	507,500
July	.....	6,580	2,700	4,650	285,900
August	.....	2,540	1,320	1,990	122,400
September	.....	1,110	890	980	58,300
Water year 1887-88..	.....	.....	.....	.....	1,943,600

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1888-89					
October	.....	1,000	790	900	55,300
November	.....	1,110	730	960	57,100
December	.....	.....	.....	698	42,900
January	.....	.....	.....	538	33,100
February	.....	.....	.....	515	28,600
March	.....	.....	.....	974	59,900
April	.....	4,290	1,450	2,020	120,200
May	.....	1,540	960	1,180	72,600
June	.....	890	590	710	42,200
July	.....	700	540	600	36,900
August	.....	610	410	490	30,100
September	.....	640	390	490	29,200
Water year 1888-89..	.....	.....	.....	.....	565,900
1889-90					
October	.....	590	430	510	31,400
November	.....	.....	.....	640	38,100
December	.....	.....	.....	470	28,900
January	.....	.....	.....	340	20,900
February	.....	.....	.....	283	15,700
March	.....	.....	.....	289	17,800
April	.....	3,470	.....	1,830	108,900
May	.....	1,110	860	990	60,500
June	.....	1,500	1,030	1,300	77,400
July	.....	1,230	760	1,040	63,900
August	.....	730	540	610	37,500
September	.....	640	490	560	33,300
Water year 1889-90..					534,300
1890-91					
October	.....	920	590	700	43,000
November	.....	960	700	800	47,600
December	.....	.....	.....	641	39,400
January	.....	.....	.....	493	30,300
February	.....	.....	.....	429	23,800
March	.....	.....	.....	450	27,700
April	.....	8,360	.....	3,410	202,900
May	.....	1,980	890	1,440	88,500
June	.....	1,630	920	1,280	76,200
July	.....	1,450	1,070	1,330	81,800
August	.....	1,270	790	1,160	71,300
September	.....	860	760	800	47,600
Water year 1890-91..					780,100
1891-92					
October	.....	2,430	820	1,470	90,400
November	.....	.....	.....	1,190	70,800
December	.....	.....	.....	995	61,200
January	.....	.....	.....	815	50,100
February	.....	.....	.....	758	43,600
March	.....	.....	.....	2,030	125,000
April	.....	23,000	8,200	17,400	1,035,300
May	.....	15,200	4,790	8,760	538,700
June	.....	13,300	4,530	7,280	433,200
July	.....	6,730	1,830	3,410	209,700
August	.....	1,830	1,190	1,380	84,900
September	.....	1,270	1,070	1,180	70,200
Water year 1891-92..					2,813,100

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1892-93					
October	.....	1,190	960	1,020	62,700
November	.....	.....	.....	855	50,900
December	.....	.....	.....	665	40,900
January	.....	.....	.....	493	30,300
February	.....	.....	.....	429	23,800
March	.....	.....	.....	441	27,100
April	.....	37,500	.....	16,000	952,000
May	.....	32,000	4,850	15,240	937,100
June	.....	4,660	2,330	3,250	193,400
July	.....	2,330	1,630	2,110	129,700
August	.....	1,630	960	1,120	69,900
September	.....	1,030	760	820	48,800
Water year 1892-93					2,566,600
1893-94					
October	.....	960	760	840	51,700
November	.....	.....	.....	580	34,500
December	.....	.....	.....	587	36,100
January	.....	.....	.....	429	26,400
February	.....	.....	.....	391	21,700
March	.....	.....	.....	441	27,100
April	.....	16,450	.....	10,000	595,000
May	.....	9,350	4,600	5,900	362,800
June	.....	4,530	2,280	2,980	177,300
July	.....	2,330	930	1,520	93,500
August	.....	930	610	760	46,700
September	.....	610	430	530	31,500
Water year 1893-94					1,504,300
1894-95					
October	.....	790	520	730	44,900
November	.....	.....	.....	790	47,000
December	.....	.....	.....	587	36,100
January	.....	.....	.....	429	26,400
February	.....	.....	.....	391	21,700
March	.....	.....	.....	454	27,900
April	.....	.....	890	1,110	66,000
May	.....	1,110	790	920	56,600
June	.....	2,230	760	1,460	86,900
July	.....	1,880	1,110	1,440	88,500
August	.....	1,110	610	760	46,700
September	.....	610	470	550	32,700
Water year 1894-95					581,400
1895-96					
October	.....	640	470	550	33,800
November	.....	.....	.....	891	53,000
December	.....	.....	.....	470	28,900
January	.....	.....	.....	296	18,200
February	.....	.....	.....	410	25,600
March	.....	.....	.....	1,195	73,500
April	.....	11,400	.....	6,740	401,000
May	.....	21,600	5,390	12,400	762,500
June	.....	20,500	5,050	12,000	714,000
July	.....	4,860	1,630	2,650	162,900
August	.....	1,730	1,070	1,410	86,700
September	.....	1,190	990	1,110	66,000
Water year 1895-96					2,425,700

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1896-97					
October	.....	1,110	990	1,060	65,200
November	.....	.....	.....	1,230	73,200
December	.....	.....	.....	960	59,000
January	.....	.....	.....	758	46,700
February	.....	.....	.....	697	38,700
March	.....	.....	.....	826	50,800
April	.....	42,200	2,030	30,500	1,814,800
May	.....	21,900	3,870	8,640	531,300
June	.....	3,810	2,920	3,220	191,600
July	.....	21,600	4,170	9,080	558,300
August	.....	16,800	3,250	6,640	408,300
September	.....	3,200	1,930	2,500	148,800
Water year 1896-97					3,986,700
1897-98					
October	.....	2,030	1,680	1,820	111,900
November	.....	.....	.....	1,580	94,000
December	.....	.....	.....	1,150	70,700
January	.....	.....	.....	910	56,000
February	.....	.....	.....	990	55,000
March	.....	.....	.....	1,330	81,800
April	.....	6,300	.....	2,570	152,900
May	.....	2,330	1,540	1,920	118,100
June	.....	4,920	2,030	2,840	169,000
July	.....	5,880	1,830	3,440	211,500
August	.....	1,780	1,320	1,510	92,800
September	.....	1,360	1,110	1,200	71,400
Water year 1897-98					1,285,100
1898-99					
October	.....	1,630	1,070	1,330	81,800
November	.....	1,360	920	1,120	66,600
December	.....	.....	.....	850	52,300
January	.....	.....	.....	696	42,800
February	.....	.....	.....	550	30,500
March	.....	.....	.....	650	40,000
April	.....	11,100	.....	4,270	254,100
May	.....	4,290	2,760	3,540	217,700
June	.....	5,530	3,690	4,910	292,100
July	.....	5,180	2,230	3,850	236,700
August	.....	2,230	1,780	2,010	123,600
September	.....	1,830	1,320	1,500	89,200
Water year 1898-99					1,527,400
1899-1900					
October	.....	1,540	1,230	1,370	84,200
November	.....	1,500	1,000	1,260	75,000
December	.....	.....	.....	1,040	63,900
January	.....	.....	.....	740	45,500
February	.....	.....	.....	560	31,100
March	.....	.....	.....	780	48,100
April	.....	4,290	1,150	2,020	120,200
May	.....	1,580	730	1,060	65,200
June	.....	920	430	630	37,500
July	.....	860	410	670	41,200
August	.....	1,270	560	890	54,700
September	.....	3,990	760	2,470	147,000
Water year 1899-1900					813,600

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1900-01					
October	.....	7,400	3,810	5,690	349,000
November	.....	6,500	.....	4,590	273,100
December	.....	.....	.....	2,290	141,100
January	.....	.....	.....	1,830	112,500
February	.....	.....	.....	1,500	83,300
March	.....	.....	.....	1,620	99,600
April	.....	15,000	730	10,700	636,600
May	.....	8,280	2,810	4,590	282,200
June	.....	6,730	2,590	3,470	206,400
July	.....	11,600	3,690	6,810	418,700
August	.....	3,580	1,980	2,510	154,300
September	.....	1,880	1,230	1,520	90,400
Water year 1900-01	.....	.....	.....	.....	2,847,200
1901-02					
October	.....	2,540	1,540	2,020	124,200
November	.....	.....	.....	1,640	97,600
December	.....	.....	.....	1,200	73,800
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1901-02					295,600
1902-03					
October	.....	2,655	1,320	1,637	100,655
November	.....	3,075	1,495	2,544	151,378
December	.....	.....	.....	.....	70,200
January	.....	.....	.....	1,600	98,380
February	.....	.....	.....	1,420	78,863
March	.....	.....	.....	2,100	129,132
April	.....	18,767	4,455	10,626	632,291
May	.....	7,137	4,260	5,388	331,295
June	.....	5,870	1,940	3,342	198,863
July	.....	2,105	1,067	1,443	88,727
August	.....	1,295	870	1,050	64,562
September	.....	2,655	1,180	1,891	112,522
Water year 1902-03					2,119,219
1903-04					
October	.....	3,935	1,395	2,982	183,356
November	.....	.....	.....	2,204	131,028
December	.....	.....	.....	1,960	120,516
January	.....	.....	.....	.....	84,950
February	.....	.....	.....	.....	71,100
March	.....	.....	.....	.....	91,800
April 15-30	.....	32,920	25,520	29,200	1,115,300
May	.....	30,200	6,393	13,720	844,550
June	.....	6,750	5,053	6,020	359,000
July	.....	6,267	2,404	3,914	240,550
August	.....	2,278	1,325	1,758	108,350
September	.....	1,876	1,460	1,613	95,950
Water year 1903-04					3,446,450

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1904-05					
October	.....	2,074	1,540	1,854	114,300
November	.....	1,920	1,550	1,704	94,550
December	.....	.....	.....	.....	74,400
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April (7-30)	.....	7,660	1,950	3,288	156,500
May	.....	16,700	1,900	8,138	500,400
June	.....	5,370	4,225	4,826	287,200
July	.....	6,780	4,810	5,847	259,500
August	.....	10,860	4,745	6,564	403,600
September	.....	5,090	3,720	4,507	268,200
Water year 1904-05..					2,158,650
1905-06					
October	.....	4,095	2,900	3,345	205,700
November (1-27)	.....	3,240	2,405	2,734	151,800
December	.....	.....	.....	.....	.....
January	.....	.....	.....	1,750	108,000
February	.....	.....	.....	1,590	88,300
March	.....	.....	.....	1,890	116,000
April	.....	27,600	7,000	19,800	1,180,000
May	.....	9,620	6,980	8,220	505,000
June	.....	7,880	5,200	6,060	361,000
July	.....	6,530	3,210	4,560	280,000
August	.....	3,910	2,700	3,180	196,000
September	.....	2,920	2,180	2,470	147,000
Water year 1905-06..					3,338,800
1906-07					
October	.....	2,450	1,920	2,200	135,000
November	.....	.....	.....	2,150	128,000
December	.....	.....	.....	1,630	100,000
January	.....	.....	.....	1,400	86,100
February	.....	.....	.....	1,090	60,500
March	.....	14,700	1,210	3,070	189,000
April	.....	29,400	7,320	14,800	881,000
May	.....	6,300	3,550	4,550	280,000
June	.....	10,600	3,080	6,000	357,000
July	.....	4,630	2,310	3,290	202,000
August	.....	2,280	1,540	2,000	123,000
September	.....	3,170	1,370	1,950	116,000
Water year 1906-07..					2,657,600
1907-08					
October	.....	2,680	1,560	1,970	121,000
November	.....	1,700	.....	1,440	85,700
December	.....	.....	.....	1,200	73,800
January	.....	.....	.....	890	54,700
February	.....	.....	.....	800	46,000
March	.....	.....	.....	1,960	121,000
April	.....	20,500	.....	9,850	586,000
May	.....	9,520	3,390	5,790	356,000
June	.....	8,680	5,360	7,140	425,000
July	.....	5,150	2,330	3,290	202,000
August	.....	2,530	1,660	1,970	121,000
September	.....	3,550	1,330	1,760	105,000
Water year 1907-08..					2,297,200

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1908-09					
October	.....	1,610	1,270	1,440	88,500
November	.....	1,390	.....	1,250	74,400
December	.....	.....	.....	830	51,000
January	.....	.....	.....	703	43,200
February	.....	.....	.....	564	31,300
March	.....	.....	.....	925	56,900
April	.....	.....	.....	4,340	258,000
May	.....	3,690	2,780	3,090	190,000
June	.....	5,050	2,380	3,200	185,000
July	.....	9,260	2,150	3,780	232,000
August	.....	8,040	4,320	5,590	344,000
September	.....	4,920	2,530	3,180	191,000
Water year 1908-09..					1,745,300
1909-10					
October	.....	2,480	1,970	2,230	137,000
November	.....	.....	.....	1,900	113,000
December	.....	.....	.....	2,430	149,000
January	.....	.....	.....	1,520	93,500
February	.....	.....	.....	1,300	72,200
March	.....	18,500	.....	8,420	518,000
April	.....	10,800	5,020	7,840	467,000
May	.....	8,440	2,750	4,340	267,000
June	.....	2,560	1,170	1,950	116,000
July	.....	1,140	703	860	52,900
August	.....	691	373	490	30,100
September	.....	562	354	426	25,300
Water year 1909-10..					2,050,000
1910-11					
October	.....	492	343	413	25,400
November	.....	470	280	395	23,500
December	.....	.....	.....	310	19,100
January	.....	.....	.....	210	12,900
February	.....	.....	.....	185	10,300
March	.....	.....	.....	760	46,700
April	.....	2,720	.....	1,880	112,000
May	.....	2,380	1,120	1,500	92,200
June	.....	3,500	1,050	1,760	105,000
July	.....	1,060	318	578	35,500
August	.....	464	331	392	24,100
September	.....	454	347	391	23,300
Water year 1910-11..					530,000
1911-12					
October	.....	639	271	463	28,500
November	.....	.....	.....	370	22,000
December	.....	.....	.....	340	20,900
January	.....	.....	.....	140	8,610
February	.....	.....	.....	110	6,330
March	.....	.....	.....	300	18,400
April	.....	4,710	940	2,470	147,000
May	.....	2,360	940	1,670	103,000
June	.....	1,520	740	1,130	67,200
July	.....	837	592	698	42,900
August	.....	837	426	559	34,400
September	.....	2,630	385	755	44,900
Water year 1911-12..					544,140

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1912-13					
October	.....	2,520	864	1,300	79,900
November	.....	1,150	.....	812	48,300
December	.....	.....	.....	422	25,900
January	.....	.....	.....	318	19,700
February	.....	.....	.....	233	13,000
March	.....	.....	.....	282	17,400
April	.....	.....	.....	7,060	422,550
May	.....	2,590	1,380	1,820	112,800
June	.....	1,590	890	1,190	71,350
July	.....	1,720	686	1,030	63,800
August	.....	1,110	560	760	47,100
September	.....	1,670	560	1,030	71,750
Water year 1912-13..					993,550
1913-14					
October	.....	1,420	654	1,050	65,100
November	.....	1,380	890	1,140	68,350
December	.....	.....	.....	793	49,100
January	.....	.....	.....	509	28,500
February	.....	.....	.....	428	26,500
March	.....	.....	.....	911	56,400
April	.....	.....	.....	2,990	179,350
May	.....	4,750	1,830	2,560	158,700
June	.....	9,200	1,780	4,820	289,150
July	.....	6,450	1,380	2,840	176,000
August	.....	1,300	862	1,090	67,550
September	.....	1,630	890	1,180	70,750
Water year 1913-14..		9,200			1,235,450
1914-15					
October	.....	1,460	1,030	1,270	77,800
November	.....	1,500	.....	1,350	80,300
December	.....	.....	.....	1,170	71,700
January	.....	.....	.....	780	48,000
February	.....	.....	.....	740	41,100
March	.....	.....	.....	1,170	71,800
April	.....	9,950	2,000	4,150	247,000
May	.....	4,740	2,050	3,220	198,000
June	.....	18,600	2,100	5,750	342,000
July	.....	21,500	3,880	11,000	679,000
August	.....	3,750	1,760	2,410	148,000
September	.....	1,720	1,460	1,550	92,200
Water year 1914-15..		21,500	1,030	2,900	2,096,900
1915-16					
October	.....	1,760	1,500	1,610	99,000
November	.....	1,540	.....	1,410	83,900
December	.....	.....	.....	1,240	76,200
January	.....	.....	.....	840	51,600
February	.....	.....	.....	670	38,500
March	.....	.....	.....	1,070	65,800
April	.....	29,000	6,340	22,200	1,320,000
May	.....	23,400	5,980	11,000	676,000
June	.....	8,990	4,870	6 820	406,000
July	.....	14,700	6,770	11,300	695,000
August	.....	6,410	4,070	4,920	303,000
September	.....	5,010	3,180	3,960	236,000
Water year 1915-16..		29,000		5,580	4,051,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1916-17					
October	.....	3,480	2,720	3,050	188,000
November	.....	3,060	2,390	2,770	165,000
December	.....	2,440	1,300	1,780	109,000
January	.....	1,390	1,050	1,220	75,000
February	.....	1,050	824	929	51,600
March	.....	8,760	920	1,760	108,000
April	.....	20,200	6,700	11,700	696,000
May	.....	6,780	2,830	4,780	294,000
June	.....	2,780	1,620	2,190	130,000
July	.....	1,520	824	1,180	72,600
August	.....	824	473	597	36,700
September	.....	897	395	562	33,300
Water year 1916-17		20,200	395	2,710	1,959,200
1917-18					
October	.....	720	501	588	36,200
November	.....	972	622	797	47,400
December	.....	654	305	447	27,500
January	.....	326	204	266	16,400
February	.....	248	186	200	11,100
March	.....	4,480	272	1,490	91,600
April	.....	3,520	1,160	1,811	108,000
May	.....	2,860	1,440	1,850	114,000
June	.....	2,800	1,200	1,970	117,000
July	.....	1,160	655	843	51,800
August	.....	1,120	622	723	44,500
September	.....	950	440	568	33,800
Water year 1917-18		4,480	186	965	699,300
1918-19					
October	.....	527	320	407	25,000
November	.....	833	558	653	38,900
December	.....	760	622	673	41,400
January	.....	622	341	399	24,500
February	.....	440	263	344	19,100
March	.....	5,350	263	1,100	67,600
April	.....	7,980	3,700	5,280	314,000
May	.....	4,000	1,800	3,220	198,000
June	.....	2,140	1,390	1,750	104,000
July	.....	13,400	2,380	6,660	410,000
August	.....	4,780	1,970	3,160	194,000
September	.....	1,910	1,250	1,420	84,500
Water year 1918-19	.....	13,400	263	2,100	1,521,000
1919-20					
October	.....	1,300	1,070	1,170	71,900
November	.....	1,340	870	1,110	66,000
December	.....	871	689	779	47,900
January	.....	.....	.....	690	42,400
February	.....	.....	.....	670	38,500
March	.....	30,300	655	7,050	433,000
April	.....	29,800	4,840	11,400	678,000
May	.....	4,720	3,280	3,710	228,000
June	.....	7,030	3,460	4,630	276,000
July	.....	4,540	2,200	3,310	204,000
August	.....	2,140	1,070	1,430	87,900
September	.....	1,340	833	1,040	61,900
Water year 1919-20	.....	30,300	.....	3,080	2,235,500

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1920-21					
October	.....	1,340	1,030	1,180	72,600
November	.....	1,160	990	1,070	63,700
December	.....	1,160	950	1,030	63,300
January	.....	.....	.....	800	49,200
February	.....	.....	.....	730	40,500
March	.....	4,180	689	1,550	95,300
April	.....	11,500	2,500	4,860	289,000
May	.....	2,800	1,340	1,870	115,000
June	.....	3,400	1,690	2,720	162,000
July	.....	2,140	833	1,380	84,800
August	.....	1,300	230	603	37,100
September	.....	1,970	1,030	1,470	87,500
Water year 1920-21	.....	11,500	230	1,600	1,160,000
1921-22					
October	.....	1,390	497	787	48,400
November	.....	760	468	607	36,100
December	.....	724	558	655	40,300
January	.....	542	263	385	23,700
February	.....	542	320	418	23,200
March	.....	8,680	558	3,140	193,000
April	.....	16,600	4,060	9,610	572,000
May	.....	11,700	2,140	5,250	323,000
June	.....	3,820	1,800	2,780	165,000
July	.....	1,690	689	1,150	70,700
August	.....	655	413	508	31,200
September	.....	724	440	513	30,500
Water year 1921-22	.....	16,600	263	2,150	1,557,100
1922-23					
October	.....	590	450	507	31,200
November	.....	847	590	720	42,800
December	.....	712	375	505	31,100
January	.....	477	330	404	24,800
February	.....	367	267	304	16,900
March	.....	590	267	404	24,800
April	.....	15,900	590	5,450	324,000
May	.....	5,780	1,980	3,190	196,000
June	.....	4,160	920	1,570	93,400
July	.....	5,000	745	1,880	116,000
August	.....	883	424	588	36,200
September	.....	533	424	473	28,100
Water year 1922-23	.....	15,900	267	1,330	965,300
1923-24					
October	.....	533	450	478	29,400
November	.....	619	424	501	29,800
December	.....	615	300	434	26,700
January	.....	322	174	236	14,500
February	.....	286	189	213	12,300
March	.....	1,310	300	546	33,600
April	.....	2,200	1,400	1,780	106,000
May	.....	2,530	1,400	2,010	124,000
June	.....	1,350	853	1,050	62,500
July	.....	1,180	443	750	46,100
August	.....	498	345	423	26,000
September	.....	470	189	336	20,000
Water year	.....	2,530	174	731	530,900
Water year 1923-24	.....	2,530	174	731	530,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1924-25					
October	.....	678	443	553	34,000
November	.....	.....	.....	411	24,500
December	.....	.....	.....	206	12,700
January	.....	.....	.....	130	7,780
February	.....	.....	.....	140	68,200
March	.....	6,290	.....	1,110	131,000
April	.....	6,770	646	2,220	86,700
May	.....	1,930	1,010	1,410	343,000
June	.....	9,690	1,310	5,770	133,000
July	.....	4,790	498	2,170	29,900
August	.....	.....	.....	388	23,900
September	.....	.....	.....	503	7,780
Water year 1924-25	.....	9,690	.....	1,250	902,460
1925-26					
October	.....	.....	711	845	52,000
November	.....	853	585	702	41,800
December	.....	646	585	623	38,300
January	.....	.....	.....	480	29,500
February	.....	.....	.....	480	26,700
March	.....	7,720	.....	2,430	149,000
April	.....	6,910	1,440	3,870	230,000
May	.....	1,400	.....	1,090	67,000
June	.....	.....	.....	1,900	113,000
July	.....	.....	.....	1,300	79,900
August	.....	.....	.....	460	28,300
September	.....	.....	.....	420	25,000
Water year 1925-26	.....	7,720	.....	1,220	880,500
1926-27					
October	.....	891	745	830	51,000
November	.....	1,090	498	750	44,600
December	.....	555	345	444	27,300
January	.....	.....	.....	336	20,600
February	.....	.....	.....	306	17,000
March	.....	7,790	.....	3,560	219,000
April	.....	10,600	4,790	8,160	486,000
May	.....	9,440	4,730	7,540	464,000
June	.....	7,340	3,150	4,560	271,000
July	.....	2,980	1,490	2,220	136,000
August	.....	1,400	1,180	1,240	76,200
September	.....	.....	.....	1,210	72,000
Water year 1926-27	.....	10,600	.....	2,600	1,884,700
1927-28					
October	.....	.....	.....	1,110	68,200
November	.....	1,010	853	960	57,100
December	.....	.....	.....	730	44,900
January	.....	.....	.....	580	35,700
February	.....	.....	.....	600	34,500
March	.....	11,300	615	2,490	153,000
April	.....	12,200	2,420	4,870	290,000
May	.....	2,980	1,400	2,230	137,000
June	.....	4,140	1,400	2,330	139,000
July	.....	2,980	1,440	2,130	131,000
August	.....	2,250	1,010	1,310	80,600
September	.....	3,440	1,400	2,230	133,000
Water year 1927-28	.....	12,200	.....	1,790	1,304,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	1,780	1,310	1,430	87,900
November	.....	1,880	845	1,260	75,000
December	.....	966	845	943	58,000
January	.....	966	707	869	53,400
February	.....	695	561	637	35,400
March	.....	17,100	695	6,870	422,000
April	.....	6,700	2,420	3,730	222,000
May	.....	2,420	1,830	2,090	129,000
June	.....	1,880	925	1,320	78,600
July	.....	1,220	549	783	48,100
August	.....	497	313	390	24,000
September	.....	320	268	293	17,400
Water year 1928-29	.....	17,100	268	1,730	1,250,800
1929-30					
October	.....	593	321	398	24,500
November	.....	416	365	395	23,500
December	.....	385	255	309	19,000
January	.....	255	143	194	11,900
February	.....	660	131	294	16,300
March	.....	6,770	731	3,940	242,000
April	.....	9,610	1,400	3,920	233,000
May	.....	6,430	1,580	3,110	191,000
June	.....	2,090	845	1,150	68,400
July	.....	806	296	591	36,300
August	.....	296	143	202	12,400
September	.....	170	131	151	8,980
Water year 1929-30	.....	9,610	131	1,230	887,280
1930-31					
October	.....	240	131	197	12,100
November	.....	365	170	251	14,900
December	.....	275	178	194	11,900
January	.....	178	156	161	9,900
February	.....	471	200	273	15,200
March	.....	885	341	477	29,300
April	.....	1,580	796	1,090	64,900
May	.....	796	534	612	37,600
June	.....	830	228	492	29,300
July	.....	504	136	277	17,000
August	.....	170	110	136	8,360
September	.....	113	20	59.5	3,540
Water year 1930-31	.....	1,580	20	351	254,000
1931-32					
October	.....	208	39	111	6,820
November	.....	249	152	199	11,800
December	.....	179	101	133	8,180
January	.....	208	136	160	9,840
February	.....	1,090	67	207	11,900
March	.....	2,810	534	1,170	71,900
April	.....	10,200	1,180	3,930	234,000
May	.....	1,260	559	919	56,500
June	.....	529	278	401	23,900
July	.....	361	81	178	10,900
August	.....	78	50	58.6	3,600
September	.....	56	26	43.4	2,580
Water year 1931-32	.....	10,200	26	623	451,920

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	100	13	36.0	2,210
November	.....	114	64	82.7	4,920
December	.....	81	33	57.4	3,530
January	.....	48	31	38.6	2,370
February	.....	76	.....	33.6	1,870
March	.....	1,780	77	927	57,000
April	.....	4,380	789	2,250	134,000
May	.....	1,050	529	768	47,200
June	.....	754	128	428	25,500
July	.....	175	68	116	7,130
August	.....	76	19	41.5	2,550
September	.....	44	21	31.3	1,860
Water year 1932-33	.....	4,380	13	401	290,140
1933-34					
October	.....	60	21	31.7	1,950
November	.....	135	50	79.0	4,700
December	.....	61	42	52.5	3,230
January	.....	56	18	39.0	2,400
February	.....	64	24	40.7	2,260
March	.....	720	80	419	25,780
April	.....	3,150	590	1,540	91,650
May	.....	622	142	373	22,950
June	.....	234	78	151	8,980
July	.....	336	39	153	9,420
August	.....	37	24	30.6	1,880
September	.....	28	16	20.7	1,230
Water year 1933-34	.....	3,150	16	244	176,430
1934-35					
October	1,259	80	16	40.6	2,500
November	2,190	102	60	73.0	4,340
December	1,262	81	27	40.7	2,500
January	858	34	24	27.7	1,700
February	891	51	22	31.8	1,770
March	27,840	2,750	52	898	55,220
April	45,624	2,300	974	1,521	90,490
May	26,538	1,050	428	856	52,640
June	15,092	860	300	503	29,930
July	20,651	878	456	666	40,960
August	12,537	590	223	404	24,870
September	5,513	312	100	184	10,930
Water year 1934-35	160,255	2,750	16	439	317,850
1935-36					
October	3,195	122	86	103	6,340
November	2,494	100	74	83.3	4,950
December	2,188	80	64	70.6	4,340
January	1,817	66	50	58.6	3,600
February	1,576	62	50	54.3	3,130
March	1,975	76	52	63.7	3,920
April	144,871	14,500	336	4,829	287,300
May	45,953	2,960	654	1,482	91,150
June	8,230	606	142	274	16,320
July	2,753	148	44	88.8	5,460
August	995	46	26	32.1	1,970
September	610	34	13	20.3	1,210
Water year 1935-36	216,661	14,500	13	592	429,690

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	375	13	10	12.1	744
November	914	91	12	30.5	1,810
December	551.4	52	3.6	17.8	1,090
January	582.6	36	2.6	18.8	1,160
February	80.4	4.0	2.4	2.87	159
March	1,304.8	121	4.0	42.1	2,590
April	44,549	3,700	155	1,485	88,360
May	50,727	4,120	670	1,636	100,600
June	27,659	1,570	374	922	54,860
July	23,776	1,810	223	767	46,160
August	41,323	2,660	704	1,333	81,960
September	23,813	1,010	456	794	47,230
Water year 1936-37	215,655.2	4,120	2.4	591	426,723
1937-38					
October	9,802	404	166	316	19,440
November	6,406	336	94	214	12,710
December	1,732	95	30	55.9	3,440
January	1,901	91	36	61.3	3,770
February	2,505	113	63	89.5	4,970
March	40,573	4,360	106	1,309	80,480
April	28,623	1,880	659	954	56,770
May	141,360	6,630	1,040	4,560	280,400
June	59,757	3,170	927	1,990	118,500
July	21,616	1,150	197	697	42,880
August	5,881	271	127	190	11,660
September	6,246	392	152	208	12,390
Water year 1937-38	326,402	6,630	30	894	647,410
1938-39					
October	6,696	315	147	216	13,280
November	5,705	268	140	190	11,320
December	6,180	220	150	199	12,260
January	7,350	280	180	237	14,580
February	6,400	260	170	229	12,690
March	14,090	3,000	180	455	27,950
April	93,790	6,500	1,560	3,126	186,000
May	28,260	1,600	566	912	56,050
June	20,597	1,100	450	687	40,850
July	12,016	739	155	388	23,830
August	3,664	208	68	118	7,270
September	6,762	332	115	225	13,410
Water year 1938-39	211,510	6,500	68	579	419,500
1939-40					
October	10,031	433	276	324	19,900
November	10,065	433	208	336	19,960
December	8,752	433	170	282	17,360
January	5,000	200	120	161	9,920
February	4,930	220	140	170	9,780
March	7,100	340	190	229	14,080
April	122,640	10,000	320	4,088	243,300
May	60,590	2,430	1,430	1,955	120,200
June	28,825	1,390	569	961	57,170
July	9,197	553	120	297	18,240
August	6,575	350	130	212	13,040
September	5,121	260	108	171	10,160
Water year 1939-40	278,826	10,000	108	762	553,110

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	7,603	355	179	245	15,080
November	10,333	537	220	344	20,500
December	8,740	320	240	282	17,340
January	10,360	360	280	334	20,550
February	10,020	400	320	358	19,870
March	13,890	950	340	448	27,550
April	210,380	13,400	1,390	7,013	417,300
May	67,150	4,120	1,020	2,166	133,200
June	141,112	8,500	920	4,704	279,900
July	30,575	1,640	432	986	60,640
August	23,435	1,340	292	756	46,480
September	48,050	3,110	738	1,602	95,310
Water year 1940-41	581,648	13,400	179	1,594	1,154,000
1941-42					
October	53,480	2,660	1,230	1,725	106,100
November	33,100	1,340	750	1,104	65,710
December	27,270	1,200	700	880	54,090
January	16,910	650	480	545	33,540
February	16,050	600	500	573	31,830
March	50,300	7,000	550	1,623	99,770
April	106,300	11,000	3,090	5,343	318,000
May	207,540	12,600	3,560	6,695	411,600
June	107,960	5,470	1,940	3,599	214,100
July	51,140	2,020	1,400	1,650	101,400
August	32,002	1,770	1,814	1,032	63,480
September	91,860	4,720	2,110	3,062	182,200
Water year 1941-42	847,942	12,600	480	2,323	1,682,000
1942-43					
October	47,300	2,020	1,100	1,526	93,820
November	31,850	1,300	750	1,062	63,170
December	22,750	850	650	734	45,120
January	23,950	900	700	773	47,500
February	19,050	800	550	680	37,790
March	33,100	7,600	500	1,068	65,650
April	549,400	28,100	6,300	18,310	1,090,000
May	178,570	7,140	4,960	5,760	354,200
June	311,560	14,100	7,140	10,390	618,000
July	154,120	8,370	2,230	4,972	305,700
August	70,750	3,940	1,690	2,282	140,300
September	48,470	1,900	1,400	1,616	96,140
Water year 1942-43	1,490,870	28,100	500	4,085	2,957,000
1943-44					
October	41,560	1,460	1,220	1,341	82,430
November	35,160	1,420	800	1,172	69,740
December	28,550	1,000	800	921	56,630
January	21,600	800	650	697	42,840
February	18,900	700	600	652	37,490
March	19,650	850	600	634	38,980
April	99,320	7,000	1,000	3,311	197,000
May	103,870	4,460	2,420	3,351	206,000
June	162,760	8,630	2,970	5,425	322,800
July	182,860	9,670	2,470	5,899	362,700
August	155,920	10,300	2,140	5,030	309,300
September	125,020	6,460	2,670	4,167	248,000
Water year 1943-44	995,170	10,300	600	2,719	1,974,000

RED RIVER AT OSLO, MINNESOTA

Location: Staff gage, lat. 48°11', long. 97°09', in sec. 31, T. 155N., R. 50W, at Minneapolis, St. Paul, and Sault Ste. Marie Ry. bridge in Oslo.

Records Available: April 1936 to September 1936, April 1941 to September 1944 (fragmentary).

Extremes: Maximum daily discharge 27,300 second feet Apr. 13, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	153,325	14,500	75	5,111	304,100
May	50.640	3,370	720	1,634	100,400
June	8,592	640	140	286	17,040
July	2,879	167	37	92.9	5,710
August	967	44	26	31.2	1,920
September	567	30	14	18.9	1,120
Water year 1935-36	216.970	.....	.....	.....	430,300
1936-37					
October	428	18	10	13.8	849
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	44,627	3,770	80	1,488	88,560
May	53.165	4,070	665	1,715	105,500
June	28,056	1,560	392	935	55,650
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	126.276	.....	.....	.....	250,520
1940-41					
April (15 days)	96,080	11,400	3,720	6,405	190,600
May (19 days)	53,190	4,000	1,790	2,799	105,500
June (20 days)	124.970	9,460	2,560	6,248	247,900
July (1 day) One reading July 1st	1,980	.....	.....	.....	.....
Water year 1940-41	274.240	.....	.....	.....	544,000
*Note: Gage read only at high stages					
1941-42					
April	204.580	11,900	3,240	6,819	405,800
May	198,540	10,800	3,720	6,404	393,800
June	.....	.....	.....	.....	.....
July	52.530	2,080	1,450	1,695	104,200
August	.....	.....	.....	.....	.....
September (8 days)	21.180	3,000	2,400	2.648	42,010
Water year 1941-42	476.830	.....	.....	.....	945,810

*Note: Gage read only at high stages

1942-43					
March (3 days)	14,310	.....	.....	4,770	28,380
April (26 days)	531,070	27,300	.....	20,430	1,053,000
Water year 1942-43	545,380	.....	.....	.....	1,081,380

*Note: Gage read only at high stages

1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 12-30	97,860	10,500	.....	5,151	194,100
May	115,920	5,260	2,860	3,739	229,900
June	158,200	5,890	4,600	5,273	313,800
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1943-44	.....	.....	.....	.....	737,800

FOREST RIVER NEAR FORDVILLE, NORTH DAKOTA

Location: Chain gage lat. 48°12', long. 97°44', on line between secs. 32, 33 T. 155N R. 55W. at highway bridge a quarter of a mile downstream from South Branch of Forest River and 3 miles southeast of Fordville.

Drainage Area: 491 square miles.

Records available: April 1940 to September 1944

Extremes: Maximum daily discharge, 3,650 second-feet April 4, 1942, no flow April 1-13, Sept. 3, 1940.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	648.8	110	.....	21.6	1,290
May	225.8	13	3.8	7.28	448
June	82.2	4.4	1.8	2.74	163
July	250.6	90	.8	8.08	497
August	216.2	35	1	6.97	429
September	27.4	1.5	.....	.91	54
Water year 1939-40..	1.451	110	.....	.....	2,881
1940-41					
October	47.2	2.2	.4	1.52	94
November	61	2.2	1.8	2.03	121
December	63.9	2.8	1.5	2.06	127
January	83.8	2.8	2.6	2.7	166
February	81.5	.....	.....	2.91	162
March	126.1	10	3	4.07	250
April	13,883	2.200	16	463	27,540
May	301	16	2.5	9.71	597
June	676.9	42	6.3	22.6	1,340
July	103.4	16	1.1	3.34	205
August	78.9	7.5	.3	2.55	156
September	360.7	46	1.5	12	715
Water year 1940-41..	15,867.4	2.200	.3	43.5	31,470
1941-42					
October	773.1	91	5.7	24.9	1,530
November	267.7	13	5.5	8.92	531
December	152.4	7.5	2	4.92	302
January	97	4.4	1.6	3.13	192
February	100.8	4	2.8	3.6	200
March	4,858.4	650	4	157	9,640
April	11,049	2,980	40	368	21,920
May	803	56	17	259	1,590
June	286.9	21	4.7	9.56	569
July	200.3	57	2.6	6.65	409
August	368.2	28	3.8	11.9	730
September	109.6	7.6	2	3.65	217
Water year 1941-42..	19,072.4	2,980	1.6	52.3	37,830

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1942-43					
October	83.8	2.8	2.6	2.7	166
November	87.4	3.8	2.6	2.91	173
December	94.6	3.4	2.6	3.05	188
January	101	4.2	2.6	3.26	200
February	105.8	4.4	3.2	3.78	210
March	4,145.6	950	3.2	134	8,220
April	1,231	150	12	41	2,440
May	437.5	30	8.5	14.1	868
June	4,627	1,030	32	154	9,180
July	4,492	1,080	21	145	8,910
August	321.5	17	5.5	10.4	638
September	159.9	13	2.6	53.3	317
Water year 1942-43	15,887.1	1,080	2.6	43.5	31,510
1943-44					
October	138.2	7.5	2.6	4.46	274
November	146.7	6	3.2	4.89	291
December	150.6	.....	3.6	4.86	299
January	122.2	5.5	2.2	3.94	242
February	81.4	3.8	1.8	2.81	161
March	176.5	10	2.6	5.69	350
April	2,491	360	.....	83	4,940
May	418	25	6	13.5	829
June	516.3	42	7.5	17.2	1,020
July	163.3	9.3	3.8	5.27	324
August	136.7	7.5	.8	4.41	271
September	143.3	7.9	3.2	4.78	284
Water year 1943-44	4,684.2	360	.8	12.8	9,280

FOREST RIVER NEAR MINTO, NORTH DAKOTA

Location: Chain gage, lat. 48°16', long. 97°24', on line between secs. 1 and 12, T. 155 N. R. 53W, 3 miles southwest of Minto.

Drainage Area: 538 square miles

Records Available: March 1932 to September 1944

Extremes: Maximum discharge observed, 1,610 second feet April 5, 1942; no flow on many days each year.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 30-31	258	.....	.....	129	512
April	2,737	265	41	91.2	5,430
May	908	44	16	29.3	1,800
June	338.4	15	7.1	11.3	672
July	157	9.2	1.5	5.06	311
August	12.2	1.5	0	.39	24
September	4.9	1.2	0	.16	10
Water year 1931-32	4,415.5	265	0	23.9	8,750
*185 Day Record					
1932-33					
October	126.6	10	0	4.08	251
November	15	.....	.....	.....	30
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,529	235	.....	51	3,030
April	4,607	628	36	154	9,160
May	744	35	18	24	1,480
June	321.9	18	5.4	10.7	637
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33	7,343.5	.....	.....	.....	14,588
*152 Day Record					
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	212	29	17	21.2	420
April	1,181	79	16	39.4	2,340
May	329.9	16	6.1	10.6	654
June	150.5	7.9	2.5	5.02	299
July	26.9	2.4	0	.87	53
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1933-34	1,900.3	.....	.....	.....	3,766

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,857	366	35	124	3,680
April	1,209	102	23	40.3	2,400
May	445	20	10	14.4	883
June	261.6	15	6.4	8.72	519
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
*Water year 1934-35	3,772.6	.....	.....	.....	7,480
*106 Day Record			----		
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	3,200	552	0	107	6,350
May	555.7	34	8.6	17.9	1,100
June	249.8	14	5	8.33	495
July 1-13	43.3	7.8	0	1.4	86
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1935-36	4,048.8	.....	.....	.....	8,030
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	427	72	0	14.2	847
May	314.9	17	5.1	10.2	625
June	193.1	12	.6	6.44	383
July	15.7	1.7	0	.51	31
August	3.4	.5	0	.11	6.7
September	.....	.....	.....	.....	.....
Water year 1936-37	954.1	72	0	26.1	1,890
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 14-31	746	148	0	24.1	1,480
April	331.3	18	7.6	11	657
May	280.9	16	4.7	9.06	557
June	72.2	5	.8	2.41	143
July 1-20	43.3	7.1	0	1.4	86
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1937-38	1,473.7	148	0	4.04	2,920

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 28-31	640	180	.....	20.6	1,270
April	1,141	100	15	38	2,260
May	214.7	15	3.5	6.93	426
June	48.4	5.4	.1	1.61	96
July	407.2	118	.1	13.1	808
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1938-39	2,451.3	180	.....	6.71	4,860
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	1,252	237	.....	41.7	2,480
May	347.3	22	5.1	11.2	689
June	93.4	5.2	.....	3.11	185
July	.....	.....	.....	.....	.....
August	408.9	93	.....	13.2	811
September 1-21	6.5	2.4	.....	.217	13
Water year 1939-40	2,108.1	237	.....	5.76	4,178
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	10,479	1,390	.....	349.3	20,800
May	674	41	13	21.7	1,340
June	662	37	12	22.1	1,310
July	232.3	15	2	749	461
August	109.7	4.2	2.2	3.54	218
September	272.6	21	3.5	9.09	541
Water year 1940-41	12,417.6	1,390	.....	34	24,670
1941-42					
October	998	.....	.....	32.2	1,980
November	335	.....	.....	11.2	664
December	181.3	.....	.....	5.85	360
January	9.9	.....	.....	.32	20
February	.....	.....	.....	.....	.....
March	3,933.7	500	.....	127	7,800
April	10,662	1,550	65	355	21,150
May	1,207	70	22	38.9	2,390
June	434	26	6.5	14.5	861
July	228.2	44	4.2	7.36	453
August	472.3	40	4.8	15.2	937
September	140.8	11	2.2	4.69	279
Water year 1941-42	18,602.2	1,550	.....	51	36,890

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	90.2	3.4	2.2	2.91	179
November	105	3.6	3.2	3.5	208
December	59.3	3.2	1.4	1.91	118
January	39.5	1.4	1.1	1.27	78
February	31	1.3	1	1.11	61
March	4,436	800	1	143	8,800
April	2,958	350	30	98.6	5,870
May	732	32	17	23.6	1,450
June	5,770	800	50	192	11,440
July	5,643	1,200	36	182	11,190
August	630	38	12	20.3	1,250
September	288	24	2.4	9.6	571
Water year 1942-43	20,782.4	1,200	1	56.9	41,220
1943-44					
October	85	4.6	2.6	2.74	169
November	152.8	6	2.6	5.09	303
December	142.1	7	1.7	4.58	282
January	21.5	2.6	.1	.69	43
February	.8	.1	0	.03	1.6
March	7.9	.....	.....	.25	16
April	2,776	400	.....	92.5	5,510
May	682	30	14	22	1,350
June	769	50	14	25.6	1,530
July	294.6	24	.9	9.5	584
August	109.4	14	.5	3.53	217
September	206.4	14	4	6.88	409
Water year 1943-44	5,247.5	400	.....	14.3	10,410

SO. BRANCH PARK RIVER NEAR PARK RIVER, NORTH DAKOTA

Location: Chain gage, lat. 48°24', long. 97°50', on line between secs. 15 and 16 T. 157 N., R. 56 W. at highway bridge half a mile upstream from small unnamed creek and 4½ miles northwest of town of Park River

Drainage Area: 255 square miles

Records available: March 1940 to September 1944

Extremes: Maximum discharge 1,650 second-feet April 10, 1941; no flow during several months of each year.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	532.4	162	.....	17.7	1,060
May	70.8	6.7	1.1	2.28	140
June	5.4	1	.....	.18	11
July	.6	.2	.....	.02	1.2
August	1.3	.2	.....	.04	2.6
September	.7	.2	.....	.02	1.4
Water year 1939-40	611.2	162	0	.....	1,216.2
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	8,779.3	1,420	.3	293	17,410
May	178.9	12	3.3	5.77	355
June	120.4	10	1.2	4.01	239
July	18.4	2.7	.1	.59	36
August	24.4	5.6	.1	.79	48
September	522.8	100	.1	17.4	1,040
Water year 1940-41	9,644.2	1,420	.....	26.4	19,130
1941-42					
October	606.4	106	4.4	19.6	1,200
November	112.3	5.9	1.6	3.74	223
December	43.4	4.1	.....	1.4	86
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,825.4	440	1	58.9	3,620
April	7,379	950	26	246	14,640
May	497.3	34	8.4	16	986
June	168.1	17	1.8	5.6	333
July	24.6	1.8	.1	.79	49
August	52.4	22	.1	1.69	104
September	51	8.2	.1	1.7	101
Water year 1941-42	10,759.9	950	.....	29.5	21,340

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	6.6	.3	.1	.21	13
November	5.4	.3	.1	.18	11
December	6.2	.....	.....	.2	12
January	6.2	.....	.....	.2	12
February	5.6	.....	.....	.2	11
March	2,980.14	550	.....	96.1	5,910
April	1,915	220	5.4	63.8	3,800
May	247.3	19	3.9	7.98	491
June	1,686.2	202	7.2	56.2	3,340
July	456.8	87	1.1	14.7	906
August	10.6	1.1	.1	.34	21
September	5.7	.3	.1	.19	11
Water year 1942-43	7,332	550	.1	20.1	14,540
1943-44					
October	8.1	.4	.2	.26	16
November	8.3	.4	.....	.28	16
December	2.2	.....	.....	.07	4.4
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,019.9	170	.....	34	2,020
May	77.7	5.4	.9	2.51	154
June	51.7	3.9	.4	1.82	108
July	7.6	.5	.1	.25	15
August	178	28	.2	5.74	353
September	191.6	39	.6	6.39	380
Water year 1943-44	1,548.1	170	0	4.23	3,070

PARK RIVER AT GRAFTON, NORTH DAKOTA

Location: Staff gage and rubble masonry control dam lat. 48°25', long. 97°24', in NE¼NW¼ sec. 18, T. 157 N., R. 52 W. at Grafton.

Drainage area: 753 square miles.

Records available: April 1931, to September 1944 (incomplete prior to 1937)

Extremes: Maximum discharge 4,310 second-feet April 6, 1942; no flow at times.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1930-31					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	41	.....	.....	20.5	81
May	386.2	22	6.5	12.5	769
June	91.2	6.9	1	3.04	181
July	30.5	4.4	.1	.98	60
August	6	.6	.....	.19	12
September	.....	.....	.....	.....	.....
Water year 1930-31..	554.9	.....	.....	.....	1,100
123 day record					
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March (2 Days)	135	.....	.....	67.5	268
April	4,656	550	9	155	9,220
May	673.4	42	7.3	21.7	1,330
June	167.5	21	.4	5.58	332
July	8.3	1.1	.....	.27	17
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1931-32..	5,640.2	550	0	30.5	11,167
1932-33					
October 18-31	27.9	3.9	.7	1.99	55
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 29-31	1,106	819	58	369	2,200
April	12,341	2,010	42	411	24,500
May	690	38	13	22.3	1,370
June	367.2	34	.07	12.2	726
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1932-33..	14,531.1	.....	.....	.....	28,851
108 day record					

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March (10 days)	216	32	16	21.6	428
April	2,340.3	393	7.1	78	4,640
May	67	6.5	.3	2.16	133
June	12.4	1	.....	.41	25
July	4	.1	.....	.01	1
August	.....	.....	.....	.....	.....
September	24	.8	.....	.08	5
Water year 1933-34	2,638.5	.....	.....	.....	5,230
193 day record					
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 19-31	2,049	443	40	158	4,060
April	1,977	196	20	65.9	3,920
May	188.3	20	1.2	6.07	373
June	117.2	18	.4	3.91	232
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1934-35	4,331.5	.....	.....	.....	8,580
104 day record					
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 11-30	6,811	1,140	.....	227	13,510
May	373.3	38	1.4	12	740
June	389.4	148	.....	13	772
July	1.1	.7	.....	.04	2.2
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1935-36	7,573.7	.....	.....	.....	15,020
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 10-30	2,705	306	.....	90.2	5,370
May	654.5	67	2.8	21.1	1,300
June	110.8	11	.....	3.69	220
July	147.4	32	.....	4.75	292
August	36.3	5	.....	1.17	72
September	.....	.....	.....	.....	.....
Water year 1936-37	3,654	306	0	10	7,250

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1937-38					
October					
November					
December					
January					
February					
March	1,665	291		53.7	3,300
April	161.9	12	2.3	5.4	321
May	182.4	21	1	5.88	362
June	10.4	1.8		.35	21
July	146	88		4.71	290
August					
September					
Water year 1937-38	2,165.7	291		5.93	4,290
1938-39					
October					
November					
December					
January					
February					
March	272	130		8.77	540
April	709.7	80	7.7	23.7	1,408
May	63.6	7.7	1	2.05	126
June	85	20		2.83	169
July	3.8	1		.12	7.5
August					
September					
Water year 1938-39	1,134.1	130		3.11	2,250
1939-40					
October					
November					
December					
January					
February					
March					
April	1,141	190		38	2,260
May	130.3	9.2	1.2	4.2	258
June	11.3	2.1		.38	22
July	4.2	2.1		.14	8.3
August	8.4	1.5		.27	17
September					
Water year 1939-40	1,295.2	190	0	3.55	2,565.3
1940-41					
October					
November					
December					
January					
February					
March	11.7	1.1		.38	23
April	17,320.5	1,830	1.1	577	34,350
May	545.7	41	5.7	17.6	1,080
June	358.8	21	4	12	712
July	46	6.3		1.48	91
August	7 2	.8		.23	14
September	607.1	75		20.2	1,200
Water year 1940-41	18,897	1,830	0	52.7	37,400

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1941-42					
October	1,015	99	11	32.7	2,010
November	251.9	13	4	8.4	500
December	96.7	7.7	.....	3.12	192
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	3,710.4	550	.....	120	7,360
April	26,184	3,190	97	873	51,940
May	1,849	106	33	59.6	3,670
June	491.6	38	5.1	16.4	975
July	108	9.4	1.6	3.48	214
August	104.8	16	1.6	3.38	208
September	98.6	13	.1	3.29	196
Water year 1941-42	33,910	3,190	0	92.9	67,270
1942-43					
October	8.5	.8	.....	.27	17
November	21.8	1.1	.....	.73	43
December	1.4	.2	.....	.05	2.8
January	3	.6	.....	.1	6
February	3	.4	.....	.11	6
March	7,949.1	1,400	.....	256	15,770
April	5,104	900	16	170	10,120
May	934	37	24	30.1	1,850
June	6,069	369	37	202	12,040
July	4,668	594	59	151	9,260
August	393.6	52	.2	12.7	781
September	7.6	1.1	.....	.25	15
Water year 1942-43	25,163	1,400	0	68.9	49,910
1943-44					
October	.5	.1	0	.02	1
November	22.5	1.9	.1	.75	45
December	21.9	1.9	0	.71	43
January	.2	.1	0	.01	.4
February	.....	.....	.....	.....	.....
March	10.1	1.6	0	.33	20
April	3,225	494	.4	108	6,400
May	220.4	17	3	7.11	437
June	249.5	15	4	8.32	495
July	74.9	8.5	0	2.42	149
August	354.4	46	0	11.4	703
September	234.4	15	2.4	7.81	465
Water year 1943-44	4,413.8	494	0	12.1	8,760

RED RIVER AT DRAYTON, NORTH DAKOTA

Location: Wire-weight gage, lat. 48°34', long. 97°10', in sec. 26, T. 159N.R. 51W on highway bridge in Drayton.

Drainage Area: 34,800 square miles.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	173,032	16,600	78	5,768	343,200
May	56,600	4,000	920	1,826	112,300
June	11,967	770	177	399	23,740
July	3,653	183	60	118	7,250
August	1,554	65	36	50.1	3,080
September	821	38	14	27.4	1,630
Water year 1935-36	247,627	.....	.....	.....	491,200
1936-37					
October	426.5	18	7.7	13.8	846
November 1-15	241	17	15	16.1	478
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	51,876	3,920	72	1,729	102,900
May	60,498	4,500	678	1,952	120,000
June	29,052	1,520	534	968	57,620
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	142,093.5	.....	.....	.....	281,844
Discontinued 1941-1942-1943 Fragmentary					
1941					
April 16-30	161,960	21,000	4,220	10,800	321,200
May 1-15	40,930	4,030	1,800	2,729	81,180
June 13-30	119,930	9,780	2,960	6,663	237,900
Water year 1941	322,820	.....	.....	.....	640,280
1942					
April	341,990	21,900	3,400	11,400	678,300
May 1-30	213,080	12,000	4,090	7,103	422,600
June	.....	.....	.....	.....	.....
July 1-20	34,740	1,950	1,420	1,737	68,910
August	.....	.....	.....	.....	.....
September	16,600	3,040	2,460	2,767	32,930
Water year 1942	606,410	.....	.....	.....	1,202,740
1943					
April 7-30	533,740	28,700	8,560	22,240	1,059,000

1943-1944 Record too fragmentary and will not be published

TONGUE RIVER AT CAVALIER, NORTH DAKOTA

Location: Wire weight gage, lat. 48°48′, long. 97°37′, on line between NE¼ and SE¼ Sec. 4, T. 161 N. R. 54W, on State Highway 5 in Cavalier.

Records Available: October 1938 to September 1944.

Extremes: Maximum discharge 960 second-feet April 14, 1942; no flow for several months in each year.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	15	.15	0	.48	30
April	426.5	30	5	14.2	846
May	89	6.1	1.4	2.87	177
June	38.5	4	.5	1.28	76
July	2.7	.6	0	.09	5.4
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1938-39	571.7	30	0	1.57	1,130
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,135	230	0	37.8	2,250
May	167.7	24	1.6	5.41	333
June	37.1	2.5	.4	1.24	74
July	8.1	.5	.1	.26	16
August	4.8	1.2	0	.15	9.5
September	.2	.1	0	.01	.4
Water year 1939-40	1,352.9	230	0	3.70	2,682.9
1940-41					
October	.....	.....	.....	.....	.....
November	.2	.1	0	.007	.4
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	4,366	650	0	146	8,660
May	297.5	19	2.6	9.6	590
June	529.5	122	2.4	11.7	1,050
July	43.5	7.3	0	1.40	86
August	2.3	.2	0	.07	4.6
September	504.7	55	.2	16.8	1,000
Water year 1940-41	5,743.8	650	0	15.7	11,390

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	442	.....	.....	14.3	877
November	152	.....	.....	5.07	301
December	93.5	.....	.....	3.02	185
January	46.7	.....	.....	1.51	93
February	8.4	.....	.....	.30	17
March	817.1	200	.....	26.4	1,620
April	8,022	960	16	267	15,910
May	1,847	125	36	59.6	3,660
June	532.5	36	8	17.8	1,060
July	102.8	9.5	.7	3.32	204
August	648.1	140	.9	20.9	1,290
September	396	110	1	13.2	785
Water year 1941-42	13,108.1	960	0	35.9	26,000
1942-43					
October	78.7	3.8	.1	2.54	156
November	83.7	3.8	.6	2.79	166
December	16.4	.7	.2	.53	33
January	20.6	.9	.....	.66	41
February	9.1	.....	.....	.32	18
March	1,844.7	460	.....	59.5	3,660
April	2,574	240	22	85.8	5,110
May	918	44	15	29.6	1,820
June	2,945	433	20	98.2	5,840
July	958.5	260	4.4	30.9	1,900
August	52.8	3.7	.7	1.7	105
September	17.8	1.3	.1	.59	35
Water year 1942-43	9,519.3	460	.....	26.1	18,880
1943-44					
October	26.2	2	.1	.85	52
November	60.2	2.2	1.9	2.01	119
December	39.2	2	.4	1.26	78
January	16.6	4.4	.....	.54	33
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,949	420	0	65	3,870
May	338	16	5	10.9	670
June	323	26	3	10.8	641
July	246.9	38	2.4	7.96	490
August	313.8	38	1.6	10.1	622
September	706.5	120	5	23.6	1,400
Water year 1943-44	4,019.4	420	0	11	7,980

TONGUE RIVER AT PEMBINA, NORTH DAKOTA

Location: Lat. 48°55'08", long. 97°19'30" in NW NW¼NE¼ sec. 26 T. 163N, R. 52W 3¼ miles upstream from mouth and 5 miles southwest of Pembina.

Drainage Area: 491 square miles.

Records Available: October 1939 to September 1942

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,073	192	0	35.8	2,128
May	225.6	30	1.3	7.28	447
June	3.5	1.3	0	.12	6.9
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1939-40	1,302.1	192	0	3.56	2,581.9
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	7,881.2	1,110	0	263	15,630
May	307.7	28	1.9	9.33	610
June	464	58	4.2	15.5	920
July	105.1	11	0	3.39	208
August	.....	.....	.....	.....	.....
September	399.4	66	.....	13.3	792
Water year 1940-41	9,157.4	1,110	0	25.1	18,160
1941-42					
October	728	71	9.6	23.5	1,440
November	145.4	9.6	3.6	4.85	288
December	62.9	3.6	1.3	2.03	125
January	29.7	1.3	.4	.96	59
February	1.2	.3	.....	.04	2.4
March	453.4	79	0	14.6	899
April	17,875	1,400	90	596	35,450
May	2,270	133	36	73.2	4500
June	578.9	48	5	19.3	1,150
July	79.3	5	.9	2.56	157
August	746.3	122	2.6	24.1	1,480
September	558.8	74	.7	18.6	1,110
Water year 1941-42	23,528.9	1,400	0	64.5	46,660.1

PEMBINA RIVER NEAR MANITOU, MANITOBA

Location: Lat. 49°08'50", long. 98°33'30" on bridge near Lea's farm, 9 miles south of Manitou.

Drainage: 2,060 square miles.

Records available: October 1929 to September 1944 (incomplete)

Extremes: Maximum discharge 1,620 second-feet April 19, 1923; no flow on many days.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October	.....	5	1.2	3.2	197
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	524	31,200
May	.....	437	218	329	20,200
June	.....	204	46.5	121	7,200
July	.....	45.4	16.8	31.9	1,960
August	.....	18.1	14.5	16.7	1,030
September	.....	24	13.7	17.9	1,070
Water year 1929-30	.....	.....	.....	.....	.....
1930-31					
October	.....	25.5	21.7	23.8	1,460
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	161	91	130	7,740
May	.....	83	39	63	3,870
June	.....	36.2	9.4	20	1,190
July	.....	10.1	.3	3.2	197
August	.....	1.5	.1	.6	37
September	.....	1.1	.3	.6	36
Water year 1930-31	.....	.....	.....	.....	.....
1931-32					
October	.....	7.6	.2	1.63	100
November 1-12	.....	6.5	2.5	4.60	109
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 13-30	.....	303	174	228	8,140
May	.....	168	72	117	7,190
June	.....	67	14.1	35.4	2,110
July	.....	22	12.9	15.9	978
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1931-32	.....	.....	.....	.....	.....

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 10-30	.....	554	450	503	20,900
May	.....	884	260	408	25,100
June	.....	358	86	197	11,700
July	.....	83	29.9	46.8	2,880
August	.....	29.8	17	22.7	1,400
September	.....	55	21.5	39.2	2,330
Water year 1932-33	.....	.....	.....	.....	.....
1933-34					
October	.....	52	30.3	39.3	2,420
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 9-30	.....	369	166	253	11,000
May	.....	158	71	111	6,830
June	.....	68	17.3	41	2,440
July	.....	17.9	2.4	8.2	504
August	.....	2.2	.1	.4	25
September	.....	.6	.1	.2	12
Water year 1933-34	.....	.....	.....	.....	.....
1934-35					
October	13	1.6	0	.4	26
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	1,109.4	131	46.2	65	2,200
May	1,177.2	45	32.5	38	2,330
June	994.6	39.8	23.4	33.2	1,970
July	882.5	45.6	16.8	28.5	1,750
August	970.2	110	16.3	31.3	1,920
September	492.6	22.1	12.6	16.4	977
Water year 1934-35	.....	.....	.....	.....	.....
1935-36					
October	373	14.2	8	12	740
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 16-30	6,998	634	431	467	13,880
May	10,781	456	217	348	21,380
June	4,563	290	81	152	9,050
July	1,281.6	78	22.3	41.3	2,540
August	495.5	21.4	9.4	16	983
September	600.2	24.1	16.5	20	1,190
Water year 1935-36	.....	.....	.....	.....	.....

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	515.4	19.7	12.9	16.6	1,020
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 17-30	653.2	68	34.5	46.7	1,300
May	861.3	35	21.3	27.8	1,710
June	761.5	53	6.8	25.4	1,510
July	110.8	7.6	.4	3.6	220
August	26.5	11.4	0	.9	53
September	1.9	.2	0	.1	3.8
Water year 1936-37	.....	.....	.....	.....	.....
1937-38					
October	7.4	.3	.1	.2	15
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 22-31	1,393	223	101	139	2,760
April	2,420	109	71	81	4,800
May	1,868.6	72	45.4	60	3,710
June	656.5	44.8	6	21.9	1,300
July	162.7	7.9	4	5.2	323
August	58.3	6	.1	1.9	116
September	3	.....	.....	.1	6
Water year 1937-38	.....	.....	.....	.....	.....
1938-39					
October	14.7	.7	.2	.5	29
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	41.3	9	0	4.1	82
April	319.7	21.5	3.2	10.7	634
May	123.3	8.6	2.2	4	245
June	37.7	2.2	.5	1.3	75
July	5.4	.5	0	.2	11
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	.....	.....	.....	.....	.....
1939-40					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 20-30	431.6	150	8.6	39.2	856
May	108.3	8.6	1.4	3.5	215
June	14	1.3	0	.5	28
July	1.8	.3	0	.1	3.6
August	106.9	12.9	.5	3.4	212
September	7.6	.4	.1	.3	15
Water year 1939-40	670.2	.....	.....	.....	1,330

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	14,456	1,530	0	482	28,670
May	8,235	400	149	266	16,330
June	2,530.4	145	34.4	84.3	5,020
July	745.1	30.8	20.6	24	1,480
August	769.6	26	21.5	24.8	1,530
September	1,113.5	52	25.5	37.1	2,210
Water year 1940-41	.....	.....	.....	.....	55,240
1941-42					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,600	300	1,020	60,810
May	.....	1,030	378	646	39,720
June	.....	361	122	208	12,390
July	.....	113	40	60	3,720
August	.....	71	43	48	2,950
September	.....	47.2	35.2	40.7	2,420
Water year 1941-42	.....	.....	.....	.....	.....
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	500	50	293	17,420
May	.....	263	154	214	13,170
June	.....	148	63	112	6,670
July	.....	17.7	33.8	98	6,020
August	.....	247	134	205	12,600
September	.....	189	129	160	9,530
Water year 1942-43	.....	.....	.....	.....	.....
1943-44					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	201	2	113	6,740
May	.....	248	125	156	9,570
June	.....	294	142	181	10,750
July	.....	1,110	290	747	45,950
August	.....	957	396	610	37,530
September	.....	436	208	311	18,520
Water year 1943-44	.....	.....	.....	.....	.....

PEMBINA RIVER AT WALHALLA, NORTH DAKOTA

Location: Lat. 48°53'32", long. 97°59'09", in SE¼SW¼ sec. 35, T.163 N., R. 57W. 1½ miles downstream from Little Pembina River and 3½ miles southwest of Walhalla.

Drainage Area: 3,020 square miles.

Records available: October 1939 to September 1944.

Extremes: Maximum discharge 4,200 second-feet April 5, 1942.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	1.3	.1	0	.04	2.6
November	4.7	.6	0	.16	9.3
December	.7	.1	0	.02	1.4
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	2,635.8	766	0	87.9	5,230
May	584.3	44	7.9	18.8	1,160
June	85	9.7	0	2.83	169
July	22.8	22	0	.74	45
August	242.8	46	0	7.83	482
September	.....	.....	.....	.....	.....
Water year 1939-40	3,577.4	766	0	9.77	7,099.3
1940-41					
October	3.3	.6	0	.11	6.5
November	4.4	.4	0	.15	8.7
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1.4	.8	0	.05	2.8
April	30,194.6	3,200	1	1,006	59,890
May	10,746	501	185	347	21,310
June	4,295	225	73	143	8,520
July	1,210	96	23	39	2,400
August	667	25	20	21.5	1,320
September	4,299.7	931	22	143	8,530
Water year 1940-41	51,420.7	3,200	0	141	102,000
1941-42					
October	3,070	301	44	99	6,090
November	1,080	60	13	36	2,140
December	432.9	26	34	14	859
January	62	.....	.....	2	123
February	196	.....	.....	.7	39
March	2,015.5	420	.....	65	4,000
April	55,240	4,200	150	1,841	109,600
May	28,602	1,350	600	923	56,730
June	8,843	561	185	295	17,540
July	3,179	173	70	103	6,310
August	2,992	447	50	96.5	5,930
September	1,666	107	46	55.5	3,330
Water year 1941-42	107,202	4,200	.....	294	212,700

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1942-43					
October	1,303	46	37	42	2,580
November	888	40	20	29.6	1,760
December	266	18	.....	8.58	528
January	148.5	.....	.....	4.79	295
February	140	.....	.....	5	278
March	4,650	900	.....	150	9,220
April	16,302	1,000	308	543	32,330
May	8,820	346	225	285	17,490
June	8,754	950	136	292	17,360
July	6,622	800	110	214	13,130
August	6,300	230	154	203	12,500
September	5,241	239	137	175	10,400
Water year 1942-43	59,434.5	1,000	.....	163	117,900
1943-44					
October	3,575	137	86	115	7,090
November	2,072	95	55	69.1	4,110
December	864.5	55	9	27.9	1,710
January	124.9	13	1.2	4.03	248
February	113.2	6.5	2.6	3.9	225
March	126.3	7.5	2.2	4.07	251
April	7,959.4	800	2	265	15,790
May	6,197	466	159	200	12,290
June	7,425	353	198	248	14,730
July	19,666	1,070	269	634	39,010
August	24,338	1,190	485	785	48,270
September	12,956	872	254	432	25,700
Water year 1943-44	85,417.3	1,190	1.2	233	169,400

PEMBINA RIVER AT NECHE, NORTH DAKOTA

Location: Sixty feet above concrete dam, lat. 48°58', long. 97°33' in Sec. 31, Twp. 164 North, Range 53 West in Neche.

Drainage area: 3,080 square miles.

Records available: May 1903 to September 1915, April 1919 to September 1943.

Extremes: Maximum discharge observed, 3,870 second feet May 2, 1904.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1902-03					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	202	12,420
June	.....	198	110	149	8,866
July	.....	110	35	60	3,689
August 1-8	.....	.....	.....	35	555
September	.....	.....	.....	.....	.....
Water year 1902-03	.....	.....	.....	.....	25,530
1903-04					
October 11-31	.....	.....	.....	42	1,749
November 1-14	.....	.....	.....	42	1,156
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 8-30	.....	3,580	217	1,920	87,600
May	.....	3,870	1,420	2,640	162,000
June	.....	2,530	926	1,690	101,000
July	.....	2,690	399	830	51,600
August	.....	420	315	385	23,700
September	.....	315	236	302	18,000
Water year 1903-04	.....	.....	.....	.....	446,805
1904-05					
October	.....	275	217	235	14,400
November 1-26	.....	217	131	183	9,440
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	.....	672	530	606	10,820
April	.....	1,372	311	549	18,510
May	.....	1,180	218	447	27,480
June	.....	1,180	279	485	16,600
July	.....	399	119	206	12,670
August	.....	137	60	97	5,964
September	.....	119	65	93.9	5,587
Water year 1904-05	.....	.....	.....	.....	121,471

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1905-06					
October	.....	150	70	119	7,317
November 1-26	.....	137	91	116	5,982
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,220	193	479	28,500
May	.....	231	175	193	11,900
June	.....	340	193	271	16,100
July	.....	270	119	175	10,800
August	.....	143	119	131	8,060
September	.....	166	136	147	8,750
Water year 1905-06	.....	.....	.....	.....	97,409
1906-07					
October	.....	150	136	144	8,850
November 1-19	.....	136	82	111	4,180
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 21-30	.....	.....	.....	860	17,100
May	.....	2,190	826	1,600	98,400
June	.....	805	263	507	30,200
July	.....	272	76	156	9,590
August	.....	80	36	54.3	3,340
September	.....	47	23	34.8	2,070
Water year 1906-07	.....	.....	.....	.....	173,730
1907-08					
October	.....	66	36	55.2	3,390
November	.....	.....	.....	38.0	2,260
December	.....	.....	.....	19.0	1,170
January	.....	.....	.....	6	369
February	.....	.....	.....	3	173
March	.....	.....	.....	3	184
April	.....	927	.....	375	22,300
May	.....	591	310	474	29,100
June	.....	486	136	224	13,300
July	.....	136	36	87.8	5,400
August	.....	66	36	52.1	3,200
September	.....	78	55	60.9	3,620
Water year 1907-08	.....	.....	.....	.....	84,466
1908-09					
October 1-10	.....	55	45	49.0	972
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June—13 days	.....	654	268	427	11,000
July 7-31	.....	164	73	113	5,600
August	.....	100	22	48.3	2,970
September	.....	32	22	27.7	1,650
Water year 1908-09	.....	.....	.....	.....	22,192

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1909-10					
October	.....	73	32	45.9	2,970
November 1-14	.....	67	38	51.9	1,440
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 15-31	.....	685	115	349	11,800
April	.....	250	147	166	9,880
May	.....	164	86	120	7,380
June	.....	100	7	60.4	3,590
July	.....	100	10	34.9	2,150
August	.....	10	3	6.87	422
September	.....	7	3	3.93	234
Water year 1909-10	.....	.....	.....	.....	39,866
1910-11					
October	.....	10	3	6.39	393
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	.....	900	450	641	11,400
April	.....	420	181	294	17,500
May	.....	520	133	231	14,200
June	.....	198	118	154	9,160
July	.....	110	15	49.2	3,030
August	.....	35	11	24.1	1,480
September	.....	17	1	5.7	339
Water year 1910-11	.....	.....	.....	.....	57,502
1911-12					
October	.....	35	2	19.6	1,210
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	.....	100	80	94.0	932
April	.....	195	130	158	9,400
May	.....	330	130	174	10,700
June	.....	288	71	148	8,810
July	.....	870	53	129	7,930
August	.....	274	10	85.5	5,260
September	.....	330	10	181	10,800
Water year 1911-12	.....	.....	.....	.....	55,042
1912-13					
October	.....	221	150	191	11,700
November 1-23	.....	300	150	202	9,220
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	3,850	.....	1,670	99,400
May	.....	850	330	529	32,600
June	.....	330	49	191	11,400
July	.....	159	66	106	6,520
August	.....	84	66	69.5	4,270
September	.....	66	57	61.8	3,680
Water year 1912-1913	.....	3,850	49	380.3	178,790

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1913-14					
October	.....	75	49	63.6	3,910
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	254	15,100
May	.....	241	160	195	12,000
June	.....	160	87	126	7,500
July	.....	87	22	48.4	2,980
August	.....	22	6	13.4	824
September	.....	22	6	12.9	768
Water year 1913-14	.....	241	6	101.5	43,082
1914-15					
October	.....	38	17	31.7	1,950
November	.....	29	.....	21.1	1,260
December	.....	.....	.....	9	553
January	.....	.....	.....	6	369
February	.....	.....	.....	5	278
March	.....	.....	.....	9	553
April	.....	154	25	45.7	2,720
May	.....	29	25	25.3	1,560
June	.....	29	22	24.6	1,470
July	.....	22	16	20.3	1,250
August	.....	16	5	8.7	535
September	.....	22	9	11.9	708
Water year 1914-15	.....	154	5	18.2	13,206

4700 c.f.s. Appr. at Mouth

No record 1916-18

1918-19					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	2,430	4	821	48,900
May	.....	469	290	377	23,200
June	.....	290	110	164	9,760
July	.....	110	41	87.0	5,350
August	.....	41	27	29.7	1,830
September	.....	74	18	34.4	2,050
Water year 1918-19	.....	2,430	4	251	91,090
1919-20					
October	.....	92	74	88.5	5,440
November	.....	.....	.....	65.0	3,870
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	300	.....	28.0	1,720
April	.....	361	50	178	10,600
May	.....	280	201	228	14,000
June	.....	182	95	149	8,870
July	.....	95	38	76.7	4,720
August	.....	38	10	17.6	1,080
September	.....	50	10	18.3	1,090
Water year 1919-20	.....	361	10	94.2	51,390

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1920-21					
October	.....	146	50	127	7,810
November	.....	.....	.....	95	5,650
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	112	.....	50	3,070
April	.....	733	129	358	21,300
May	.....	260	129	169	10,400
June	.....	146	77	96.6	5,750
July	.....	335	35	113	6,950
August	.....	35	9	18.8	1,160
September	.....	47	4.5	16.2	964
Water year 1920-21	.....	733	4.5	115.6	63,054
1921-22					
October	.....	146	62	106	6,520
November	.....	.....	.....	53.6	3,190
December	.....	.....	.....	30	1,840
January	.....	.....	.....	8	492
February	.....	.....	.....	4.5	250
March	.....	146	.....	40.9	2,510
April	.....	1,300	77	450	26,800
May	.....	733	165	243	14,900
June	.....	165	77	140	8,330
July	.....	62	18	26.5	1,630
August	.....	18	5	9.4	578
September	.....	77	5	38.5	2,290
Water year 1921-22	.....	1,300	5	95.7	69,330
1922-23					
October	.....	79	46	68.0	4,180
November	.....	79	65	73.9	4,400
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	3,120	17	1,150	68,400
May	.....	1,470	181	1,130	69,500
June	.....	711	121	315	18,700
July	.....	121	73	86.3	5,310
August	.....	104	73	89.2	5,480
September	.....	121	88	104	6,190
Water year 1922-23	.....	3,120	17	376.4	182,160
1923-24					
October	.....	121	104	114	7,010
November	.....	104	63	90.3	5,370
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 27-31	.....	30	13	24.6	244
April	.....	674	30	220	13,100
May	.....	259	117	157	9,650
June	.....	117	84	98.5	5,860
July	.....	84	30	50.0	3,320
August	.....	30	8	14.4	885
September	.....	100	3	20.5	1,220
Water year 1923-24	.....	674	3	94.5	46,659

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1924-25					
October	.....	194	100	169	10,400
November	.....	174	.....	106	6,310
December	.....	.....	.....	20	1,230
January	.....	.....	.....	2	123
February	.....	.....	.....	2	111
March	.....	2,350	.....	385	23,700
April	.....	960	257	420	25,000
May	.....	257	144	197	12,100
June	.....	400	144	253	15,100
July	.....	257	43	114	7,010
August	.....	43	4	19	1,170
September	.....	102	28	55.1	3,280
Water year 1924-25	.....	2,350	4	146	105,534
1925-26					
October	.....	188	102	143	8,790
November	.....	123	.....	67	3,990
December	.....	.....	.....	25	1,540
January	.....	.....	.....	12	738
February	.....	.....	.....	3	167
March	.....	280	.....	58.5	3,600
April	.....	191	110	145	8,630
May	.....	110	82	101	6,210
June	.....	208	48	96	5,710
July	.....	318	18	93	5,720
August	.....	18	13	13.3	818
September	.....	141	13	47.6	2,830
Water year 1925-26	.....	318	.....	67.3	48,743
1926-27					
October	.....	69	48	58.5	3,600
November	.....	.....	.....	43	2,560
December	.....	.....	.....	31	1,910
January	.....	.....	.....	15	922
February	.....	.....	.....	4	220
March	.....	.....	.....	281	17,300
April	.....	2,060	157	1,050	62,500
May	.....	3,050	542	1,160	71,300
June	.....	806	396	570	33,900
July	.....	542	208	303	18,600
August	.....	226	141	190	11,700
September	.....	229	208	273	16,200
Water year 1926-27	.....	3,050	.....	332	240,712
1927-28					
October	.....	292	156	230	14,100
November	.....	172	.....	123	7,320
December	.....	.....	.....	50	3,070
January	.....	.....	.....	40	2,460
February	.....	.....	.....	25	1,440
March	.....	1,270	.....	323	19,900
April	.....	674	222	357	21,200
May	.....	328	95	209	12,900
June	.....	292	109	181	10,800
July	.....	328	95	152	9,350
August	.....	95	40	59.4	3,650
September	.....	109	40	71.6	4,260
Water year 1927-28	.....	1,270	.....	152	110,450

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	132	114	122	7,500
November	.....	97	.....	44.8	2,670
December	.....	.....	.....	22.4	1,380
January	.....	.....	.....	12.0	738
February	.....	.....	.....	8.0	444
March	.....	750	.....	183	11,300
April	.....	350	132	220	13,100
May	.....	132	97	110	6,760
June	.....	114	30	79.4	4,720
July	.....	25	1.0	6.21	382
August	.....	5.5	2.5	3.86	237
September	.....	12	1.5	4.77	284
Water year 1928-29	.....	750	1.0	68.3	49,515
1929-30					
October	.....	47	25	19.0	1,170
November	.....	63	.....	45.8	2,730
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	2,900	1	928	55,200
May	.....	530	294	458	28,200
June	.....	294	168	216	12,900
July	.....	330	5.5	85.7	5,270
August	.....	.....	2.5	15.9	978
September	.....	28	2.5	11.9	708
Water year 1929-30	.....	2,900	1	221.4	107,156
1930-31					
October	.....	28	21	25.8	1,590
November	.....	22	3.0	11.2	666
December	.....	.....	.....	2.75	169
January	.....	.....	.....	7.17	441
February	.....	.....	.....	6.56	364
March	.....	291	6	45.2	2,780
April	.....	1,490	112	463	27,600
May	.....	145	46	103	6,330
June	.....	46	8.0	22.3	1,330
July	.....	21	5.0	10.8	664
August	.....	20	.5	2.07	127
September	.....	.5	.2	0.39	23
Water year 1930-31	.....	1,490	.2	58.0	42,084
1931-32					
October	.....	3.0	0.2	0.64	39
November	.....	8.0	2.6	4.92	293
December	.....	2.5	.2	1.04	64
January	.....	.....	.....	.13	8
February	.....	.....	0	3.4	196
March	.....	.....	.....	14.1	867
April	.....	1,170	57	423	25,200
May	.....	262	114	186	11,400
June	.....	114	36	71.2	4,240
July	.....	32	8.4	21.1	1,300
August	.....	14	1.6	6.10	375
September	.....	7.8	.3	1.84	109
Water year 1931-32	.....	1,170	0	60.7	44,091

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	29	0.1	7.53	463
November	.....	15	2.8	8.02	477
December	.....	.....	.....	2.71	167
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	496	0	17.9	1,100
April	.....	1,100	516	721	42,900
May	.....	1,420	385	573	35,200
June	.....	686	138	320	19,000
July	.....	140	41	74.5	4,580
August	.....	38	19	27.2	1,670
September	.....	41	18	28.9	1,720
Water year 1932-33	.....	1,420	0	148	107,277
1933-34					
October	.....	55	34	47.2	2,810
November	.....	38	17	24.1	1,440
December	.....	15	5.3	9.60	590
January	.....	5.1	4.6	4.74	292
February	.....	5.4	4.4	4.81	267
March	.....	188	4.6	75.2	4,630
April	.....	780	74	343	20,430
May	.....	224	91	154	9,440
June	.....	88	41	67.7	4,030
July	.....	40	4.6	19.9	1,220
August	.....	3.5	.4	1.37	84
September	.....	.6	0	.10	6.0
Water year 1933-34	.....	780	0	62.6	45,239
1934-35					
October	52.1	16	0	1.68	103
November	32.0	2.0	.7	1.07	63
December	2.6	.7	0	.08	5.2
January	0	0	0	0	0
February	0	0	0	0	0
March	391	130	0	12.6	776
April	4,324	342	63	144	8,580
May	1,990	78	44	64.2	3,950
June	3,245	364	53	108	6,440
July	1,934	116	22	62.4	3,840
August	729.1	51	7.4	23.5	1,450
September	445.9	24	9.0	14.9	884
Water year 1934-35	13,145.7	364	0	36.0	26,091.2
1935-36					
October	433.9	17	9.9	14.0	861
November	150.4	8.6	3.0	5.01	298
December	68.0	3.8	1.0	2.19	135
January	17.6	1.0	.1	.57	35
February	1.1	.2	0	.04	2.2
March	0	0	0	0	0
April	20,439.8	2,530	0	681	40,540
May	13,280	516	328	428	26,340
June	5,896	315	95	197	11,690
July	1,766	93	33	57.0	3,500
August	641	31	16	20.7	1,270
September	760	58	16	25.3	1,510
Water year 1935-36	43,453.8	2,530	0	119	86,181.2

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	438.6	19	8.2	14.1	870
November	212.4	9.4	5.2	7.08	421
December	109.5	5.8	1.8	3.53	217
January	17.2	1.6	0	.55	34
February	0	0	0	0	0
March	0	0	0	0	0
April	3,362	213	0	112	6,670
May	2,320	181	44	74.8	4,600
June	1,966	213	23	65.5	3,900
July	442.6	21	7.8	14.3	878
August	386.8	52	.6	12.5	767
September	12.1	1.7	.1	.40	24
Water year 1936-37	9,267.2	213	0	25.4	18,381
1937-38					
October	25.2	5.1	0.1	0.81	50
November	10.9	.8	.2	.36	22
December	5.2	.2	.1	.17	10
January	0	0	0	0	0
February	0	0	0	0	0
March	5,561	630	0	179	11,030
April	3,030	154	64	101	6,010
May	2,428	103	55	78.3	4,820
June	1,099	54	22	36.6	2,180
July	386.2	22	.8	12.5	766
August	1.6	.8	0	.05	3.2
September	0	0	0	0	0
Water year 1937-38	12,547.1	630	0	34.4	24,891.2
1938-39					
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	740	50	4	24.7	1,470
May	364.3	22	6.0	11.8	723
June	322.6	27	4.1	10.8	640
July	18.7	5.0	0	.60	37
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1938-39	1,445.6	50	0	3.96	2,870
1939-40					
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	2,820	730	0	94.0	5,590
May	1,099	87	16	35.5	2,180
June	196.8	16	0	6.56	390
July	0	0	0	0	0
August	218.8	36	0	7.06	434
September	0	0	0	0	0
Water year 1939-40	4,334.6	730	0	11.8	8,594

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	29,872.7	2,830	.....	996	59,250
May	11,921	556	224	385	23,640
June	5,236	252	101	175	10,390
July	1,913	136	39	61.7	3,790
August	872	38	23	28.1	1,730
September	4,037	450	24	135	8,000
Water year 1940-41	53,851.7	2,830	.....	148	106,800
1941-42					
October	3,776	314	64	122	7,490
November	1,554	80	22	51.8	3,080
December	814	39	12	26.3	1,610
January	109.3	8.5	1.6	3.53	217
February	30.4	1.6	.8	1.09	60
March	1,418.0	480	1.6	45.7	2 810
April	57,015	3,430	75	1,900	113,100
May	30,289	1,430	671	977	60,080
June	10,949	648	224	365	21,720
July	4,006	213	87	129	7,950
August	3,103	289	68	100	6,150
September	2,053	117	56	68.4	4,070
Water year 1941-42	115,116.7	3,430	.8	315	228,300
1942-43					
October	1,568	60	34	50.6	3,110
November	1,017	50	23	33.9	2,020
December	294.7	20	6.5	9.51	585
January	201.8	11	.....	6.51	400
February	152.7	7.5	.....	5.45	303
March	4,809.5	1,100	3.4	155	9,540
April	15,018	750	343	501	29,790
May	9,358	374	241	302	18,560
June	9,442	964	168	315	18,730
July	7,021	736	114	226	13,930
August	6,414	230	.....	207	12,720
September	5,426	234	140	181	10,760
Water year 1942-43	60,722.7	1,100	3.4	166	120,400
1943-44					
October	3,810	140	100	123	7,560
November	2,161	100	54	72	4,290
December	1,232	56	20	39.7	2,440
January	228.5	20	4.2	7.37	453
February	105.8	5	2.6	3.65	210
March	115.9	5.1	3.4	3.74	230
April	8,216.2	750	4.2	274	16,300
May	6,315	343	175	204	12,530
June	7,655	300	234	255	15,180
July	17,478	1,050	255	564	34,670
August	25,138	1,200	500	811	49,860
September	13,889	791	282	463	27,550
Water year 1943-44	86,344.4	1,200	2.6	236	171,300

RED RIVER AT EMERSON, MANITOBA

Location: Chain gage, lat. 49°00'30", long. 97°13'00", on Canadian National Railway's bridge in Emerson.

Drainage Area: 40,200 square miles (includes 3,940 square miles of closed Devils Lake Basin.)

Records Available: March to November 1902 and May 1912 to September 1944.

Average discharge: 31 years (1913-1944) 2,092 second-feet.

Extremes: Maximum daily discharge 46,200 second feet Apr. 24, 1916. Minimum observed .9 second foot, Feb. 6-8 1937

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1925-26					
October	.....	1,320	629	936	57,549
November	.....	990	755	889	52,897
December	.....	740	532	657	40,396
January	.....	525	446	467	28,714
February	.....	562	494	519	28,823
March	.....	7,800	569	1,690	103,910
April	.....	8,000	1,980	5,220	310,601
May	.....	1,830	901	1,340	82,391
June	.....	6,940	1,310	2,570	152,720
July	.....	6,310	593	2,110	129,734
August	.....	901	257	486	29,882
September	.....	576	237	452	26,895
Water year 1925-26	.....	8,000	237	1,445	1,044,712
1926-27					
October	.....	1,130	523	973	59,825
November	.....	1,100	524	816	48,554
December	.....	542	454	493	30,312
January	.....	460	371	416	25,578
February	.....	413	366	391	21,714
March	.....	7,740	414	2,010	123,586
April	.....	16,500	8,240	13,100	779,476
May	.....	20,500	7,540	14,700	903,835
June	.....	16,200	5,300	8,720	518,858
July	.....	5,040	2,130	3,310	203,517
August	.....	2,100	1,310	1,590	97,762
September	.....	1,580	1,390	1,480	88,063
Water year 1926-27	.....	20,500	366	4,010	2,901,080
1927-28					
October	.....	1,470	1,310	1,370	84,235
November	.....	1,400	765	1,100	65,452
December	.....	973	605	804	49,434
January	.....	632	578	603	37,076
February	.....	712	634	671	38,595
March	.....	8,800	715	1,670	102,681
April	.....	16,800	2,990	7,580	451,025
May	.....	3,380	2,250	2,850	175,234
June	.....	6,100	1,960	3,300	196,357
July	.....	5,750	3,110	4,530	278,529
August	.....	2,940	1,380	1,920	118,052
September	.....	2,960	1,780	2,420	143,995
Water year 1927-28	.....	16,800	578	2,400	1,740,665

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	2,200	1,650	1,820	111,904
November	.....	1,930	1,020	1,600	95,203
December	.....	1,220	965	1,090	67,019
January	.....	1,150	954	1,050	64,560
February	.....	948	845	884	49,093
March	.....	16,000	850	5,300	325,873
April	.....	19,200	3,320	6,780	403,424
May	.....	3,230	2,280	2,650	162,936
June	.....	2,460	990	1,700	101,153
July	.....	958	589	754	46,360
August	.....	537	343	424	26,070
September	.....	350	298	323	19,219
Water year 1928-29	.....	19,200	298	2,030	1,472,814
1929-30					
October	.....	539	361	453	27,900
November	.....	592	235	479	28,500
December	.....	342	236	294	18,100
January	.....	240	175	200	12,300
February	.....	200	169	179	9,940
March	.....	5,280	300	2,520	155,000
April	.....	20,800	2,480	8,990	535,000
May	.....	10,000	2,350	5,160	317,000
June	.....	3,340	1,280	1,920	114,000
July	.....	1,380	595	1,060	65,200
August	.....	560	230	363	22,300
September	.....	298	170	215	12,800
Water year 1929-30	.....	20,800	169	1,820	1,320,000
1930-31					
October	.....	420	154	232	14,300
November	.....	350	210	267	15,900
December	.....	287	191	236	14,500
January	.....	245	125	176	10,800
February	.....	287	152	200	11,100
March	.....	2,140	280	960	59,000
April	.....	7,940	1,140	3,380	201,000
May	.....	1,090	742	881	54,200
June	.....	1,030	377	660	39,300
July	.....	618	201	356	21,900
August	.....	234	99	158	9,720
September	.....	110	55	81	4,820
Water year 1930-31	.....	7,940	55	631	457,000
1931-32					
October	.....	176	37	84.8	5,210
November	.....	265	164	221	13,200
December	.....	228	160	187	11,500
January	.....	174	153	166	10,200
February	.....	217	123	138	7,940
March	.....	2,730	291	1,360	83,600
April	.....	18,900	870	7,810	465,000
May	.....	2,630	856	1,930	119,000
June	.....	847	377	586	34,900
July	.....	400	133	256	15,700
August	.....	126	26	62.5	3,840
September	.....	57	24	40	2,380
Water year 1931-32	.....	18,900	24	1,060	772,000

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1932-33					
October	1,428.4	78	25.4	46.1	2,830
November	3,641	143	80	121	7,200
December	2,760	115	62	89	5,470
January	1,675	62	44	54	3,320
February	1,381.7	73	42.7	49.3	2,740
March	34,402	3,200	75	1,110	68,300
April	175,180	11,000	2,600	5,840	348,000
May	47,980	2,330	1,110	1,550	95,300
June	30,780	2,110	424	1,030	61,300
July	7,855	409	133	253	15,600
August	2,265	120	39	73	4,490
September	1,378	72	25	45.9	2,730
Water year 1932-33	310,726.1	1,100	25	851	617,000
1933-34					
October	1,512	70	37	48.8	3,000
November	2,545	115	59	85	5,060
December	1,432.6	78	26.9	46.2	2,840
January	1,682.9	70	29.6	54	3,320
February	912.9	47	23.8	32.6	1,810
March	15,246	1,240	50	492	30,300
April	65,343	4,800	560	2,180	130,000
May	20,541	1,130	296	663	40,800
June	5,883	290	126	196	11,700
July	4,285	196	92	138	8,490
August	1,445.8	83	22.7	46.6	2,870
September	712.6	29	20.4	23.8	1,420
Water year 1933-34	121,541.8	4,800	20.4	333	242,000
1934-35					
October	1,459.2	98	20	47.1	2,890
November	2,317	97	56	77	4,600
December	1,292.2	63	15	41.7	2,560
January	437.2	17.1	12	14.1	867
February	754.7	36	18	27	1,500
March	23,219.9	5,390	28	749	46,060
April	99,750	5,470	1,620	3,330	197,900
May	36,366	1,720	698	1,170	72,130
June	13,146	638	274	438	26,080
July	33,545	1,750	397	1,080	66,540
August	15,936	1,200	297	514	31 610
September	8,062	483	142	269	15,990
Water year 1934-35	236,285.2	5,470	12	647	468,700
1935-36					
October	3,622	142	102	117	7,180
November	2,334	110	57	78	4,630
December	1,834	64	55	59	3,640
January	1,760	64	48	57	3,490
February	1,565	64	45	54	3,100
March	1,805	72	48	58	3,580
April	202,165	18,000	63	6,740	401,000
May	80,670	5,590	1,310	2,600	160,000
June	17,498	1,180	200	583	34,710
July	3,738	180	81	121	7,410
August	2,457	97	70	79	4,870
September	2,005.6	114	29.2	67	3,980
Water year 1935-36	321,453.6	18,000	29.2	878	637,600

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	887.8	36.4	23.5	28.6	1,760
November	712.3	31	19	23.7	1,410
December	1,037.4	70	17	33.5	2,060
January	219.7	42.2	1.2	7.1	436
February	34	1.6	.9	1.2	67
March	69.9	11	1.1	2.3	139
April	60,753	4,320	15	2,030	120,500
May	90,011	5,840	896	2,900	178,500
June	31,773	1,680	560	1,060	63,020
July	25,742	1,910	355	830	51,060
August	48,516	2,620	822	1,570	96,230
September	24,549	941	617	818	48,690
Water year 1936-37	284,305.1	5,840	.9	779	563,900
1937-38					
October	12,452	590	244	402	24,700
November	8,423	355	160	281	16,710
December	2,245.6	130	48	72	4,450
January	1,651.4	84	34	53	3,280
February	2,124	96	60	76	4,210
March	45,036	6,270	96	1,450	89,330
April	38,459	3,310	768	1,280	76,280
May	150,955	7,530	943	4,870	299,400
June	77,510	4,330	1,260	2,580	153,700
July	26,498	1,150	441	855	52,560
August	6,743	414	124	218	13,370
September	5,802	327	138	193	11,510
Water year 1937-38	377,899	7,530	34	1,040	749,500
1938-39					
October	6,193	250	166	200	12,280
November	6,217	300	148	207	12,330
December	5,638	215	136	182	11,180
January	6,126	270	156	198	12,150
February	7,151	287	212	255	14,180
March	8,056	499	204	260	15,980
April	111,525	6,700	555	3,720	221,200
May	36,986	2,460	647	1,190	73,360
June	19,760	878	520	659	39,190
July	17,541	766	275	566	34,790
August	5,814	260	118	188	11,530
September	6,908	331	123	230	13,700
Water year 1938-39	237,915	6,700	118	652	471,900
1939-40					
October	11,068	427	285	357	21,950
November	11,535	504	228	384	22,880
December	8,618	334	143	278	17,090
January	4,193	180	95	135	8,320
February	4,299	183	115	148	8,530
March	6,950	265	180	224	13,790
April	152,536	14,600	235	5,085	302,600
May	69,180	3,300	1,590	2,232	137,200
June	31,590	1,540	566	1,053	62,660
July	11,074	551	250	357	21,960
August	7,907	356	164	255	15,680
September	5,604	305	118	187	11,120
Water year 1939-40	324,554	14,600	95	887	643,800

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1940-41					
October	7,318	305	188	236	14,520
November	11,772	506	270	392	23,350
December	9,175	347	250	296	18,200
January	9,672	362	265	312	19,180
February	9,743	362	334	348	19,320
March	11,213	426	303	362	22,240
April	409,451	27,800	416	13,600	812,100
May	96,710	5,260	1,480	3,120	191,800
June	158,530	10,900	1,230	5,280	314,400
July	44,213	3,140	592	1,430	87,700
August	23,416	1,320	320	755	46,440
September	55,593	4,650	616	1,850	110,300
Water year 1940-41	846,806	27,800	188	2,320	1,680,000
1941-42					
October	95,020	4,920	1,740	3,070	188,500
November	41,670	1,730	1,050	1,390	82,650
December	27,514	1,210	707	888	54,570
January	17,519	711	472	565	34,750
February	17,784	665	588	635	35,270
March	60,832	8,280	616	1,960	120,700
April	495,950	27,900	5,800	16,500	983,700
May	277,960	14,000	5,360	8,970	551,300
June	125,610	5,170	2,370	4,190	249,100
July	56,090	2,300	1,480	1,810	111,300
August	38,886	1,870	950	1,250	77,130
September	93,310	4,810	1,480	3,110	185,100
Water year 1941-42	1,348,145	27,900	472	3,690	2,674,000
1942-43					
October	50,930	2,160	1,290	1,640	101,000
November	34,041	1,370	743	1,130	67,520
December	24,024	866	694	775	47,650
January	24,728	834	740	798	49,050
February	19,591	754	582	700	38,860
March	37,416	6,400	589	1,210	74,210
April	693,990	29,500	6,590	23,100	1,377,000
May	225,010	13,500	5,560	7,260	446,300
June	373,230	16,200	7,790	12,400	740,300
July	201,400	9,090	3,280	6,500	399,500
August	80,110	3,750	1,920	2,580	158,900
September	54,530	2,080	1,550	1,820	108,200
Water year 1942-43	1,819,000	29,500	582	4,980	3,608,490
1943-44					
October	45,650	1,590	1,380	1,470	90,550
November	42,950	1,730	1,240	1,430	85,190
December	28,709	1,220	657	926	56,940
January	20,540	702	627	663	40,740
February	21,347	780	687	736	42,340
March	23,802	935	678	768	47,210
April	131,157	12,300	977	4,370	260,100
May	118,570	4,900	3,100	3,820	235,200
June	205,090	10,400	4,600	6,840	406,800
July	211,510	10,000	4,710	6,820	419,500
August	186,070	10,600	3,860	6,000	369,100
September	177,520	10,600	3,540	5,920	352,100
Water year 1943-44	1,212,915	12,300	627	3,310	2,406,000

SOURIS RIVER NEAR SHERWOOD, NORTH DAKOTA

Location: In NE¼ of Sec. 33, T. 164 N., Range 87 W., about 16 miles northwest of Sherwood, North Dakota and ¾ miles south of International boundary; can be reached by driving west on county road that passes on the north side of Sherwood until the Souris River is crossed on Stafford bridge, then turn north and follow up the river road about 1½ miles to the William Harkness farm.

Drainage Area: 9,570 square miles.

Records available: March 1930 to September 1944

Average discharge 10 years 71.5 second-feet

Extremes: Maximum discharge 5,320 second-feet April 12, 1943. No flow for periods in most years.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 11-31	.....	601	98	366	15,200
April	.....	817	130	460	27,400
May	.....	130	49	90.2	5,550
June	.....	46	18	31.7	1,890
July	.....	26	7.3	13.6	836
August	.....	6.6	.3	2.72	167
September	.....	.2	.....	.02	1.2
Water year 1929-30	.....	.....	.....	.....	51,044.2
1930-31					
October	.....	2.1	.....	1.48	91
November 1-22	.....	1.4	.6	1.15	50
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 2-30	.....	18	3.6	12.4	713
May	.....	16	3.8	8.71	536
June	.....	3.5	.....	1.06	63
July	.....	.3	.....	.06	4
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1930-31	.....	.....	.....	.....	1,457
1931-32					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 13-31	.....	14	.2	4.09	154
April	.....	90	13	50.6	3,010
May	.....	55	3.9	16.1	990
June	.....	58	2	16.1	958
July	.....	62	.2	9.74	599
August	.....	6.2	.....	1.25	77
September	.....	.....	.....	.....	.....
Water year 1931-32	.....	.....	.....	.....	5,788

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February 26-28	.....	23	3.0	15.7	93
March	.....	13.50	6.0	247	15,200
April	.....	1,140	58	224	13,300
May	.....	563	23	75.8	4,660
June	.....	1,000	49	341	20,300
July	.....	49	3.6	20.0	1,230
August	.....	17	0.7	5.40	332
September	.....	1.0	0.6	0.75	45
Water year 1932-33	.....	.....	.....	.....	55,160
1933-34					
October	.....	2.6	0.8	1.53	94
November 1-22	.....	2.0	1.0	1.71	75
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February 14-28	.....	128	9.8	46.9	1,390
March	.....	344	81	195	12,000
April	.....	155	32	89.3	5,310
May	.....	32	6.0	14.9	918
June	.....	5.8	2.2	3.61	215
July	.....	2.2	.2	1.36	84
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1933-34	.....	.....	.....	.....	20,086
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	79.0	37	.....	2.55	157
April	1,456.9	165	1.0	48.6	2,890
May	1,375	85	15	44.4	2,730
June	429.8	20	5.9	14.3	852
July	995.2	140	5.3	32.1	1,970
August	84.3	4.8	.8	2.72	167
September	7.9	.7	0	.26	16
Water year 1934-35	4,428.1	165	0	12.1	8,782
1935-36					
October	4.3	0.5	.....	0.14	9
November	4.9	.4	.....	.16	10
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	18,054	1,270	.....	602	35,810
May	5,446	419	59	176	10,800
June	677.3	54	5.4	22.6	1,340
July	51.4	5.4	.....	1.66	102
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1935-36	24,237.9	1,270	.....	66.2	48,071

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	439.7	118	.....	14.7	872
May	112.3	10	1.1	3.62	223
June	16.9	1.6	.....	.56	34
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	568.9	118	.....	1.56	1,129
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	12,642	1,030	.....	408	25,080
April	3,875	452	32	129	7,690
May	1,222	60	22	39.4	2,420
June	241.2	22	2.5	8.04	478
July	63.4	5.2	.8	2.05	126
August	9.5	.8	.....	.31	19
September	.....	.....	.....	.....	.....
Water year 1937-38	18,053.1	1,030	0	49.5	35,813
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	16,790	2,460	.....	542	33,300
April	16,815	1,920	72	560	33,350
May	1,100	68	15	35.5	2,180
June	291.1	19	5.2	9.70	577
July	366.9	53	3.9	11.8	728
August	57.8	4.9	.2	1.86	115
September	1.4	.2	.....	.05	3
Water year 1938-39	35,422.2	2,460	.....	97.0	70,250
1939-40					
October	2.4	0.2	.....	.08	5
November	8.9	.....	.....	.30	18
December	3.1	.....	.....	.1	6
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1.1	.....	.....	.04	2
April	457.5	75	.1	15.2	907
May	380.6	22	5.6	12.3	755
June	90.9	10	.4	3.03	180
July	3.7	.3	.....	.12	7
August	13.8	1.6	.....	.45	27
September	1.0	.....	.....	.03	2
Water Year 1939-40	963.0	75	.....	2.63	1,909

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1940-41					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	29.0	24	.....	0.94	58
April	12,960	1,020	16	432	25,710
May	3,103	194	47	100	6,150
June	1,306	69	26	43.5	2,590
July	362.5	25	4.8	11.7	719
August	121.2	11	1.1	3.91	240
September	40.1	3.7	.5	1.34	80
Water Year 1940-41	17,921.8	1,020	.....	49.1	35,550
1941-42					
October	39.2	3.4	.5	1.26	78
November	117.5	5.2	2.3	3.92	233
December	91.7	5.8	.7	2.96	182
January	6.0	.7	.1	.19	12
February	1.9	.1	.....	.07	4
March	3,278.7	340	.....	106	6,500
April	20,494	1,700	150	683	40,650
May	4,418	245	70	143	8,760
June	1,627	134	26	54.2	3,230
July	997	.....	.....	32.2	1,980
August	633.4	38	9.7	20.4	1,260
September	295.5	16	6.9	9.85	5,860
Water Year 1941-42	31,999.9	1,700	.....	87.7	68,750
1942-43					
October	200.2	9.7	4.0	6.46	397
November	182.6	7.5	3.2	6.09	362
December	85.8	3.6	2.0	2.77	170
January	86.4	.....	.....	2.79	171
February	35.6	.....	.....	1.27	71
March	1,562	750	.....	50.4	3,100
April	82,846	5,320	564	2,761	164,300
May	10,438	540	182	337	20,700
June	5,160	217	147	172	10,230
July	2,681	152	37	86.5	5,320
August	802	38	16	25.9	1,590
September	503.5	35	8.1	16.8	999
Water Year 1942-43	104,583.1	5,320	.....	287	207,400
1943-44					
October	189.4	8.4	4	6.11	376
November	208.3	8.3	5.8	6.94	413
December	188	8	4.6	6.06	373
January	119.9	4.6	2.7	3.87	238
February	105	3.8	3.2	3.62	208
March	113.1	4.7	3.4	3.65	224
April	1,959.7	140	3.6	65.3	3,890
May	1,002	49	22	32.3	1,990
June	4,773	630	21	159	9,470
July	11,246	1,240	56	363	22,310
August	2,001	77	54	64.5	39,070
September	1,027.7	57	9.7	34.3	2,040
Water year 1943-44	22,933.1	1,240	2.7	62.7	45,500

SOURIS RIVER NEAR FOXHOLM, NORTH DAKOTA

Location: Water stage recorder and artificial control, lat. 48°22', long. 101°30', in SW¼SE¼ sec. 34, T. 157N., R. 84W., 3 miles east of Foxholm.

Drainage Area: 10,100 square miles.

Records Available: June 1904 to November 1905, April 1937 to September 1944.

Extremes: Maximum discharge 2,990 second-feet April 25, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	4.9	.3	.....	.16	10
May	458.0	201	.....	14.8	908
June	109.2	4.7	2.1	3.64	217
July	38.0	4.0	.....	1.23	75
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water Year 1936-37	610.1	.....	.....	.....	1210
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	369	184	.....	11.9	732
April	2,886.9	418	.1	96.2	5,730
May	11.9	2.2	.....	.38	24
June	50.4	12	.....	1.68	100
July	392.4	49	.....	12.7	778
August	1,139	43	29	36.7	2,260
September	1,395	92	29	46.5	2,770
Water Year 1937-38	•6,244.6	418	.....	17.1	12,394
1938-39					
October	900.3	92	.....	29.0	1,790
November	57.1	16	.2	1.90	113
December	53.4	7.7	.6	1.72	106
January	17.5	.7	.....	.56	35
February	11.2	.....	.....	.40	22
March	454.0	110	.....	14.6	900
April	10,893.2	656	1.0	363	21,600
May	5.5	.8	.....	.18	11
June	221.5	35	.1	7.38	439
July	2.4	.3	.....	.08	5
August	.5	.3	.....	.02	1
September	7.3	.7	.....	.24	14
Water Year 1938-39	12,623.9	656	0	34.6	25,040

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	2,768.7	497	0.1	89.3	5,490
November	15.0	.....	.....	.5	30
December	12.1	.....	.....	.4	25
January	6.2	.....	.....	.2	12
February	8.7	.....	.....	.3	17
March	18.1	.7	.....	.584	36
April	2,808.6	246	.6	93.6	5,570
May	109.6	17	.1	3.5	217
June	24.7	3.0	.....	8.2	49
July	1,263.6	137	.2	40.8	2,510
August	1,747.2	154	1.0	56.4	3,470
September	37.9	2.0	.7	1.26	75
Water Year 1939-40	8,820.7	497	.....	24.1	17,501
1940-41					
October	45.7	12	0.3	1.47	91
November	6.1	.4	.1	.20	12
December	3.1	.....	.....	.10	6
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	2.4	.6	.....	.08	5
April	4,051.2	458	.....	135	8,040
May	56.9	1.4	.3	1.84	113
June	21.3	1.7	.....	.71	42
July	29.1	1.8	.1	.94	58
August	65.8	14	.1	2.12	131
September	3.2	.6	.....	.11	6
Water Year 1940-41	4,284.8	458	.....	11.7	8,500
1941-42					
October	643.2	62	0	20.7	1,280
November	390.2	49	2	13	774
December	38	.....	.....	1.23	75
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	19.9	14	●	.66	39
July	.8	.4	0	.03	2
August	1.1	.4	0	.04	2
September	144.3	28	0	481	286
Water Year 1941-42	1,237.5	62	0	3.39	2,460
1942-43					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	299.4	56	0	9.66	594
April	54,556	2,790	123	1,819	108,200
May	28,358	2,070	411	915	56,250
June	13,567	526	425	452	26,910
July	7,515	125	97	242	14,910
August	2,300.6	230	0	74.2	4,560
September	203.6	72	0	6.79	404
Water Year 1942-43	106,709.6	2,790	0	293	211,800

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	2.1	.1	.....	.07	4.2
November	1.1	.1	.....	.04	2.2
December	736.2	154	.....	23.7	1,460
January	4,335	157	130	140	8,600
February	3,490	130	80	120	6,920
March	2,535	85	80	81.8	5,030
April	1,965.1	196	.....	65.5	3,900
May	322.8	41	.....	10.4	640
June	917.5	37	.....	30.6	1,820
July	971.2	97	.....	31.3	1,930
August	3,472	120	97	111	6,800
September	3,000	110	95	100	5,950
Water year 1943-44	21,703	196	.....	59.3	43,060

DES LACS RIVER NEAR FOXHOLM, NORTH DAKOTA

Location: At the highway bridge at Foxholm, North Dakota.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1903-04					
October					
November					
December					
January					
February					
March					
April					
May					
June 23-30		41	34	38.1	605
July		32	16	23.3	1,433
August		15.3	3	8.8	540
September		6.6	3	4.9	290
Water Year 1903-04					2,868
1904-05					
October		9	3.5	7.8	477
November 1-24		6	2	3.6	173
December					
January					
February					
March 18 days		37	7	17.3	618
April		6.5	2.5	3.9	232
May		5	2.5	3.1	191
June		8	1	3.1	184
July		40	.5	4.8	295
August		250	2	16.5	1,014
September		1.5	1	1.0	60
Water Year 1904-05					3,244
1905-06					
October		1	1	1.0	61
November		3	1	2.0	119
December 1-16		2	2	2.0	64
January					
February					
March 25-31		265	19	118	1,640
April		355	7.0	59.6	3,550
May		38	2.4	13.6	836
June		41	2.4	19.8	1,180
July		2.4	0.9	1.1	68
August					
September					
Water Year 1905-06					7,518

SOURIS RIVER ABOVE MINOT, NORTH DAKOTA

Location: Water stage recorder and concrete control, lat. 48°14′ 45″, long. 101°22′15″ near center of sec. 17. T. 155 N., R. 83W, 3½ miles west of Minot.

Drainage Area: 11,300 square miles.

Records Available: May 1903 to March 1924, April 1927 to September 1928, October 1929 to September 1934, at site at Minot, 10 miles downstream and October 1934 to September 1944 at present site.

Average discharge 31 years (1913-44) 116 second-feet.

Extremes: Maximum discharge 12,000 second-feet April 20, 1904 from rating curve extended above 8,100 second-feet.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1902-03					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May 5-31	.....	347	191	251	13,442
June	.....	599	191	324	19,279
July	.....	401	178	271	16,663
August	.....	248	165	186	11,437
September	.....	1,134	178	695	41,355
Water year 1902-03	.....	.....	.....	.....	102,176
1903-04					
October	.....	509	205	293	18,016
November 1-9	.....	191	178	188	3,356
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	427	152	258	15,900
August	.....	152	108	114	7,010
September	.....	108	68	81.7	4,860
Water year 1903-04	.....	.....	.....	.....	49,142
1904-05					
October	.....	87	68	71.8	4,410
November 1-25	.....	87	50	643	3,190
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 5-31	.....	112	85	103	5,516
April	.....	85	40	68.8	4,094
May	.....	130	40	69.3	4,261
June	.....	121	76	104	6,188
July	.....	112	67	87.9	5,405
August	.....	112	40	75.1	4,618
September	.....	94	4	31.3	1,862
Water year 1904-05	.....	.....	.....	.....	39,544

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1905-06					
October	.....	22	4	13.9	855
November 1-28	.....	40	22	28.4	1,577
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	1,320	240	454	27,000
May	.....	218	108	159	9,780
June	.....	499	286	401	23,900
July	.....	286	130	214	13,200
August	.....	130	31	61.9	3,810
September	.....	31	18	26.2	1,560
Water year 1905-06	.....	.....	.....	.....	81,682
1906-07					
October	.....	18	8	16.1	990
November 1-18	.....	18	18	18.0	643
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	621	35	183	10,900
May	.....	2,190	707	1,500	92,200
June	.....	2,100	268	820	48,800
July	.....	885	243	470	28,900
August	.....	219	52	104	6,400
September	.....	52	20	36.2	2,150
Water year 1906-07	.....	.....	.....	.....	190,983
1907-08					
October	.....	.....	.....	20	1,230
November	.....	.....	.....	16	952
December	.....	.....	.....	11	676
January	.....	.....	.....	8	492
February	.....	.....	.....	6	345
March	.....	.....	.....	20	1,230
April	.....	644	174	311	18,500
May	.....	163	109	136	8,360
June	.....	407	152	239	14,200
July	.....	174	99	125	7,690
August	.....	120	80	94.1	5,790
September	.....	89	28	63.0	3,750
Water year 1907-08	.....	.....	.....	.....	63,250
1908-09					
October	.....	35	15	23.1	1,420
November	.....	35	.....	30	1,790
December	.....	.....	.....	15	922
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 21-30	.....	546	243	411	8,970
April	.....	1,080	436	727	43,300
May	.....	422	231	289	17,800
June	.....	546	174	322	19,200
July	.....	163	29	82.1	5,050
August	.....	70	11	37.7	2,320
September	.....	52	.5	15.5	922
Water year 1908-09	.....	.....	.....	.....	101,694

Month	Second Foot Days	Maximum	Minimum	Mean	Runoff in Acre-Feet
1909-10					
October	.....	.57	.5	.509	31
November	.....	.57	.5	.507	30
December	.....	.....	.....	.....	.....
January	.....	.....	.....	0.5	31
February	.....	.....	.....	.5	28
March	.....	196	.....	127	7,810
April	.....	207	141	171	10,200
May	.....	141	79	110	6,960
June	.....	70	28	46.6	2,770
July	.....	38	10	21.9	1,350
August	.....	7	.3	2.13	131
September	.....	6	.2	.40	24
Water year 1909-10	.....	.....	.....	.....	29,365
1910-11					
October	.....	.6	.5	.52	32
November	.....	.7	.5	.57	34
December	.....	.....	.....	.5	31
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 19-31	.....	14	2.6	6.80	175
April	.....	744	14	339	20,200
May	.....	722	146	449	27,600
June	.....	214	55	138	8,210
July	.....	64	14	34.1	2,100
August	.....	24	3.6	15.6	959
September	.....	4.4	.7	2.27	135
Water year 1910-11	.....	.....	.....	.....	59,476
1911-12					
October	.....	7.6	.7	2.55	157
November	.....	18	.....	10.1	601
December	.....	.....	.....	2	123
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 24-31	.....	450	13	173	2,750
April	.....	1,200	306	695	41,400
May	.....	983	235	511	31,400
June	.....	498	69	239	14,200
July	.....	69	60	66.7	4,100
August	.....	60	30	42.7	2,630
September	.....	52	24	33.5	1,990
Water year 1911-12	.....	.....	.....	.....	99,351
1912-13					
October	.....	69	24	48.0	2,950
November	.....	69	30	42.3	2,520
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	59	3,620
April	.....	1,080	266	795	47,300
May	.....	266	90	144	8,880
June	.....	90	23	30.4	1,800
July	.....	174	17	74.9	4,610
August	.....	125	68	87.3	5,370
September	.....	79	5.6	20.6	1,220
Water year 1912-13	.....	.....	.....	.....	78,270

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1913-14					
October	.....	5.6	2.5	3.17	195
November	.....	47	3	24.5	1,460
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	665	.....	186	11,400
April	.....	1,080	266	646	38,400
May	.....	293	150	227	14,000
June	.....	482	137	265	15,800
July	.....	200	9	47.8	2,940
August	.....	9	2	5.10	314
September	.....	6.5	1.8	4.07	242
Water year 1913-14	.....	.....	.....	.....	84,751
1914-15					
October	.....	1.8	1.4	1.6	98
November	.....	3.8	1.8	2.87	171
December	.....	.....	.....	1.0	62
January	.....	.....	.....	1.0	61
February	.....	.....	.....	1.0	56
March	.....	.....	.....	3.0	184
April	.....	27	8	20.9	1,240
May	.....	27	14.5	19.8	1,220
June	.....	41	12	20.6	1,230
July	.....	17	12	14.9	916
August	.....	17	8	12.1	744
September	.....	8	6.5	7.05	420
Water year 1914-15	.....	41	.....	8.9	6,401
1915-16					
October	.....	5.0	1.0	1.87	115
November	.....	1.0	.8	.93	55
December	.....	.....	.....	.60	37
January	.....	.....	.....	.60	37
February	.....	.....	.....	1.50	86
March	.....	.....	.....	6.0	369
April	.....	3,010	150	1,440	85,700
May	.....	4,200	482	2,000	123,000
June	.....	455	239	336	20,000
July	.....	320	92	205	12,600
August	.....	137	33	58.0	3,570
September	.....	33	23	26.3	1,560
Water year 1915-16	.....	4,200	.....	340	247,129
1916-17					
October	.....	29	23	25.3	1,560
November	.....	.....	.....	31.6	1,880
December	.....	.....	.....	22.2	1,360
January	.....	.....	.....	12.5	766
February	.....	.....	.....	5.4	299
March	.....	.....	.....	74.1	4,560
April	.....	1,280	452	912	54,300
May	.....	1,250	253	801	49,200
June	.....	253	113	196	11,600
July	.....	113	24	63.8	3,920
August	.....	24	.8	12.9	793
September	.....	.8	.3	.5	30
Water year 1916-17	.....	1,280	.3	180	130,268

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1917-18					
October	.....	.....	.....	5.24	322
November	.....	.....	.....	31.8	1,890
December	.....	.....	.....	15.3	941
January	.....	.....	.....	5.87	361
February	.....	.....	.....	13.2	733
March	.....	790	.....	258	15,900
April	.....	750	96	241	14,300
May	.....	296	4.4	97.6	6,000
June	.....	68	3.2	23.8	1,420
July	.....	7.0	1.6	3.82	235
August	.....	11.0	2.4	5.55	341
September	.....	16.0	7.0	12.7	756
Water year 1917-18..	.....	.....	.....	.....	43,199
1918-19					
October	.....	.....	.....	18	1,110
November	.....	.....	.....	18	1,070
December	.....	.....	.....	18.5	1,140
January	.....	.....	.....	11	676
February	.....	.....	.....	6.5	361
March	.....	118	.....	20	1,230
April	.....	1,860	155	1,200	71,400
May	.....	469	56	199	12,200
June	.....	50	17	33.3	1,980
July	.....	25	5.5	11.1	682
August	.....	4.0	.7	2.2	135
September	.....	1.0	.7	.8	49
Water year 1918-19..	.....	1,860	.....	127	92,033
1919-20					
October	.....	.7	.5	.60	37
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 13-31	.....	.....	.....	22.4	844
April	.....	1,960	25	871	51,800
May	.....	2,560	204	1,220	75,000
June	.....	194	70	129	7,680
July	.....	85	17	34.6	2,130
August	.....	17	2.4	7.07	435
September	.....	11	2.4	6.27	373
Water year 1919-20..	.....	.....	.....	.....	138,299
1920-21					
October	.....	11	7	8.5	523
November	.....	.....	.....	7.6	452
December	.....	.....	.....	5.0	307
January	.....	.....	.....	1.7	105
February	.....	.....	.....	1.1	61
March	.....	.....	.....	28.0	1,720
April	.....	296	68	176	10,500
May	.....	104	34	59.4	3,650
June	.....	272	21	53.6	3,190
July	.....	790	215	381	23,400
August	.....	194	14	49.3	3,030
September	.....	29	14	20.8	1,240
Water year 1920-21..	.....	790	.....	66.6	48,178

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1921-22					
October	.....	14	12	13.0	799
November	.....	.....	.....	15	892
December	.....	.....	.....	12	738
January	.....	.....	.....	12	738
February	.....	.....	.....	12	666
March	.....	563	12	162	9,960
April	.....	2,570	230	1,420	84,500
May	.....	648	162	316	19,400
June	.....	270	39	134	7,970
July	.....	148	21	45.9	2,820
August	.....	30	5	14.8	910
September	.....	17	2	6.03	359
Water year 1921-22..	.....	2,570	2	180	129,752
1922-23					
October	.....	1.9	0.9	1.66	102
November	.....	4.6	1.1	1.73	103
December	.....	.....	.....	1.0	62
January	.....	.....	.....	1.0	62
February	.....	.....	.....	.7	39
March	.....	212	34	85.9	5,280
April	.....	3,460	122	1,410	83,900
May	.....	3,460	281	1,340	82,400
June	.....	862	97	230	13,700
July	.....	844	130	491	30,200
August	.....	424	91	256	15,700
September	.....	260	13	74.1	4,410
Water year 1922-23..	.....	3,460	.....	326	235,958
1923-24					
October	.....	30	10	22.0	1,350
November	.....	17	7	11.1	660
December	.....	13	7	10.0	615
January	.....	7	3	6.0	369
February	.....	6	1	1.3	75
March	.....	281	13	103	6,330
April	.....	474	75	257	15,300
May	.....	234	75	152	9,320
June	.....	388	8	141	8,420
July	.....	117	28	72	4,400
August	.....	110	6	20	1,800
September	.....	14	6	10	620
Water year 1923-24..	.....	472	1	68	49,259
1924-25					
October	.....	580	19	77	1,570
November	.....	50	25	31	1,740
December	.....	30	25	29	1,600
January	.....	25	17	22	1,050
February	.....	40	17	24	830
March	.....	605	25	154	7,500
April	.....	3,450	654	2,426	143,000
May	.....	1,180	115	309	19,000
June	.....	160	101	134	7,950
July	.....	177	6	65	3,510
August	.....	401	6	47	2,460
September	.....	295	5	43	2,380
Water year 1924-25..	.....	3,450	5	280	192,590

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1925-26					
October	.....	30	21	25	1,560
November	.....	35	21	27	1,630
December	.....	25	19	22	1,340
January	.....	19	13	17	1,030
February	.....	17	11	14	750
March	.....	30	9	18	1,110
April	.....	90	38	66	3,900
May	.....	101	50	86	5,230
June	.....	194	60	93	5,530
July	.....	194	101	144	8,850
August	.....	101	64	78	4,800
September	.....	103	34	54	3,230
Water year 1925-26	.....	194	9	53	38,960
1926-27					
October	.....	112	31	36	2,206
November	.....	31	21	25	1,480
December	.....	21	19	21	1,270
January	.....	21	13	14	830
February	.....	21	9	13	700
March	.....	478	25	177	10,900
April 4-30	.....	3,900	562	1,860	99,600
May	.....	3,650	1,320	2,270	140,000
June 1-13	.....	1,820	1,140	1,640	42,300
July	.....	267	144	190	11,700
August	.....	188	64	115	7,100
September	.....	153	80	102	6,050
Water year 1926-27	.....	3,620	9	435	315,600
1927-28					
October	.....	108	86	99.4	6,110
November	.....	92	.....	62.7	3,730
December	.....	.....	.....	21.5	1,320
January	.....	.....	.....	12.0	738
February	.....	.....	.....	10.0	575
March	.....	.....	.....	169	10,400
April	.....	2,940	694	1,740	104,000
May	.....	730	184	460	28,300
June	.....	500	135	221	13,200
July	.....	840	276	486	29,900
August	.....	820	57	268	16,500
September	.....	50	13	21.9	1,300
Water year 1927-28	.....	2,940	13	297	216,073
1928-29					
October	.....	29	20	24	1,480
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 14-30	.....	152	112	136	4,600
May	.....	117	31	61	3,750
June	.....	397	54	178	10,600
July	.....	50	3	19.6	1,200
August	.....	.....	.....	3.0	184
September	.....	.....	.....	5.3	315
Water year 1928-29	.....	.....	.....	.....	22,129

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1929-30					
October	.....	6	3	4.4	271
November	.....	12	1	5.0	298
December	.....	.....	.....	1.0	62
January	.....	.....	.....	.5	31
February	.....	295	0	53.3	2,960
March	.....	382	21	185	11,400
April	.....	920	202	573	34,100
May	.....	202	57	116	7,130
June	.....	57	36	43.8	2,610
July	.....	.....	.....	18	1,110
August	.....	.....	.....	.5	31
September	.....	.....	.....	.15	9
Water year 1929-30	.....	920	0	82.8	60.012
1930-31					
October	.....	0.6	0.1	0.25	15
November	.....	1.0	.2	.44	26
December	.....	1.0	.2	.45	28
January	.....	.6	.2	.28	17
February	.....	1.0	.2	.50	28
March	.....	3.3	1.0	2.26	139
April	.....	7.5	3.3	5.44	324
May	.....	8.0	.9	4.01	247
June	.....	1.0	.3	.71	42
July	.....	.....	.....	.50	31
August	.....	.....	.....	.4	25
September	.....	.....	.....	.3	18
Water year 1930-31	.....	8.0	0.1	.....	940
1931-32					
October	.....	.....	.....	0.3	18
November	.....	.....	.....	.2	12
December	.....	.....	.....	.2	12
January	.....	.....	.....	.1	6
February	.....	.....	.....	.1	6
March	.....	2.0	0.1	.85	52
April	.....	230	2.0	60.5	3,600
May	.....	28	3.0	14.2	873
June	.....	202	1.0	14.6	869
July	.....	6.0	.5	1.90	117
August	.....	.5	.3	.35	22
September	.....	.....	.....	.3	18
Water year 1931-32	.....	230	.....	7.72	5,605
1932-33					
October	.....	.....	.....	0.40	25
November	.....	.....	.....	.60	36
December	.....	.....	.....	.60	37
January	.....	.....	.....	.50	31
February	.....	50	.....	3.18	177
March	.....	759	26	193	11,900
April	.....	1,040	90	398	23,700
May	.....	109	31	53.5	3,290
June	.....	859	27	336	20,000
July	.....	.....	.....	39.2	2,410
August	.....	.....	.....	3.0	184
September	.....	.....	.....	1	60
Water year 1932-33	.....	1,040	.....	85.4	61,850

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1933-34					
October	.....	0.2	0.1	0.17	10
November	.....	.4	.2	.26	15
December	.....	.4	.3	.36	22
January	.....	.3	.3	.30	18
February	.....	40	.2	3.50	194
March	.....	328	20	184	11,340
April	.....	190	37	124	7,380
May	.....	34	1	9.65	593
June	.....	.3	.2	.23	14
July	.....	1.5	.3	.87	54
August	.....	1.5	1.5	1.50	92
September	.....	1.5	1.5	1.50	89
Water year 1933-34	.....	328	.1	27.4	19.821
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	256.0	100	.....	8.26	508
April	283	50	.....	9.43	561
May	2,017.4	428	1.5	65.1	4,000
June	9.2	3.2	.....	.31	18
July	536.8	43	.....	17.3	1,060
August	132.9	16	.....	4.29	264
September	.....	.....	.....	.....	.....
Water year 1934-35	3,235.3	428	.....	8.86	6,411
1935-36					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,809.6	326	.....	60.3	3,590
May	809.5	208	.7	26.1	1,610
June	2,451	120	35	81.7	4,860
July	1,538	90	10	49.6	3,050
August	2,154	84	40	69.5	4,270
September	164.0	32	0	5.47	325
Water year 1935-36	8,926.1	326	.....	24.4	17,705
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	0.1	.....	.....	.....	0.2
April	38.2	5.2	0.1	1.27	76
May	428.6	184	.....	13.8	850
June	6.4	3.0	.....	.21	13
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37	473.3	184	.....	1.30	939.2

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1,048.6	141	.5	33.8	2,080
April	3,069.6	407	.1	102	6,090
May	12.7	2.4	.....	.41	25
June	.....	.....	.....	.....	.....
July	174	32	.....	5.61	345
August	947	32	27	30.5	1,880
September	1,057	44	24	35.2	2,100
Water year 1937-38	6,308.9	407	0	17.3	12,520
1938-39					
October	928.4	85	0.1	29.9	1,840
November	25.6	9.0	.3	.853	51
December	112.6	17	.2	3.63	223
January	3.1	.....	.....	.1	7
February	.....	.....	.....	.....	.....
March	5,086.0	1,400	.....	164	10,090
April	11,313.9	668	5.1	377	22,440
May	81.7	11	.2	2.64	162
June	181.8	32	.4	6.06	361
July	10.5	2.0	0	.34	21
August	.5	.2	.....	.02	1
September	.....	.....	.....	.....	.....
Water year 1938-39	17,744.1	1,400	.....	48.6	35,200
1939-40					
October	2,706.2	460	.....	87.3	5,370
November	79.4	3.6	.....	2.65	157
December	62.0	.....	.....	2.0	123
January	12.4	.....	.....	.4	25
February	14.5	.....	.....	.5	29
March	11.7	1.0	.....	3.77	23
April	2,736.8	280	.1	91.2	5,430
May	188.5	20	.3	6.08	374
June	7.5	1.3	.....	.25	15
July	960	130	.....	31.0	1,900
August	1,818.3	153	.....	58.7	3,610
September	2.1	0.2	.....	.07	4.2
Water year 1939-40	8,599.4	460	.....	23.5	17,060.2
1940-41					
October	1.4	0.1	0	0.05	3
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.9	.2	.....	.03	.2
April	4,273.0	467	1.0	142	8,480
May	101.4	13	.4	3.27	201
June	569.4	84	.7	19.0	1,130
July	49.9	8.8	0	1.61	99
August	14.8	2.0	0	.48	29
September	37.2	3.6	.1	1.24	74
Water year 1940-41	5,048.0	467	0	13.8	10,020

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1941-42					
October	563.4	61	.5	18.2	1,120
November	528.2	54	3.0	17.6	1,050
December	58.5	3.0	1.0	1.89	116
January	10.4	.5	.3	.34	21
February	1.4	.2	0	.05	3
March	240.7	30	0	7.76	477
April	2,104	550	10	70.1	4,170
May	208.3	19	2.4	6.72	413
June	33.1	2.4	.2	1.10	66
July	59.2	22	.1	1.91	117
August	34.2	16	0	1.10	68
September	146.2	28	0	4.87	290
Water year 1941-42	3,987.6	550	0	109	7,910
1942-43					
October	13.2	1.0	.2	.43	26
November	12.5	.7	0	.42	25
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	4,643.5	1,100	.....	150	9,210
April	52,655	2,450	800	1,755	104,400
May	30,675	1,960	428	990	60,840
June	15,490	684	441	576	30,720
July	8,274	454	100	267	16,410
August	2,721.3	221	5.1	87.8	5,400
September	441.9	67	3.6	14.7	876
Water year 1942-43	114,926.4	2,450	0	315	227,900
1943-44					
October	80.4	13	.7	2.59	159
November	71.5	6	.....	2.38	142
December	465	95	.....	15	922
January	4,584	180	130	148	9,090
February	4,025	150	80	139	7,980
March	2,690	100	80	86.8	5,340
April	2,270	300	16	142	8,470
May	502.1	41	8.1	16.2	996
June	6,247	1,330	39	208	12,390
July	4,090.1	1,100	8.1	132	8,110
August	3,958	158	110	128	7,850
September	3,576	153	112	119	7,090
Water year 1943-44	34,559.1	1,330	.7	94.4	68,540

SOURIS RIVER NEAR VERENDRYE, NORTH DAKOTA

Location: Water stage recorder, lat. 48°09′ long. 100°44′, in NW¼NW¼ sec 17, T. 154N., R78W 3 miles northeast of Verendrye, 4 miles downstream from former site, and 7½ miles southwest of mouth of Wintering River.

Drainage Area: 12,200 square miles.

Records available: February to June 1933 April 1937 to September 1944 (winter records incom.).

Extremes: Maximum discharge 2,220 second-feet May 2, 1943, Minimum, .3 second-foot Aug. 11-19 1937, Oct. 10-21, 1939.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October					
November					
December					
January					
February					
March					
April	352.0	19	4	11.7	698
May	399.4	93	3.2	12.9	792
June	558.9	118	1.6	18.6	1,110
July	20.8	1.6	.4	.67	41
August	12.9	.6	.3	.12	26
September					
Water Year 1936-37	1,311				2,667
1937-38					
October					
November					
December					
January					
February					
March	3,452	300	17	111	5,850
April	2,941	330	12	98.0	5,830
May	210.7	12	3.6	6.80	418
June	69.8	3.3	1.4	2.33	138
July	246.7	56	.8	7.96	489
August	396.2	49	.8	12.8	786
September	635	27	12	21.2	1,260
Water Year 1937-38	7,951.4				15,771
1938-39					
October	1,200.1	76	3.9	38.7	2,380
November	101.1	4.5	2.4	3.37	201
December	75.6	3.6	1.5	2.44	150
January					
February					
March 21-31	9,233.8	1,200	4.8	839	18,310
April	12,163	662	55	405	24,120
May	591.6	52	9.6	19.1	1,170
June	331.4	25	6.0	11.1	657
July	271.4	52	2.8	8.75	538
August	72.8	5.6	1.4	2.35	144
September	24.4	1.6	.4	.81	48
Water Year 1938-39	24,065.2				47,718

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	2,377.2	396	0.3	76.7	4,720
November	236.6	25	.....	7.89	469
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	69.8	4.4	.....	2.25	138
April	2,754.6	350	4.0	91.8	5,460
May	745.0	85	11	24.0	1,480
June	141.7	11	1.6	4.72	281
July	349.9	114	1.0	11.3	694
August	2,247.2	145	2.8	72.5	4,460
September	55.7	3.2	1.1	1.86	110
Water Year 1939-40	8,977.7	.....	.....	.....	17,812
1940-41					
October	49.6	2.0	1.1	1.60	98
November	41.9	2.8	.....	1.40	83
December	78.1	.....	.....	2.52	155
January	62.9	.....	.....	2.03	125
February	.....	.....	.....	.....	.....
March	181.5	70	.....	5.85	360
April	4,409	406	14	147	8,750
May	676.5	73	7.9	21.8	1,340
June	836.4	74	8.8	27.9	1,660
July	394.6	46	1.6	12.7	783
August	25.6	1.5	.7	.83	51
September	543.4	90	.8	18.1	1,080
Water Year 1940-41	7,299.5	.....	.....	.....	14,485
1941-42					
October	503.5	60	8	16.2	999
November	844	60	8.5	28.1	1,670
December	1,505	9	1.9	48.5	299
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	255.4	18	.....	8.24	507
April	7,043.8	1,100	8.8	235	13,970
May	939	56	18	30.3	1,860
June	377.4	18	9.8	12.6	749
July	308.1	16	6.7	99.4	611
August	192.2	9.2	.....	6.2	381
September	105.3	.....	2.4	35.1	209
Water Year 1941-42	10,719.2	.....	.....	.....	21,255
1942-43					
October	105.9	5.5	2.2	3.42	210
November	92	5	2.2	3.07	182
December 1-29	60.8	2.6	1.8	2.1	121
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	7,179.6	1,300	4.6	797.7	14,240
April	47,780	2,160	1,170	1,593	94,770
May	40,663	2,220	449	1,312	80,650
June	17,014	858	449	567	33,750
July	10,178	513	171	328	20,190
August	4,223	267	35	136	8,380
September	10,135	86	9.5	338	2,010
Water Year 1942-43	128,309.8	.....	.....	.....	254,503

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1943-1944					
October	486	22	8.5	.....	964
November 1-12	213	22	15	.....	422
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 5-30	7,410	600	52	285	14,700
May	1,120	55	24	36.1	2,220
June	5,674	1,230	18	189	11,250
July	10,064	1,450	43	325	19,960
August	3,590	133	99	116	7,120
September	3,661	142	113	122	7,260
Water year 1943-44	32,218	.....	.....	.....	63,896

WINTERING RIVER NEAR KARLSRUHE, NORTH DAKOTA

Location: Water stage recorder and concrete control, lat. 48°10′, long. 100°32′, on line between secs. 10 & 11, T. 154N., R. 77W, 80 feet upstream from highway bridge 4 miles upstream from mouth and 7 miles northeast of Karlsruhe.

Drainage Area: 675 square miles.

Records available: March 1937 to September 1944 (no winter records).

Extremes: Maximum discharge 510 second-feet April 2, 1943. No flow at times in each year.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	81.0	15	.....	2.61	161
April	179.1	13	3.0	5.97	355
May	66.4	3.6	1.4	2.14	132
June	384.8	36	1.4	12.8	763
July	35.0	2.6	.7	1.13	69
August	18.7	1.2	.2	.60	37
September	20.6	1.0	.4	.69	41
Water Year 1936-37..	785.6	.....	.....	.....	1,558
1937-38					
October 1-28	33.2	1.5	0.8	1.19	66
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	467.3	54	.....	15.1	927
April	117.5	7.2	2.3	3.92	233
May	74.0	3.7	1.6	2.39	147
June	35.0	1.6	.6	1.17	69
July	76.5	10	.6	2.47	152
August	29.4	3.1	.1	.95	58
September	5.8	.4	.1	.19	12
Water Year 1937-38..	838.7	.....	.....	.....	1,664
1938-39					
October	21.8	1.3	0.1	0.70	43
November	39.0	1.6	1.1	1.30	77
December	35.1	2.2	.....	1.13	70
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	125	18	3	13.9	248
April	186.5	16	3.8	6.22	370
May	63.8	3.8	1.3	2.06	127
June	57.6	3.4	.9	1.92	114
July	16.3	1.2	.....	.53	32
August	10.3	1.0	.....	.33	20
September	2.0	.4	.....	.07	4
Water year 1938-39..	557.4	.....	.....	.....	1,105

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	25.1	1.0	0.2	0.81	50
November	24.9	.....	.....	.83	49
December	12.4	.....	.....	.40	25
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	31.6	4.0	.....	1.02	63
April	120.1	8.4	.3	4.00	238
May	145.2	10	2.0	4.68	288
June	34.1	2.4	.3	1.14	68
July	74.7	4.8	.7	2.41	148
August	38.6	2.5	.6	1.25	77
September	27.4	1.3	.6	.91	54
Water Year 1939-40..	534.1	10	.....	1.46	1,060
1940-41					
October	37.5	1.7	0.9	1.21	74
November	23.5	1.5	.2	.78	47
December	8.3	.5	.....	.27	16
January	3.1	.....	.....	.10	6.1
February	.....	.....	.....	.....	.....
March	6.0	5.0	.....	.19	12
April	334.8	26	4.4	11.16	664
May	190.6	22	2.2	6.15	378
June	113.8	5.8	2.2	3.79	226
July	116.2	6.9	1.7	3.75	230
August	43.2	2.4	.9	1.39	86
September	159.2	13	2.0	5.31	316
Water Year 1940-41..	1,036.2	26	.....	2.84	2,055.1
1941-42					
October	180.3	9.1	4.4	5.82	358
November	64.6	6.5	4.7	5.38	128
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	1.2	.2	.1	.13	2.4
April	1,423.5	116	.5	47.8	2,820
May	581	38	11	18.7	1,150
June	220.4	14	4.1	7.35	437
July	112.3	7.5	1.7	3.62	223
August	115.3	6.9	2.4	3.72	229
September	99.2	5.8	2.2	3.31	197
Water Year 1941-42..	2,797.8	.....	.....	.....	5,544
1942-43					
October	83.7	3.8	2.0	2.70	166
November	89.1	4.4	1.5	2.97	177
December	23.8	1.3	.6	7.68	47
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 29-31	970	.....	.....	.....	1921
April	4,471	510	23	149	8,870
May	632	39	12	20.4	1,250
June	2,729	170	22	91.0	5,410
July	1,036	77	14	33.4	2,050
August	280.4	17	5.6	9.05	556
September	187.6	17	3.2	6.25	372
Water Year 1942-43..	10,502.6	.....	.....	.....	20,820

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	139.7	6.1	3.2	4.51	277
November 1-12	80.4	8.1	4.8	6.7	159
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	271.7	14	.....	9.06	539
May	276.2	16	6.6	8.91	548
June	581.9	48	7.1	19.4	1,150
July	688	34	15	22.2	1,360
August	266.4	16	4.4	8.59	528
September	153.1	7.1	4.4	5.1	304
Water year 1943-44	2,457.4	.....	.....	.....	4,865

SOURIS RIVER NEAR TOWNER, NORTH DAKOTA

Location: In NE¼ of Section 29, Twp. 156 N., R. 76 W., Lat. 48° 18′, Long. 100° 27′ about 4 miles southwest of Towner.

Drainage Area: 13,090 square miles.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1932-33					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 4-31	8,352	535	54	298	16,600
April	16,843	1,080	166	561	33,400
May	3,675	203	88	119	7,320
June	11,617	850	80	387	23,000
July	2,497	166	32	80.5	4,950
August	385.3	32	3.4	12.4	762
September	90.3	11	.6	3.01	179
Water year 1932-33	43,459.6	.....	.....	.....	86,211
1933-34					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 9-31	4,569	355	31	199	9,060
April	6,848	385	78	228	13,580
May	567.7	72	1.8	18.3	1,130
June	165.1	19	.....	5.50	327
July	26.2	3.0	.....	.85	52
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water Year 1933-34	12,176	.....	.....	.....	24,149
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	685	124	40	76.1	1,360
April	948	78	17	31.6	1,880
May	2,621	230	35	84.5	5,200
June	509.6	35	6.0	17.0	1,010
July	2,871.6	320	4.0	92.6	5,700
August	623.0	68	7.2	20.1	1,240
September	146.8	12	2.2	4.89	291
Water Year 1934-35	8,405	.....	.....	.....	16,681
1935-36					
October 1-18	54.9	4.0	1.9	3.05	109
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April 9-30	7,652	903	12	348	15,180
May	927	64	15	29.9	1,840
June	2,385	119	54	79.5	4,730
July	1,489	98	18	48.0	2,950
August	1,610	61	29	51.9	3,190
September	639.4	48	.4	21.3	1,270
Water Year 1935-36	14,757.3	.....	.....	.....	29,269

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	195.2	22	0.5	6.30	387
November 1-11	65.2	7.6	4.4	5.93	129
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	10.5	3	.....	.34	21
April	34.7	4.5	.1	1.16	69
May	13.2	.7	.2	.43	26
June	526.6	132	.2	17.6	1,040
July	588.2	140	.5	19.0	1,170
August	10.8	.9	.....	.35	21
September	5.2	.6	.....	.17	10
Water Year 1936-37	1,449.6	.....	.....	.....	2,873
1937-38					
October	45.6	4.2	0.5	1.75	90
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 12-31	116.8	19	.8	5.84	232
April	1.0	5.1	21	.033	2
May	1,128	307	10	36.4	2,240
June	182.1	9.5	3.6	6.07	361
July	666.7	77	3.3	21.5	1,320
August	449.9	44	1.3	14.5	892
September	502.1	23	8.1	16.7	996
Water Year 1937-38	3,092.2	.....	.....	.....	6,133

SOURIS RIVER NEAR BANTRY, NORTH DAKOTA

Location: Water stage recorder, lat. 48°30', long. 100°25', in SE¼ sec 14, T. 158N., R76W 8 miles east of Bantry.

Drainage Area: 13,400 square miles.

Records available: March 1937 to September 1944 (no winter records)

Extremes: Maximum discharge 1,910 second-feet May 15, 1943.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	13.5	1	.....	.44	27
April	329.2	26	2	11.0	653
May	94.2	5.0	1.7	3.04	187
June	457.3	86	2.8	15.2	907
July	1,078.3	118	2.0	34.8	2,140
August	33.5	5.9	.....	1.08	66
September	.....	.....	.....	.....	.....
Water Year 1936-37	2,006	.....	.....	.....	3,980
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	508.8	60	.....	16.4	1,010
April	211.3	145	.7	7.04	419
May	3,159	334	36	102	6,270
June	368.2	31	4.3	12.3	730
July	811.3	59	7.6	26.2	1,610
August	269.7	24	2.1	8.7	535
September	347.8	16	7.0	11.6	690
Water Year 1937-38	5,676.6	.....	.....	.....	11,264
1938-39					
October	1,351	98	11	43.6	2,680
November	167.3	9.7	3.8	5.58	332
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	297.3	240	1.0	33.0	590
April	15,561	850	283	519	30,860
May	2,039	226	18	65.8	4,040
June	522	23	14	17.4	1,040
July	340.4	19	5.5	11.0	675
August	62.4	6.5	.1	2.01	124
September	.3	.1	.....	.01	1
Water Year 1938-39	20,340.7	.....	.....	.....	40,342

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1939-40					
October	1,144.2	260	.....	36.9	2,270
November	952.0	200	3.2	31.7	1,890
December 1-11	44.0	4.6	3.4	4.0	87
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 9-31	54.0	3.2	2.2	2.35	107
April	618.3	96	3.2	20.6	1,230
May	724.0	71	17	23.4	1,440
June	1,359.0	73	12	45.3	2,700
July	195.8	11	3.7	6.32	388
August	2,115.7	124	3.0	68.2	4,200
September	41.2	6.8	.4	1.37	82
Water Year 1939-40	7,248.2	.....	.....	.....	14,394
1940-41					
October	21.0	1.0	0.3	0.68	42
November	15.0	.8	.4	.50	30
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	3.8	.....	.....	1.9	7
April	713.6	60	2.0	23.8	1,420
May	5,630	447	35	182	11,170
June	1,428	74	34	47.6	2,830
July	797.6	42	4.2	25.7	1,580
August	92.0	10	.6	2.97	182
September	945	50	10	31.5	1,870
Water Year 1940-41	9,664.0	.....	.....	.....	19,131
1941-42					
October	913	42	21	29.5	1,810
November	1,456	71	18	48.5	2,890
December	468	22	16	15.1	928
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 20-31	154	17	8.5	12.8	305
April	9,412	850	18	314	18,670
May	2,974	161	50	95.9	5,900
June	1,042	50	19	34.7	2,070
July	616	32	14	19.9	1,220
August	417.7	25	8.2	13.5	828
September	242.7	11	6.6	8.1	481
Water Year 1941-42	17,695.4	.....	.....	.....	34,274
1942-43					
October	271.5	11	7	87.6	539
November 1-27	400	17	11	14.8	793
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 29-31	251	220	12	83.7	498
April	39,550	1,660	440	1,318	78,450
May	48,529	1,910	712	1,565	96,260
June	23,243	931	610	775	46,100
July	15,071	610	346	486	29,890
August	6,143	357	66	198	12,180
September	1,683	87	20	56.1	3,340
Water Year 1942-43	135,141.5	.....	.....	.....	268,050

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1943-44					
October	501	17	15	16.2	994
November 1-13	207	20	.....	15.9	411
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	4,981	313	.....	166	9,880
May	5,203	467	95	168	10,320
June	6,415	445	95	214	12,720
July	15,596	1,600	95	503	30,930
August	4,290	170	110	138	8,510
September	3,770	150	110	126	7,480
Water year 1943-44	40,963	.....	.....	.....	81,245

SOURIS RIVER NEAR WESTHOPE, NORTH DAKOTA

Location: Water stage recorder and concrete control lat. 49°00′ long. 100°57′ in SW¼SE¼ sec. 30 T. 164N., R. 79W about 1,200 feet upstream from the International Boundry and 1 mile downstream from U. S. Fish and Wildlife Service dam 357 and 7 miles northeast of Westhope.

Drainage Area: 17,600 square miles.

Records available: October 1937 to September 1944 July 1929 to September 1937 at site 6¼ miles upstream.

Extremes: Maximum discharge, 2,240 second-feet May 22, 23, 1943; no flow during several periods.

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1928-29					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July 26-31	.....	44	33	38.5	458
August	.....	37	3	13.4	824
September	.....	15	3	6.5	387
Water year 1928-29..	.....	.....	.....	.....	1,669
1929-30					
October	.....	19	3	8.3	510
November 1-17	.....	33	16	20.5	691
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	.....	1,130	992	1,040	18,600
April	.....	1,130	753	922	54,900
May	.....	726	138	388	23,900
June	.....	138	66	101	6,010
July	.....	84	11	41.0	2,520
August	.....	14	2	5.4	332
September	.....	14	2	8.7	518
Water year 1929-30..	.....	1,130	2	.....	107,981
1930-31					
October	.....	43	1.8	11.1	682
November 1-15	.....	32	12	20.3	602
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.....	118	25	58.4	3,480
May	.....	44	9.6	22.5	1,380
June	.....	13	.4	4.81	286
July	.....	14	0	2.24	138
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1930-31..	.....	118	0	.....	6,568

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1931-32					
October	.....	.....	.....	5.27	324
November 1-18	.....	14	4.9	9.85	352
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 24-31	.....	24	9	18.0	286
April	.....	134	27	73.8	4,390
May	.....	169	22	63.3	3,890
June	.....	63	6.9	26.3	1,560
July	.....	31	3.3	12.6	775
August	.....	14	0	2.07	127
September	.....	.....	.....	.....	.....
Water year 1931-32	.....	169	0	.....	11.704
1932-33					
October	.....	.....	.....	.....	.....
November 1-21	.....	22	.....	10.7	446
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 23-31	.....	765	45	369	6,590
April	.....	1,130	494	875	52,100
May	.....	446	159	219	13,500
June	.....	272	141	183	10,900
July	.....	272	123	209	12 900
August	.....	123	19	55.1	3,390
September	.....	24	4.9	10.3	613
Water year 1932-33	.....	1,130	4.9	.....	100,439
1933-34					
October	.....	26	2.0	6.16	379
November	.....	31	5.0	14.0	835
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March 21-31	.....	279	94	180	3,920
April	.....	524	121	294	17,520
May	.....	121	12	56.2	3,460
June	.....	10	1.1	4.62	275
July	.....	2.5	0	.77	48
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1933-34	.....	524	0	0	26,437
1934-35					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	1,664	74.	30	55.5	3,300
May	2,326	139	26	75.0	4,610
June	537.0	63	4.5	17.9	1,070
July	5.048	279	22	163	10,010
August	2,127	130	20	68.6	4,220
September	235.6	23	.4	7.85	467
Water year 1934-35	.....	.....	.....	.....	23,677

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1935-36					
October	9.7	1.6	0	0.31	19
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	962.7	139	0	32.1	1,909
May	.4	.2	.....	.01	.8
June	231	42	.....	7.70	458
July	113.9	16	.1	3.67	226
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1935-36..	.....	.....	.....	.....	2,612.8
1936-37					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	55.5	9.0	.....	1.85	110
May	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....
Water year 1936-37..	55.5	9.0	.....	.15	110
1937-38					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	4.9	.8	.....	.16	10
April	.8	.3	.....	.03	2
May	.....	.....	.....	.....	.....
June	223.9	42	.....	7.46	444
July	.2	.2	.....	.01	1
August	243.3	20	.....	7.85	483
September	8.5	3.2	.....	.28	17
Water year 1937-38..	481.6	42	.....	1.32	957
1938-39					
October	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	1.4	.2	.....	.05	3
April	6.5	.3	.....	.22	13
May	.4	.2	.....	.01	1
June	253.8	26	.....	8.46	503
July	.....	.....	.....	.....	.....
August	142	20	.....	4.6	282
September	35.7	12	.....	1.19	71
Water year 1938-39..	439.8	26	.....	1.20	873

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre Feet
1939-40					
October	317.1	27	.....	10.2	629
November	.1	.1	.....	.003	.2
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	7.6	1.8	.....	.25	15
May	30.9	12	.1	1.00	61
June	21.1	3.3	.2	.70	42
July	73.5	9.2	0	2.37	146
August	80.1	7.6	.1	2.58	159
September	72.7	10	.1	2.42	144
Water year 1939-40..	603.1	27	.....	1.65	1,196.2
1940-41					
October	91.7	14	0.1	2.96	182
November	.5	.1	0	.02	1
December	0	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	.....	.....	.....	.....	.....
April	.3	.1	.....	.01	1
May	3.5	.2	.1	.11	7
June	190.4	24	.2	6.35	378
July	227.1	9.0	6	7.33	450
August	358.8	18	6.6	11.6	712
September	495	25	9.0	16.5	982
Water year 1940-41..	1,367.3	25	.....	3.75	2,713
1941-42					
October	2,761	10	5.5	8.62	530
November	19.6	6	.1	.65	39
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	18.6	1.3	.....	.60	37
April	12,245.5	1,000	.6	408	24,290
May	7,824.8	500	2.4	252	15,520
June	770.4	130	0	25.7	1,530
July	570.0	30	13	18.4	1,130
August	868	34	24	28.0	1,720
September	698.7	30	7.7	23.3	1,390
Water year 1941-42..	23,282.7	1,000	.....	63.8	46,190
1942-43					
October	779	32	17	25.1	1,550
November	28.7	21	0	.96	57
December	.....	.....	.....	.....	.....
January	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....
March	4.9	1.0	.....	.16	9.7
April	18,981.8	1,700	.....	616	36,680
May	65,260	2,240	1,760	2,105	129,400
June	35,195	2,190	850	1,173	69,810
July	25 650	1,000	550	827	50,880
August	3,715.5	550	5.0	120	7,350
September	2,559	367	.....	85.3	5,080
Water year 1942-43..	151,683.9	2,240	.....	416	300,900

Month	Second Foot Days	Maximum	Minimum	Mean	Run-off in Acre-Feet
1943-44					
October	1,530.1	246	7.5	49.4	3,030
November	359.4	100	.2	12	713
December	3.8	.2	.1	.12	7.5
January	.5	.1	.....	.02	1
February	170.4	.....	.....	5.88	338
March	710	.....	.....	22.9	1,410
April	5,577	341	70	186	11,060
May	8,254.2	492	5.2	266	16,370
June	8,826	1,400	74	294	17,510
July	40,114	2,000	541	1,294	79,560
August	3,812.6	308	9.6	123	7,560
September	10,280	386	297	343	20,390
Water year 1943-44	79,638	2,000	.....	218	157,900

LAKE DARLING NEAR FOXHOLM, NORTH DAKOTA

Location: Staff gage, lat. 48°27′, long. 101°35′, in NE¼NE¼ sec. 1. T. 157 N., R. 85W on control dam of Lake Darling, reservoir of Fish and Wildlife Service, on Souris River, about 6 miles north of Foxholm.

Records available: April 1937 to September 1944.

Extremes: Maximum observed 22.83 feet April 23, 24, 1943, minimum 1.53 feet March 1, 1938.

Month	Maximum		Minimum	
	Gage-height	Storage in Acre-Feet	Gage-height	Storage in Acre-Feet
1937				
October	.....	.....	.....	.....
November	.....	.....	.....	.....
December	.....	.....	.....	.....
January	.....	.....	.....	.....
February	.....	.....	.....	.....
March	.....	.....	.....	.....
April	4.1	12,300	3.8	11,500
May	4.3	12,900	3.1	9,750
June	3.8	11,500	2.9	9,250
July	2.7	8,750	2.2	7,500
August	1.8	6,600	1.5	6,000
September	1.5	6,000	1.5	6,000
1937-38				
October	1.5	6,000	1.5	6,000
November	1.5	6,000	1.5	6,000
December	1.5	6,000	1.5	6,000
January	1.5	6,000	1.5	6,000
February	1.5	6,000	1.5	6,000
March	8.3	24,900	1.5	6,000
April	8.3	24,900	7.7	23,100
May	7.7	23,100	7.6	22,800
June	7.7	23,100	7.3	21,900
July	7.8	23,400	6.5	19,500
August	6.5	19,500	5.2	15,600
September	5.2	15,600	3.6	11,000
1938-39				
October	3.6	11,000	2.7	8,750
November	2.7	8,750	1.9	6,800
December	1.9	6,800	1.9	6,800
January	1.9	6,800	1.9	6,800
February	1.9	6,800	1.9	6,800
March	10.8	34,200	1.9	6,800
April	13.2	47,200	10.8	34,200
May	12.2	41,200	12	40,000
June	12.1	40,600	11.9	39,500
July	11.9	39,500	11.5	37,500
August	11.5	37,500	11.1	35,500
September	11.1	35,500	10.82	34,300
1939-40				
October	10.8	30,800	9.55	29,200
November	10	31,000	9.45	28,800
December	9.5	29,000	9.5	29,000
January	9.48	28,900	9.48	28,900
February	9.48	28,900	9.48	28,900
March	9.56	29,200	9.48	28,900
April	9.56	29,200	8.58	25,900
May	8.84	26,200	8.7	25,900
June	8.76	25,900	8.39	25,200
July	8.39	25,200	7.38	22,100
August	7.38	22,100	6.26	18,800
September	6.3	18,900	6	18,000

Month	Maximum		Minimum	
	Gage-height	Storage in Acre-Feet	Gage-height	Storage in Acre-Feet
1940-41				
October	6	18,000	5.64	16,900
November	5.9	17,700	5.64	16,900
December	5.9	17,700	5.75	17,200
January	5.75	17,200	5.59	16,800
February	5.59	16,800	5.45	16,400
March	5.45	16,400	5.3	15,900
April	9.1	27,400	5.3	15,900
May	9.94	30,800	9.10	27,400
June	10.4	32,600	9.94	30,800
July	10.4	32,600	10.14	31,600
August	10.14	31,600	9.70	29,800
September	9.90	30,600	9.7	29,800
1941-42				
October	10	31,000	9.7	29,800
November	10	31,000	9.7	29,800
December	9.7	29,800	9.7	29,800
January	9.7	29,800	9.7	29,800
February	9.7	29,800	9.7	29,800
March	10.5	33,000	9.7	29,800
April	15.9	64,300	10.5	33,000
May	16.5	69,000	15.9	64,300
June	16.7	70,600	16.5	69 000
July	16.8	71,400	15.5	61,500
August	16.4	68,200	16.4	68,200
September	16.4	68,200	16.0	65,000
1942-43				
October	16	65,000	15.8	63,600
November	15.8	63,600	15.8	63,600
December	15.8	63,600	15.8	63,600
January	15.8	63,600	15.8	63,600
February	15.8	63,600	15.8	63,600
March	16.8	71,400	15.8	63,600
April	22.8	124,000	16.8	71,400
May	21.4	115,400	18.8	87,400
June	19.5	95,000	17.9	80,200
July	17.8	79,400	17	73,000
August	17	73,000	16.5	69,000
September	16.5	69,000	16.1	65,800
1943-44				
October	16.1	65,800	16.1	65,800
November	16.1	65,800	16.1	65,800
December	16.1	65,800	16	65,000
January	16	65,000	15	58,000
February	15	58,000	14.1	52,600
March	14.1	52,600	13.8	50,800
April	13.8	50,800	13.7	50,200
May	13.7	50,200	13.4	48,400
June	15.4	60,800	13.4	48,400
July	17.3	75,400	15.4	60,800
August	17.3	75,400	16.9	72,200
September	16.9	72,200	16.4	68,200

DEVILS LAKE NEAR DEVILS LAKE, NORTH DAKOTA

Location: Temporary staff gage, lat. 48°03'45", long. 98°56'30", in SW¼ sec. 18, T. 153N., R. 64 W. at Lakewood, on east bank at mouth of Creel Bay, and 6 miles southwest of city of Devils Lake. Creel Bay, which is half a mile wide, is an arm of Devils Lake, and extends 2 miles to the north of the lake.

Records available: 1867, 1879, 1896, 1902-1936 (one gage height for each year) and 1937-1944 fragmentary.

Extremes: 1867-1944, maximum elevation observed 1,438.40 feet in 1867, present datum; minimum 1,401.14 feet September 23, 1940.

Year	Elevation
1867	1438
1879	1434.2
1896	1424.3
1901	1423.3
1902	1424.3
1903	1423
1904	1423.9
1905	1423.9
1906	1422.9
1907	1422.6
1908	1421.5
1909	1421.3
1910	1420.1
1911	1419.7
1912	1421
1913	1421.5
1914	1419.9
1915	1418.8
1916	1418.9
1917	1418.2
1918	1416.9
1919	1417.2
1920	1416.6
1921	1416.2
1922	1416.5
1923	1415.6
1924	1415.9
1925	1414.5
1926	1413.3
1927	1413.3
1928	1412.4
1929	1411.6
1930	1411.1
1931	1410.1
1932	1409.7
1933	1408.3
1934	1406.4
1935	1405.2
1936	1403.9

Month	Elevation in Feet
1936-1937	
October 24	1405.08
May 29	1404.89
August 18	1404.23
1937-1938	
October 26	1403.81
March 21	1403.08
April 15	1404.00
May 19	1403.68
June 11	1403.64
July 2	1403.64
August 6	1403.50
September 15	1402.99
1938-1939	
October 8	1402.64
November 21	1402.14
April 25	1402.66
May 8	1402.21
June 18	1402.46
July 25	1401.86
August 19	1401.79
September 21	1401.46
1939-1940	
March 22	1401.52
April 29	1402.26
August 12	1401.82
September 23	1401.14
1940-1941	
October 24	1400.87
April 22	1402.54
May 15	1402.62
June 6	1402.84
July 31	1402.17
September 20	1402.26
1941-1942	
October 11	1402.41
May 20	1404.42
June 8	1404.53
July 31	1404.50
August 5	1404.32
September 11	1404.07
1942-1943	
May 17	1404.44
June 30	1404.7
July 7	1404.6
August 2	1404.46
September 1	1404.01
1943-1944	
October 4	1403.64
November 3	1403.41
January 3	1403.86
February 3	1403.85
March 1	1403.82
April 8	1403.54
May 31	1403.76
June 18	1403.76
July 6	1403.96
August 24	1403.50
September 19	1403.70