

UPPER MISSISSIPPI RIVER BASIN

05227500 MISSISSIPPI RIVER AT AITKIN, MN

LOCATION.--Lat 46° 32'26", long 93° 42'26", in SW¼NW¼ sec. 24, T.47 N., R.27 W., Aitkin County, Hydrologic Unit 07010104, on right bank upstream side of highway bridge at north edge of Aitkin, 1 mi downstream from Ripple River and at mile 1,055.9 upstream from Ohio River.

DRAINAGE AREA.--6,140 mi², approximately.

PERIOD OF RECORD.--March 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,182.41 ft above sea level (levels by U.S. Army Corps of Engineers). Mar. 1, 1945 to Mar. 14, 1961, nonrecording gage, and Mar. 15, 1961 to Sept. 30, 1967, water-stage recorder at same site at datum 3.0 ft higher. Diversion channel: Non-recording gage and crest-stage gage. Datum of gage is 1,182.02 ft above sea level. Apr. 9, 1955 to Apr. 10, 1956, nonrecording gage at site 4 mi downstream at different datum. Apr. 11, 1956 to Sept. 30, 1967, non-recording gage at same site at datum 3.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Winnibigoshish Lake (sta 05201000), Leech Lake (sta 05206000), Pokegama Lake (sta 05210500), and Sandy Lake (sta 05218500). Water diverted at medium and high stages into Aitkin diversion channel 6.5 mi above station, bypasses station and returns to river 15.5 mi below station. Diversion began Apr. 2, 1955. These records include flow in diversion channel. Gage height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Main channel: Maximum discharge, 6450 ft³/s, Apr. 16; maximum gage height, 16.26 ft., Apr. 7. Diversion channel: Maximum discharge, 5650 ft³/s, Apr. 16; maximum gage height, 16.76 ft., Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	1510	4630	e5000	e3500	e3050	e3000	e4300	9430	4170
5630	4590	2610							
2	1550	4740	e5000	e3450	e3050	e3000	e5000	9170	4020
5900	4470	2520							
3	1520	4830	e5000	e3450	e3050	e3000	e6600	8930	3850
6160	4340	2490							
4	1520	4960	e5000	e3400	e3050	e3000	e8000	8620	3650
6500	4200	2450							
5	1570	5080	e5000	e3350	e3050	e3000	e10000	8370	3530
6740	4020	2430							

6	1590	5200	e4950	e3300	e3050	e3000	e11000	8060	3440
6780	3840	2420							
7	1560	5320	e4950	e3300	e3050	e3000	e11500	7770	3370
6760	3690	2410							
8	1530	5430	e4950	e3250	e3050	e3000	e11400	7570	3300
6830	3560	2410							
9	1500	5470	e4950	e3200	e3000	e3000	11300	7430	3210
6880	3450	2420							
10	1480	5430	e4900	e3200	e3000	e3000	11100	7180	3130
6780	3360	2400							
11	1460	5280	e4900	e3150	e3000	e2980	10900	7080	3050
6610	3240	2380							
12	1450	5080	e4850	e3150	e3000	e3000	11500	6960	2930
6450	3160	2370							
13	1470	4600	e4780	e3150	e3000	e3000	11700	6760	2810
6460	3110	2370							
14	1490	4070	e4800	e3150	e3000	e3000	11700	6620	2700
6760	3030	2360							
15	1520	e3900	e4800	e3100	e3000	e3000	11900	6410	2650
6850	2950	2350							
16	1520	e3980	e4750	e3100	e3000	e3000	12000	6210	2610
6700	2860	2350							
17	1630	e4500	e4700	e3100	e3000	e3000	12000	5920	2540
6380	2700	2370							
18	1790	e4900	e4600	e3100	e3000	e3000	11900	5730	2470
6010	2590	2410							
19	2070	e4850	e4500	e3100	e3000	e3000	11300	5630	2400
5710	2560	2560							
20	2410	e4800	e4400	e3100	e3000	e3000	11300	5490	2390
5560	2590	2800							
21	2720	e4750	e4350	e3100	e3000	e3000	11200	5260	2380
5450	2650	2900							
22	3010	e4800	e4200	e3070	e3000	e3050	11100	5120	2360
5350	2750	2810							
23	3230	e4850	e4100	e3050	e3000	e3050	11000	5090	2370
5220	2840	2730							
24	3330	e4900	e4000	e3050	e3000	e3100	10800	5120	2450
5040	2930	2660							
25	3380	e4950	e3900	e3050	e3000	e3100	10600	5070	2960
5020	2960	2640							
26	3500	e5000	e3850	e3050	e3000	e3150	10500	5020	3480
5210	2940	2610							
27	3670	e5000	e3750	e3050	e3000	e3250	10300	4940	3660
5270	2900	2590							
28	3740	e5000	e3700	e3050	e3000	e3300	10100	4850	3760
5120	2870	2610							
29	3830	e5000	e3650	e3050	---	e3400	9900	4710	4600
4930	2850	2590							
30	4110	e5000	e3600	e3050	---	e3500	9710	4520	5290
4770	2800	2600							

INSTANTANEOUS PEAK STAGE		16.26a	Apr	7	22.49	May
20 1950						
INSTANTANEOUS LOW FLOW		1450	Oct	11	151	
Sep 1 1961						
ANNUAL RUNOFF (AC-FT)	2894000	3176000			2141000	
ANNUAL RUNOFF (INCHES)	8.84	9.70			6.54	

a Backwater from ice.