

04063500 MENOMINEE RIVER AT TWIN FALLS NEAR IRON MOUNTAIN, MI

Northwestern Lake Michigan Basin
Menominee Subbasin

LOCATION.--Lat 45°52'17", long 88°04'12" referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.12, T.40 N., R.31 W., Dickinson County, MI, Hydrologic Unit 04030108, on left bank 150 ft downstream from We Energies powerhouse at Twin Falls Dam, 3.6 mi north of Iron Mountain, and at mile 106.6.

DRAINAGE AREA.--1,800 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1914 to current year. Published as "near Florence, WI", October 1957 to September 1989. Records published for both sites July 1950 to September 1957, October 1989 to September 1996, October 1998 to current year.

REVISED RECORDS.--WDR MI-91-1: 1990(M). WDR MI-92-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,061.05 ft above sea level (levels by We Energies). Prior to September 1957, headwater and tailwater gages and generation data entered hourly in daily log sheets by company employees. October 1957 to September 1989, water-stage recorder at site 10.4 mi upstream at different datum. November 1989 to July 1993, water-stage recorder at site 150 ft upstream at same datum.

COOPERATION.--Gage-height record was provided by We Energies, under general supervision of the U.S. Geological Survey.

REMARKS.--Records good. Prior to September 1957, discharge determined from powerplant records computed on basis of load-discharge rating of hydroelectric units and rating for tailwater gage during periods of spill; ratings developed by U.S. Geological Survey. Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre ft, by Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by many smaller reservoirs upstream from station. Several measurements of water temperature were made during the year. Gage-height telemeter at station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	830	1,200	2,650	e1,590	1,580	1,540	2,700	2,090	2,670	1,030	1,260	946
2	820	1,160	2,690	e1,560	1,600	1,540	2,730	2,000	2,520	1,060	1,260	899
3	835	1,270	2,160	e1,540	e1,650	1,510	2,410	2,020	2,190	1,040	1,130	836
4	996	1,230	1,820	e1,540	1,670	1,550	2,470	1,910	1,590	969	1,040	824
5	2,170	1,160	1,950	1,510	1,560	1,550	2,470	1,880	1,780	1,000	1,170	837
6	3,860	1,190	1,720	1,490	1,500	1,610	2,590	1,750	1,650	975	1,060	847
7	4,080	1,190	1,630	1,570	1,600	1,520	2,600	1,410	1,790	909	936	836
8	3,150	1,180	1,480	1,530	1,570	1,570	2,580	1,390	1,710	824	818	789
9	2,610	1,220	1,800	1,640	1,540	1,600	2,740	1,350	1,630	883	797	736
10	2,220	1,220	1,900	1,520	1,550	1,670	2,520	1,700	1,520	852	1,020	795
11	1,800	1,160	1,740	1,470	1,550	1,680	2,470	2,060	1,510	921	897	806
12	1,640	1,290	1,680	1,400	1,510	1,660	2,460	2,790	1,580	867	928	846
13	1,600	1,250	1,400	1,370	1,610	1,570	2,660	3,390	1,450	800	878	830
14	1,440	1,300	1,480	1,440	1,590	1,730	2,640	3,680	1,330	820	958	769
15	1,300	1,210	1,380	1,440	1,490	1,730	2,700	3,910	1,410	789	1,360	837
16	1,290	1,360	1,460	1,480	1,560	1,600	2,510	3,920	1,290	893	1,260	842
17	1,370	1,410	1,410	1,590	1,580	1,500	2,490	3,520	1,480	887	1,310	833
18	1,190	1,400	1,420	1,610	1,480	1,580	2,400	3,270	1,470	853	1,050	796
19	1,280	1,450	1,320	1,660	1,480	1,520	2,330	3,150	1,440	797	836	841
20	1,570	1,240	1,500	1,530	1,520	1,470	2,140	2,990	1,320	832	966	799
21	1,380	1,330	1,420	1,640	1,550	1,530	1,890	2,820	1,200	865	1,010	769
22	1,310	1,310	1,410	1,620	1,600	1,350	2,110	2,580	1,180	759	910	786
23	1,470	1,490	1,450	1,630	1,500	1,370	2,030	1,870	1,170	826	910	843
24	1,400	1,570	1,400	1,540	1,520	1,400	2,030	1,800	1,070	764	918	1,110
25	1,530	1,310	e1,460	1,620	1,540	1,410	1,900	1,850	1,140	697	1,130	878
26	1,530	1,220	e1,520	1,650	1,550	1,430	2,010	1,670	1,050	772	1,320	843
27	1,540	1,220	e1,550	1,640	1,550	1,440	2,140	1,750	1,100	695	1,420	841
28	1,430	1,270	e1,520	1,590	1,480	1,440	2,130	3,390	1,040	686	1,260	849
29	1,500	1,910	e1,630	1,630	---	1,520	1,770	3,850	1,150	704	1,210	857
30	1,320	2,500	e1,590	1,620	---	1,690	1,820	4,320	962	959	1,140	852
31	1,350	---	e1,590	1,580	---	2,060	---	4,510	---	1,720	950	---
Total	51,811	40,220	51,130	48,240	43,480	48,340	70,440	80,590	44,392	27,448	33,112	25,172
Mean	1,671	1,341	1,649	1,556	1,553	1,559	2,348	2,600	1,480	885	1,068	839
Max	4,080	2,500	2,690	1,660	1,670	2,060	2,740	4,510	2,670	1,720	1,420	1,110
Min	820	1,160	1,320	1,370	1,480	1,350	1,770	1,350	962	686	797	736

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,466	1,575	1,449	1,409	1,398	1,610	3,174	3,017	2,113	1,582	1,298	1,376
Max	3,537	3,465	2,640	2,253	2,514	3,544	8,159	6,319	5,035	4,309	2,359	3,149
(WY)	(1986)	(1986)	(1984)	(1983)	(1984)	(1973)	(1916)	(1960)	(1916)	(1953)	(1972)	(1968)
Min	726	725	765	691	647	692	707	595	799	721	545	718
(WY)	(1949)	(1964)	(1925)	(1924)	(1926)	(1914)	(1990)	(1987)	(1988)	(1925)	(1925)	(1925)

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SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1914 - 2006	
Annual total	520,924		564,375			
Annual mean	1,427		1,546		1,795	
Highest annual mean					3,069	1916
Lowest annual mean					922	1925
Highest daily mean	4,520	Apr 8	4,510	May 31	18,100	Apr 26, 1960
Lowest daily mean	607	Sep 19	686	Jul 28	57	Sep 26, 1975
Annual seven-day minimum	684	Sep 15	735	Jul 23	277	Oct 18, 1975
Maximum peak flow			5,000	Oct 6	^a 19,500	Apr 26, 1960
Maximum peak stage			9.37	Oct 6	^b 13.88	Apr 17, 2002
10 percent exceeds	1,950		2,480		3,010	
50 percent exceeds	1,400		1,480		1,480	
90 percent exceeds	798		839		860	

^a Gage height 14.15 ft, site and datum then in use.

^b Present site and datum.

