Water-Data Report 2013

04057800 MIDDLE BRANCH ESCANABA RIVER AT HUMBOLDT, MI

Northwestern Lake Michigan Basin
Escanaba Subbasin

LOCATION.--Lat 46°29′57″, long 87°53′11″ referenced to North American Datum of 1927, in SW ¼ sec.1, T.47 N., R.29 W., Marquette County, MI, Hydrologic Unit 04030110, on left bank 15 ft upstream from county road FX, 1.5 mi downstream from Halfway Creek, and 0.3 mi north of Humboldt.

DRAINAGE AREA.--46 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 1911: Drainage area.

GAGE.--Water-stage recorder. V-notch sharp-crested weir since Oct. 3, 1960. Datum of gage is 1,521.20 ft above NGVD 1929 (Cliffs Natural Resources Inc. bench mark). Prior to Sept. 1, 1960, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. From July 1960 to June 1972, some diversion 100 ft upstream by industry for iron ore processing; figures of runoff adjusted. Gage-height telemeter at station.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 04057800, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/04057800.2013.pdf

04057800 MIDDLE BRANCH ESCANABA RIVER AT HUMBOLDT, MI—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

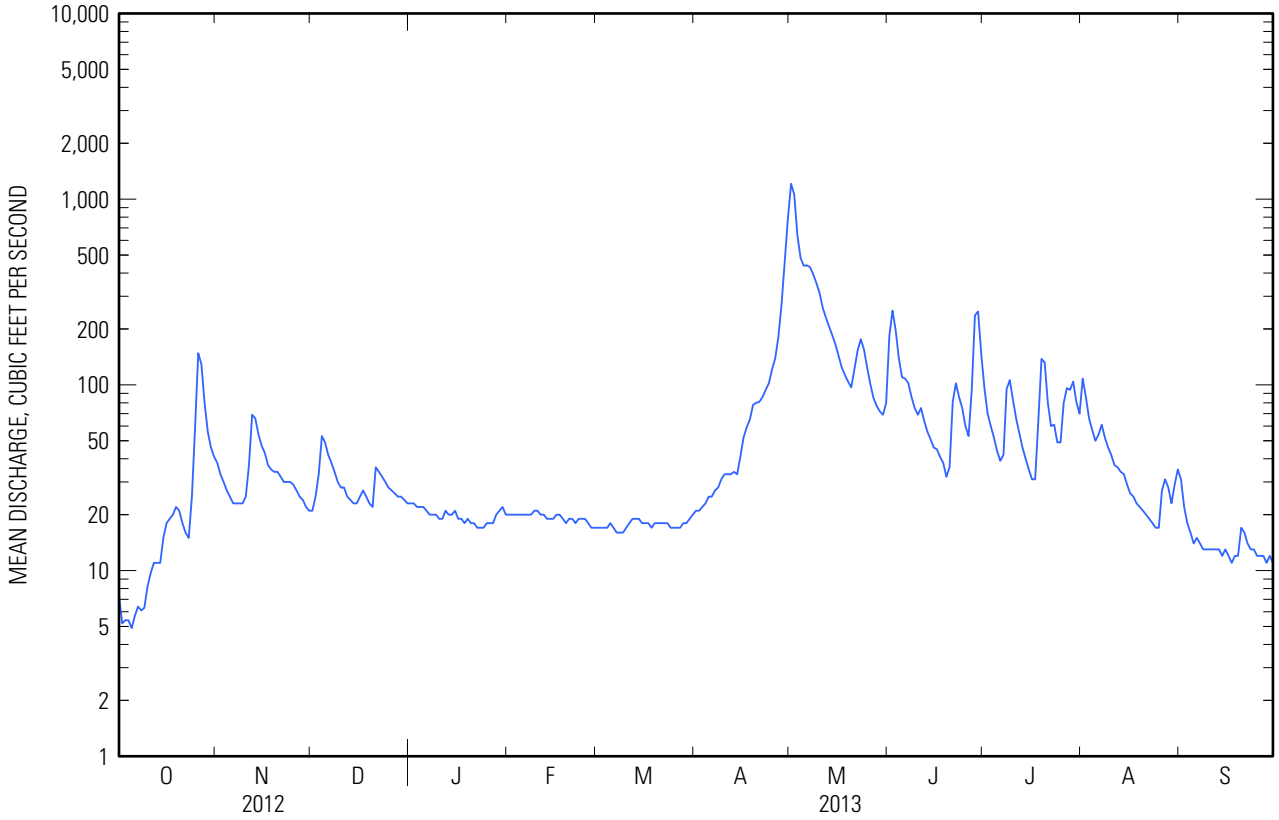
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7.4	38	21	23	e20	17	e21	1,210	183	96	108	31
2	5.2	33	25	23	e20	17	e21	1,060	251	70	86	22
3	5.4	30	33	22	e20	17	e22	639	197	60	66	18
4	5.4	27	53	22	e20	17	23	483	139	52	57	16
5	4.9	25	49	22	e20	18	25	438	110	44	50	14
6	5.7	23	42	21	20	17	25	440	108	39	54	15
7	6.4	23	38	20	20	16	27	430	102	42	61	14
8	6.1	23	34	20	20	16	28	393	86	95	52	13
9	6.3	23	30	20	21	16	31	353	75	106	46	13
10	8.2	25	28	19	21	17	33	312	69	83	42	13
11	9.7	37	28	19	e20	18	33	260	75	66	37	13
12	11	69	25	e21	e20	19	e33	230	64	55	36	13
13	11	66	24	e20	e19	19	34	206	56	46	34	13
14	11	54	23	e20	e19	19	33	185	51	40	33	12
15	15	47	23	21	e19	18	41	165	46	35	29	13
16	18	43	25	19	e20	18	52	143	45	31	26	12
17	19	37	27	19	e20	18	59	124	41	31	25	11
18	20	35	25	18	e19	17	65	113	38	64	23	12
19	22	34	23	19	18	18	78	104	32	138	22	12
20	21	34	22	e18	19	e18	e80	97	36	132	21	17
21	18	32	36	e18	19	e18	81	122	81	80	20	16
22	16	30	34	e17	18	18	86	153	102	60	19	14
23	15	30	32	e17	19	18	94	176	86	61	18	13
24	25	30	30	e17	19	17	102	155	75	49	17	13
25	59	29	28	18	19	17	121	124	60	49	17	12
26	148	27	27	18	18	17	139	101	53	80	27	12
27	129	25	26	18	17	17	181	85	94	96	31	12
28	80	24	25	20	17	18	271	77	237	94	28	11
29	56	22	25	e21	---	e18	461	72	248	104	23	12
30	46	21	24	e22	---	e19	785	69	146	81	29	11
31	41	---	23	e20	---	e20	---	80	---	70	35	---
Total	851.7	996	908	612	541	547	3,085	8,599	2,986	2,149	1,172	423
Mean	27.5	33.2	29.3	19.7	19.3	17.6	103	277	99.5	69.3	37.8	14.1
Max	148	69	53	23	21	20	785	1,210	251	138	108	31
Min	4.9	21	21	17	17	16	21	69	32	31	17	11
Cfsm	0.60	0.72	0.64	0.43	0.42	0.38	2.24	6.03	2.16	1.51	0.82	0.31
In.	0.69	0.81	0.73	0.49	0.44	0.44	2.49	6.95	2.41	1.74	0.95	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	49.6	51.1	35.2	22.8	19.9	41.7	192	117	57.5	31.7	23.5	31.1
Max	191	198	77.5	41.5	55.9	149	423	326	153	89.9	76.5	184
(WY)	(1986)	(1989)	(1992)	(1966)	(1984)	(1973)	(1985)	(1972)	(1989)	(1968)	(1978)	(1978)
Min	5.87	5.97	5.57	5.30	6.00	11.5	43.5	14.2	13.3	7.57	5.34	4.91
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1964)	(2012)	(2010)	(1988)	(1988)	(2007)	(1976)

04057800 MIDDLE BRANCH ESCANABA RIVER AT HUMBOLDT, MI—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1959 - 2013	
Annual total	11,674.4		22,869.7			
Annual mean	31.9		62.7		55.9	
Highest annual mean					95.3	1960
Lowest annual mean					30.0	2009
Highest daily mean	401	Mar 20	1,210	May 1	1,830	Apr 20, 1985
Lowest daily mean	3.6	Sep 2	4.9	Oct 5	3.6	Sep 2, 2012 [a]
Annual seven-day minimum	4.1	Aug 28	5.6	Oct 2	4.1	Aug 28, 2012
Maximum peak flow			1,330	May 1	1,930	Apr 20, 1985
Maximum peak stage			7.93	May 1	9.21	Apr 20, 1985
Instantaneous low flow			4.7	Oct 2 [b]	3.3	Sep 2, 2012
Annual runoff (cfsm)	0.693		1.36		1.22	
Annual runoff (inches)	9.44		18.49		16.51	
10 percent exceeds	55		124		122	
50 percent exceeds	20		25		28	
90 percent exceeds	6.5		14		11	

[a] Also occurred Aug. 26, 2007.
[b] Also occurred Oct. 5.