

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL

Upper Mississippi-Meramec Basin
Big Muddy Subbasin

LOCATION.--Lat 37°44'53", long 89°20'48" referenced to North American Datum of 1983, in SE ¼ SE ¼ sec.8, T.9 S., R.2 W., Jackson County, IL, Hydrologic Unit 07140106, on left bank just upstream from Lewis Creek, 0.2 mi upstream from South Twentieth Street Bridge at Murphysboro, and at mile 36.0.

DRAINAGE AREA.--2,169 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.—

SURFACE-WATER DISCHARGE AND STAGE

DISCHARGE: December 1916 to September 2007 (fragmentary prior to 1931).

STAGE: Water years 1994 to Sept. 30, 2009 (discontinued).

SURFACE-WATER QUALITY

CHEMICAL: Water years 1975-92.

SEDIMENT: May 1980 to Sept. 1997.

SPECIFIC CONDUCTANCE: Water years 1975-81.

WATER TEMPERATURE: Water years 1978-81.

MISCELLANEOUS: Sediment concentration and particle size, water years 1993-97.

REVISED RECORDS.--WDR IL-79-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and phone telemeter. Datum of gage is 335.5 ft above NGVD of 1929 (335.2 ft NAVD 1988). Prior to June 20, 1931, non-recording gage at South Twentieth Street Bridge, 1,300 ft downstream, at datum 5 ft lower, June 20, 1931 to July 11, 1933, non-recording gage at upstream side of railroad bridge across mouth of Lewis Creek at present datum. Oct. 6, 1931 to Nov. 13, 1973, auxiliary non-recording gage read twice daily at same site. Nov. 14, 1973 to Sept. 30, 2007; auxiliary water-stage recorder 1.5 miles upstream. Oct. 1, 1995 to Sept. 30, 1999, water-stage recorder at South Twentieth Street Bridge, 1,300 ft downstream, at present datum. Converted to auxiliary gage Oct. 1, 2007. Station discontinued Sept. 30, 2009.

REMARKS.--Flow regulated since October 1970 by Rend Lake (station 05595950), 67.8 mi upstream from gage.

EXTREMES FOR PERIOD OF RECORD.--

SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 33,800 ft³/s, May 2, 1996, from graph based on discharge record, gage height 36.12 ft; maximum gage height, 37.97 ft, May 12, 1961; maximum daily reverse flow, -4,400 ft³/s, June 3, 1947, caused by backwater from Mississippi River; no flow Aug. 13 to Sept. 1, 1936, unaffected by backwater.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily, 1,700 mg/L, Feb. 28, 1987; minimum daily, 2 mg/L, Aug. 10, 11, 1993.

SUSPENDED-SEDIMENT LOADS: Maximum daily, 20,500 tons, May 3, 1983; minimum daily, -45 tons, Aug. 6, 1993.

EXTREMES OUTSIDE PERIOD OF RECORD.--

SURFACE-WATER DISCHARGE AND STAGE: Flood of Feb. 2, 1916, reached a stage of 34.9 ft, present datum, discharge, 28,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 27.36 ft, May 14; minimum gage height, 3.25 ft, Nov. 10, 11.

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GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	---	3.66	3.55	---	---	7.47	16.52	19.40	17.32	11.33	8.34	7.64
2	---	3.59	3.53	---	---	7.56	16.61	20.75	16.24	9.92	10.11	8.37
3	4.04	3.52	3.53	---	---	7.36	16.53	21.81	15.05	8.76	10.75	8.25
4	3.84	3.46	3.53	---	---	6.71	16.12	22.55	14.03	8.01	10.74	7.22
5	3.74	3.41	3.55	---	---	5.80	15.80	22.88	13.21	8.67	10.54	5.19
6	3.70	3.38	3.58	---	---	5.20	15.73	22.85	12.44	11.17	9.78	4.35
7	3.76	3.34	3.56	---	---	5.01	15.32	22.57	11.83	12.36	8.61	4.53
8	3.82	3.32	3.53	---	10.93	4.93	14.98	22.91	11.33	12.37	7.42	5.46
9	4.24	3.28	---	---	12.12	4.88	14.50	23.54	11.68	12.31	6.38	6.36
10	4.40	3.26	---	---	12.58	4.89	15.27	24.04	12.35	11.56	5.70	6.69
11	4.32	3.32	---	---	14.14	5.51	16.42	24.77	13.39	12.24	5.65	6.37
12	4.17	3.42	---	---	15.54	8.49	16.90	25.98	14.10	15.95	5.72	5.47
13	4.01	3.61	---	---	16.30	12.66	17.80	26.78	15.19	18.64	5.73	4.87
14	3.86	3.79	---	---	17.09	14.74	18.90	27.27	16.33	20.69	5.71	4.62
15	3.76	4.29	---	---	18.31	15.61	19.62	27.13	16.80	22.48	5.38	4.49
16	3.75	4.48	---	---	19.12	15.93	19.81	27.13	16.85	23.58	5.06	4.42
17	3.75	4.63	---	---	18.79	15.95	19.48	26.93	16.76	23.93	4.89	4.34
18	3.79	4.75	---	---	17.49	15.56	18.62	26.83	17.29	23.34	4.85	4.28
19	3.84	4.66	---	---	15.24	14.85	18.18	26.82	18.11	22.06	4.97	4.21
20	3.78	4.38	---	---	12.75	13.80	19.10	26.73	18.78	20.19	5.60	4.18
21	3.73	4.10	---	---	10.65	12.44	19.28	26.41	18.96	17.85	6.65	4.54
22	3.68	3.92	---	---	8.65	10.82	19.21	25.89	18.41	15.40	8.16	4.44
23	3.68	3.78	---	---	6.95	9.54	19.28	25.21	17.46	13.14	8.61	4.50
24	3.88	3.71	---	---	5.87	8.87	19.14	24.44	16.30	11.18	7.47	4.72
25	3.97	3.68	---	---	5.34	9.37	18.22	23.55	15.21	9.49	5.86	4.82
26	4.06	3.67	---	---	5.13	9.98	16.66	22.61	14.51	8.06	4.86	4.72
27	4.15	3.64	---	---	6.46	10.73	15.09	21.57	14.22	7.09	4.65	4.81
28	4.09	3.62	---	---	7.28	12.20	16.09	20.65	14.00	6.43	4.57	4.95
29	4.11	3.59	---	---	---	13.65	16.54	19.75	13.52	6.22	4.53	4.94
30	3.92	3.57	---	---	---	14.59	17.43	18.95	12.62	7.02	4.60	4.83
31	3.76	---	---	---	---	15.75	---	18.16	---	7.36	6.02	---
Mean	---	3.76	---	---	---	10.35	17.30	23.77	15.14	13.51	6.71	5.29
Max	---	4.75	---	---	---	15.95	19.81	27.27	18.96	23.93	10.75	8.37
Min	---	3.26	---	---	---	4.88	14.50	18.16	11.33	6.22	4.53	4.18

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