Water-Data Report 2011

03270500 GREAT MIAMI RIVER AT DAYTON OH

Great Miami Basin
Lower Great Miami Subbasin

LOCATION.--Lat 39°45′55″, long 84°11′51″ referenced to North American Datum of 1927, Montgomery County, OH, Hydrologic Unit 05080002, on left bank 1,000 ft downstream from Main Street bridge in Dayton, 0.7 mi upstream from Wolf Creek, 0.8 mi downstream from Mad River, at river mile 80.

DRAINAGE AREA.--2,511 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April to September 1905, January to September 1906, January 1907 to December 1909 (gage heights only), April 1913 to current year. Monthly discharge only for October 1919 to September 1921, published in WSP 1305. Gage-height records collected at Main Street bridge since January 1892 are contained in reports of National Weather Service. Prior to October 1962, published as Miami River at Dayton.

REVISED RECORDS.--WSP 1385: 1917. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 700 ft, National Geodetic Vertical Datum of 1912 (as requested by cooperator, 699.71 ft adjustment of 1929). Prior to Oct. 1, 1921, nonrecording gage at Main Street bridge at datum 23.73 ft higher; Oct. 1, 1921-July 24, 1931, nonrecording gage at Main Street bridge at datum 21.00 ft higher.

COOPERATION.--Base data furnished by Miami Conservancy District.

REMARKS.--Records good except for periods of estimated record, which are poor. Flood flow regulated by four retarding basins upstream from station beginning in 1920 on Mad River 6.4 mi upstream, on Stillwater River 10.5 mi upstream, on Great Miami River 11.5 mi upstream, and on Loramie Creek 40 mi upstream. Also see REMARKS for stations 03261500, 03262000, and 03269500. Much of the flow is diverted to the Little Miami River Basin through the Dayton waste water treatment system. Sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,900 ft^3/s, Jan. 22, 1959, gage height, 36 ft, Jan. 22, 1959; minimum discharge, 109 ft^3/s, Aug. 8, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 29.0 ft, site and datum then in use; discharge, 250,000 ft^3/s, computed by Miami Conservancy District.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 03270500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/03270500.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	413	407	6,800	3,780	e659	26,200	2,050	10,600	4,990	1,440	747	421
2	418	358	4,550	5,070	1,040	25,900	2,000	14,200	3,920	1,400	695	396
3	427	338	2,680	3,460	964	22,900	1,880	23,100	3,440	1,310	753	384
4	396	332	1,890	2,260	949	17,600	4,080	25,200	3,250	1,280	761	2,150
5	374	323	1,410	1,650	979	21,200	19,900	19,000	3,350	1,270	717	816
6	366	362	1,150	1,360	871	32,400	17,700	14,200	3,010	1,260	691	633
7	361	393	984	1,140	868	28,300	11,600	10,400	2,800	1,230	826	855
8	353	377	782	e907	826	22,700	7,350	12,700	2,560	1,140	765	1,050
9	372	347	718	e680	e602	18,000	5,310	11,300	2,370	1,140	1,230	850
10	400	358	723	e672	e530	21,000	4,540	7,870	3,480	1,100	925	737
11	366	387	689	e732	e545	16,600	4,290	8,110	7,920	1,100	861	635
12	317	406	944	e682	e575	12,600	5,050	9,330	6,980	1,510	822	596
13	318	396	1,660	e644	663	8,780	4,400	6,670	4,450	1,130	723	534
14	352	401	1,650	e608	1,010	6,550	3,560	5,720	3,380	978	648	488
15	330	374	1,190	e575	2,830	5,660	2,950	6,410	2,700	907	612	473
16	364	e410	1,060	e543	4,580	5,820	5,140	6,980	2,460	877	618	464
17	376	e650	1,070	e505	8,810	5,650	8,560	6,290	2,380	833	598	497
18	359	e520	859	e600	13,600	4,850	6,230	8,990	2,360	798	605	550
19	354	e515	765	e732	12,400	4,150	11,000	9,320	4,620	984	573	552
20	338	503	793	e790	7,990	3,660	22,400	7,480	4,330	885	562	568
21	321	483	730	e712	7,150	3,520	23,600	6,460	4,250	824	557	647
22	321	429	674	e543	11,900	3,650	16,900	5,580	3,840	737	535	775
23	351	436	633	e550	8,430	4,580	13,900	5,250	2,960	686	517	1,370
24	392	478	615	e566	5,590	4,350	11,600	4,890	2,580	942	489	1,370
25	369	1,170	594	e600	9,700	4,070	13,300	5,220	2,230	1,230	850	1,170
26	446	4,020	567	e600	7,660	3,720	21,800	14,500	2,080	1,410	563	7,920
27	488	3,820	538	e575	6,030	3,180	22,300	21,400	1,910	1,190	507	7,960
28	390	2,040	522	e566	14,500	2,670	23,300	17,800	1,800	924	534	4,760
29	396	1,230	528	e543	---	2,300	19,100	12,800	1,640	852	492	3,760
30	428	2,450	644	e520	---	2,120	14,100	8,480	1,510	1,660	443	3,770
31	419	---	1,350	e490	---	2,080	---	6,410	---	1,040	440	---
Total	11,675	24,713	39,762	33,655	132,251	346,760	329,890	332,660	99,550	34,067	20,659	47,151
Mean	377	824	1,283	1,086	4,723	11,190	11,000	10,730	3,318	1,099	666	1,572
Max	488	4,020	6,800	5,070	14,500	32,400	23,600	25,200	7,920	1,660	1,230	7,960
Min	317	323	522	490	530	2,080	1,880	4,890	1,510	686	440	384

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,124	1,719	2,840	3,489	3,668	4,758	4,138	3,375	2,808	2,030	1,099	943
Max	5,792	6,233	9,210	17,140	8,926	12,890	11,000	11,030	7,357	8,483	5,727	5,692
(WY)	(1987)	(1994)	(1991)	(2005)	(1975)	(2007)	(2011)	(1996)	(1981)	(2003)	(1979)	(2003)
Min	232	236	296	270	636	890	1,069	583	259	299	196	175
(WY)	(2000)	(2000)	(1977)	(1977)	(1992)	(1992)	(1976)	(1988)	(1988)	(1977)	(1988)	(1999)

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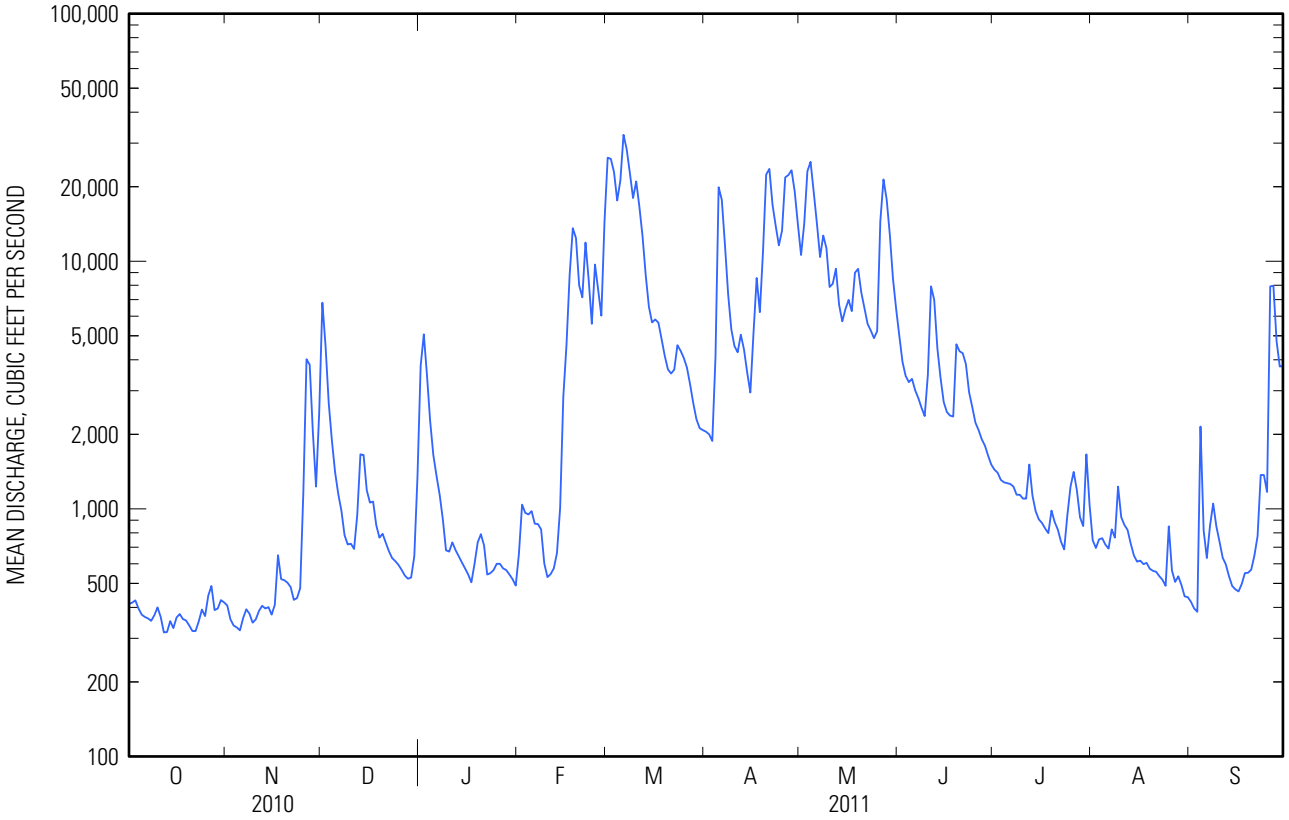
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1974 - 2011	
Annual total	812,611		1,452,793			
Annual mean	2,226		3,980		2,661	
Highest annual mean					4,226	2008
Lowest annual mean					881	1977
Highest daily mean	23,700	Mar 14	32,400	Mar 6	42,000	Jan 6, 2005
Lowest daily mean	254	Sep 7	317	Oct 12	111	Jul 17, 1988
Annual seven-day minimum	272	Sep 5	345	Oct 12	125	Jul 11, 1988
Maximum peak flow			34,500	Mar 6	45,800	Jan 7, 2005
Maximum peak stage			32.52	Mar 6	34.33	Jan 7, 2005
Instantaneous low flow			278	Oct 20	111	Jul 17, 1988
10 percent exceeds	5,180		12,500		6,250	
50 percent exceeds	1,120		1,140		1,360	
90 percent exceeds	351		396		404