

Water-Data Report 2008

03216600 OHIO RIVER AT GREENUP DAM, KY

Middle Ohio-Raccoon Basin
Little Scioto-Tygarts Subbasin

LOCATION.--Lat 38°38'48", long 82°51'38" referenced to North American Datum of 1927, Greenup County, KY, Hydrologic Unit 05090103, on Ohio River, at left bank at downstream end of lock guidewall in lower pool at Greenup Locks, 1.1 miles upstream from Grays Branch, 4.7 miles downstream from Little Sandy River; 5.0 miles north of Greenup, and at mile 341.5.

DRAINAGE AREA.--62000.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Records of Greenup Dam operations and hydropower releases furnished by the U.S. Army Corps of Engineers are used to determine daily discharge. Water-stage recorder with telemetry in Greenup Dam tailwater for peak stage determination. Datum of gage is 472.43 feet above NGVD of 1929 or 472.97 feet Ohio River Datum. Auxiliary water-stage recorder is located at the waste water treatment plant in Portsmouth, Ohio, 14.1 miles downstream, established October 1, 1981 and used in slope rating computation from October 1, 1981 to September 30, 1983. Datum of gage is 470.43 feet above NGVD of 1929 or 470.99 feet Ohio River Datum. Record of Greenup Dam headwater, tailwater, gate openings and lockages used to determine discharge from October 1, 1968 to September 30, 1981. Slope rating computation from October 1, 1981 to September 30, 1983, and Branch Flow Model, gate and tailwater rating from October 1, 1983 to current year.

COOPERATION.--U.S. Army Corps of Engineers, Huntington, WV District.

REMARKS.--Records good except for those estimated and those below 20,000 ft³/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13,600	11,900	81,300	112,000	136,000	121,000	154,000	126,000	54,900	89,800	25,100	16,900
2	11,100	25,000	63,100	105,000	195,000	142,000	143,000	103,000	69,100	93,200	28,400	8,760
3	8,470	20,200	71,000	93,400	202,000	149,000	144,000	92,400	52,100	66,100	24,100	15,000
4	11,100	18,400	105,000	77,800	176,000	141,000	174,000	72,300	99,300	62,900	36,400	11,800
5	16,400	14,400	129,000	72,500	154,000	230,000	230,000	71,800	186,000	94,600	26,200	9,910
6	9,440	18,400	122,000	62,500	210,000	322,000	259,000	73,700	287,000	101,000	30,700	11,500
7	2,720	15,700	107,000	70,200	311,000	373,000	249,000	64,800	263,000	76,200	21,400	11,100
8	19,400	19,400	82,400	92,300	352,000	386,000	224,000	60,500	136,000	51,500	13,400	10,200
9	12,900	22,600	82,300	104,000	364,000	368,000	176,000	77,900	89,800	89,500	22,300	13,400
10	11,400	19,600	156,000	98,600	353,000	337,000	153,000	122,000	63,700	129,000	20,500	15,000
11	10,800	20,200	196,000	126,000	301,000	302,000	139,000	165,000	55,300	95,900	9,440	15,700
12	9,450	21,400	200,000	184,000	237,000	262,000	131,000	194,000	32,300	69,000	15,100	8,650
13	8,240	23,200	227,000	248,000	174,000	197,000	121,000	198,000	45,300	40,500	22,200	30,100
14	11,000	33,500	278,000	240,000	173,000	183,000	104,000	194,000	27,900	44,600	20,400	18,600
15	11,100	47,100	310,000	172,000	167,000	176,000	96,200	179,000	37,000	44,400	17,600	14,600
16	10,800	77,900	321,000	146,000	153,000	186,000	91,100	178,000	43,800	32,300	17,400	19,000
17	7,790	77,300	296,000	120,000	139,000	200,000	77,100	231,000	33,600	28,100	18,600	19,200
18	8,040	54,500	247,000	93,500	127,000	197,000	63,000	217,000	37,200	32,000	12,400	25,700
19	12,400	52,900	188,000	93,000	136,000	248,000	66,500	178,000	40,700	26,400	13,400	8,660
20	13,600	41,900	164,000	93,200	149,000	314,000	68,100	183,000	29,500	20,200	7,370	13,200
21	10,100	36,000	149,000	77,600	143,000	352,000	92,100	223,000	24,200	13,500	14,500	8,900
22	11,400	43,600	129,000	58,400	124,000	373,000	94,900	203,000	21,400	32,700	11,500	6,920
23	14,100	39,000	114,000	56,900	122,000	364,000	88,400	159,000	24,200	29,400	10,200	16,500
24	30,500	33,300	112,000	53,600	124,000	321,000	74,100	129,000	25,600	35,100	7,010	11,100
25	31,900	52,100	138,000	41,600	112,000	235,000	66,400	96,100	33,800	32,300	6,650	6,420
26	46,900	50,900	159,000	48,000	114,000	166,000	62,500	70,100	25,100	25,300	14,600	10,800
27	55,200	81,100	151,000	38,400	119,000	162,000	52,900	61,000	62,200	36,900	18,600	12,800
28	49,900	106,000	132,000	44,900	139,000	189,000	49,800	63,000	50,000	30,700	21,200	9,470
29	33,000	107,000	123,000	43,200	133,000	193,000	68,300	60,700	66,100	23,900	17,700	9,920
30	30,500	85,700	124,000	76,700	---	191,000	107,000	53,500	77,000	20,900	18,600	21,900
31	27,100	---	123,000	127,000	---	181,000	---	43,300	---	27,900	15,100	---
Total	560,350	1,270,200	4,880,100	3,070,300	5,339,000	7,561,000	3,619,400	3,943,100	2,093,100	1,595,800	558,070	411,710
Mean	18,080	42,340	157,400	99,040	184,100	243,900	120,600	127,200	69,770	51,480	18,000	13,720
Max	55,200	107,000	321,000	248,000	364,000	386,000	259,000	231,000	287,000	129,000	36,400	30,100
Min	2,720	11,900	63,100	38,400	112,000	121,000	49,800	43,300	21,400	13,500	6,650	6,420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	39,850	70,940	109,200	121,300	141,500	163,100	142,300	105,600	67,620	45,510	36,370	36,790
Max	118,200	208,600	252,700	246,400	259,100	268,600	258,400	276,700	174,000	100,700	113,600	184,300
(WY)	(2007)	(1986)	(1973)	(2005)	(1994)	(1994)	(1994)	(1996)	(1981)	(1972)	(1980)	(2004)
Min	11,310	14,720	24,080	27,170	66,240	53,550	52,660	36,610	13,440	13,040	11,270	9,706
(WY)	(1992)	(1999)	(1999)	(1977)	(1978)	(1969)	(1986)	(1976)	(1988)	(1999)	(1988)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1969 - 2008	
Annual total	30,268,990		34,902,130			
Annual mean	82,930		95,360		89,730	
Highest annual mean					136,300	2004
Lowest annual mean					49,760	1988
Highest daily mean	367,000	Mar 19	386,000	Mar 8	540,000	Jan 12, 1974
Lowest daily mean	2,720	Oct 7	2,720	Oct 7	2,720	Oct 7, 2007
Annual seven-day minimum	9,490	Oct 12	9,490	Oct 12	7,740	Sep 22, 1999
Maximum peak flow			388,000	Mar 8	520,000	Mar 4, 1997
Maximum peak stage			50.44	Mar 8	56.64	Jan 10, 2005
10 percent exceeds	212,000		223,000		201,000	
50 percent exceeds	41,800		67,300		63,200	
90 percent exceeds	11,200		11,700		16,900	

