Water-Data Report 2011

03112000 WHEELING CREEK AT ELM GROVE, WV

Upper Ohio-Beaver Basin
Upper Ohio-Wheeling Subbasin

LOCATION.--Lat 40°02′40″, long 80°39′40″ referenced to North American Datum of 1927, Ohio County, WV, Hydrologic Unit 05030106, on right bank at highway bridge at Elm Grove, 500 ft downstream from Little Wheeling Creek, and at mile 7.8.

DRAINAGE AREA.--281 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1940 to September 1997 (daily discharge and peaks), October 1997 to current year (daily discharge and annual maxima). Monthly discharge only for October 1940, published in WSP 1907.

REVISED RECORDS.--WSP 1305: 1941(M). WDR WV-97-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 667.09 ft above NAVD 88 (667.59 ft above NGVD 29).

REMARKS.--Records good except for periods of estimated daily discharges (ice effect), which are poor. The flow from 205 mi^2 upstream from station is partially controlled, but not diverted, by seven floodwater-detention reservoirs with a total combined detention capacity of 24,148 acre-ft. Cumulative detention as construction progressed 1975 to 1995.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,860 ft^3/s, Feb. 25, gage height, 5.84 ft; minimum discharge, 4.4 ft^3/s, Oct. 18, gage height, 1.26 ft.

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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	25	18	3,710	262	168	1,810	182	386	117	192	44	22
2	21	15	2,420	780	1,730	1,180	188	374	100	139	34	25
3	21	14	780	440	1,590	829	243	370	85	119	29	31
4	26	13	361	275	773	658	318	601	74	129	29	30
5	27	13	239	206	563	638	3,120	562	112	137	27	80
6	54	13	179	171	471	1,570	2,710	458	93	102	27	692
7	59	13	140	e154	393	1,650	1,520	419	87	80	59	1,430
8	45	11	120	138	409	1,130	906	353	125	69	151	541
9	36	10	e105	e120	e315	1,400	806	306	99	153	e220	278
10	27	9.5	95	e106	e275	3,460	677	266	71	124	297	177
11	21	9.5	85	e100	e243	3,560	642	250	95	87	219	127
12	16	9.5	107	e93	e222	2,480	1,350	245	78	112	83	114
13	12	8.8	221	e88	e208	1,560	3,120	384	63	92	46	85
14	9.0	7.3	187	e83	e197	1,080	2,400	1,660	54	62	210	64
15	5.9	8.5	e155	e80	e189	817	1,310	2,530	47	48	281	95
16	5.4	11	e135	e78	e183	756	1,490	1,570	45	40	735	226
17	5.0	13	e118	75	e177	659	1,870	1,240	62	36	245	132
18	4.4	11	e104	83	e175	569	1,210	2,280	475	31	110	93
19	14	11	e94	100	e175	485	2,020	2,430	825	130	97	76
20	13	12	e83	136	252	404	3,040	1,610	801	168	68	152
21	12	10	e76	165	406	359	2,210	1,060	494	101	59	145
22	10	8.8	e70	149	1,410	332	1,130	691	277	73	83	183
23	8.4	8.5	66	135	972	321	1,020	529	183	199	71	528
24	6.7	8.1	61	e124	710	308	966	442	244	235	43	581
25	7.3	62	57	e111	3,440	268	821	353	219	124	58	334
26	13	309	55	e105	3,250	235	712	283	148	126	56	275
27	63	278	e52	e101	1,940	211	662	252	116	134	44	992
28	54	124	e50	e99	1,840	189	611	257	923	84	32	649
29	37	70	e48	e100	---	173	517	203	718	66	24	382
30	27	226	48	e100	---	165	430	166	327	74	22	294
31	21	---	59	114	---	181	---	137	---	58	18	---
Total	706.1	1,335.5	10,080	4,871	22,676	29,437	38,201	22,667	7,157	3,324	3,521	8,833
Mean	22.8	44.5	325	157	810	950	1,273	731	239	107	114	294
Max	63	309	3,710	780	3,440	3,560	3,120	2,530	923	235	735	1,430
Min	4.4	7.3	48	75	168	165	182	137	45	31	18	22
Cfsm	0.08	0.16	1.16	0.56	2.88	3.38	4.53	2.60	0.85	0.38	0.40	1.05
In.	0.09	0.18	1.33	0.64	3.00	3.90	5.06	3.00	0.95	0.44	0.47	1.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	79.6	200	377	522	606	745	579	432	241	142	97.5	101
Max	627	2,085	1,369	1,951	1,249	1,670	1,336	1,107	1,004	885	1,424	1,484
(WY)	(1991)	(1986)	(1991)	(2005)	(1975)	(1963)	(1961)	(1967)	(1981)	(1956)	(1980)	(2004)
Min	0.53	1.89	5.45	21.4	85.0	126	115	66.0	16.1	3.90	2.06	0.88
(WY)	(1964)	(1964)	(1964)	(1967)	(1964)	(1969)	(1971)	(1986)	(1962)	(1962)	(1957)	(1966)

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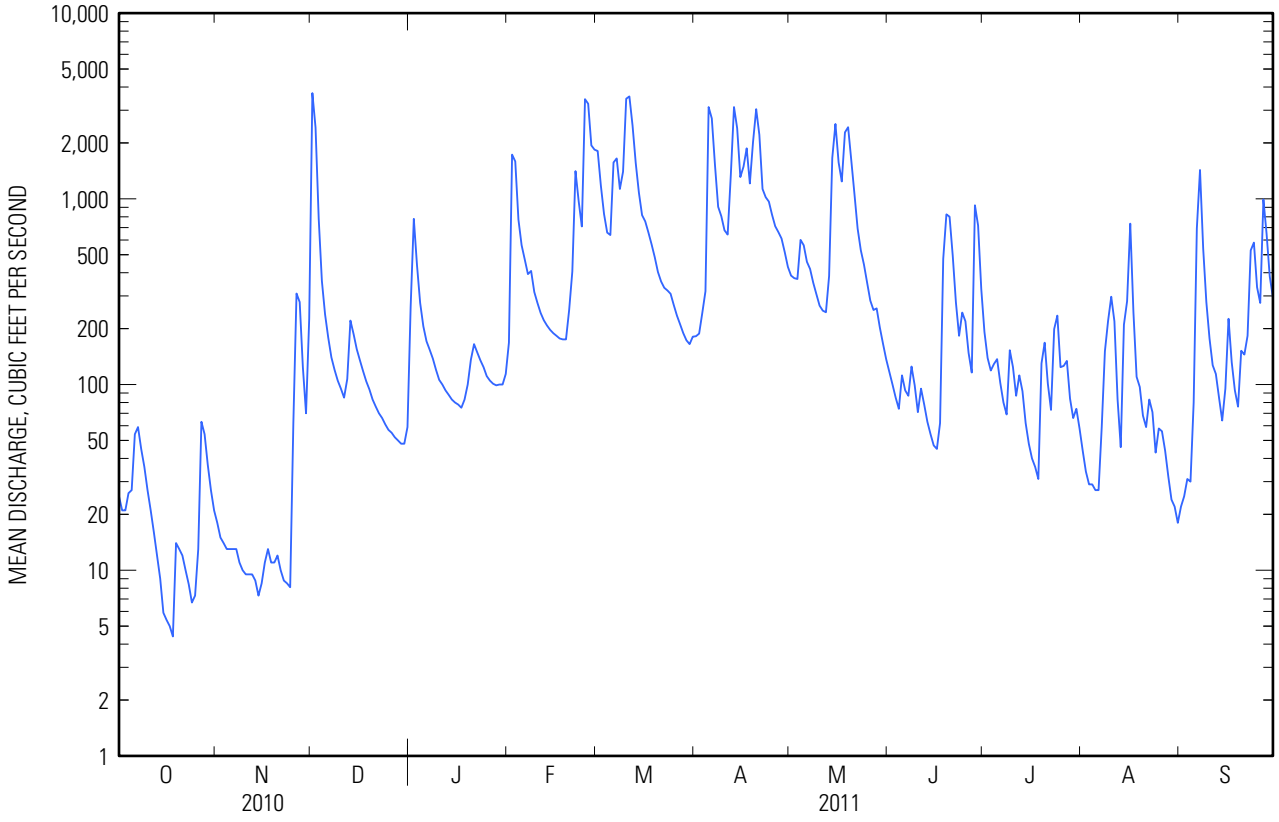
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1941 - 2011	
Annual total	95,612.6		152,808.6			
Annual mean	262		419		342	
Highest annual mean					653	2004
Lowest annual mean					112	1954
Highest daily mean	4,620	Jan 25	3,710	Dec 1	13,100	Dec 30, 1942
Lowest daily mean	4.4	Oct 18	4.4	Oct 18	0.10	Sep 26, 1964[a]
Annual seven-day minimum	6.5	Sep 5	8.0	Oct 13	0.24	Sep 21, 1964
Maximum peak flow			4,860	Feb 25	[b]22,300	Sep 17, 2004
Maximum peak stage			5.84	Feb 25	[c]13.83	Sep 17, 2004
Instantaneous low flow			4.4	Oct 18	0.10	Oct 7, 1963[d]
Annual runoff (cfsm)	0.932		1.49		1.22	
Annual runoff (inches)	12.66		20.23		16.55	
10 percent exceeds	590		1,270		834	
50 percent exceeds	87		140		139	
90 percent exceeds	9.5		15		11	

[a] Also Sept. 27, 1964.
[b] From rating curve extended above 15,000 ft³/s on basis of slope-area measurements at gage heights 13.20 ft and 13.65 ft.
[c] From high-water mark in well.
[d] Also Sept. 26, 27, 1964.