



Water-Data Report 2010

01362200 ESOPUS CREEK AT ALLABEN, NY

Upper Hudson Basin
Middle Hudson Subbasin

LOCATION.--Lat 42°07'01", long 74°22'50" referenced to North American Datum of 1927, Ulster County, NY, Hydrologic Unit 02020006, on right bank 20 ft downstream from bridge on Fox Hollow Road, 200 ft downstream from Fox Hollow Creek, 600 ft upstream from Peck Hollow Creek, at Allaben.

DRAINAGE AREA.--63.7 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow and/or miscellaneous discharge measurements, water years 1941, 1956-61. October 1963 to current year. Prior to October 1988, published as "at Shandaken" (01362198).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 998.04 ft above NGVD of 1929. Prior to November 22, 1988, at site 0.5 mi upstream at datum 19.23 ft higher.

REMARKS.--Records good. Occasional slight regulation when filling or draining swimming pools or small ponds upstream from station. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft³/s, Apr. 2, 2005, gage height, 14.44 ft, outside gage height was 14.99 ft, from crest-stage gage, from rating curve extended above 3,700 ft³/s, on basis of runoff comparison of peak flow from contracted-opening measurement at site 1.0 mi upstream; minimum discharge, 2.1 ft³/s, Sept. 16, 1983 (result of slight regulation upstream from station).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1951 reached a stage of about 15.1 ft, at previous site and datum, from information supplied by local residents, discharge about 20,000 ft³/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	1530	5,020	a9.54
Mar 14	0715	1,990	6.79
Mar 23	0245	*6,360	*10.47
Mar 30	1715	2,110	6.92

a Recorded; outside gage height was 9.76 ft, from crest-stage gage.

Minimum discharge, 7.8 ft³/s, Aug. 21, 22; minimum gage height, 2.70 ft, Sept. 25, 26, 27.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	39	227	110	188	e176	55	1,090	110	65	24	17	29
2	39	206	103	169	169	54	1,010	106	59	23	17	26
3	47	188	563	135	155	55	984	110	55	21	15	25
4	44	171	472	132	132	54	825	102	52	20	15	24
5	41	156	365	118	116	53	625	97	49	18	18	22
6	40	140	280	107	112	52	527	93	60	17	17	20
7	45	119	239	100	e103	55	469	88	52	16	15	18
8	44	109	220	95	e97	62	394	116	47	15	13	18
9	44	99	214	85	93	71	372	94	50	15	13	18
10	45	93	194	e78	93	79	292	86	54	36	13	18
11	42	86	168	e75	88	99	241	81	46	24	12	18
12	41	81	144	e72	84	140	212	100	46	22	13	16
13	41	77	164	e67	84	370	189	91	69	21	13	16
14	39	175	210	64	76	1,640	170	101	60	23	11	16
15	38	194	203	65	73	1,210	156	94	52	20	12	15
16	38	186	195	62	74	928	150	93	50	23	12	15
17	37	176	183	60	70	759	146	93	51	26	11	15
18	36	165	171	68	67	737	132	110	47	33	10	14
19	34	157	163	64	65	818	116	136	45	24	9.5	14
20	34	310	147	59	63	999	106	119	43	23	9.1	13
21	33	267	129	56	61	1,170	99	103	40	25	8.4	12
22	32	244	115	54	60	1,700	94	101	40	26	26	11
23	32	237	104	51	e60	3,800	88	101	43	27	69	10
24	261	217	98	56	e67	1,510	83	96	38	33	69	9.9
25	389	199	95	2,010	65	935	103	90	35	29	58	9.1
26	230	184	104	1,590	71	786	103	85	33	27	55	8.9
27	204	169	258	744	69	561	122	80	32	24	47	12
28	299	156	236	463	59	457	109	76	29	22	41	28
29	335	133	222	e283	---	850	109	72	27	20	37	38
30	268	123	205	e216	---	1,300	109	67	25	19	34	79
31	236	---	196	e194	---	1,600	---	63	---	17	31	---
Total	3,127	5,044	6,270	7,580	2,502	22,959	9,225	2,954	1,394	713	741.0	587.9
Mean	101	168	202	245	89.4	741	308	95.3	46.5	23.0	23.9	19.6
Max	389	310	563	2,010	176	3,800	1,090	136	69	36	69	79
Min	32	77	95	51	59	52	83	63	25	15	8.4	8.9
Cfsm	1.58	2.64	3.18	3.84	1.40	11.6	4.83	1.50	0.73	0.36	0.38	0.31
In.	1.83	2.95	3.66	4.43	1.46	13.41	5.39	1.73	0.81	0.42	0.43	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	105	157	180	165	140	265	333	190	116	59.3	41.0	58.0
Max	455	360	496	557	385	741	827	511	471	212	215	421
(WY)	(2006)	(2007)	(1974)	(1996)	(1981)	(2010)	(1993)	(1989)	(2006)	(1996)	(2003)	(2003)
Min	4.16	5.58	39.3	19.4	29.6	60.2	123	67.3	19.4	8.94	6.30	4.23
(WY)	(1965)	(1965)	(1999)	(1981)	(1987)	(2006)	(1995)	(1987)	(1965)	(1965)	(1964)	(1964)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1964 - 2010	
Annual total	53,186		63,096.9			
Annual mean	146		173		151	
Highest annual mean					240 2004	
Lowest annual mean					59.8 1965	
Highest daily mean	1,120	Jul 31	3,800	Mar 23	5,060	Apr 3, 2005
Lowest daily mean	32	Sep 26	8.4	Aug 21	3.3	Sep 24, 1964
Annual seven-day minimum	34	Oct 17	10	Aug 15	3.5	Sep 22, 1964
Annual runoff (cfsm)	2.29		2.71		2.37	
Annual runoff (inches)	31.06		36.85		32.15	
10 percent exceeds	263		347		328	
50 percent exceeds	108		74		83	
90 percent exceeds	43		17		15	

