



Water-Data Report 2009

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, and 0.5 mi west of Allaben.

DRAINAGE AREA.--63.7 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--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 except those for estimated daily discharges, which are poor. 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 3,000 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)
Oct 25	2145	1,360	6.01
Dec 12	0500	*2,970	a*7.80
Mar 9	1345	1,130	5.71
Jul 30	0400	1,100	5.67
Jul 31	1530	2,270	b7.10

a Recorded; outside gage height was 8.44 ft, from crest-stage gage.

b Recorded; outside gage height was 7.77 ft, from crest-stage gage.

Minimum discharge, 21 ft³/s, Feb. 5, gage height, 2.77 ft, result of freezeup.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	65	280	142	300	e46	211	158	103	163	123	933	60
2	61	331	137	264	e49	201	153	98	146	104	561	57
3	58	311	135	234	e45	171	274	88	127	94	405	54
4	53	309	140	209	e40	164	407	81	110	84	291	52
5	51	336	136	192	e40	151	308	78	98	76	236	49
6	48	342	124	167	e39	151	281	80	87	70	201	47
7	45	311	121	161	e39	202	262	98	77	71	168	44
8	43	260	113	139	e77	371	237	83	71	73	132	42
9	42	226	114	118	e58	936	227	90	78	61	124	40
10	39	193	271	e103	e47	722	212	92	66	56	128	38
11	37	168	422	e91	e51	590	219	84	65	54	102	45
12	35	150	1,860	e82	e140	468	198	83	73	76	98	78
13	34	138	892	e74	e156	371	186	81	64	58	101	57
14	33	137	545	e71	e160	296	176	91	89	53	85	52
15	31	148	426	e65	155	250	167	113	107	50	74	49
16	32	196	437	e67	133	235	153	132	96	48	67	46
17	30	186	373	e65	123	218	133	463	88	51	61	45
18	28	178	304	e65	117	208	121	313	204	69	55	43
19	27	164	269	e64	112	211	112	251	240	51	54	41
20	26	153	240	e64	97	198	112	228	328	47	51	39
21	26	137	223	e61	90	182	146	203	664	47	61	37
22	25	122	195	e62	84	168	160	178	545	46	60	36
23	24	116	174	e58	76	149	155	152	408	43	133	35
24	23	113	226	e52	e69	130	145	150	298	43	103	37
25	231	134	465	e52	e66	121	135	116	244	42	85	33
26	514	117	385	e51	68	115	132	103	222	73	75	32
27	278	113	426	e51	108	108	129	172	200	53	68	45
28	400	108	727	e50	234	101	116	132	175	47	64	55
29	307	99	710	e50	---	126	107	195	145	101	79	46
30	251	91	535	e49	---	202	108	191	137	655	73	43
31	219	---	410	e47	---	169	---	178	---	1,120	64	---
Total	3,116	5,667	11,677	3,178	2,519	7,896	5,429	4,500	5,415	3,639	4,792	1,377
Mean	101	189	377	103	90.0	255	181	145	180	117	155	45.9
Max	514	342	1,860	300	234	936	407	463	664	1,120	933	78
Min	23	91	113	47	39	101	107	78	64	42	51	32
Cfsm	1.58	2.97	5.91	1.61	1.41	4.00	2.84	2.28	2.83	1.84	2.43	0.72
In.	1.82	3.31	6.82	1.86	1.47	4.61	3.17	2.63	3.16	2.13	2.80	0.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	105	157	179	163	141	254	334	192	118	60.0	41.4	58.8
Max	455	360	496	557	385	553	827	511	471	212	215	421
(WY)	(2006)	(2007)	(1974)	(1996)	(1981)	(1977)	(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 2008		Water Year 2009		Water Years 1964 - 2009	
Annual total	70,365		59,205			
Annual mean	192		162		150	
Highest annual mean					240	2004
Lowest annual mean					59.8	1965
Highest daily mean	1,920	Mar 5	1,860	Dec 12	5,060	Apr 3, 2005
Lowest daily mean	13	Jul 18	23	Oct 24	3.3	Sep 24, 1964
Annual seven-day minimum	15	Jul 16	26	Oct 18	3.5	Sep 22, 1964
Annual runoff (cfsm)	3.02		2.55		2.36	
Annual runoff (inches)	41.09		34.57		32.05	
10 percent exceeds	445		319		328	
50 percent exceeds	112		113		83	
90 percent exceeds	25		43		14	

