Water-Data Report 2011

01413408 DRY BROOK AT ARKVILLE, NY

Upper Delaware Basin
East Branch Delaware Subbasin

LOCATION.--Lat 42°08′48″, long 74°37′25″ referenced to North American Datum of 1927, Delaware County, NY, Hydrologic Unit 02040102, on left bank 80 ft upstream from bridge on State Highway 28 in Arkville, 0.6 mi upstream from mouth, 1.3 mi east of Margaretville, and 4.5 mi west of Fleischmanns.

DRAINAGE AREA.--82.2 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1996 to current year. October to December 1996 (maximum only).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,336.24 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,600 ft^3/s, Aug. 28, 2011, gage height, about 17.1 ft, from floodmarks, from rating curve extended above 4,700 ft^3/s on basis of contracted-opening and flow-over-road and flow-through-culvert measurement of peak flow; minimum daily discharge, about 7.0 ft^3/s, Sept. 13, 2002, minimum instantaneous discharge not determined; minimum gage height, 1.25 ft, Oct. 6, 2005.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 12,000 ft^3/s, Jan. 19, 1996, gage height, about 15.5 ft, from floodmarks, on basis of runoff comparison with nearby stations.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 1	0615	7,960	11.42
Dec 1	1645	4,170	8.57
Mar 6	2100	4,070	8.48
Mar 11	0645	5,270	9.49
Aug 28	unknown	a*24,600	b*17.1
Sep 7	unknown	c5,600	Unknown

a From rating curve extended as explained above.

b From floodmarks.

c About.

Minimum discharge, 25 ft^3/s, Aug. 6, 13, 14; minimum gage height, 1.60 ft, Sept. 27.

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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	3,610	158	1,450	114	e46	218	157	463	158	207	31	e362
2	849	144	1,190	180	e51	188	152	382	141	179	33	e280
3	455	135	727	e144	e53	170	143	326	127	462	29	e233
4	341	208	520	e137	e48	170	192	523	116	418	35	220
5	401	235	405	e137	e52	191	348	435	108	311	28	748
6	346	194	334	e131	e105	1,720	375	383	100	253	29	1,140
7	344	185	281	e129	e83	1,660	345	348	91	219	44	e3,360
8	281	191	239	e122	e71	861	313	310	84	190	34	e2,360
9	240	198	205	e115	e68	599	290	270	101	165	33	e1,260
10	207	215	180	e106	e65	684	292	236	89	136	74	e754
11	182	190	175	e101	e61	3,080	457	207	86	120	37	e536
12	164	178	273	e100	e61	1,380	650	185	127	107	29	e419
13	143	173	498	e89	e60	881	527	167	97	97	26	340
14	132	166	342	e86	e61	615	433	159	87	88	26	276
15	251	157	293	e83	e61	481	361	153	87	79	453	256
16	436	153	e244	e82	e57	448	374	172	91	72	495	207
17	311	354	e214	e75	e70	478	874	221	112	65	291	165
18	273	275	e190	e79	187	707	599	309	120	63	296	137
19	239	256	e169	e120	237	757	519	845	93	59	350	118
20	212	240	e150	e92	192	592	511	785	81	48	323	112
21	193	216	e136	e79	188	509	424	598	74	43	241	99
22	176	200	e127	e71	171	441	357	458	83	39	276	98
23	156	192	e118	e64	157	367	429	378	98	35	195	96
24	142	177	e109	e60	158	321	387	368	141	35	161	134
25	132	158	e101	e60	183	276	382	290	179	89	150	98
26	139	208	e91	e60	165	236	469	249	135	84	139	84
27	304	175	e90	e58	149	210	657	270	120	62	121	84
28	218	156	e85	e56	214	190	910	224	148	43	e8,930	271
29	200	146	e85	e52	---	174	776	191	449	38	e1,950	641
30	188	144	e80	e51	---	163	596	215	252	36	e832	700
31	175	---	e80	e48	---	159	---	178	---	31	e507	---
Total	11,440	5,777	9,181	2,881	3,074	18,926	13,299	10,298	3,775	3,873	16,198	15,588
Mean	369	193	296	92.9	110	611	443	332	126	125	523	520
Max	3,610	354	1,450	180	237	3,080	910	845	449	462	8,930	3,360
Min	132	135	80	48	46	159	143	153	74	31	26	84
Cfsm	4.49	2.34	3.60	1.13	1.34	7.43	5.39	4.04	1.53	1.52	6.36	6.32
In.	5.18	2.61	4.15	1.30	1.39	8.57	6.02	4.66	1.71	1.75	7.33	7.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	166	192	229	218	152	352	347	190	173	86.2	102	129
Max	412	363	450	501	391	783	621	332	573	153	523	520
(WY)	(2004)	(2004)	(2004)	(2006)	(2008)	(2010)	(2005)	(2011)	(2006)	(2009)	(2011)	(2011)
Min	16.5	24.5	38.9	67.7	40.9	87.2	163	70.3	40.2	16.9	14.0	12.0
(WY)	(1998)	(2002)	(1999)	(2001)	(2007)	(2006)	(2009)	(2001)	(2008)	(1997)	(2001)	(2005)

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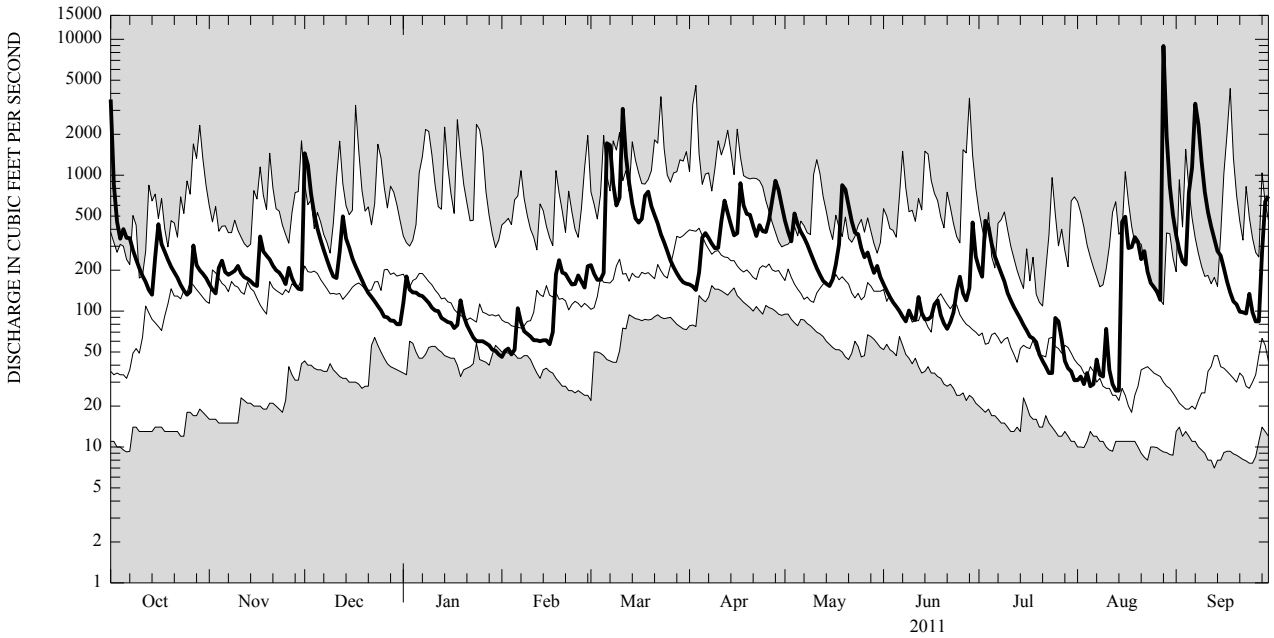
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1997 - 2011	
Annual total	79,589		114,310			
Annual mean	218		313		197	
Highest annual mean					313	2011
Lowest annual mean					108	2002
Highest daily mean	3,780	Mar 23	8,930	Aug 28	8,930	Aug 28, 2011
Lowest daily mean	11	Sep 24	26	Aug 13	7.0	Sep 13, 2002
Annual seven-day minimum	11	Sep 21	31	Jul 31	8.1	Sep 20, 2005
Annual runoff (cfsm)	2.65		3.81		2.40	
Annual runoff (inches)	36.02		51.73		32.64	
10 percent exceeds	490		597		407	
50 percent exceeds	105		179		120	
90 percent exceeds	21		60		25	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.