Water-Data Report 2011

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY

Lower Hudson Basin
Lower Hudson Subbasin

LOCATION.--Lat 41°13'30.1", long 73°51'32.0" referenced to North American Datum of 1983, Westchester County, NY, Hydrologic Unit 02030101, on left bank 1,000 ft downstream from New Croton Dam, and 1.8 mi northeast of Croton-On-Hudson.

DRAINAGE AREA.--378 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1933 to current year. Prior to Oct. 1, 1941, published as "at Quaker Bridge," (low-flow records at this site are not equivalent owing to well pumpage upstream). Fragmentary records published during August 1933 to September 1941 for "at Cornell Dam near Croton" and "at New Croton near Croton" are equivalent. Oct. 1, 1941 to Sept. 30, 1955 published as "at New Croton Dam near Croton".

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 44.10 ft above NGVD of 1929. Prior to Oct. 1, 1941, supplementary water-stage recorder and concrete control at site 1.1 mi downstream at Quaker Bridge.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Entire flow, except for periods of spilling and releases to augment Croton-on-Hudson water supply, diverted from New Croton Reservoir for municipal supply of City of New York. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft^3/s, Oct. 16, 1955, gage height, 18.44 ft, from floodmarks, from rating curve extended above 9,900 ft^3/s, on basis of slope-area measurements of peak flow; minimum discharge not determined; minimum gage height, 0.11 ft, July 15, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,600 ft^3/s, Aug. 28, gage height, 13.21 ft; minimum discharge, 142 ft^3/s, Oct. 30, gage height, 2.05 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	2,340	155	716	532	454	1,820	840	1,130	706	456	234	2,430
2	1,490	154	1,510	570	549	1,490	884	1,040	494	385	261	1,820
3	649	155	849	604	543	1,290	782	990	436	362	232	1,420
4	494	277	579	584	485	1,120	730	1,020	430	358	228	1,200
5	469	403	468	557	417	1,070	730	1,050	432	326	208	1,010
6	459	313	399	533	418	2,030	743	946	427	293	204	1,580
7	437	237	361	549	419	e11,400	844	878	396	277	483	3,860
8	409	229	345	e571	474	6,500	916	824	379	493	435	8,770
9	380	229	328	e525	463	5,610	887	744	331	1,130	386	6,500
10	354	199	320	e522	431	4,050	840	550	392	569	434	4,310
11	337	186	321	e505	376	10,600	823	501	381	374	328	3,160
12	259	181	670	e464	376	7,480	957	544	360	311	267	2,450
13	203	181	1,410	e555	365	5,160	1,800	536	339	280	252	2,080
14	223	178	1,100	e442	363	3,670	1,670	456	325	252	671	1,950
15	507	178	745	426	412	2,790	1,370	730	311	223	1,360	1,760
16	374	195	607	422	410	2,550	1,440	826	279	211	1,500	1,560
17	263	380	582	415	399	2,400	5,570	1,150	369	198	899	1,380
18	226	394	582	496	454	2,050	4,030	1,710	418	234	541	1,280
19	215	299	564	587	682	1,760	3,020	2,200	350	376	423	1,190
20	206	243	549	623	611	1,510	2,480	1,600	287	264	433	1,170
21	191	225	523	724	613	1,460	2,090	1,300	253	224	464	1,110
22	179	217	504	527	526	1,510	1,760	1,240	314	217	713	837
23	176	215	511	467	476	1,370	1,960	1,270	1,640	205	487	852
24	184	210	555	425	454	1,390	2,150	1,520	2,340	214	356	1,300
25	183	202	543	435	1,040	1,270	1,860	1,420	1,330	218	324	1,140
26	181	219	571	467	1,600	1,130	1,480	1,280	947	216	342	924
27	201	211	630	540	1,210	1,000	1,250	1,230	795	246	639	802
28	192	206	563	468	1,400	908	1,420	1,180	619	222	14,200	778
29	172	197	562	446	---	833	1,560	1,120	658	229	e11,600	1,240
30	155	205	554	430	---	768	1,300	1,150	559	248	6,030	1,650
31	155	---	544	421	---	742	---	1,090	---	217	3,700	---
Total	12,263	6,873	19,065	15,832	16,420	88,731	48,186	33,225	17,297	9,828	48,634	61,513
Mean	396	229	615	511	586	2,862	1,606	1,072	577	317	1,569	2,050
Max	2,340	403	1,510	724	1,600	11,400	5,570	2,200	2,340	1,130	14,200	8,770
Min	155	154	320	415	363	742	730	456	253	198	204	778

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	209	235	378	395	458	744	741	440	262	127	147	164
Max	3,160	1,815	1,950	1,920	1,642	2,906	2,504	1,667	1,832	921	1,569	2,050
(WY)	(1956)	(1956)	(1997)	(2006)	(2008)	(2010)	(2007)	(1989)	(1972)	(1984)	(2011)	(2011)
Min	0.30	0.40	0.52	0.59	0.90	0.38	0.91	0.75	0.85	0.71	0.36	0.48
(WY)	(1966)	(1966)	(1966)	(1966)	(1967)	(1965)	(1965)	(1963)	(1965)	(1965)	(1981)	(1981)

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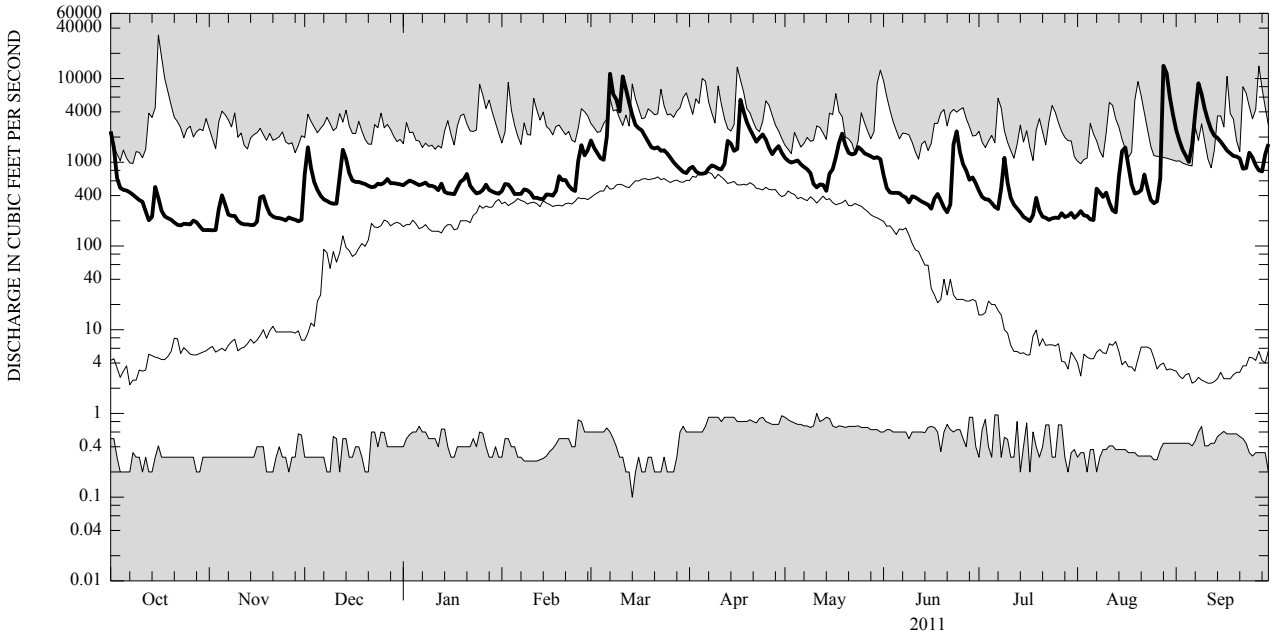
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1933 - 2011	
Annual total	258,675		377,867			
Annual mean	709		1,035		358	
Highest annual mean					1,035	2011
Lowest annual mean					0.90	1965
Highest daily mean	8,620	Mar 14	14,200	Aug 28	33,000	Oct 16, 1955
Lowest daily mean	101	Sep 21	154	Nov 2	0.10	Mar 14, 1965
Annual seven-day minimum	108	Sep 9	163	Oct 28	0.20	Mar 12, 1965
10 percent exceeds	1,700		1,900		1,000	
50 percent exceeds	365		543		104	
90 percent exceeds	130		215		1.0	



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.