01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH

Merrimack Basin
Contoocook Subbasin

LOCATION.--Lat 43°11′34″, long 71°44′52″ referenced to North American Datum of 1927, Merrimack County, NH, Hydrologic Unit 01070003, on right bank, 400 ft downstream from covered bridge at West Hopkinton, 0.2 mi downstream from Hopkinton Dam, 2.6 mi southwest of State Highways 103 and 127 intersection in Contoocook, 3.6 mi west of State Highway 103 and US 202 intersection in Hopkinton, and 6.0 mi upstream from Warner River.

DRAINAGE AREA.--427 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records: August 1903 to April 1907 (monthly discharges only, no winter records, published as "atWest Hopkinton"), August 1963 to September 1989, October 2001 to current year. Partial-record station: October 1989 toSeptember 30, 2001. Peak streamflow: Water years 1964 to current year. Miscellaneous discharge measurements: Water years1990-2001. Water-quality discrete samples: Water years 1965, 1967 to 1970, 1975 to 1999.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 355.83 ft above National Geodetic Vertical Datum of 1929. August 1903 to April 1907, nonrecording gage at site 400 ft upstream at different datum.

COOPERATION.--National Streamflow Information Program and the U.S. Army Corps of Engineers, New England District.

REMARKS.--Records good except those for estimated daily discharges, which are poor . Flow regulated by power plants and by Nubanusit Lake, Edward Macdowell Reservoir since 1950, Highland Lake, Lake Franklin Pierce, Hopkinton Lake since 1962(Reservoirs in Merrimack River basin), and other reservoirs upstream. Diversion from Hopkinton Lake to Everett Lake on the Piscataquog River during periods of high flow in March 1968, April 1969, March 1977, March 1979, May-June 1984, April 1987, March-April 2003, April 2005, October 2005, May 2006, and April 2007.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,100 ft^3/s, Apr. 8, gage height, 7.08 ft; minimum daily discharge, 133 ft^3/s, Sept. 27.

01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH—Continued

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

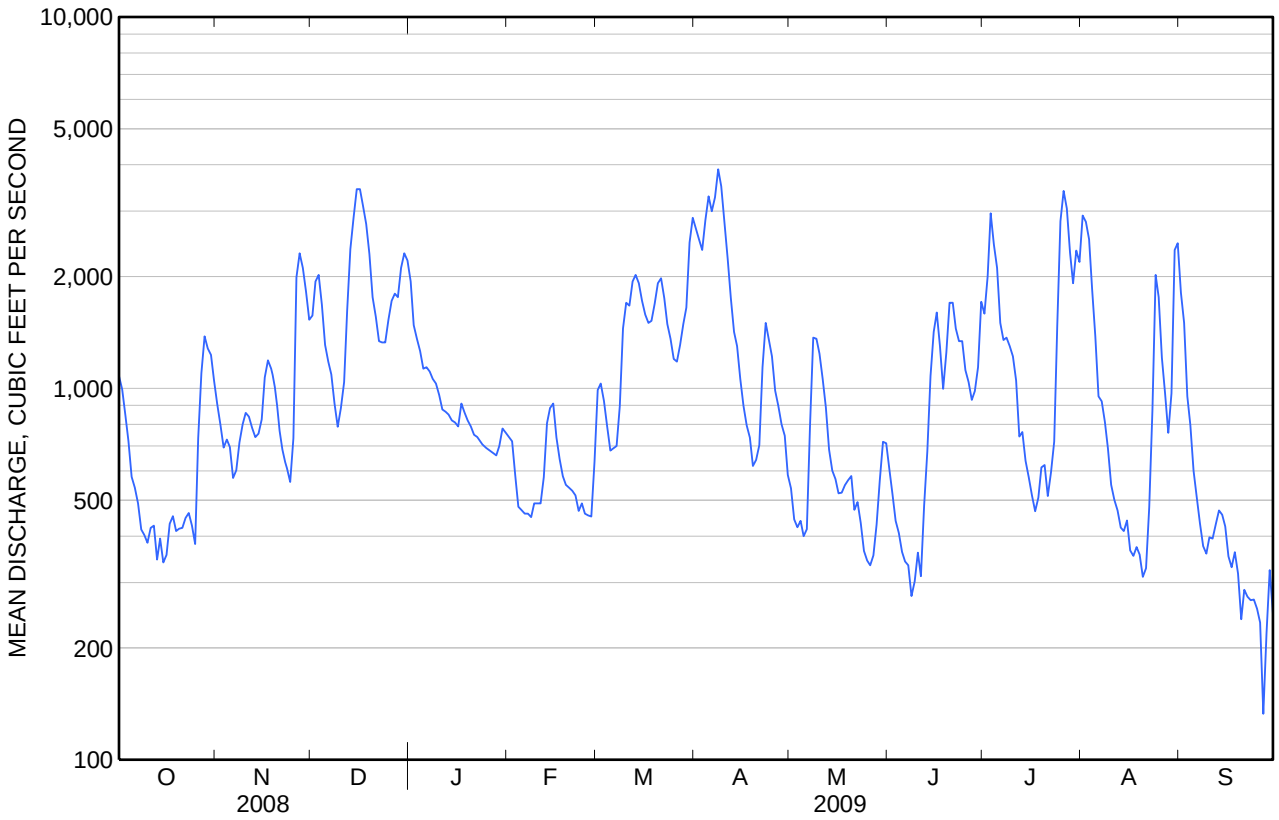
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,080	907	1,570	1,940	e740	e990	2,690	538	610	1,590	2,920	1,810
2	993	798	1,940	1,480	e720	e1,030	2,510	444	520	2,000	2,810	1,500
3	846	693	2,020	1,360	580	e925	2,360	423	440	2,960	2,520	952
4	722	728	1,680	e1,260	e480	e790	2,840	440	408	2,440	1,850	796
5	578	695	1,310	1,130	e470	e680	3,290	400	363	2,110	1,380	600
6	540	574	1,180	e1,140	e460	e690	3,000	418	342	1,500	952	509
7	490	602	1,090	1,110	e460	e700	3,270	796	334	1,350	923	433
8	417	716	e910	1,060	e450	896	3,890	1,370	276	1,370	811	376
9	403	801	788	e1,030	e490	1,450	3,500	1,360	302	1,300	688	359
10	384	859	886	e960	e490	1,700	2,800	1,240	361	1,220	550	397
11	421	839	1,040	877	e490	1,670	2,240	1,060	312	1,050	501	394
12	427	783	1,620	e865	577	1,940	1,750	888	483	742	469	431
13	346	739	2,370	e850	806	e2,020	1,420	684	676	763	422	469
14	394	755	2,880	e820	e885	1,920	1,300	601	1,080	638	413	457
15	340	825	3,440	e810	e910	1,720	1,060	570	1,420	576	441	425
16	356	1,070	3,440	e790	738	1,580	898	522	1,600	515	366	353
17	432	1,190	3,100	e910	e645	1,500	795	524	1,300	467	354	330
18	453	1,130	2,770	e860	e580	1,520	737	549	997	508	374	362
19	413	1,030	2,300	e820	e550	1,690	618	566	1,250	613	357	317
20	419	869	1,760	e790	e540	1,920	642	581	1,700	622	311	239
21	421	733	1,560	e750	e530	1,980	703	471	1,700	513	328	287
22	448	659	1,340	e740	e515	1,750	1,140	494	1,450	594	479	275
23	462	609	e1,330	e720	468	1,490	1,500	434	1,340	719	875	269
24	427	e560	1,330	e700	e490	1,360	1,350	365	1,340	1,470	2,020	270
25	381	734	1,530	e690	e460	1,200	1,220	344	1,120	2,820	1,760	255
26	735	1,990	e1,720	e680	455	1,180	986	334	1,040	3,400	1,210	234
27	1,100	2,310	1,800	e670	452	1,310	896	355	931	3,050	969	133
28	1,380	2,110	1,760	e660	635	1,490	800	430	983	2,320	759	219
29	1,280	1,820	2,110	e700	---	1,650	746	566	1,140	1,920	970	324
30	1,230	1,530	2,310	e780	---	2,470	585	718	1,710	2,350	2,360	248
31	1,050	---	2,210	e760	---	2,880	---	712	---	2,190	2,460	---
Total	19,368	29,658	57,094	28,712	16,066	46,091	51,536	19,197	27,528	45,680	33,602	14,023
Mean	625	989	1,842	926	574	1,487	1,718	619	918	1,474	1,084	467
Max	1,380	2,310	3,440	1,940	910	2,880	3,890	1,370	1,710	3,400	2,920	1,810
Min	340	560	788	660	450	680	585	334	276	467	311	133

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963-1989, 2002-2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	444	670	833	663	735	1,232	1,998	1,013	610	338	254	228
Max	2,736	1,782	1,856	1,886	2,016	2,724	3,596	1,839	2,242	1,474	1,084	654
(WY)	(2006)	(2007)	(1974)	(2006)	(1984)	(1979)	(1987)	(1972)	(2006)	(2009)	(2009)	(2008)
Min	61.0	88.8	175	110	163	363	521	330	105	61.4	43.0	48.4
(WY)	(1965)	(1965)	(1965)	(1981)	(1977)	(1965)	(1985)	(1985)	(1964)	(1978)	(1983)	(1983)

01085500 CONTOOCOOK RIVER BELOW HOPKINTON DAM, AT WEST HOPKINTON, NH—Continued

SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1963-1989, 2002-2009	
Annual total	428,602		388,555			
Annual mean	1,171		1,065		751	
Highest annual mean					1,322	2006
Lowest annual mean					229	1965
Highest daily mean	4,740	Apr 14	3,890	Apr 8	7,500	Apr 9, 1987
Lowest daily mean	76	Jul 20	133	Sep 27	15	Jul 22, 1965
Annual seven-day minimum	117	Aug 30	236	Sep 22	24	Jul 12, 1965
Maximum peak flow			4,100	Apr 8	[a]7,530	Apr 8, 1987
Maximum peak stage			7.08	Apr 8	10.89	Apr 8, 1987
10 percent exceeds	2,610		2,140		1,850	
50 percent exceeds	878		801		450	
90 percent exceeds	182		375		102	

[a] Period of record is Water Year 1964 to present.