

Water-Data Report 2011

01084000 NORTH BRANCH RIVER NEAR ANTRIM, NH

Merrimack Basin
Contoocook Subbasin

LOCATION.--Lat 43°04'54", long 71°58'44" referenced to North American Datum of 1927, Hillsborough County, NH, Hydrologic Unit 01070003, on left bank, 500 ft northwest of Keene Road (NH 9) and Old North Branch Road (NH 31) intersection at North Branch, 0.1 mi upstream from Old North Branch Road at North Branch, 4.0 mi northwest of Main Street (NH 31) and Concord Street (US 202) intersection in Antrim, 4.7 mi southwest of Bridge Street (NH 149), School Street, Henniker Street, and West Main Street intersection in Hillsborough, and 5.2 miles upstream from mouth of Beard Brook.

DRAINAGE AREA.--54.8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1924 to September 1970 and September 2009 to July 2011 (discontinued). Prior to October 1970, published as "North Branch Contoocook River".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1231: 1925(M), 1926, 1927(M), 1928, 1929-30(M), 1933-36, 1938-40, 1944.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 881.38 ft above National Geodetic Vertical Datum of 1929 (levels by Corp of Engineers). Prior to October 1, 1967, datum 1.00 ft higher. Prior to January 7, 1941, nonrecording gage at same site.

COOPERATION.--New Hampshire Department of Environmental Services.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Highland Lake (10 miles upstream) and several ponds above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 5,190 ft³/s, October 9, 2005, gage height, 9.04 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	31	139	116	75	46	e62	155	189	80	148	---	---
2	122	117	242	84	e50	e58	154	180	69	118	---	---
3	161	98	230	89	e54	e52	154	160	58	101	---	---
4	148	95	214	87	e48	e48	157	149	49	78	---	---
5	78	165	195	85	e44	e47	178	150	39	66	---	---
6	32	187	175	79	e46	e87	226	65	32	---	---	---
7	38	188	151	76	e45	e500	239	30	26	---	---	---
8	36	211	e127	73	e42	e725	231	28	24	---	---	---
9	32	244	e114	71	e41	e700	225	34	26	---	---	---
10	32	246	e100	65	e38	623	249	34	40	---	---	---
11	31	218	97	60	e38	584	323	26	60	---	---	---
12	30	186	109	65	e37	552	444	24	89	---	---	---
13	61	159	321	72	e38	501	613	22	91	---	---	---
14	78	136	e335	66	e38	456	693	20	99	---	---	---
15	133	119	e300	63	e37	e400	643	30	114	---	---	---
16	202	106	e270	62	e37	366	545	112	132	---	---	---
17	279	183	e248	58	e36	360	652	134	132	---	---	---
18	324	226	e220	e60	e39	410	609	145	124	---	---	---
19	268	224	e195	e67	e49	505	537	163	107	---	---	---
20	199	258	e165	e68	e49	527	458	185	91	---	---	---
21	149	247	150	e64	e48	493	385	232	78	---	---	---
22	178	217	135	e62	e48	436	319	258	78	---	---	---
23	193	192	123	59	e47	374	280	252	194	---	---	---
24	168	168	e110	56	e46	315	268	242	293	---	---	---
25	146	146	e99	57	e50	265	244	229	445	---	---	---
26	131	141	92	55	e59	232	233	212	448	---	---	---
27	163	135	e83	54	e59	207	229	178	382	---	---	---
28	187	123	e82	53	e60	187	221	145	295	---	---	---
29	187	112	e82	50	---	169	210	124	236	---	---	---
30	186	103	e80	47	---	157	196	105	184	---	---	---
31	166	---	76	45	---	152	---	89	---	---	---	---
Total	4,169	5,089	5,036	2,027	1,269	10,550	10,070	3,946	4,115	---	---	---
Mean	134	170	162	65.4	45.3	340	336	127	137	---	---	---
Max	324	258	335	89	60	725	693	258	448	---	---	---
Min	30	95	76	45	36	47	154	20	24	---	---	---
Cfsm	2.45	3.10	2.96	1.19	0.83	6.21	6.13	2.32	2.50	---	---	---
In.	2.83	3.45	3.42	1.38	0.86	7.16	6.84	2.68	2.79	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	53.9	102	103	83.4	78.7	163	327	146	70.5	27.1	20.5	34.3
Max	213	276	259	212	218	735	695	378	196	109	111	374
(WY)	(1956)	(1928)	(1958)	(1949)	(1970)	(1936)	(1969)	(1940)	(1968)	(1938)	(1955)	(1938)
Min	3.83	14.4	12.7	11.5	7.24	10.3	89.3	40.4	3.92	0.94	0.39	0.57
(WY)	(1942)	(1950)	(1930)	(1925)	(1940)	(1940)	(1946)	(2010)	(1964)	(1965)	(1965)	(1964)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Years 1924 - 2011	
Annual total	45,094.50			
Annual mean	124		99.9	
Highest annual mean			165	1960
Lowest annual mean			35.3	1965
Highest daily mean	1,520	Mar 31	4,350	Mar 19, 1936
Lowest daily mean	0.67	Sep 7	0.10	Sep 21, 1964 ^a
Annual seven-day minimum	0.77	Sep 6	0.10	Sep 24, 1964
Maximum peak flow			^b 5,000	Mar 19, 1936
Maximum peak stage			^c 10.30	Mar 19, 1936
Instantaneous low flow			0.10	Sep 20, 1964 ^d
Annual runoff (cfsm)	2.25		1.82	
Annual runoff (inches)	30.61		24.76	
10 percent exceeds	262		244	
50 percent exceeds	59		53	
90 percent exceeds	2.6		5.9	

^a Also occurred on September 22 and 24-30, October 1-2, 1964, and August 3-8, 1965.

^b From rating curve extended above 1,600 ft³/s based on slope-area measurements of peak discharge at gage heights 9.40 and 10.30, present datum.

^c From floodmarks, present datum.

^d Also occurred on September 21 to October 2, 1964, August 3-8, 1965, and August 11, 1966.

