



Water-Data Report 2008

**011005605 POLICY BR AT I93 REST STOP NORTH ENTRANCE RAMP, NEAR SALEM, NH**

Merrimack Basin  
Merrimack Subbasin

LOCATION.--Lat 42°45'13", long 71°13'15" referenced to North American Datum of 1927, Rockingham County, NH, Hydrologic Unit 01070002, on left bank, just upstream of I93N rest stop entrance, 0.1 mi west of Azarian Road and Barron Road intersection, 0.4 mi east of Cross Road and Brady Avenue intersection, 0.5 mi west of Kelley Road and South Broadway (NH 28) intersection, 2.0 mi south of Broadway (NH 28) and Main Street (NH 97) intersection in Salem Depot, and 2.6 mi southwest of Main Street (NH 97), Bridge Street, and School Street intersection in Salem.

DRAINAGE AREA.--10.2 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Discharge records: February 2006 to June 2008 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 105.70 ft above National Geodetic vertical datum of 1929.

COOPERATION.--New Hampshire Department of Environmental Services.

REMARKS.--Records good except for periods of variable backwater, February 6-12, 14-25, March 5-24, and April 4-5, which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb 7	0130	143	3.09
Feb 14	0500	166	3.55
Feb 18	2345	148	3.40
Mar 5	1130	134	2.93
Mar 9	0400	*213	*4.26
Mar 20	1715	119	2.89
Apr 29	1545	94	2.36

Minimum discharge, 0.23 ft<sup>3</sup>/s, on several days, gage height, 0.27 ft.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.23	1.3	3.2	11	16	19	36	27	2.6	---	---	---
2	0.24	1.3	2.8	e9.6	65	17	55	18	1.8	---	---	---
3	0.24	9.0	3.1	e7.3	37	15	59	17	1.6	---	---	---
4	0.26	19	3.6	6.5	22	34	60	31	2.3	---	---	---
5	0.26	7.1	3.2	6.0	35	116	53	31	2.6	---	---	---
6	0.26	11	2.8	6.0	83	85	37	20	5.3	---	---	---
7	0.33	11	2.5	6.4	113	48	27	15	4.6	---	---	---
8	2.4	6.0	3.7	8.7	54	133	21	18	3.1	---	---	---
9	1.3	4.0	3.2	20	38	188	18	13	2.3	---	---	---
10	1.9	4.1	3.8	24	29	98	16	12	1.8	---	---	---
11	1.2	3.3	3.3	44	22	53	16	9.6	2.0	---	---	---
12	3.1	2.7	4.2	55	17	48	22	8.0	1.3	---	---	---
13	1.7	3.1	4.3	31	58	48	21	6.9	1.1	---	---	---
14	0.95	2.9	4.1	22	150	44	16	6.0	1.0	---	---	---
15	0.72	4.1	3.6	19	80	51	13	5.5	1.7	---	---	---
16	0.66	13	3.7	e15	45	50	12	5.7	1.6	---	---	---
17	0.59	8.7	4.4	e14	35	47	11	13	2.0	---	---	---
18	0.54	5.3	3.8	26	91	42	9.7	11	1.5	---	---	---
19	1.5	3.9	3.4	28	118	44	9.3	8.3	1.2	---	---	---
20	15	3.4	3.6	18	55	94	8.1	6.0	1.2	---	---	---
21	3.5	3.8	3.6	13	36	56	7.0	5.1	1.1	---	---	---
22	1.4	3.8	3.7	10	27	41	6.6	5.2	1.0	---	---	---
23	1.1	3.3	3.9	9.4	23	33	7.2	4.4	12	---	---	---
24	1.4	2.9	16	8.5	20	27	6.0	3.5	20	---	---	---
25	1.3	2.8	13	7.6	18	23	5.3	3.1	11	---	---	---
26	1.2	4.2	11	6.8	18	21	4.9	3.0	5.5	---	---	---
27	4.3	8.2	10	6.4	46	19	4.6	2.7	5.4	---	---	---
28	4.1	6.2	9.9	6.4	36	28	13	2.9	7.1	---	---	---
29	2.3	4.6	15	6.4	22	35	75	2.3	9.5	---	---	---
30	1.6	3.8	15	9.9	---	28	58	2.0	28	---	---	---
31	1.4	---	13	9.6	---	28	---	2.9	---	---	---	---
<b>Total</b>	56.98	167.8	184.4	471.5	1,409	1,613	707.7	319.1	143.2	---	---	---
<b>Mean</b>	1.84	5.59	5.95	15.2	48.6	52.0	23.6	10.3	4.77	---	---	---
<b>Max</b>	15	19	16	55	150	188	75	31	28	---	---	---
<b>Min</b>	0.23	1.3	2.5	6.0	16	15	4.6	2.0	1.0	---	---	---
<b>Cfsm</b>	0.18	0.55	0.58	1.49	4.76	5.10	2.31	1.01	0.47	---	---	---
<b>In.</b>	0.21	0.61	0.67	1.72	5.14	5.88	2.58	1.16	0.52	---	---	---

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2008, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	6.12	15.1	8.81	14.6	26.1	28.8	32.4	35.9	21.8	4.36	1.68	1.82
<b>Max</b>	10.4	24.6	11.7	15.2	48.6	52.0	61.2	77.3	53.9	6.18	2.68	2.38
<b>(WY)</b>	(2007)	(2007)	(2007)	(2008)	(2008)	(2008)	(2007)	(2006)	(2006)	(2006)	(2006)	(2006)
<b>Min</b>	1.84	5.59	5.95	14.0	2.73	8.38	12.5	10.3	4.77	2.53	0.69	1.25
<b>(WY)</b>	(2008)	(2008)	(2008)	(2007)	(2007)	(2006)	(2006)	(2008)	(2008)	(2007)	(2007)	(2007)

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**SUMMARY STATISTICS**

	Calendar Year 2007		Water Years 2006 - 2008	
<b>Annual total</b>	4,522.90			
<b>Annual mean</b>	12.4		15.2	
<b>Highest annual mean</b>			15.2	2007
<b>Lowest annual mean</b>			15.2	2007
<b>Highest daily mean</b>	268	Apr 16	445	May 15, 2006
<b>Lowest daily mean</b>	0.14	Sep 6	0.14	Sep 6, 2007
<b>Annual seven-day minimum</b>	0.17	Sep 2	0.17	Sep 2, 2007
<b>Maximum peak flow</b>			515	May 15, 2006
<b>Maximum peak stage</b>			9.65	May 15, 2006
<b>Instantaneous low flow</b>			0.11	Sep 1, 2007 <sup>a</sup>
<b>Annual runoff (cfsm)</b>	1.21		1.49	
<b>Annual runoff (inches)</b>	16.50		20.20	
<b>10 percent exceeds</b>	36		38	
<b>50 percent exceeds</b>	3.7		6.6	
<b>90 percent exceeds</b>	0.32		0.37	

<sup>a</sup> Also September 2-6, 2007.

