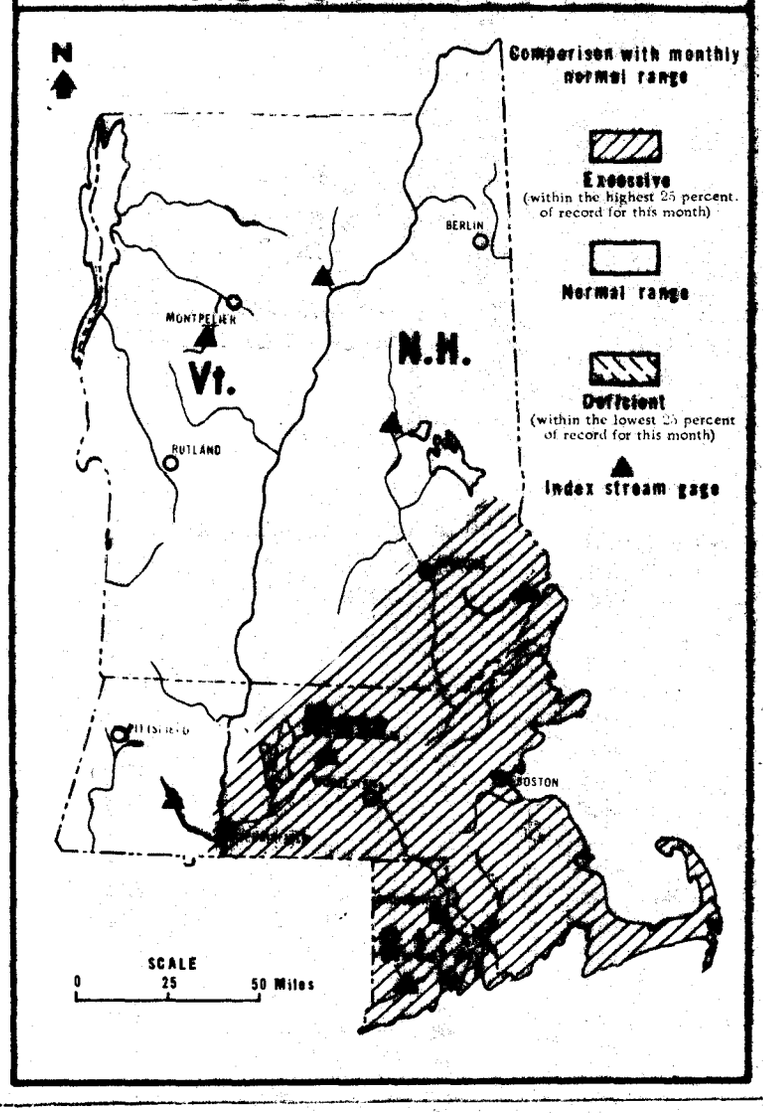
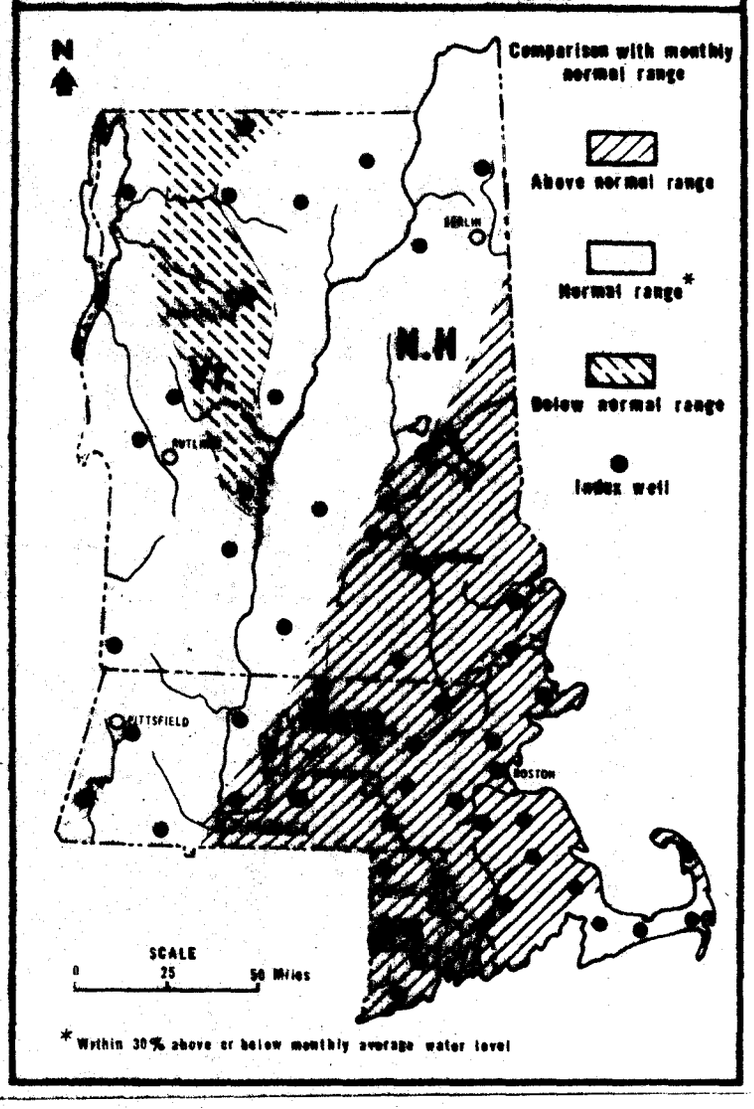
CURRENT WATER RESOURCES CONDITIONS IN CENTRAL NEW ENGLAND

WATER RESOURCES DIVISION, U.S. GEOLOGICAL SURVEY
IN COOPERATION WITH THE STATES OF
MASSACHUSETTS, NEW HAMPSHIRE, RHODE ISLAND, AND VERMONT

SURFACE-WATER RUNOFF AUGUST 1982



GROUND-WATER LEVELS AUGUST 1982

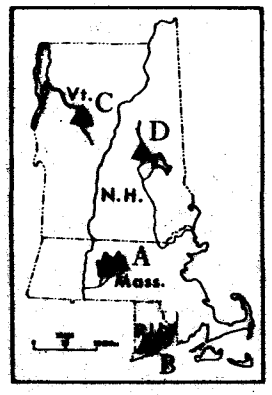


Runoff during August was excessive in central Massachusetts, Rhode Island, and southeastern New Hampshire and in the normal range elsewhere in central New England. With normal precipitation during September, runoff is expected to be in the excessive range in Rhode Island, in the deficient range in western Massachusetts, and in the normal range elsewhere.

Storage in major reservoirs declined slightly and ranged from about 91 to 111 percent of average for the end of August. Total contents of all index reservoirs was about 104 percent of that a year ago.

Ground-water levels declined, but remained in the above-normal range in Rhode Island, central and eastern Massachusetts (except central Cape Cod), and in southeastern New Hampshire. Elsewhere in central New England, water levels were in the normal or below normal range. August water levels were above those of last year except in Vermont, where they were generally the same. About 25 percent of the wells in Massachusetts, and Rhode Island set new highs for the month of August, a carry over from the unusually high precipitation in June. If present trends continue, water levels near the end of September are expected to be in the above-normal to normal range.

STREAMFLOW AT SELECTED INDEX GAGES

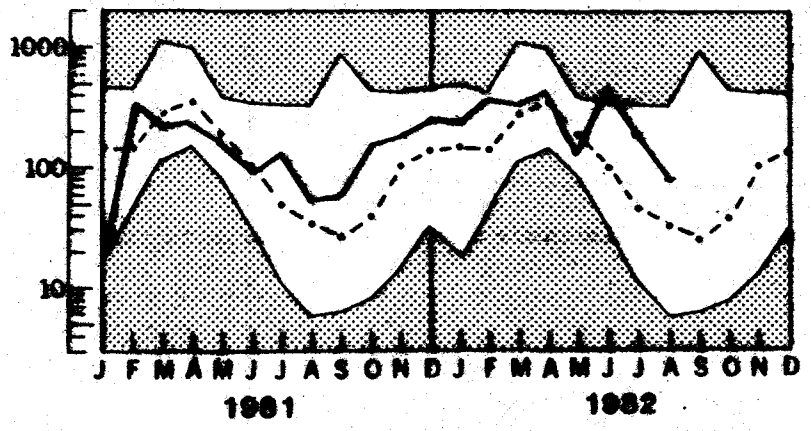


UNSHADED AREA SHOWS RANGE
BETWEEN HIGHEST AND LOWEST
MONTHLY MEAN DISCHARGES OF RECORD

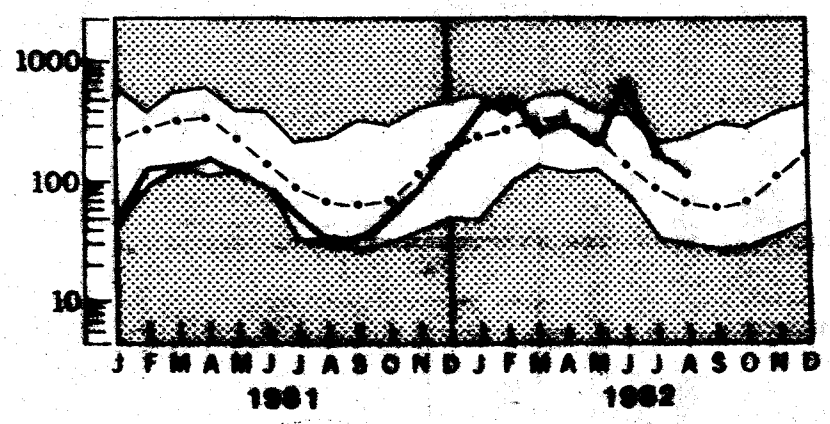
CURRENT RECORD ——— MEDIAN -·-·-·--

MONTHLY MEAN DISCHARGE, IN CUBIC FEET PER SECOND

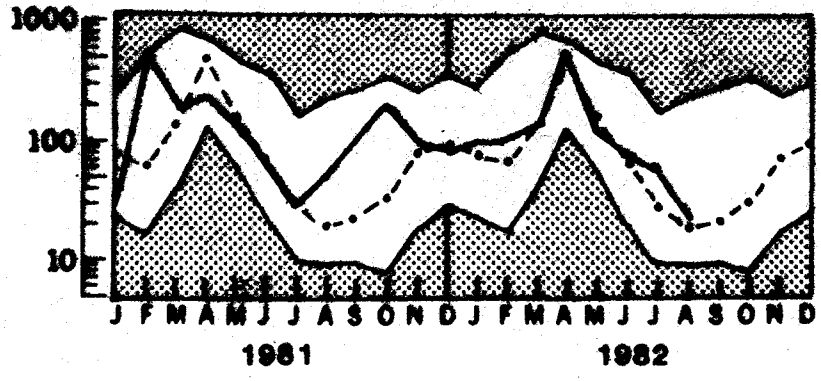
WARE RIVER AT
INTAKE WORKS NEAR BARRE, MASS. (A)



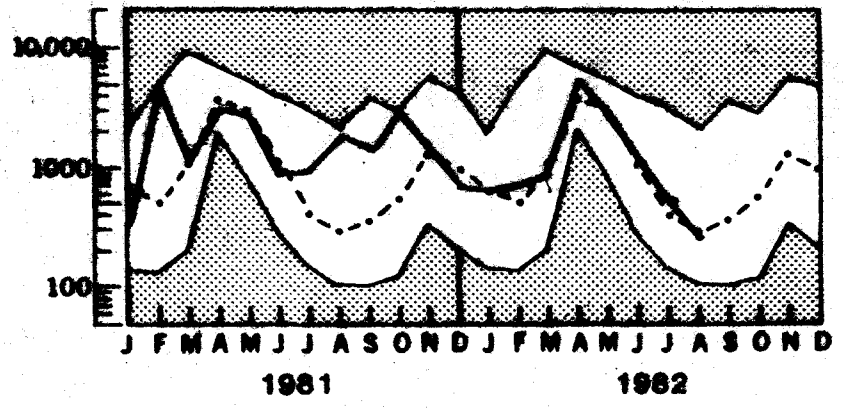
PAWCATUCK RIVER
AT WOOD RIVER JUNCTION, R.I. (B)



DOG RIVER AT NORTHFIELD FALLS, VT. (C)



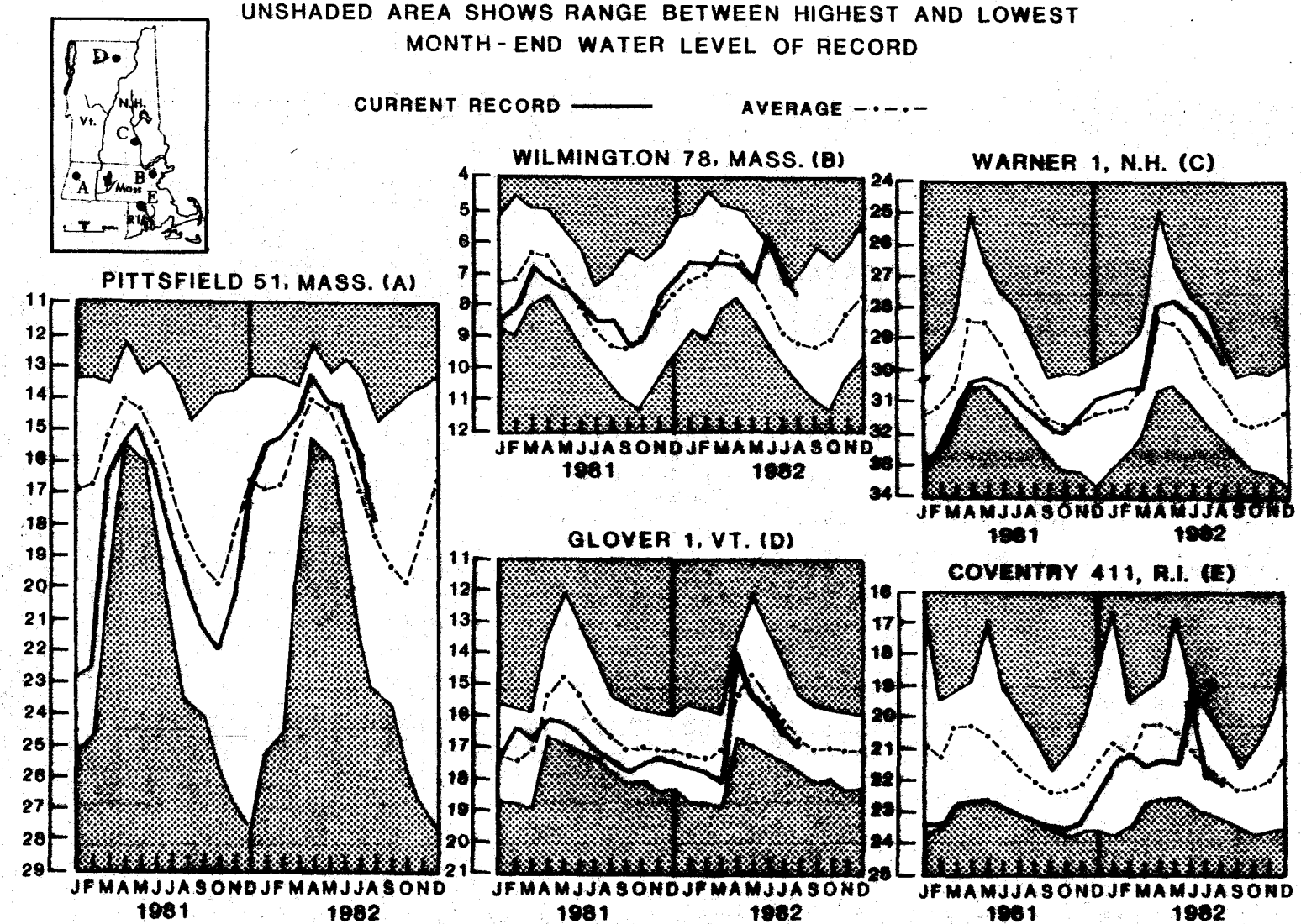
PEMIGEWASSET RIVER AT PLYMOUTH, N.H. (D)



GROUND-WATER LEVELS IN SELECTED OBSERVATION WELLS

UNSHADED AREA SHOWS RANGE BETWEEN HIGHEST AND LOWEST MONTH-END WATER LEVEL OF RECORD

CURRENT RECORD ——— AVERAGE —·—·—



PROVISIONAL
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SUMMARY OF GROUND-WATER LEVELS, AUGUST 1982

WELL	START OF RECORD	NET CHANGE IN MONTH (FEET)	NET CHANGE IN ONE YEAR (FEET)	DEPARTURE FROM AUGUST AVERAGE* (FEET)	WATER LEVEL BELOW LAND-SURFACE DATUM (FEET)
MASSACHUSETTS					
ACTON 158	1965	- 0.84	+ 2.31	+ 1.60	17.79 #
BARNSTABLE 230	1957	- 0.40	+ 0.56	- 0.38	24.59
BARNSTABLE 247	1962	- 0.34	+ 0.83	- 0.85	25.45
BOURNE 198	1962	- 0.29	+ 0.38	- 0.34	34.02
BREWSTER 21	1962	- 0.05	+ 1.56	- 1.16	10.88
CHATHAM 138	1962	- 0.36	+ 1.16	- 0.20	24.20
DEDHAM 231	1965	- 1.60	+ 3.18	+ 2.14	8.29 #
DOVER 10	1965	- 0.87	+ 2.32	+ 1.34	32.45 #
EAST BRIDGEWATER 30	1958	- 1.60	+ 5.39	+ 3.57	8.64 #
FREETOWN 23	1964	- 0.36	+ 1.94	+ 0.83	12.75
GRANVILLE 5	1965	+ 0.24	+ 4.74	+ 2.80	30.25
GREAT BARRINGTON 2	1951	- 0.41	+ 0.10	+ 0.09	12.64
HAVERHILL 23	1960	- 1.37	+ 1.15	+ 1.14	12.25
LOWELL 14	1939	- 0.87	+ 3.71	+ 3.01	11.64 #
MONTAGUE 5	1942	- 1.12	+ 1.45	- 0.05	4.40
NORTHBOROUGH 38	1962	- 1.66	+ 0.05	+ 1.30	7.85
NORTHBRIDGE 1	1965	- 0.20	+ 0.88	+ 0.57	2.80
PITTSFIELD 51	1963	- 2.14	+ 2.08	+ 0.49	17.88
PLYMOUTH 22	1956	- 0.62	+ 3.64	+ 1.23	23.10
SANDWICH 252	1962	- 0.21	+ 0.46	+ 0.08	47.36
SANDWICH 253	1962	- 0.21	+ 0.76	- 1.30	51.02
STERLING 1	1947	- 2.03	- 0.12	+ 1.60	7.72
TRURO 89	1962	- 0.31	+ 0.47	+ 0.22	12.21
WELLFLEET 17	1962	- 0.38	+ 1.49	+ 0.28	10.22
WENHAM 76	1965	- 0.55	+ 1.17	+ 1.02	2.67
WEST BROOKFIELD 10	1970	- 1.59	+ 0.65	+ 0.78	8.60
WEYMOUTH 2	1965	- 2.22	+ 5.50	+ 3.19	12.90
WILMINGTON 78	1951	- 0.66	+ 0.79	+ 1.38	7.77
WINCHENDON 13	1939	- 1.18	+ 0.49	+ 2.16	7.53
WINCHESTER 14	1940	- 0.77	+ 0.79	+ 0.81	11.89
NEW HAMPSHIRE					
CONCORD 2	1963	+ 0.17	+ 2.89	+ 0.09	39.65
CONCORD 3	1966	+ 0.07	+ 1.73	+ 0.68	56.18
CONCORD 4	1966	- 0.37	+ 1.68	+ 0.92	16.81
ERROL 1	1966	+******	-******	-******	******
FRANKLIN 1	1966	- 0.83	+ 2.06	+ 1.73	10.44
KEENE 2	1963	+ 0.18	- 0.26	+ 0.37	4.48
LEE 1	1953	- 0.16	+ 0.40	+ 0.32	31.15
MERRIMACK 22	1958	- 0.88	+ 0.20	+ 0.20	9.80
MILFORD 36	1962	- 0.43	+ 0.45	+ 1.45	8.58 #
NASHUA 218	1964	- 0.66	+ 0.19	+ 0.97	27.76
NEW LONDON 1	1947	- 1.82	- 1.63	- 0.17	12.28
WARNER 1	1965	- 0.85	+ 1.57	+ 0.88	29.90
RHODE ISLAND					
BURRILLVILLE 187	1968	- 1.11	+ 1.78	+ 0.95	15.74
CHARLESTOWN 18	1946	- 1.82	+ 2.43	+ 1.25	17.66
COVENTRY 411	1961	- 0.88	+ 1.37	- 0.97	21.92
EXETER 16	1946	- 1.08	+ 2.66	+ 1.95	10.16 #
PAWTUCKET 136	1962	- 0.53	+ 1.78	+ 0.69	4.48
WEST GREENWICH 181	1969	+ 0.01	+ 0.33	+ 0.39	16.32
VERMONT					
BERKSHIRE 1	1966	+ 0.12	- 2.79	- 0.41	15.58
BRIGHTON 1	1966	+ 0.26	- 0.46	+ 0.06	4.18
CHESTER 1	1966	- 0.10	- 0.09	+ 0.02	5.84
GLOVER 1	1966	- 0.46	+ 0.55	- 0.21	16.93
HARTLAND 54	1969	- 0.41	+ 0.01	- 0.25	9.55
MILTON 3	1956	- 1.40	+ 3.95	+ 1.45	29.84
MONTPELIER 2	1966	- 0.71	- 0.71	- 0.67	16.62
MORRISTOWN 1	1966	- 0.15	- 0.26	+ 0.03	19.65
PITTSFORD 8	1957	- 0.32	+ 0.48	+ 1.03	35.86
POWNAL 1	1964	- 0.62	- 0.17	+ 0.17	14.26
ROCHESTER 1	1966	- 0.47	- 1.22	- 0.13	12.31
WEST FAIRLEE 1	1966	- 0.53	- 0.55	+ 0.08	4.63

SET NEW HIGH OR EQUALED HIGHEST RECORDED WATER LEVEL FOR END OF AUGUST
* - MONTHLY AVERAGE INCLUDES CURRENT MEASUREMENT
****** - DATA NOT AVAILABLE

A MONTHLY REPORT PREPARED BY THE
U.S. GEOLOGICAL SURVEY, WATER RESOURCES DIVISION
150 CAUSEWAY STREET, BOSTON, MA 02114

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