

The area of this report includes that part of southeastern Vermont drained by the West and Deerfield Rivers, and several smaller tributaries to the Connecticut River. This study is part of a cooperative program between the United States Geological Survey and the State of Vermont Department of Water Resources to provide a statewide reconnaissance of ground-water availability. Information presented in this report is based on a limited amount of data and is intended as a guide for local exploration, and not as a statement that conditions are uniform everywhere within a ground-water favorability area. Further studies are recommended for detailed appraisals of ground-water quantities available within this area.

The areas of greatest ground-water potential are along the Winhall River and the West River from Weston to South Londonderry, Jamaica to Brattleboro, and along the Marlboro Branch. Ground-water potential along the Deerfield River is generally low to moderate except in a short reach along the East Branch south of Jacksonville. The main stem of the Connecticut River is filled with silt and clay, and ground-water potential is poor except where underlying gravel is present as in the Putney and Vernon areas.

Areas underlain by thick deposits of coarse-grained stratified glacial drift have excellent ground-water potential. Suitable for exploration to locate wells that should yield sufficient quantities of water to meet municipal and industrial requirements. Deposits are thinner and wells would be less productive along the margins of these areas.

Areas underlain by thin deposits of coarse-grained stratified glacial drift and stream gravel have low to moderate ground-water potential. Suitable for exploration to locate shallow wells and infiltration galleries that should yield sufficient quantities of water for domestic, commercial, and light industrial use.

Areas underlain by fine-grained stratified glacial drift and swamp deposits have low ground-water potential. These deposits generally will yield sufficient water for domestic wells only. In places, thin lenses of gravel with higher yields may underlie these deposits, but these lenses may not have adequate storage or recharge to produce high yields on a sustained basis.

Areas underlain by deposits of unstratified glacial drift (called till or "hardpan") and bedrock ("ledge") have low ground-water potential. In general, wells in either till or bedrock will yield only enough water for domestic or light commercial use. Till and bedrock underlie the stratified glacial drift of the map units listed above.

Water wells in stratified glacial drift

Water wells in glacial till and bedrock



Test borings

Basin boundary

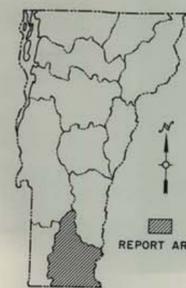
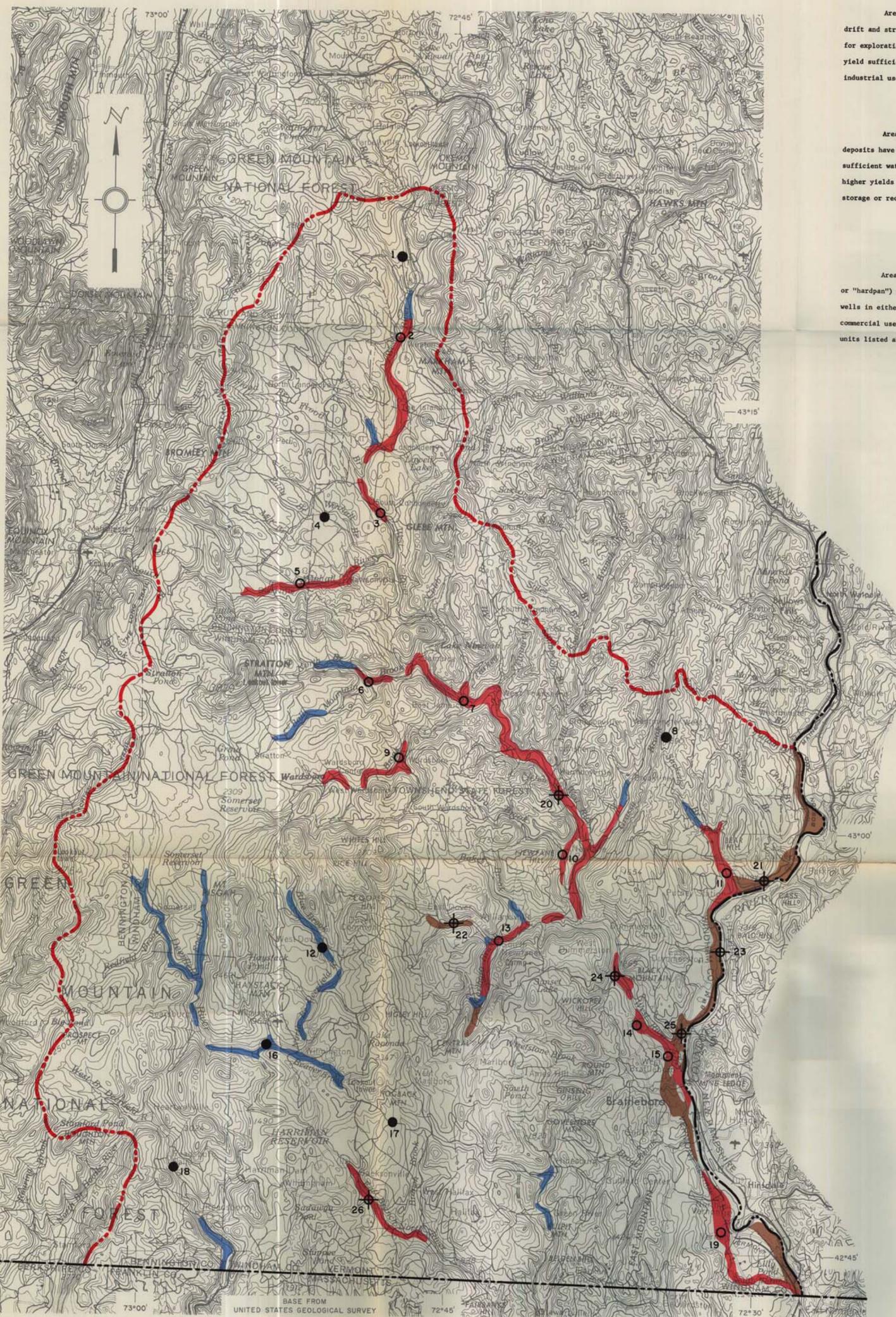
WATER WELLS

Number	Owner	Location	1/		Aquifer	Yield (in gallons per minute)
			Total Depth (in ft)	Depth to Bedrock (in ft)		
1.	Weston Priory	Weston	221	16	Rock	12
2.	Weston School District	Weston	25	NR	Sand & Gravel	30
3.	W. L. Siebecker	Londonderry	42	NR	Sand & Gravel	10
4.	E. Gubb	Londonderry	205	63	Rock	4
5.	Dr. J. DeWolfe	Winhall	87	NR	Sand & Gravel	35
6.	S. Fellman	Jamaica	84	NR	Sand & Gravel	6
7.	A. Monroe	Jamaica	80	NR	Sand & Gravel	200
8.	Mrs. R. Farnsworth	Westminster	155	0	Rock	3
9.	E. Cobb	Wardsboro	90	NR	Sand & Gravel	50
10.	D. Kent	Newfane	52	NR	Sand & Gravel	35
11.	R. Crocker	Putney	129	NR	Sand & Gravel	20
12.	F. Kopp	Dover	375	21	Rock	3
13.	W. Larson	Newfane	81	NR	Sand & Gravel	75
14.	J. Sparks	Brattleboro	133	NR	Sand & Gravel	30
15.	City of Brattleboro	Brattleboro	30	NR	Sand & Gravel	465
16.	W. Vinci	Wilmington	153	13	Rock	3
17.	Dr. J. Lehrer	Halifax	143	33	Rock	5
18.	L. Moffitt	Readsboro	150	15	Rock	100
19.	B. F. Harger, Jr.	Vernon	134	NR	Sand & Gravel	75

NR - Not Reached 1/ Reported by owner or driller 2/ May be limited by capacity of pump

TEST BORINGS (Vermont Department of Highways)

20.	Townshend - Vt. Route 30 over West River	Elevation 415 ft
	Silt, sand & gravel 0 - 10 ft	
	Coarse sand to medium gravel 10 - 17	
	Fine to medium sand 17 - 30	
	Coarse sand 30 - 50	
	Not to bedrock	
21.	Putney - Interstate 91 over State Aid Highway No. 3	Elevation 270 ft
	Fine yellow sand 0 - 30 ft	
	Clay & silt 30 - 80	
	Possible bedrock 80	
22.	Newfane - South Newfane to East Dover Road over Rock River	Elevation 820 ft
	Sand & clay to clay hardpan 0 - 3.5 ft	
	Clay & clay hardpan 3.5 - 20	
	Possible bedrock 20	
23.	Dummerston - Interstate 91 over Salmon Brook	Elevation 223 ft
	Sand & gravel 0 - 15 ft	
	Clay & sand 15 - 62	
	Not to bedrock	
24.	Dummerston - Vt. Route 30 over Stickney Brook	Elevation 280 ft
	Coarse gravel & boulders 0 - 10 ft	
	Sand, some gravel 10 - 20	
	Gravel 20 - 25	
	Not to bedrock	
25.	Brattleboro - U.S. Route 5 over Sargent Brook	Elevation 280 ft
	Sand & gravel (fill) 0 - 8 ft	
	Sand, some silt & clay, minor gravel 8 - 52	
	Not to bedrock	
26.	Whitingham - Vt. Route 112 over Sprague Brook	Elevation 1,275 ft
	Sand & gravel with silt 0 - 28 ft	
	Not to bedrock	



INDEX MAP OF VERMONT
SCALE OF MILES
0 10 20 30 40 50

GROUND WATER FAVORABILITY MAP OF THE WEST-DEERFIELD RIVER BASIN, VERMONT

SCALE OF MILES



CONTOUR INTERVAL 100 FEET
DATUM MEAN SEA LEVEL

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