Sewage Disposal Onsite Septic Ratings (VT)

Windsor County, Vermont

[These ratings are based on a review of criteria set forth in the Vermont 2002 Environmental Protection Rules]

On-site class	Map symbol	Soil map unit name
IIa	1B	Hitchcock silt loam, 3 to 8 percent slopes
IIa	1C	Hitchcock silt loam, 8 to 15 percent slopes
IIb	1D	Hitchcock silt loam, 15 to 25 percent slopes
IVd	1E	Hitchcock silt loam, 25 to 50 percent slopes, eroded
IIIc	2A	Belgrade silt loam, 0 to 3 percent slopes
IIIc	2B	Belgrade silt loam, 3 to 8 percent slopes
V	3	Pits, quarry-Dumps, mine complex
IVa	4A	Raynham silt loam, 0 to 3 percent slopes
Ia	5B	Windsor loamy fine sand, 0 to 8 percent slopes
Ia	5C	Windsor loamy fine sand, 8 to 15 percent slopes
Ib	5D	Windsor loamy fine sand, 15 to 25 percent slopes
IIe	5E	Windsor loamy fine sand, 25 to 60 percent slopes
Ia	8A	Agawam fine sandy loam, 0 to 3 percent slopes
Ia	8B	Agawam fine sandy loam, 3 to 8 percent slopes
IIh	9B	Ninigret fine sandy loam, 0 to 8 percent slopes
IIh	10C	Marlow fine sandy loam, 8 to 15 percent slopes
IIIe	10D	Marlow fine sandy loam, 15 to 25 percent slopes
IIh	11C	Marlow fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	11D	Marlow fine sandy loam, 15 to 35 percent slopes, very stony
IVd	11E	Marlow fine sandy loam, 35 to 60 percent slopes, very stony
IIc	12C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky
IId	12D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky
IVb	12E	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky
Ia	14B	Hinckley sandy loam, 0 to 8 percent slopes
Ia	14C	Hinckley sandy loam, 8 to 15 percent slopes
Ib	14D	Hinckley sandy loam, 15 to 25 percent slopes
IIe	14E	Hinckley sandy loam, 25 to 50 percent slopes
Ic	15B	Dummerston fine sandy loam, 3 to 8 percent slopes
Ic	15C	Dummerston fine sandy loam, 8 to 15 percent slopes
Id	15D	Dummerston fine sandy loam, 15 to 25 percent slopes
Ic	16C	Dummerston fine sandy loam, 8 to 15 percent slopes, very stony
Id	16D	Dummerston fine sandy loam, 15 to 35 percent slopes, very stony
IIf	16E	Dummerston fine sandy loam, 35 to 60 percent slopes, very stony
IIIc	17B	Peru, Skerry, and Colonel soils, 3 to 8 percent slopes
IIId	17C	Peru, Skerry, and Colonel soils, 8 to 15 percent slopes

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On-site class	Map symbol	Soil map unit name
IIIe	17D	Peru, Skerry, and Colonel soils, 15 to 25 percent slopes
IIIc	18B	Peru, Skerry, and Colonel soils, 3 to 8 percent slopes, very stony
IIId	18C	Peru, Skerry, and Colonel soils, 8 to 15 percent slopes, very stony
IIIe	18D	Peru, Skerry, and Colonel soils, 15 to 35 percent slopes, very stony
IIc	19B	Vershire-Dummerston complex, 3 to 8 percent slopes, rocky
IIc	19C	Vershire-Dummerston complex, 8 to 15 percent slopes, rocky
IId	19D	Vershire-Dummerston complex, 15 to 25 percent slopes, rocky
IVb	19E	Vershire-Dummerston complex, 25 to 60 percent slopes, rocky
IIIa	20C	Glover-Vershire complex, 3 to 15 percent slopes, very rocky
IIIa	20D	Glover-Vershire complex, 15 to 35 percent slopes, very rocky
IVb	20E	Glover-Vershire complex, 35 to 60 percent slopes, very rocky
IIh	21B	Shelburne fine sandy loam, 3 to 8 percent slopes
IIh	21C	Shelburne fine sandy loam, 8 to 15 percent slopes
IIIe	21D	Shelburne fine sandy loam, 15 to 25 percent slopes
IIh	22B	Shelburne fine sandy loam, 3 to 8 percent slopes, very stony
IIh	22C	Shelburne fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	22D	Shelburne fine sandy loam, 15 to 35 percent slopes, very stony
IIg	23	Ondawa fine sandy loam, 0 to 3 percent slopes, occasionally flooded
IIIb	24	Podunk fine sandy loam, 0 to 3 percent slopes, occasionally flooded
IIIc	25B	Buckland loam, 3 to 8 percent slopes
IIId	25C	Buckland loam, 8 to 15 percent slopes
IIIe	25D	Buckland loam, 15 to 25 percent slopes
IIIc	26B	Buckland loam, 3 to 8 percent slopes, very stony
IIId	26C	Buckland loam, 8 to 15 percent slopes, very stony
IIIe	26D	Buckland loam, 15 to 35 percent slopes, very stony
IVd	26E	Buckland loam, 35 to 60 percent slopes, very stony
V	28	Udorthents and Udipsamments
IVa	29A	Grange very fine sandy loam, 0 to 3 percent slopes
IVa	30B	Cabot loam, 0 to 8 percent slopes
IIId	30C	Cabot loam, 8 to 15 percent slopes
IVa	31B	Cabot loam, 0 to 8 percent slopes, very stony
IIId	31C	Cabot loam, 8 to 15 percent slopes, very stony
V	32B	Urban land-Windsor-Agawam complex, 0 to 8 percent slopes
IVa	33	Rumney fine sandy loam, 0 to 2 percent slopes, frequently flooded
IIc	36C	Teago-Pomfret complex, 8 to 15 percent slopes, rocky
IId	36D	Teago-Pomfret complex, 15 to 25 percent slopes, rocky

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On-site class	Map symbol	Soil map unit name
IVb	36E	Teago-Pomfret complex, 25 to 50 percent slopes, rocky
IIg	38	Hadley very fine sandy loam, 0 to 3 percent slopes, occasionally flooded
IIIb	39	Winooski silt loam, 0 to 3 percent slopes, occasionally flooded
IVa	40	Limerick silt loam, 0 to 2 percent slopes, frequently flooded
IVa	41	Saco silt loam, 0 to 2 percent slopes, frequently flooded
IVc	42D	Lyman-Rock outcrop complex, 15 to 35 percent slopes, very stony
IVb	42F	Lyman-Rock outcrop complex, 35 to 70 percent slopes, very stony
IVc	43D	Hogback-Rock outcrop-Rawsonville complex, 15 to 35 percent slopes, very bouldery
IVb	43F	Hogback-Rock outcrop-Rawsonville complex, 35 to 70 percent slopes, very bouldery
IIIc	45B	Eldridge fine sandy loam, 3 to 8 percent slopes
IIId	45C	Eldridge fine sandy loam, 8 to 15 percent slopes
IIIe	45D	Eldridge fine sandy loam, 15 to 25 percent slopes
IVd	45E	Eldridge fine sandy loam, 25 to 50 percent slopes
IVa	47	Pondicherry and Wonsqueak mucks, ponded
V	48	Pits, Sand, and Pits, gravel
IIIf	49B	Vershire-Buckland complex, 3 to 8 percent slopes
IIIf	49C	Vershire-Buckland complex, 8 to 15 percent slopes
IIIf	49D	Vershire-Buckland complex, 15 to 25 percent slopes
IIc	54B	Tunbridge-Lyman complex, 3 to 8 percent slopes, rocky
IIc	54C	Tunbridge-Lyman complex, 8 to 15 percent slopes, rocky
IId	54D	Tunbridge-Lyman complex, 15 to 25 percent slopes, rocky
IVa	56	Bucksport muck, ponded
IIc	58C	Berkshire-Tunbridge complex, 8 to 15 percent slopes, very stony
IId	58D	Berkshire-Tunbridge complex, 15 to 35 percent slopes, very stony
IVb	58E	Berkshire-Tunbridge complex, 35 to 50 percent slopes, very stony
IIc	59C	Rawsonville-Houghtonville complex, 8 to 15 percent slopes, rocky
IId	59D	Rawsonville-Houghtonville complex, 15 to 35 percent slopes, rocky
IVb	59E	Rawsonville-Houghtonville complex, 35 to 60 percent slopes, rocky
IId	60D	Glebe-Stratton complex, 15 to 35 percent slopes, very stony
IVb	60F	Glebe-Stratton complex, 35 to 70 percent slopes, very stony
IVc	61D	Ricker-Londonderry-Stratton complex, 15 to 35 percent slopes, very rocky
IVb	61F	Ricker-Londonderry-Stratton complex, 35 to 70 percent slopes, very rocky
IIIa	62C	Hogback-Rawsonville complex, 8 to 15 percent slopes, very rocky
IIIa	62D	Hogback-Rawsonville complex, 15 to 35 percent slopes, very rocky
IVb	62E	Hogback-Rawsonville complex, 35 to 60 percent slopes, very rocky
Ic	63C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes, very stony

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On-site class	Map symbol	Soil map unit name
Id	63D	Berkshire and Monadnock fine sandy loams, 15 to 35 percent slopes, very stony
IIf	63E	Berkshire and Monadnock fine sandy loams, 35 to 60 percent slopes, very stony
Ia	64B	Colton fine sandy loam, 3 to 8 percent slopes
Ia	64C	Colton fine sandy loam, 8 to 15 percent slopes
Ib	64D	Colton fine sandy loam, 15 to 25 percent slopes
IIe	64E	Colton fine sandy loam, 25 to 60 percent slopes
Ic	68B	Berkshire and Monadnock fine sandy loams, 3 to 8 percent slopes
Ic	68C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes
Id	68D	Berkshire and Monadnock fine sandy loams, 15 to 25 percent slopes
Ia	70B	Adams loamy fine sand, 3 to 8 percent slopes
Ia	70C	Adams loamy fine sand, 8 to 15 percent slopes
Ib	70D	Adams loamy fine sand, 15 to 25 percent slopes
IIe	70E	Adams loamy fine sand, 25 to 60 percent slopes
IIh	71B	Croghan and Sheepscot fine sandy loams, 0 to 8 percent slopes
IIh	71C	Croghan and Sheepscot fine sandy loams, 8 to 15 percent slopes
IIh	74C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	74D	Mundal fine sandy loam, 15 to 35 percent slopes, very stony
V	75B	Urban land-Colton-Croghan complex, 0 to 8 percent slopes
IId	79D	Dummerston-Macomber complex, 15 to 25 percent slopes, very stony
IIc	80C	Macomber-Taconic complex, 8 to 15 percent slopes, very rocky
IId	80D	Macomber-Taconic complex, 15 to 25 percent slopes, very rocky
IVb	80F	Macomber-Taconic complex, 25 to 70 percent slopes, very rocky
IVc	81D	Taconic-Hubbardton-Rock outcrop complex, 8 to 25 percent slopes
IVb	81F	Taconic-Hubbardton-Rock outcrop complex, 25 to 70 percent slopes
V	82	Udifluvents, cobbly, frequently flooded
IIh	85B	Fullam silt loam, 3 to 8 percent slopes
IIh	85C	Fullam silt loam, 8 to 15 percent slopes
IIIe	85D	Fullam silt loam, 15 to 25 percent slopes
IIh	86C	Fullam silt loam, 8 to 15 percent slopes, very stony
IIIe	86D	Fullam silt loam, 15 to 35 percent slopes, very stony
IIc	89C	Dummerston-Macomber complex, 8 to 15 percent slopes, rocky
IIh	95B	Nicholville-Adams complex, 3 to 8 percent slopes
IIIe	95D	Nicholville-Adams complex, 15 to 25 percent slopes
IVd	95E	Nicholville-Adams complex, 25 to 60 percent slopes
IId	202E	Rawsonville-Hogback-Houghtonville complex, 8 to 60 percent slopes, very rocky
IIIe	203D	Peru-Colonel-Marlow association, 3 to 35 percent slopes, very stony

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On-site class	Map symbol	Soil map unit name
IIIa	213F	Stratton-Ricker-Glebe complex, 15 to 70 percent slopes, very rocky
IVa	403B	Cabot-Pondicherry-Wonsqueak association, 0 to 8 percent slopes, very stony
IId	415D	Tunbridge-Berkshire-Lyman complex, 8 to 50 percent slopes, rocky
IIIf	425D	Peru-Tunbridge-Berkshire complex, 8 to 35 percent slopes, rocky
IIIe	505D	Peru-Berkshire-Colton association, 3 to 35 percent slopes, very stony
IVc	702F	Hogback-Ricker-Rock outcrop complex, 15 to 70 percent slopes, very stony
IIIf	705D	Rawsonville-Houghtonville-Mundal complex, 8 to 50 percent slopes, rocky
V	W	Water

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This table indicates the suitability of the soils in the survey area for residential onsite waste disposal systems. The ratings in the table are based on the 2002 Vermont Environmental Protection Rules (Vermont Department of Environmental Conservation, Agency of Natural Resources). This rating system replaces that in the publication "Ancillary Soil Interpretation Ratings for On-site Sewage Disposal in Vermont," published in January 1997 by the Natural Resources Conservation Service.

Included in onsite waste disposal systems are absorption fields, also known as leach fields, or trenches in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Unsatisfactory performance, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health.

The ratings are represented by symbols for five interpretive groups and their subgroups. These groups and subgroups are described in the following paragraphs.

Group I soils are well suited to onsite waste disposal systems. Good performance and low maintenance can be expected. The soils in this group are sandy and gravelly soils that formed in outwash and that have rapid permeability in the substratum and well drained soils that formed in till and that have a friable substratum with moderate permeability. Slopes generally are less than 20 percent.

- Map units in subgroup Ia have rapid permeability and slopes of less than 20 percent.
- Map units in subgroup Ib have rapid permeability and have slopes that range to more than 20 percent.
- Map units in subgroup Ic have moderate permeability and slopes of less than 20 percent.
- Map units in subgroup Id have moderate permeability and have slopes that range to more than 20 percent.

Group II soils are moderately suited to onsite waste disposal systems. The group includes soils with moderately slow to very slow permeability; complexes in which one or more of the soils have bedrock at a moderate depth (20 to 40 inches); soils that would qualify for inclusion in group I but have slopes of more than 20 percent; soils that are subject to flooding; and soils that have a seasonal high water table at a depth of 18 inches or more.

- Map units in subgroup IIa have moderately slow to very slow permeability and slopes of less than 20 percent.
- Map units in subgroup IIb have moderately slow to very slow permeability and have slopes that range to more than 20 percent.
- Map units in subgroup IIc have bedrock at a moderate depth (20 to 40 inches) in some areas and have slopes of less than 20 percent.
- Map units in subgroup IId have bedrock at a moderate depth (20 to 40 inches) and have slopes that range to more than 20 percent.
- Map units in subgroup IIe have rapid permeability and have slopes of more than 20 percent.
- Map units in subgroup IIf have moderate permeability and slopes of more than 20 percent.
- Map units in subgroup IIg are subject to flooding.
- Map units in subgroup IIh have a seasonal high water table at a depth of 18 inches or more and have slopes of less than 20 percent.

Group III map units are marginally suited to onsite waste disposal systems. Intensive onsite investigation may be needed to locate suitable areas, or special design, extra maintenance, or costly alteration may be needed to overcome the soil-related limitations. In areas where the water table is at a shallow depth, seasonal onsite monitoring of the water table may be needed to determine whether the site is suitable. Some areas of any of the map units in group III may not be suitable for onsite waste disposal systems.

- Map units in subgroup IIIa have bedrock at a depth of less than 10 inches in some areas. Some map units are limited by slopes that range to more than 20 percent.
- Map units in subgroup IIIb are subject to flooding and have a seasonal high water table at a moderate depth.
- Map units in subgroup IIIc have a seasonal high water table at a depth of 1 foot or less and have slopes of 8 percent or less.
- Map units in subgroup IIId have a seasonal high water table at a depth of 1 foot or less and have slopes of 8 to 20 percent.
- Map units in subgroup IIIe generally have a seasonal high water table within a depth of 2 feet and have slopes that range to more than 20 percent.
- Map units in subgroup IIIf have a seasonal high water table and limited depth to bedrock. Some map units have slopes that range to more than 20 percent.

Group IV map units are not suited to onsite waste disposal systems because of such limitations as wetness, depth to bedrock, restricted permeability, or slope.

- Map units in subgroup IVa are subject to excessive wetness.

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- Map units in subgroup IVb are limited by the depth to bedrock and by slopes of more than 20 percent.

- Map units in subgroup IVc are not suited because of a very limited depth to bedrock and the slope.

- Map units in subgroup IVd have moderately slow to very slow permeability and have slopes of more than 20 percent. Some map units have a seasonal high water table.

Group V map units are not rated for onsite waste disposal systems. This group includes miscellaneous areas that have been filled, excavated, regraded, or otherwise disturbed by human activities; areas that are mapped above the series level, such as Udorthents; and areas of water. The miscellaneous areas and the areas mapped above the series level have a wide range of soil properties. Onsite investigation is needed to determine the suitability of these areas for onsite waste disposal.

The ratings in this report are based on the installation of a new septic system for a new single-family home on a lot subdivided on or after June 14, 2002, in a municipality that has planning and zoning bylaws. The ratings do not necessarily apply to the siting of a replacement system for an existing residence. The ratings for lots subdivided before June 14, 2002, are based on a slope limitation of 30 percent, whereas the ratings in this table are based on a slope limitation of 20 percent. The ratings in this table do not take into consideration some site factors that can affect the placement of septic systems, such as wellhead and source protection areas, isolation distances, and the size of the parcel.

This table is intended for general planning purposes only and is not intended to replace or supercede an onsite soil investigation. These ratings apply only to land within the State of Vermont.