

# Sewage Disposal Onsite Septic Ratings (VT)

Windham 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
Ic	1A	Unadilla silt loam, 0 to 3 percent slopes
Ic	1B	Unadilla silt loam, 3 to 8 percent slopes
Ic	1C	Unadilla silt loam, 8 to 15 percent slopes
Id	1D	Unadilla silt loam, 15 to 25 percent slopes
V	1E	Udorthents, steep
IIIc	2A	Belgrade silt loam, 0 to 3 percent slopes
Ia	3B	Quonset and Warwick soils, 2 to 8 percent slopes
Ia	3C	Quonset and Warwick soils, 8 to 15 percent slopes
Ib	3D	Quonset and Warwick soils, 15 to 25 percent slopes
Ile	3E	Quonset and Warwick soils, 25 to 70 percent slopes
Ia	5B	Windsor loamy fine sand, 2 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
Ile	5E	Windsor loamy fine sand, 25 to 60 percent slopes
Iih	9B	Deerfield fine sandy loam, 2 to 8 percent slopes
Ia	10A	Agawam very fine sandy loam, 0 to 3 percent slopes
Ia	10B	Agawam very fine sandy loam, 3 to 8 percent slopes
Ic	11B	Berkshire and Monadnock fine sandy loams, 3 to 8 percent slopes
Ic	11C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes
Id	11D	Berkshire and Monadnock fine sandy loams, 15 to 25 percent slopes
IIIa	12C	Stratton-Glebe complex, 8 to 15 percent slopes, very rocky
IIIa	12D	Stratton-Glebe complex, 15 to 25 percent slopes, very rocky
IVb	12E	Stratton-Glebe complex, 25 to 50 percent slopes, very rocky
Ia	16B	Adams loamy fine sand, 2 to 8 percent slopes
Ia	16C	Adams loamy fine sand, 8 to 15 percent slopes
Ib	16D	Adams loamy fine sand, 15 to 25 percent slopes
Ile	16E	Adams loamy fine sand, 25 to 50 percent slopes
IIIc	17B	Worden loam, 3 to 8 percent slopes
IIId	17C	Worden loam, 8 to 15 percent slopes
IIIc	18B	Worden loam, 3 to 8 percent slopes, very bouldery
IIId	18C	Worden loam, 8 to 15 percent slopes, very bouldery
IIIe	18D	Worden loam, 15 to 25 percent slopes, very bouldery
IIc	20B	Tunbridge-Lyman fine sandy loams, 3 to 8 percent slopes, very rocky
IIc	20C	Tunbridge-Lyman fine sandy loams, 8 to 15 percent slopes, very rocky
IIId	20D	Tunbridge-Lyman fine sandy loams, 15 to 25 percent slopes, very rocky

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IVb	20E	Tunbridge-Lyman fine sandy loams, 25 to 50 percent slopes, very rocky
IIh	21B	Marlow fine sandy loam, 3 to 8 percent slopes
IIh	21C	Marlow fine sandy loam, 8 to 15 percent slopes
IIIe	21D	Marlow fine sandy loam, 15 to 25 percent slopes
IIh	22B	Marlow fine sandy loam, 3 to 8 percent slopes, very stony
IIh	22C	Marlow fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	22D	Marlow fine sandy loam, 15 to 25 percent slopes, very stony
IVd	22E	Marlow fine sandy loam, 25 to 50 percent slopes, very stony
IIg	23	Ondawa fine sandy loam
IIIb	24	Podunk fine sandy loam
IIIc	25B	Westbury fine sandy loam, 3 to 8 percent slopes
IIId	25C	Westbury fine sandy loam, 8 to 15 percent slopes
IIIc	26B	Westbury fine sandy loam, 3 to 8 percent slopes, very stony
IIId	26C	Westbury fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	26D	Westbury fine sandy loam, 15 to 25 percent slopes, very stony
IVa	29	Walpole fine sandy loam
IVa	31B	Wilmington very fine sandy loam, 2 to 8 percent slopes, very stony
IVa	33	Rumney fine sandy loam
IVc	34C	Lyman-Rock outcrop complex, 8 to 15 percent slopes
IVc	34D	Lyman-Rock outcrop complex, 15 to 25 percent slopes
IVb	34E	Lyman-Rock outcrop complex, 25 to 50 percent slopes
IIg	37	Hadley silt loam
IIIb	39	Winooski silt loam
IVa	40	Limerick silt loam
IVc	41D	Londonderry-Stratton silt loams, 8 to 25 percent slopes, very rocky
IVb	41E	Londonderry-Stratton silt loams, 25 to 70 percent slopes, very rocky
IIh	43B	Mundal fine sandy loam, 3 to 8 percent slopes
IIh	43C	Mundal fine sandy loam, 8 to 15 percent slopes
IIIe	43D	Mundal fine sandy loam, 15 to 25 percent slopes
IIh	44B	Mundal fine sandy loam, 3 to 8 percent slopes, very stony
IIh	44C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	44D	Mundal fine sandy loam, 15 to 25 percent slopes, very stony
IVd	44E	Mundal fine sandy loam, 25 to 50 percent slopes, very stony
Ic	46B	Berkshire and Monadnock fine sandy loams, 3 to 8 percent slopes, very stony
Ic	46C	Berkshire and Monadnock fine sandy loams, 8 to 15 percent slopes, very stony
Id	46D	Berkshire and Monadnock fine sandy loams, 15 to 25 percent slopes, very stony

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IIf	46E	Berkshire and Monadnock fine sandy loams, 25 to 50 percent slopes, very stony
IVa	47	Lupton mucky peat
IIc	48B	Rawsonville-Hogback fine sandy loams, 3 to 8 percent slopes rocky
IIc	48C	Rawsonville-Hogback fine sandy loams, 8 to 15 percent slopes, rocky
IId	48D	Rawsonville-Hogback fine sandy loams, 15 to 25 percent slopes, rocky
IVb	48E	Rawsonville-Hogback fine sandy loams, 25 to 50 percent slopes, rocky
IIc	49B	Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, very bouldery
IIc	49C	Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, very bouldery
IId	49D	Houghtonville-Rawsonville fine sandy loams, 15 to 25 percent slopes, very bouldery
IVb	49E	Houghtonville-Rawsonville fine sandy loams, 25 to 50 percent slopes, very bouldery
Ia	50B	Colton loamy fine sand, 2 to 8 percent slopes
Ia	50C	Colton loamy fine sand, 8 to 15 percent slopes
Ib	50D	Colton loamy fine sand, 15 to 25 percent slopes
Ile	50E	Colton loamy fine sand, 25 to 60 percent slopes
IIh	52A	Sheepscot fine sandy loam, 0 to 3 percent slopes
IIh	52B	Sheepscot fine sandy loam, 3 to 8 percent slopes
Ic	56B	Monadnock fine sandy loam, 3 to 8 percent slopes, very stony
Ic	56C	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony
Id	56D	Monadnock fine sandy loam, 15 to 25 percent slopes, very stony
IIf	56E	Monadnock fine sandy loam, 25 to 50 percent slopes, very stony
Ic	60B	Houghtonville fine sandy loam, 3 to 8 percent slopes
Ic	60C	Houghtonville fine sandy loam, 8 to 15 percent slopes
Id	60D	Houghtonville fine sandy loam, 15 to 25 percent slopes
Ic	61B	Houghtonville fine sandy loam, 3 to 8 percent slopes, very stony
Ic	61C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony
Id	61D	Houghtonville fine sandy loam, 15 to 25 percent slopes, very stony
IIf	61E	Houghtonville fine sandy loam, 25 to 50 percent slopes, very stony
IVa	62	Markey muck
IIc	63C	Berkshire-Tunbridge fine sandy loams, 8 to 15 percent slopes, very stony
IId	63D	Berkshire-Tunbridge fine sandy loams, 15 to 25 percent slopes, very stony
IVb	63E	Berkshire-Tunbridge fine sandy loams, 25 to 50 percent slopes, very stony
V	64	Udifluvents, loamy
IIIa	65C	Hogback-Rawsonville fine sandy loams, 8 to 15 percent slopes, very rocky
IIIa	65D	Hogback-Rawsonville fine sandy loams, 15 to 25 percent slopes, very rocky
IVb	65E	Hogback-Rawsonville fine sandy loams, 25 to 50 percent slopes, very rocky
IIc	66B	Houghtonville-Rawsonville fine sandy loams, 3 to 8 percent slopes, rocky

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On-site class	Map symbol	Soil map unit name
I1c	66C	Houghtonville-Rawsonville fine sandy loams, 8 to 15 percent slopes, rocky
I1c	67B	Berkshire-Tunbridge fine sandy loams, 3 to 8 percent slopes, rocky
I1c	67C	Berkshire-Tunbridge fine sandy loams, 8 to 15 percent slopes, rocky
I4c	68D	Taconic-Hubbardton-Rock outcrop complex, 8 to 25 percent slopes
I4b	68E	Taconic-Hubbardton-Rock outcrop complex, 25 to 70 percent slopes
I1c	69C	Macomber-Taconic complex, 8 to 15 percent slopes, very rocky
I1d	69D	Macomber-Taconic complex, 15 to 25 percent slopes, very rocky
I4b	69E	Macomber-Taconic complex, 25 to 70 percent slopes, very rocky
I1c	70C	Dummerston-Macomber complex, 8 to 15 percent slopes, very stony
I1d	70D	Dummerston-Macomber complex, 15 to 25 percent slopes, very stony
I4b	70E	Dummerston-Macomber complex, 25 to 70 percent slopes very stony
Ic	71B	Dummerston silt loam, 3 to 8 percent slopes
Ic	71C	Dummerston silt loam, 8 to 15 percent slopes
Id	71D	Dummerston silt loam, 15 to 25 percent slopes
Ic	72C	Dummerston silt loam, 8 to 15 percent slopes, very stony
Id	72D	Dummerston silt loam, 15 to 25 percent slopes, very stony
I1f	72E	Dummerston silt loam, 25 to 70 percent slopes, very stony
I1h	73B	Fullam silt loam, 3 to 8 percent slopes
I1h	73C	Fullam silt loam, 8 to 15 percent slopes
I1le	73D	Fullam silt loam, 15 to 25 percent slopes
I1h	74B	Fullam silt loam, 3 to 8 percent slopes, very stony
I1h	74C	Fullam silt loam, 8 to 15 percent slopes, very stony
I1le	74D	Fullam silt loam, 15 to 25 percent slopes, very stony
I4d	74E	Fullam silt loam, 25 to 35 percent slopes, very stony
I4a	75B	Brayton silt loam, 2 to 8 percent slopes, very stony
I1c	76B	Dummerston-Macomber complex, 3 to 8 percent slopes, rocky
I1c	76C	Dummerston-Macomber complex, 8 to 15 percent slopes, rocky
V	W	Water

## Sewage Disposal Onsite Septic Ratings (VT)

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 II f 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 III f 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.