Soil-based Residential Wastewater Disposal Ratings (VT)

Bennington County, Vermont

[These ratings are based on a review of criteria set forth in the Vermont 2007 Environmental Protection Rules]

Suitability subgroup	Map symbol	Soil map unit name
Ia	3A	Copake gravelly fine sandy loam, 0 to 3 percent slopes
Ia	3B	Copake gravelly fine sandy loam, 3 to 8 percent slopes
Ia	3C	Copake gravelly fine sandy loam, 8 to 15 percent slopes
Ib	3D	Copake gravelly fine sandy loam, 15 to 25 percent slopes
IIe	3E	Copake gravelly fine sandy loam, 25 to 60 percent slopes
V	9	Pits-Dumps complex
IId	10D	Glebe-Stratton-Londonderry complex, 15 to 25 percent slopes, very rocky
IVb	10E	Glebe-Stratton-Londonderry complex, 25 to 60 percent slopes, very rocky
IVb	11F	Taconic-Hubbardton-Rock outcrop complex, 25 to 70 percent slopes, very stony
Ia	18B	Windsor loamy fine sand, 0 to 8 percent slopes
Ia	18C	Windsor loamy fine sand, 8 to 15 percent slopes
Ib	18E	Windsor loamy fine sand, 15 to 60 percent slopes
IVa	21A	Limerick silt loam, 0 to 3 percent slopes
IVa	23A	Adrian and Saco soils, 0 to 2 percent slopes
IVa	24A	Carlisle mucky peat, 0 to 2 percent slopes
IIIc	25B	Belgrade silt loam, 0 to 8 percent slopes
IVa	26A	Raynham silt loam, 0 to 3 percent slopes
V	27B	Udipsamments and Udorthents, gently sloping
V	28A	Udifluvents, loamy-skeletal
IIIg	29A	Occum fine sandy loam, 0 to 3 percent slopes
IIIb	34A	Pootatuck fine sandy loam, 0 to 3 percent slopes
IIa	35B	Hartland silt loam, 0 to 5 percent slopes
IIc	40B	Galway-Nellis-Farmington complex, 3 to 8 percent slopes, rocky
IIc	40C	Galway-Nellis-Farmington complex, 8 to 15 percent slopes, rocky
IId	40D	Galway-Nellis-Farmington complex, 15 to 25 percent slopes, rocky
IIc	41C	Galway-Farmington complex, 8 to 15 percent slopes, very rocky
IId	41D	Galway-Farmington complex, 15 to 25 percent slopes, very rocky
IVb	41E	Galway-Farmington complex, 25 to 50 percent slopes, very rocky
IIc	42C	Macomber-Taconic complex, 8 to 15 percent slopes, rocky
IId	42D	Macomber-Taconic complex, 15 to 25 percent slopes, rocky
IVb	42E	Macomber-Taconic complex, 25 to 60 percent slopes, rocky
IIIa	43C	Taconic-Macomber complex, 8 to 15 percent slopes, very rocky
IIIa	43D	Taconic-Macomber complex, 15 to 25 percent slopes, very rocky
IVb	43E	Taconic-Macomber complex, 25 to 60 percent slopes, very rocky
Ic	44B	Dutchess channery loam, 3 to 8 percent slopes

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Bennington County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
Ic	44C	Dutchess channery loam, 8 to 15 percent slopes
Id	44D	Dutchess channery loam, 15 to 25 percent slopes
Ic	47C	Dutchess channery loam, 8 to 15 percent slopes, very stony
Id	47D	Dutchess channery loam, 15 to 25 percent slopes, very stony
IIf	47E	Dutchess channery loam, 25 to 60 percent slopes, very stony
IIh	48B	Pittstown loam, 3 to 8 percent slopes
IIh	48C	Pittstown loam, 8 to 15 percent slopes
IIIe	48D	Pittstown loam, 15 to 25 percent slopes
IIh	49C	Pittstown loam, 8 to 15 percent slopes, very stony
IIIe	49D	Pittstown loam, 15 to 25 percent slopes, very stony
IVa	50B	Brayton loam, 0 to 5 percent slopes
IVa	51B	Brayton loam, 0 to 5 percent slopes, very stony
IVa	52A	Mansfield mucky silt loam, 0 to 3 percent slopes, very stony
IIa	64B	Stockbridge loam, 2 to 8 percent slopes
IIa	64C	Stockbridge loam, 8 to 15 percent slopes
IIb	64D	Stockbridge loam, 15 to 25 percent slopes
IIa	65C	Stockbridge loam, 8 to 15 percent slopes, very stony
IIb	65D	Stockbridge loam, 15 to 25 percent slopes, very stony
IIh	66A	Georgia loam, 0 to 3 percent slopes
IIh	66B	Georgia loam, 3 to 8 percent slopes
IIh	66C	Georgia loam, 8 to 15 percent slopes
IIIe	66D	Georgia loam, 15 to 25 percent slopes
IIh	67B	Georgia loam, 3 to 8 percent slopes, very stony
IIh	67C	Georgia loam, 8 to 15 percent slopes, very stony
IIIc	68A	Massena silt loam, 0 to 3 percent slopes
IIIc	68B	Massena silt loam, 3 to 8 percent slopes
IIIc	69A	Massena silt loam, 0 to 3 percent slopes, very stony
IIIc	69B	Massena silt loam, 3 to 8 percent slopes, very stony
Ia	70A	Groton gravelly fine sandy loam, 0 to 3 percent slopes
Ia	70B	Groton gravelly fine sandy loam, 3 to 8 percent slopes
Ia	70C	Groton gravelly fine sandy loam, 8 to 15 percent slopes
Ib	70D	Groton gravelly fine sandy loam, 15 to 25 percent slopes
IIe	70E	Groton gravelly fine sandy loam, 25 to 60 percent slopes
IIh	71A	Hero gravelly fine sandy loam, 0 to 3 percent slopes
IIh	71B	Hero gravelly fine sandy loam, 3 to 8 percent slopes
IIIc	72A	Fredon fine sandy loam, 0 to 3 percent slopes

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Suitability subgroup	Map symbol	Soil map unit name
IIa	84B	Nellis silt loam, 3 to 8 percent slopes
IIa	84C	Nellis silt loam, 8 to 15 percent slopes
IIb	84D	Nellis silt loam, 15 to 25 percent slopes
IIa	85B	Nellis silt loam, 3 to 8 percent slopes, very stony
IIa	85C	Nellis silt loam, 8 to 15 percent slopes, very stony
IIb	85D	Nellis silt loam, 15 to 25 percent slopes, very stony
IVd	85E	Nellis silt loam, 25 to 50 percent slopes, very stony
IIh	86A	Amenia silt loam, 0 to 3 percent slopes
IIh	86B	Amenia silt loam, 3 to 8 percent slopes
IIh	86C	Amenia silt loam, 8 to 15 percent slopes
IIh	87B	Amenia silt loam, 3 to 8 percent slopes, very stony
IIh	87C	Amenia silt loam, 8 to 15 percent slopes, very stony
Ic	90C	Berkshire fine sandy loam, 3 to 15 percent slopes, extremely stony
Id	90E	Berkshire fine sandy loam, 15 to 50 percent slopes, extremely stony
Ic	93B	Pittsfield fine sandy loam, 3 to 8 percent slopes
Ic	93C	Pittsfield fine sandy loam, 8 to 15 percent slopes
Id	93D	Pittsfield fine sandy loam, 15 to 25 percent slopes
Ic	94B	Pittsfield fine sandy loam, 3 to 8 percent slopes, very stony
Ic	94C	Pittsfield fine sandy loam, 8 to 15 percent slopes, very stony
Id	94D	Pittsfield fine sandy loam, 15 to 25 percent slopes, very stony
IIf	94E	Pittsfield fine sandy loam, 25 to 50 percent slopes, very stony
Ic	95C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony
Id	95D	Houghtonville fine sandy loam, 15 to 25 percent slopes, very stony
IIf	95E	Houghtonville fine sandy loam, 25 to 60 percent slopes, very stony
IIIa	96D	Hogback-Rawsonville-Rock outcrop complex, 15 to 25 percent slopes, very stony
IVb	96F	Hogback-Rawsonville-Rock outcrop complex, 25 to 70 percent slopes, very stony
IVa	100B	Wilmington fine sandy loam, 0 to 8 percent slopes, very stony
IIh	102B	Mundal fine sandy loam, 3 to 8 percent slopes
IIh	102C	Mundal fine sandy loam, 8 to 15 percent slopes
Ia	104B	Colton gravelly loamy sand, 3 to 8 percent slopes, extremely stony
Ia	104C	Colton gravelly loamy sand, 8 to 15 percent slopes, extremely stony
Ib	104E	Colton gravelly loamy sand, 15 to 50 percent slopes, extremely stony
Ic	105B	Monadnock fine sandy loam, 3 to 8 percent slopes, very stony
Ic	105C	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony
Id	105D	Monadnock fine sandy loam, 15 to 25 percent slopes, very stony
IIf	105E	Monadnock fine sandy loam, 25 to 50 percent slopes, very stony

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Suitability subgroup	Map symbol	Soil map unit name
Ic	106B	Berkshire fine sandy loam, 3 to 8 percent slopes, very stony
Ic	106C	Berkshire fine sandy loam, 8 to 15 percent slopes, very stony
Id	106D	Berkshire fine sandy loam, 15 to 25 percent slopes, very stony
IIf	106E	Berkshire fine sandy loam, 25 to 50 percent slopes, very stony
IIh	108B	Peru fine sandy loam, 3 to 8 percent slopes, very stony
IIh	108C	Peru fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	108D	Peru fine sandy loam, 15 to 25 percent slopes, very stony
IIc	109C	Tunbridge-Berkshire complex, 8 to 15 percent slopes, rocky
IId	109D	Tunbridge-Berkshire complex, 15 to 25 percent slopes, rocky
IVb	109E	Tunbridge-Berkshire complex, 25 to 50 percent slopes, rocky
IIc	111C	Rawsonville-Houghtonville complex, 8 to 15 percent slopes, rocky
IId	111D	Rawsonville-Houghtonville complex, 15 to 25 percent slopes, rocky
IVb	111E	Rawsonville-Houghtonville complex, 25 to 60 percent slopes, rocky
IIc	112C	Rawsonville-Hogback complex, 8 to 15 percent slopes, very rocky
IId	112D	Rawsonville-Hogback complex, 15 to 25 percent slopes, very rocky
IVb	112E	Rawsonville-Hogback complex, 25 to 60 percent slopes, very rocky
IVa	113B	Cabot silt loam, 3 to 8 percent slopes, very stony
IIh	114B	Mundal fine sandy loam, 3 to 8 percent slopes, very stony
IIh	114C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	114D	Mundal fine sandy loam, 15 to 25 percent slopes, very stony
IIh	115B	Peru fine sandy loam, 3 to 8 percent slopes
IIh	115C	Peru fine sandy loam, 8 to 15 percent slopes
IIIe	115D	Peru fine sandy loam, 15 to 25 percent slopes
IIIa	116D	Lyman-Tunbridge-Rock outcrop complex, 15 to 25 percent slopes, very stony
IVb	116F	Lyman-Tunbridge-Rock outcrop complex, 25 to 70 percent slopes, very stony
Ic	117B	Berkshire fine sandy loam, 3 to 8 percent slopes
Ic	117C	Berkshire fine sandy loam, 8 to 15 percent slopes
Id	117D	Berkshire fine sandy loam, 15 to 25 percent slopes
IIc	118C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky
IId	118D	Tunbridge-Lyman complex, 15 to 25 percent slopes, very rocky
IVb	118E	Tunbridge-Lyman complex, 25 to 60 percent slopes, very rocky
IVb	221F	Tunbridge-Berkshire association, very steep, rocky
IVa	403B	Cabot-Carlisle association, undulating, very stony
IId	405D	Berkshire-Tunbridge association, hilly, very stony
IIIe	413D	Peru-Berkshire-Cabot association, hilly, very stony
IVb	702E	Rawsonville-Hogback association, very hilly, very rocky

Soil-based Residential Wastewater Disposal Ratings (VT)

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Suitability subgroup	Map symbol	Soil map unit name
IIh	703C	Mundal-Houghtonville association, rolling, very stony
IIIf	705D	Rawsonville-Houghtonville-Mundal association, hilly, rocky
IId	715D	Houghtonville-Rawsonville association, hilly, rocky
IVb	902F	Hogback-Rawsonville-Rock outcrop association, very steep, very stony
IIId	903C	Mundal-Wilmington association, rolling, very stony
Id	905D	Houghtonville-Monadnock association, hilly, very stony
IVb	913E	Glebe-Stratton association, very hilly, very rocky
IIIc	923B	Wilmington-Mundal association, undulating, very stony
V	W	Water

Soil-based Residential Wastewater Disposal 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 2007 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 soil-based wastewater 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 soil-based wastewater 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 slopes of more than 20 percent.

• Map units in subgroup IIf have moderate permeability and slopes of more than 20 percent.

• Map units previously assigned to subgroup IIg have been re-assigned to subgroup IIIg.

• 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 soil-based wastewater 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.

• Map units in subgroup IIIg are subject to flooding.

Group IV map units are not suited to soil-based wastewater 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.

• 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 soil-based wastewater 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.