Soil-based Residential Wastewater Disposal Ratings (VT)

Washington 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
IIIg	2A	Ondawa fine sandy loam, 0 to 3 percent slopes
IVa	3A	Rumney fine sandy loam, 0 to 2 percent slopes
IVa	4A	Sunny silt loam, 0 to 2 percent slopes
IVa	9A	Rifle muck, 0 to 2 percent slopes, ponded
IIIc	14B	Colonel fine sandy loam, 3 to 8 percent slopes
IIId	14C	Colonel fine sandy loam, 8 to 15 percent slopes
IIIe	14D	Colonel fine sandy loam, 15 to 25 percent slopes
IVa	17A	Cabot silt loam, 0 to 3 percent slopes
IVa	17B	Cabot silt loam, 3 to 8 percent slopes
IIId	17C	Cabot silt loam, 8 to 15 percent slopes
IVa	18B	Cabot silt loam, 0 to 8 percent slopes, very stony
IIId	18C	Cabot silt loam, 8 to 15 percent slopes, very stony
IIIc	19B	Colonel fine sandy loam, 3 to 8 percent slopes, very stony
IIId	19C	Colonel fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	19D	Colonel fine sandy loam, 15 to 35 percent slopes, very stony
IVa	20A	Peacham muck, 0 to 5 percent slopes
IIIg	21A	Sunday fine sand, 0 to 3 percent slopes
Ia	26A	Adams loamy fine sand, 0 to 3 percent slopes
Ia	26B	Adams loamy fine sand, 3 to 8 percent slopes
Ia	26C	Adams loamy fine sand, 8 to 15 percent slopes
Ib	26D	Adams loamy fine sand, 15 to 25 percent slopes
IIe	26E	Adams loamy fine sand, 25 to 60 percent slopes
IIh	33A	Machias fine sandy loam, 0 to 3 percent slopes
IIh	33B	Machias fine sandy loam, 3 to 8 percent slopes
IIh	33C	Machias fine sandy loam, 8 to 15 percent slopes
Ia	37B	Stetson loam, 3 to 8 percent slopes
Ia	37C	Stetson loam, 8 to 15 percent slopes
Ib	37D	Stetson loam, 15 to 25 percent slopes
IIe	37E	Stetson loam, 25 to 60 percent slopes
Ia	39A	Colton gravelly loamy sand, 0 to 3 percent slopes
Ia	39B	Colton gravelly loamy sand, 3 to 8 percent slopes
Ia	39C	Colton gravelly loamy sand, 8 to 15 percent slopes
Ib	39D	Colton gravelly loamy sand, 15 to 25 percent slopes
IIe	39E	Colton gravelly loamy sand, 25 to 60 percent slopes
IIIe	41D	Buxton silt loam, 15 to 25 percent slopes

Soil-based Residential Wastewater Disposal Ratings (VT)

Washington County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IVd	41E	Buxton silt loam, 25 to 45 percent slopes
Ic	43B	Salmon very fine sandy loam, 3 to 8 percent slopes
Ic	43C	Salmon very fine sandy loam, 8 to 15 percent slopes
Id	43D	Salmon very fine sandy loam, 15 to 25 percent slopes
IIf	43E	Salmon very fine sandy loam, 25 to 50 percent slopes
IIIc	44B	Lamoine silt loam, 3 to 8 percent slopes
IIId	44C	Lamoine silt loam, 8 to 15 percent slopes
IVa	45A	Scantic silt loam, 0 to 3 percent slopes
IIh	55B	Nicholville silt loam, 3 to 8 percent slopes
IVa	58A	Grange silt loam, 0 to 3 percent slopes
IIIg	59A	Waitsfield silt loam, 0 to 3 percent slopes
IIIb	60A	Weider very fine sandy loam, 0 to 3 percent slopes
Ic	62B	Berkshire fine sandy loam, 3 to 8 percent slopes
Ic	62C	Berkshire fine sandy loam, 8 to 15 percent slopes
Id	62D	Berkshire fine sandy loam, 15 to 25 percent slopes
Ic	63B	Berkshire fine sandy loam, 3 to 8 percent slopes, very stony
Ic	63C	Berkshire fine sandy loam, 8 to 15 percent slopes, very stony
Id	63D	Berkshire fine sandy loam, 15 to 35 percent slopes, very stony
IIf	63E	Berkshire fine sandy loam, 35 to 60 percent slopes, very stony
IIc	64C	Salmon-Adamant complex, 8 to 15 percent slopes, very rocky
IId	64D	Salmon-Adamant complex, 15 to 25 percent slopes, very rocky
IVb	64E	Salmon-Adamant complex, 25 to 50 percent slopes, very rocky
IIc	66B	Vershire-Dummerston complex, 3 to 8 percent slopes, rocky
IIc	66C	Vershire-Dummerston complex, 8 to 15 percent slopes, rocky
IId	66D	Vershire-Dummerston complex, 15 to 25 percent slopes, rocky
IVb	66E	Vershire-Dummerston complex, 25 to 60 percent slopes, rocky
IIIa	67C	Glover-Vershire complex, 8 to 15 percent slopes, very rocky
IIIa	67D	Glover-Vershire complex, 15 to 35 percent slopes, very rocky
IVb	67E	Glover-Vershire complex, 35 to 60 percent slopes, very rocky
IIIa	68D	Stratton-Glebe complex, 15 to 35 percent slopes, very rocky
IVb	68E	Stratton-Glebe complex, 35 to 60 percent slopes, very rocky
IId	69D	Sisk-Glebe complex, 15 to 35 percent slopes, very bouldery
IVb	69E	Sisk-Glebe complex, 35 to 60 percent slopes, very bouldery
IIc	71C	Tunbridge-Lyman complex, 3 to 15 percent slopes, rocky
IIc	72B	Tunbridge-Lyman complex, 3 to 8 percent slopes, very rocky
IIc	72C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky

Soil-based Residential Wastewater Disposal Ratings (VT)

Washington County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IId	72D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky
IVb	72E	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky
Ic	76C	Berkshire fine sandy loam, 8 to 15 percent slopes, very bouldery
Id	76D	Berkshire fine sandy loam, 15 to 35 percent slopes, very bouldery
IIf	76E	Berkshire fine sandy loam, 35 to 60 percent slopes, very bouldery
IIh	77B	Peru gravelly fine sandy loam, 3 to 8 percent slopes
IIh	77C	Peru gravelly fine sandy loam, 8 to 15 percent slopes
IIIe	77D	Peru gravelly fine sandy loam, 15 to 25 percent slopes
IIh	78C	Peru gravelly fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	78D	Peru gravelly fine sandy loam, 15 to 35 percent slopes, very stony
IVd	78E	Peru gravelly fine sandy loam, 35 to 60 percent slopes, very stony
IVa	79A	Markey and Wonsqueak mucks, 0 to 2 percent slopes, ponded
IVa	82A	Peacham muck, 0 to 5 percent slopes, extremely bouldery
IVb	85E	Ricker-Londonderry-Stratton complex, 35 to 60 percent slopes, very rocky
IVb	86F	Ricker-Londonderry-Rock outcrop complex, 35 to 70 percent slopes
Id	88D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very bouldery
Id	89E	Houghtonville fine sandy loam, 15 to 60 percent slopes, rubbly
Ic	90B	Dummerston fine sandy loam, 3 to 8 percent slopes
Ic	90C	Dummerston fine sandy loam, 8 to 15 percent slopes
Id	90D	Dummerston fine sandy loam, 15 to 25 percent slopes
Ic	91C	Dummerston fine sandy loam, 8 to 15 percent slopes, very stony
Id	91D	Dummerston fine sandy loam, 15 to 35 percent slopes, very stony
IIIc	92B	Buckland silt loam, 3 to 8 percent slopes
IIId	92C	Buckland silt loam, 8 to 15 percent slopes
IIIe	92D	Buckland silt loam, 15 to 25 percent slopes
IIIc	93B	Buckland silt loam, 3 to 8 percent slopes, very stony
IIId	93C	Buckland silt loam, 8 to 15 percent slopes, very stony
IIIe	93D	Buckland silt loam, 15 to 35 percent slopes, very stony
IIIe	96D	Peru gravelly fine sandy loam, 15 to 35 percent slopes, extremely bouldery
IVa	98B	Cabot silt loam, 3 to 8 percent slopes, extremely bouldery
IIId	98C	Cabot silt loam, 8 to 15 percent slopes, extremely bouldery
IIId	99C	Colonel fine sandy loam, 3 to 15 percent slopes, extremely bouldery
IIIe	99D	Colonel fine sandy loam, 15 to 35 percent slopes, extremely bouldery
V	100	Pits, Sand, and Pits, gravel
V	102	Pits, quarry-Dumps, mine complex
V	103	Udorthents, loamy

Soil-based Residential Wastewater Disposal Ratings (VT)

Washington County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
V	104	Urban land-Udipsamments complex, occasionally flooded
IIh	116B	Mundal fine sandy loam, 3 to 8 percent slopes, very stony
IIh	116C	Mundal fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	116D	Mundal fine sandy loam, 15 to 35 percent slopes, very stony
IVb	151F	Hogback-Rock outcrop-Rawsonville complex, 35 to 70 percent slopes
IId	162D	Houghtonville-Rawsonville complex, 15 to 35 percent slopes, very bouldery
IVb	162E	Houghtonville-Rawsonville complex, 35 to 60 percent slopes, very bouldery
Ic	163C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony
Id	163D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very stony
IIf	163E	Houghtonville fine sandy loam, 35 to 60 percent slopes, very stony
IIIa	168C	Hogback-Rawsonville complex, 8 to 15 percent slopes, very rocky
IIIa	168D	Hogback-Rawsonville complex, 15 to 35 percent slopes, very rocky
IVb	168E	Hogback-Rawsonville complex, 35 to 60 percent slopes, very rocky
IVb	172F	Taconic-Hubbardton-Rock outcrop complex, 60 to 80 percent slopes
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.