

LyD: Lyman-Marlow complex, 5 to 30 percent slopes, very rocky

The Marlow, very stony component makes up 26 percent of the map unit. Slopes are 5 to 30 percent. This component is on hills on glaciated uplands, mountains on glaciated uplands. The parent material consists of loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite. Depth to a root restrictive layer, dense material, is 20 to 41 inches (depth from the mineral surface is 20 to 39 inches). The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 13 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

The Lyman, very stony component makes up 60 percent of the map unit. Slopes are 5 to 30 percent. This component is on hills on glaciated uplands, mountains on glaciated uplands. The parent material consists of loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist. Depth to a root restrictive layer, bedrock, lithic, is 11 to 24 inches (depth from the mineral surface is 10 to 20 inches). The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 85 percent. Below this thin organic horizon the organic matter content is about 8 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Important farmland classification: NPSL

Land capability: 7 s

Vermont Agricultural Value Group: 10

Vermont Residential Onsite Waste Disposal Group and Subgroup: IIIf

This unit is marginally suited as a site for soil-based residential wastewater disposal systems, based on a review by the Natural Resources Conservation Service of criteria set forth in the Vermont 2007 Environmental Protection Rules. The depth to the seasonal high water table and the restricted depth to bedrock in some areas are the major limitations. On-site investigations can help avoid areas with limited depth to bedrock. Additional fill material may be needed in some areas in order to meet the separation distance requirement between the bottom of the leachfield and bedrock. A detailed, site-specific analysis with groundwater level monitoring and determination of induced groundwater mounding may be required to establish the suitability of this unit. Mound system construction and other site modifications are often necessary. On sloping sites, curtain drains can help lower the water table to an acceptable level.

PHYSICAL and CHEMICAL PROPERTIES

Soil name	Depth (In)	Typical texture	Clay (Pct)	Soil reaction (pH)	Permeability (In/Hr)	Organic matter (Pct)	EROSION FACTORS		
							Kw	Kf	T
Lyman, very stony	0-1	MPM	---	3.5 - 5.5	1-14	35-95	---	---	1
	1-3	L	1-10	3.5 - 6.0	0.1-14	4.0-20	.32	.32	
	3-5	FSL	1-10	3.5 - 6.0	0.1-14	1.4-5.7	.37	.37	
	5-7	L	1-10	3.5 - 6.0	0.1-14	3.1-25	.32	.32	
	7-11	L	1-10	3.5 - 6.0	0.1-14	2.2-18	.32	.32	
	11-18	CN-L	1-10	3.5 - 6.0	0.1-14	2.2-7.0	.24	.32	
	18-28	BR	---	---	0.001-14	---	---	---	
Marlow, very stony	0-2	SPM	---	3.5 - 5.5	1-14	35-95	---	---	3
	2-5	FSL	1-10	3.5 - 6.0	0.1-14	5.0-25	.28	.28	
	5-8	FSL	1-10	3.5 - 6.0	0.1-14	1.0-4.0	.37	.37	
	8-15	FSL	1-10	3.5 - 6.0	0.1-14	3.0-12	.28	.28	
	15-19	FSL	1-10	3.5 - 6.0	0.1-14	1.0-8.0	.37	.37	
	19-33	GR-FSL	1-10	3.5 - 6.0	0.1-14	0.5-2.0	.28	.43	
	33-65	FSL	1-10	3.5 - 6.0	0.01-1	0.0-1.0	.49	.49	

WATER FEATURES

SOIL FEATURES

Soil name	Hydrologic group	Depth to seasonal high water table (Feet)	Flooding		Ponding		Hydric soil?	Depth to bedrock (range in inches)
			Frequency	Duration	Frequency	Duration		
Lyman, very stony	D	---	None		None		No	11-24
Marlow, very stony	C	---	None		None		No	20-41

Soil Fact Sheet - Continued

Chittenden County, Vermont

<u>LAND USE LIMITATIONS</u>				<u>AGRICULTURAL YIELD DATA</u>	
Soil name	Land use	Rating	Reason **	Crop name	Yield / acre
Marlow, very stony	Dwellings with basements:	Very limited	Slope		
Lyman, very stony	Dwellings with basements:	Very limited	Depth to hard bedrock		
Marlow, very stony	Pond reservoir areas:	Very limited	Slope		
Lyman, very stony	Pond reservoir areas:	Very limited	Depth to bedrock		

<u>WOODLAND MANAGEMENT</u>				
Soil name	Management concern	Rating	Reason	Vermont natural communities
Marlow	Harvest equip operability:	Well suited		Hemlock-Northern Hardwood Forest, Northern Hardwood Forest, Mesic Red Oak-Northern Hardwood Forest, Hemlock Forest, Red Pine Forest or Woodland
Lyman	Harvest equip operability:	Well suited		
Marlow	Road suitability:	Poorly suited	Slope	
Lyman	Road suitability:	Poorly suited	Slope	
Marlow	Erosion hazard (off-road):	Moderate	Slope/erodibility	
Lyman	Erosion hazard (off-road):	Moderate	Slope/erodibility	