

**3A: Charles silt loam, 0 to 2 percent slopes, frequently flooded**

The Charles component makes up 85 percent of the map unit. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. This component is on flood plains on river valleys. The parent material consists of coarse-silty alluvium derived from metasedimentary rock. Depth to a root restrictive layer is greater than 60 inches.

**Important farmland classification:** Statewide (b) **Land capability:** 4 w **Vermont Agricultural Value Group:** 6d

Vermont Residential Onsite Waste Disposal Group and Subgroup: IVa

This unit is generally not 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. Excessive soil wetness in association with the minimal slope is the limiting condition. Prolonged periods of saturation at or near the soil surface do not allow for the proper functioning of septic systems.

PHYSICAL and CHEMICAL PROPERTIES							EROSION FACTORS		
Soil name	Depth (In)	Typical texture	Clay (Pct)	Soil reaction (pH)	Permeability (In/Hr)	Organic matter (Pct)	Kw	Kf	T
Charles	0-6	SIL	6-25	4.2 - 5.4	0.6-2	5.4-17	.37	.37	5
	6-65	SIL	2-18	3.7 - 6.0	0.6-2	1.2-5.5	.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		
Charles	B/D	0.0-1.0	Frequent	Brief (2 to 7 days)	None		Yes	---

LAND USE LIMITATIONS				AGRICULTURAL YIELD DATA	
Soil name	Land use	Rating	Reason **	Crop name	Yield / acre
Charles	Dwellings with basements:	Very limited	Flooding	Pasture	4.8 AUM
Charles	Pond reservoir areas:	Somewhat limited	Seepage	Grass-legume hay	2.5 Tons
				Grass hay	3 Tons

WOODLAND MANAGEMENT				
Soil name	Management concern	Rating	Reason	Vermont natural communities
Charles	Harvest equip operability:	Poorly suited	<30cm to water table for >=6mos	Silver Maple-Sensitive Fern Riverine Floodplain Forest,
Charles	Road suitability:	Poorly suited	Flooding	Alluvial Shrub Swamp,
Charles	Erosion hazard (off-road):	Slight		Alder Swamp, River Mud Shore