Soil Survey Evaluation for Orange County, VT
Vermont NRCS
2010

This report contains general information about the history of the soil survey and an evaluation of the available soil survey information, for use in planning for maintenance and updates to the soil survey.

1. General Information

A. State Soil Survey Area ID (STSSAID)	VT017
B. Acres (from NRI)	
Total land acres in the survey area	441,600
Total census water in the survey area	1,200
Total Surface area	442,800
Approximate acres in **MLRA 143** (as of 1996)	9,500
Approximate acres in **MLRA 144B** (as of 1996)	404,400
Approximate acres in **MLRA 145** (as of 1996)	28,900

Correlation

A. Correlation date	1975
B. Correlation Amendment Dates	
First	
Second	1976
Third	2001

Initial Soil Survey

A. Publication date	1978
B. Publication scale	1:20,000
C. Photobase	Mosaic
D. Mapping Order	2
E. Field Mapping scale	1:18,000 – 1:20,000
F. Field Mapping	
Started	1967
Completed	1974
G. Soil Survey Status	Maintenance Needed

Digital Soil Survey

A. Date survey digitized - UVM	1990
B. Digitizing base map	VT Orthos (SPM)
C. Digitizing Scale	1:20,000
D. Date of SSURGO Certification	2002

2. Quality of the Existing Soil Survey

Published Soil Survey

Soil names and descriptions were approved in 1975. Unless otherwise stated, statements in the published soil survey refer to conditions in the soil survey area in 1975. The soil maps were map finished using overlays of compiled soil maps, drainage, and cultural features.

Soil Maps

Soil maps in the published soil survey are no longer certified for any official uses. Officially certified soil maps derived from SSURGO data are available on: 1) the Web Soil Survey, and 2) the Soil Data Mart.

Taxonomic and Map Unit Names and Descriptions

The taxonomic and map unit names and descriptions do not meet current standards. Most of the taxonomic units no longer classify correctly because they are based on an outdated edition of Soil Taxonomy. The composition of the map units is poorly described. The map unit use paragraphs do not meet the needs of users.

List of Map Unit Concerns by MLRA – see legend below for concerns for individual map units

MLRA 143

143-A. The description of stoniness and/or rockiness for this unit is out of date. The degree of stoniness appears to be inaccurate, based on observations made during field office site visits.

143-CRY. Based on the landforms and elevations at which it was mapped, this unit appears to have many included soils that have a significant mappable extent in the county, including high elevation cryic soil temperature soil series, “superspodics” or Humods (such as the Rawsonville, Houghtonville, Hogback, and Mundal series), and even the Lyman and Tunbridge series in some counties. These soil series and catenas were not mapped in county.

143-F. This series was classified as having a fragipan. The concept is no longer valid in Vermont. This series is now considered to have a densic contact over densic materials.

143-MF. This mesic floodplain unit was mapped throughout the county across the mesic and frigid temperature zones. In addition, soil series in other textural families besides coarse-silty were included in this unit. They were not mapped in the county, although they were mapped in nearby counties.

143-O. This broadly defined organic soil unit was mapped throughout county across mesic and frigid temperature zones. There are no series identified, and very few interpretations are available.

143-R. This rocky unit was mapped on various bedrock types, included series are not identified, slopes are not identified, and there are very few interpretations are available.

143-SL. Out of date slope classes were used for this map unit. They have poor interpretative value.

143-SP. Several series were classified as Spodosols that are currently classified within other Orders.

143-T. This series was mapped throughout the county across the mesic and frigid temperature zones. It should be confined to the appropriate temperature zone within county. Other series are needed on the legend to map in other temperature zone areas. Related to this issue, some series are mapped only in the mesic region, but are now classified as having a frigid temperature class.

143-TW. Distinctions between Tunbridge-Woodstock and Vershire-Glover map units are not well-defined in terms of where they are mapped, how they are classified, and how their interpretations differ.

MLRA 144B

144B-A. The description of stoniness and/or rockiness for this unit is out of date. The degree of stoniness appears to be inaccurate, based on observations made during field office site visits.

144B-COL. Colrain series and map units include areas of Dummerston series. All Colrain series map units may be better correlated as Dummerston series map units.

144B-F. This series was classified as having a fragipan. The concept is no longer valid in Vermont. This series is now considered to have a densic contact over densic materials.

144B-MF. This mesic floodplain unit was mapped throughout the county across the mesic and frigid temperature zones. In addition, soil series in other textural families besides coarse-silty were included in this unit. They were not mapped in the county, although they were mapped in nearby counties.

144B-O. This broadly defined organic soil unit was mapped throughout county across mesic and frigid temperature zones. There are no series identified, and very few interpretations are available.

144B-PT. Pomfret map units include areas of Teago soil series.

144B-R. Rock outcrop – unit is mapped on various bedrock types, included soil series are not identified, slopes not identified, poor interpretations available.

144B-SL. Out of date slope classes were used for this map unit. They have poor interpretative value.

144B-SP. This series was classified as a Spodosol. It is currently classified within other Orders.

144B-TW. Distinctions between Tunbridge-Woodstock and Vershire-Glover map units are not well-defined in terms of where they are mapped, how they are classified, and how their interpretations differ.

144B-Y. This is the only county in the state where this series (or one of the series in a complex) is mapped.

MLRA 145

145-HA. Hartland series and map units may include areas of Hitchcock series. All Hartland series map units may be better correlated as Hitchcock series map units.

145- MF. This mesic floodplain unit was mapped throughout the county across the mesic and frigid temperature zones. In addition, soil series in other textural families besides coarse-silty were included in this unit. They were not mapped in the county, although they were mapped in nearby counties.

145- O. This broadly defined organic soil unit was mapped throughout county across mesic and frigid temperature zones. There are no series identified, and very few interpretations are available.

145- SL. Out of date slope classes were used for this map unit. They have poor interpretative value.

145- V. This soil is identified as a Variant. It should be established as new series, correlated with an existing series, or included with other soils on the legend.

145-Y. This is the only county in the state where this series (or one of the series in a complex) is mapped.

Map symbol and Map unit name		Map Unit Issues by MLRA-Concern Number (see above)								
AgA Agawam fine sandy loam, 0 to 3 percent slopes		143-T								
AgB Agawam fine sandy loam, 3 to 8 percent slopes		143-T								
AgC Agawam fine sandy loam, 8 to 15 percent slopes		143-T								
AgD Agawam fine sandy loam, 15 to 25 percent slopes		143-T								
AgE Agawam fine sandy loam, 25 to 50 percent slopes		143-T								
BeB Belgrade silt loam, 0 to 8 percent slopes		143-T	145-SL							
BeC Belgrade silt loam, 8 to 15 percent slopes		143-T								
BeD Belgrade silt loam, 15 to 25 percent slopes		143-T								
Bp Pits, borrow										
BuB Buckland stony loam, 3 to 8 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			

BuC Buckland stony loam, 8 to 15 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			
BuD Buckland stony loam, 15 to 25 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			
BvC Buckland very stony loam, 8 to 25 percent slopes		143-SL	143-F	143-SP	143-CRY	144B-SL	144B-F	144B-SP	144B-A	
BwE Buckland soils, 25 to 50 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP				
CaB Cabot stony silt loam, 0 to 8 percent slopes		143-F	144B-F	144B-A	143-A					
CaC Cabot stony silt loam, 8 to 15 percent slopes		143-F	144B-F	144B-A	143-A					
CaD Cabot stony silt loam, 15 to 25 percent slopes		143-F	144B-F	144B-A	143-A					
CbB Cabot very stony silt loam, 3 to 15 percent slopes		143-SL	143-F	144B-SL	144B-F	144B-A	143-A			
CbD Cabot very stony silt loam, 15 to 25 percent slopes		143-F	144B-F	143-A	144B-A					
Cm Pits, copper mine-Dumps, mine complex										
CoB Colrain stony fine sandy loam, 3 to 8 percent slopes		143-SP	144B-SP	144B-COL	144B-A	144B-Y				
CoC Colrain stony fine sandy loam, 8 to 15 percent slopes		143-SP	144B-SP	144B-COL	144B-A	144B-Y				
CoD Colrain stony fine sandy loam, 15 to 25 percent slopes		143-SP	144B-SP	144B-COL	144B-A	144B-Y				
CsD Colrain very stony fine sandy loam, 8 to 25 percent slopes		143-SL	143-SP	144B-SL	144B-SP	144B-COL	144B-A	144B-Y		
CsE Colrain very stony fine sandy loam, 25 to 50 percent slopes		143-SP	144B-SP	144B-COL	144B-A	144B-Y				
CxD Colrain extremely stony fine sandy loam, 8 to 25 percent slopes		143-SL	143-SP	144B-SL	144B-SP	144B-COL	144B-A	144B-Y		
CxE Colrain extremely stony fine sandy loam, 25 to 50 percent slopes		143-SP	144B-SP	144B-COL	144B-A	144B-Y				
Gp Gravel pits										
Ha Hadley very fine sandy loam		143-MF	144B-MF	145-MF						
HdB Hartland silt loam, 0 to 8 percent slopes		143-T	145-SL	145-HA						
HdC Hartland silt loam, 8 to 15 percent slopes		143-T	145-HA							
HdD Hartland silt loam, 15 to 25 percent slopes		143-T	145-HA							
HdE Hartland silt loam, 25 to 50 percent slopes		143-T	145-HA							
Le Limerick very fine sandy loam		143-MF	144B-MF	145-MF						
MeA Merrimac fine sandy loam, 0 to 3 percent slopes		143-T	145-Y							
MeB Merrimac fine sandy loam, 3 to 8 percent slopes		143-T	145-Y							
MeC Merrimac fine sandy loam, 8 to 15 percent slopes		143-T	145-Y							
MeD Merrimac fine sandy loam, 15 to 25 percent slopes		143-T	145-Y							
MeE Merrimac fine sandy loam, 25 to 50 percent slopes		143-T	145-Y							
Ml Udorthents										
Mu Muck		143-SL	143-O	144B-SL	144B-O	145-O				
NnB Ninigret fine sandy loam, 0 to 8 percent slopes		143-T								
NnC Ninigret fine sandy loam, 8 to 15 percent slopes		143-T								
Pc Peacham soils		143-SL	143-F	144B-SL	144B-F					
PoC Pomfret stony loamy fine sand, 8 to 15 percent slopes		144B-SP	144B-PT	144B-A						
PoD Pomfret stony loamy fine sand, 15 to 25 percent slopes		144B-SP	144B-PT	144B-A						

PsD Pomfret very stony loamy fine sand, 8 to 25 percent slopes		144B-SP	144B-PT	144B-A						
PtE Pomfret soils, 25 to 50 percent slopes		144B-SL	144B-SP	144B-PT						
Qu Pits, quarry-Dumps, mine complex										
Ra Raynham variant silt loam		143-T	144B-SL	145-SL	145-V					
Ro Rock outcrop		143-R	144B-R							
Sa Saco mucky silt loam		143-MF	144B-MF	145-MF						
SLF Dumps, sanitary landfill										
SoB Stowe stony fine sandy loam, 3 to 8 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			
SoC Stowe stony fine sandy loam, 8 to 15 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			
SoD Stowe stony fine sandy loam, 15 to 25 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-A			
StD Stowe very stony fine sandy loam, 8 to 25 percent slopes		143-SL	143-F	143-SP	143-CRY	144B-SL	144B-F	144B-SP	144B-A	
SwE Stowe soils, 25 to 50 percent slopes		143-F	143-SP	143-CRY	144B-F	144B-SP	144B-TW			
TbB Tunbridge-Woodstock rocky fine sandy loams, 3 to 8 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A	143-A		
TbC Tunbridge-Woodstock rocky fine sandy loams, 8 to 15 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A	143-A		
TbD Tunbridge-Woodstock rocky fine sandy loams, 15 to 25 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A	143-A		
TrD Tunbridge-Woodstock very rocky fine sandy loams, 8 to 25 percent slopes		143-SL	143-SP	143-CRY	143-TW	144B-SL	144B-SP	144B-TW	144B-A	143-A
TwE Tunbridge-Woodstock complex, 25 to 50 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A			
VeB Vershire-Glover rocky loams, 3 to 8 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A			
VeC Vershire-Glover rocky loams, 8 to 15 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A			
VeD Vershire-Glover rocky loams, 15 to 25 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW	144B-A			
VgD Vershire-Glover-Rock outcrop complex, 8 to 25 percent slopes		143-SL	143-SP	143-CRY	143-TW	144B-SL	144B-SP	144B-TW		
VhE Vershire-Glover complex, 25 to 50 percent slopes		143-SP	143-CRY	143-TW	144B-SP	144B-TW				
W Water										
Wa Walpole fine sandy loam		143-SL	143-T	144B-SL	145-SL					
WnB Windsor loamy fine sand, 0 to 8 percent slopes		143-T								
WnD Windsor loamy fine sand, 8 to 25 percent slopes		143-SL	143-T	144B-SL	145-SL					
WnE Windsor loamy fine sand, 25 to 50 percent slopes		143-T								
Wo Winooski very fine sandy loam		143-MF	144B-MF	145-MF						

Interpretations

Interpretations in the published survey no longer meet the needs of users. The interpretations were approved when the soil survey was correlated. Interpretations developed or revised since correlation are available or are referenced in the Field Office Technical Guide, Section II, Part I, Soils Information, and on the Soil Data Mart.

3. Digital Soil Survey/ Tabular Soil Survey Data
SSURGO-certified data is posted to the Soil Data Mart and Web Soil Survey.

4. Plans to update the Soil Survey
This section will be completed by the MLRA Soil Survey Office after a review of county SS evaluations.

5. Staff and Budget needed to update the Soil Survey
This section will be completed by the MLRA Soil Survey Office after a review of county SS evaluations.