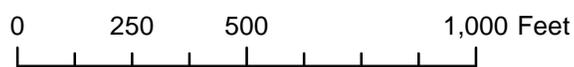


APPENDIX B  
GEOLOGY, SOILS & SEISMICITY

Soils Map  
(attached)



Soil Survey Legend  
(attached)

## Soil Survey Legend

### Greene County, New York

#### Ba—Barbour loam

##### Map Unit Setting

- *Elevation:* 250 to 1,500 feet
- *Mean annual precipitation:* 36 to 44 inches
- *Mean annual air temperature:* 45 to 50 degrees F
- *Frost-free period:* 135 to 170 days

##### Map Unit Composition

- *Barbour and similar soils:* 70 percent

##### Description of Barbour

##### Setting

- *Landform:* Flood plains
- *Landform position (two-dimensional):* Summit
- *Landform position (three-dimensional):* Rise
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Loamy over sandy and gravelly alluvium derived mainly from areas of acid, reddish sandstone, siltstone, and shale

##### Properties and qualities

- *Slope:* 0 to 3 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 36 to 72 inches
- *Frequency of flooding:* Occasional
- *Frequency of ponding:* None
- *Available water capacity:* Moderate (about 6.1 inches)

##### Interpretive groups

- *Land capability (nonirrigated):* 1

##### Typical profile

- *0 to 9 inches:* Loam

- *9 to 28 inches*: Fine sandy loam
- *28 to 78 inches*: Very gravelly coarse sand

## **Fu—Fluvaquents-Udifluvents complex, frequently flooded**

### **Map Unit Setting**

- *Elevation*: 100 to 3,000 feet
- *Mean annual precipitation*: 36 to 44 inches
- *Mean annual air temperature*: 45 to 50 degrees F
- *Frost-free period*: 135 to 170 days

### **Map Unit Composition**

- *Fluvaquents and similar soils*: 45 percent
- *Udifluvents and similar soils*: 30 percent

### **Description of Fluvaquents**

#### **Setting**

- *Landform*: Flood plains
- *Landform position (two-dimensional)*: Toeslope
- *Landform position (three-dimensional)*: Dip
- *Down-slope shape*: Concave
- *Across-slope shape*: Concave
- *Parent material*: Alluvium with highly variable texture

#### **Properties and qualities**

- *Slope*: 0 to 3 percent
- *Depth to restrictive feature*: More than 80 inches
- *Drainage class*: Poorly drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately low to very high (0.06 to 19.98 in/hr)
- *Depth to water table*: About 0 to 12 inches
- *Frequency of flooding*: Frequent
- *Frequency of ponding*: Frequent
- *Calcium carbonate, maximum content*: 15 percent
- *Available water capacity*: Moderate (about 6.1 inches)

#### **Interpretive groups**

- *Land capability (nonirrigated)*: 5w

#### **Typical profile**

- *0 to 5 inches*: Gravelly silt loam

- *5 to 70 inches*: Gravelly silt loam

## Description of Udifluvents

### Setting

- *Landform*: Flood plains
- *Landform position (two-dimensional)*: Summit
- *Landform position (three-dimensional)*: Rise
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Alluvium with a wide range of texture

### Properties and qualities

- *Slope*: 0 to 5 percent
- *Depth to restrictive feature*: More than 80 inches
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately low to high (0.06 to 5.95 in/hr)
- *Depth to water table*: About 24 to 72 inches
- *Frequency of flooding*: Frequent
- *Frequency of ponding*: None
- *Calcium carbonate, maximum content*: 15 percent
- *Available water capacity*: Moderate (about 6.0 inches)

### Interpretive groups

- *Land capability (nonirrigated)*: 5w

### Typical profile

- *0 to 4 inches*: Gravelly loam
- *4 to 70 inches*: Gravelly sandy loam

## HIC—Halcott-Vly complex, rolling

### Map Unit Setting

- *Elevation*: 1,800 to 2,400 feet
- *Mean annual precipitation*: 38 to 52 inches
- *Mean annual air temperature*: 41 to 45 degrees F
- *Frost-free period*: 100 to 125 days

### Map Unit Composition

- *Halcott and similar soils*: 45 percent

- *Vly and similar soils*: 35 percent

## Description of Halcott

### Setting

- *Landform*: Hills, mountains
- *Landform position (two-dimensional)*: Shoulder
- *Landform position (three-dimensional)*: Mountaintop, crest
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: A thin mantle of channery, loamy till derived from reddish sandstone, siltstone, and shale

### Properties and qualities

- *Slope*: 8 to 15 percent
- *Depth to restrictive feature*: 10 to 20 inches to lithic bedrock
- *Drainage class*: Somewhat excessively drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 1.8 inches)

### Interpretive groups

- *Land capability (nonirrigated)*: 6e

### Typical profile

- *0 to 1 inches*: Slightly decomposed plant material
- *1 to 6 inches*: Channery silt loam
- *6 to 14 inches*: Extremely channery loam
- *14 to 18 inches*: Bedrock

## Description of Vly

### Setting

- *Landform*: Hills, mountains
- *Landform position (two-dimensional)*: Shoulder
- *Landform position (three-dimensional)*: Mountaintop, crest
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Channery loamy till that is derived mainly from reddish sandstone, siltstone, and shale

## Properties and qualities

- *Slope*: 8 to 15 percent
- *Depth to restrictive feature*: 20 to 40 inches to lithic bedrock
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.2 inches)

## Interpretive groups

- *Land capability (nonirrigated)*: 3e

## Typical profile

- *0 to 2 inches*: Channery silt loam
- *2 to 28 inches*: Very channery loam
- *28 to 32 inches*: Unweathered bedrock

## LeC—Lewbeach channery silt loam, 8 to 15 percent slopes

### Map Unit Setting

- *Elevation*: 1,750 to 2,400 feet
- *Mean annual precipitation*: 38 to 52 inches
- *Mean annual air temperature*: 41 to 45 degrees F
- *Frost-free period*: 100 to 125 days

### Map Unit Composition

- *Lewbeach and similar soils*: 80 percent

### Description of Lewbeach

#### Setting

- *Landform*: Hills
- *Landform position (two-dimensional)*: Shoulder
- *Landform position (three-dimensional)*: Crest
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Loamy till derived mainly from reddish sandstone, siltstone, and shale

## Properties and qualities

- *Slope*: 8 to 15 percent
- *Depth to restrictive feature*: 18 to 36 inches to fragipan
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately low to moderately high (0.06 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.1 inches)

### **Interpretive groups**

- *Land capability (nonirrigated)*: 3e

### **Typical profile**

- *0 to 6 inches*: Channery silt loam
- *6 to 18 inches*: Channery loam
- *18 to 50 inches*: Channery loam
- *50 to 60 inches*: Channery loam

### **LeD—Lewbeach channery silt loam, 15 to 25 percent slopes**

#### **Map Unit Setting**

- *Elevation*: 1,750 to 2,400 feet
- *Mean annual precipitation*: 38 to 52 inches
- *Mean annual air temperature*: 41 to 45 degrees F
- *Frost-free period*: 100 to 125 days

#### **Map Unit Composition**

- *Lewbeach and similar soils*: 80 percent

#### **Description of Lewbeach**

##### **Setting**

- *Landform*: Hills
- *Landform position (two-dimensional)*: Backslope
- *Landform position (three-dimensional)*: Side slope
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Loamy till derived mainly from reddish sandstone, siltstone, and shale

#### **Properties and qualities**

- *Slope*: 15 to 25 percent

- *Depth to restrictive feature:* 18 to 36 inches to fragipan
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 2.1 inches)

### **Interpretive groups**

- *Land capability (nonirrigated):* 4e

### **Typical profile**

- *0 to 6 inches:* Channery silt loam
- *6 to 18 inches:* Channery loam
- *18 to 50 inches:* Channery loam
- *50 to 60 inches:* Channery loam

### **LeE—Lewbeach channery silt loam, 25 to 35 percent slopes**

#### **Map Unit Setting**

- *Elevation:* 1,750 to 2,400 feet
- *Mean annual precipitation:* 38 to 52 inches
- *Mean annual air temperature:* 41 to 45 degrees F
- *Frost-free period:* 100 to 125 days

#### **Map Unit Composition**

- *Lewbeach and similar soils:* 75 percent

#### **Description of Lewbeach**

##### **Setting**

- *Landform:* Hills
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Loamy till derived mainly from reddish sandstone, siltstone, and shale

##### **Properties and qualities**

- *Slope:* 25 to 35 percent

- *Depth to restrictive feature:* 18 to 36 inches to fragipan
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 2.1 inches)

### **Interpretive groups**

- *Land capability (nonirrigated):* 6e

### **Typical profile**

- *0 to 6 inches:* Channery silt loam
- *6 to 18 inches:* Channery loam
- *18 to 50 inches:* Channery loam
- *50 to 60 inches:* Channery loam

### **LID—Lewbeach and Willowemoc channery silt loams, 15 to 35 percent slopes, very stony**

#### **Map Unit Setting**

- *Elevation:* 1,750 to 2,400 feet
- *Mean annual precipitation:* 38 to 52 inches
- *Mean annual air temperature:* 41 to 45 degrees F
- *Frost-free period:* 100 to 125 days

#### **Map Unit Composition**

- *Lewbeach and similar soils:* 55 percent
- *Willowemoc and similar soils:* 20 percent

#### **Description of Lewbeach**

##### **Setting**

- *Landform:* Hills
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Loamy till derived mainly from reddish sandstone, siltstone, and shale

##### **Properties and qualities**

- *Slope*: 15 to 35 percent
- *Surface area covered with cobbles, stones or boulders*: 1.6 percent
- *Depth to restrictive feature*: 18 to 36 inches to fragipan
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately low to moderately high (0.06 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.1 inches)

### **Interpretive groups**

- *Land capability (nonirrigated)*: 7s

### **Typical profile**

- *0 to 6 inches*: Channery silt loam
- *6 to 18 inches*: Channery loam
- *18 to 50 inches*: Channery loam
- *50 to 60 inches*: Channery loam

### **Description of Willowemoc**

#### **Setting**

- *Landform*: Hills
- *Landform position (two-dimensional)*: Summit
- *Landform position (three-dimensional)*: Side slope
- *Down-slope shape*: Concave
- *Across-slope shape*: Convex
- *Parent material*: Loamy till derived mainly from reddish sandstone, siltstone, and shale

### **Properties and qualities**

- *Slope*: 15 to 35 percent
- *Surface area covered with cobbles, stones or boulders*: 1.6 percent
- *Depth to restrictive feature*: 17 to 26 inches to fragipan
- *Drainage class*: Moderately well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table*: About 16 to 24 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.9 inches)

### **Interpretive groups**

- *Land capability (nonirrigated): 7s*

### **Typical profile**

- *0 to 6 inches: Channery silt loam*
- *6 to 21 inches: Channery loam*
- *21 to 60 inches: Channery loam*

### **LmD—Lewbeach and Willowemoc channery silt loams, moderately steep, very bouldery**

#### **Map Unit Setting**

- *Elevation: 1,750 to 2,400 feet*
- *Mean annual precipitation: 38 to 52 inches*
- *Mean annual air temperature: 41 to 45 degrees F*
- *Frost-free period: 100 to 125 days*

#### **Map Unit Composition**

- *Lewbeach and similar soils: 55 percent*
- *Willowemoc and similar soils: 25 percent*

#### **Description of Lewbeach**

##### **Setting**

- *Landform: Hills*
- *Landform position (two-dimensional): Backslope*
- *Landform position (three-dimensional): Side slope*
- *Down-slope shape: Convex*
- *Across-slope shape: Convex*
- *Parent material: Loamy till derived mainly from reddish sandstone, siltstone, and shale*

#### **Properties and qualities**

- *Slope: 15 to 35 percent*
- *Surface area covered with cobbles, stones or boulders: 1.6 percent*
- *Depth to restrictive feature: 18 to 36 inches to fragipan*
- *Drainage class: Well drained*
- *Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)*
- *Depth to water table: More than 80 inches*
- *Frequency of flooding: None*
- *Frequency of ponding: None*
- *Available water capacity: Very low (about 2.1 inches)*

## Interpretive groups

- *Land capability (nonirrigated): 7s*

## Typical profile

- *0 to 6 inches:* Channery silt loam
- *6 to 18 inches:* Channery loam
- *18 to 50 inches:* Channery loam
- *50 to 60 inches:* Channery loam

## Description of Willowemoc

### Setting

- *Landform:* Hills
- *Landform position (two-dimensional):* Summit
- *Landform position (three-dimensional):* Side slope
- *Down-slope shape:* Concave
- *Across-slope shape:* Convex
- *Parent material:* Loamy till derived mainly from reddish sandstone, siltstone, and shale

## Properties and qualities

- *Slope:* 15 to 35 percent
- *Surface area covered with cobbles, stones or boulders:* 1.6 percent
- *Depth to restrictive feature:* 17 to 26 inches to fragipan
- *Drainage class:* Moderately well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 16 to 24 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 2.9 inches)

## Interpretive groups

- *Land capability (nonirrigated): 7s*

## Typical profile

- *0 to 6 inches:* Channery silt loam
- *6 to 21 inches:* Channery loam
- *21 to 60 inches:* Channery loam

## TuB—Tunkhannock gravelly loam, 3 to 8 percent slopes

## Map Unit Setting

- *Elevation:* 700 to 2,000 feet
- *Mean annual precipitation:* 36 to 44 inches
- *Mean annual air temperature:* 45 to 50 degrees F
- *Frost-free period:* 135 to 170 days

## Map Unit Composition

- *Tunkhannock and similar soils:* 80 percent

## Description of Tunkhannock

### Setting

- *Landform:* Valley trains, terraces
- *Landform position (two-dimensional):* Summit
- *Landform position (three-dimensional):* Tread
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from reddish sandstone, siltstone, and shale

### Properties and qualities

- *Slope:* 3 to 8 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 4.4 inches)

### Interpretive groups

- *Land capability (nonirrigated):* 2s

### Typical profile

- *0 to 7 inches:* Gravelly loam
- *7 to 25 inches:* Very gravelly loam
- *25 to 60 inches:* Stratified extremely gravelly sand

## TuC—Tunkhannock gravelly loam, rolling

### Map Unit Setting

- *Elevation:* 700 to 2,000 feet
- *Mean annual precipitation:* 36 to 44 inches
- *Mean annual air temperature:* 45 to 50 degrees F
- *Frost-free period:* 135 to 170 days

### **Map Unit Composition**

- *Tunkhannock and similar soils:* 80 percent

### **Description of Tunkhannock**

#### **Setting**

- *Landform:* Valley trains, terraces
- *Landform position (two-dimensional):* Shoulder
- *Landform position (three-dimensional):* Tread
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from reddish sandstone, siltstone, and shale

#### **Properties and qualities**

- *Slope:* 5 to 15 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 4.4 inches)

#### **Interpretive groups**

- *Land capability (nonirrigated):* 3e

#### **Typical profile**

- *0 to 7 inches:* Gravelly loam
- *7 to 25 inches:* Very gravelly loam
- *25 to 60 inches:* Stratified extremely gravelly sand

### **TuD—Tunkhannock gravelly loam, hilly**

#### **Map Unit Setting**

- *Elevation:* 700 to 2,000 feet

- *Mean annual precipitation:* 36 to 44 inches
- *Mean annual air temperature:* 45 to 50 degrees F
- *Frost-free period:* 135 to 170 days

### **Map Unit Composition**

- *Tunkhannock and similar soils:* 75 percent

### **Description of Tunkhannock**

#### **Setting**

- *Landform:* Valley trains, terraces
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Riser
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from reddish sandstone, siltstone, and shale

#### **Properties and qualities**

- *Slope:* 15 to 25 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 4.4 inches)

#### **Interpretive groups**

- *Land capability (nonirrigated):* 4e

#### **Typical profile**

- *0 to 7 inches:* Gravelly loam
- *7 to 25 inches:* Very gravelly loam
- *25 to 60 inches:* Stratified extremely gravelly sand

### **TvB—Tunkhannock gravelly loam, fan, 3 to 8 percent slopes**

#### **Map Unit Setting**

- *Mean annual precipitation:* 36 to 44 inches
- *Mean annual air temperature:* 45 to 50 degrees F

- *Frost-free period:* 135 to 170 days

### Map Unit Composition

- *Tunkhannock and similar soils:* 75 percent

### Description of Tunkhannock

#### Setting

- *Landform:* Valley trains, terraces
- *Landform position (two-dimensional):* Summit
- *Landform position (three-dimensional):* Tread
- *Down-slope shape:* Convex
- *Across-slope shape:* Convex
- *Parent material:* Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from reddish sandstone, siltstone, and shale

#### Properties and qualities

- *Slope:* 3 to 8 percent
- *Depth to restrictive feature:* More than 80 inches
- *Drainage class:* Well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
- *Depth to water table:* About 36 to 72 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 4.4 inches)

#### Interpretive groups

- *Land capability (nonirrigated):* 2s

#### Typical profile

- *0 to 7 inches:* Gravelly loam
- *7 to 25 inches:* Very gravelly loam
- *25 to 60 inches:* Stratified extremely gravelly sand

### VhD—Vly-Halcott complex, moderately steep, very rocky

#### Map Unit Setting

- *Elevation:* 1,800 to 2,400 feet
- *Mean annual precipitation:* 38 to 52 inches
- *Mean annual air temperature:* 41 to 45 degrees F
- *Frost-free period:* 100 to 125 days

## Map Unit Composition

- *Vly and similar soils*: 40 percent
- *Halcott and similar soils*: 30 percent

## Description of Vly

### Setting

- *Landform*: Hills, mountains
- *Landform position (two-dimensional)*: Backslope
- *Landform position (three-dimensional)*: Mountainflank, side slope
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Channery loamy till that is derived mainly from reddish sandstone, siltstone, and shale

## Properties and qualities

- *Slope*: 15 to 25 percent
- *Depth to restrictive feature*: 20 to 40 inches to lithic bedrock
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.2 inches)

## Interpretive groups

- *Land capability (nonirrigated)*: 6s

## Typical profile

- *0 to 2 inches*: Channery silt loam
- *2 to 28 inches*: Very channery loam
- *28 to 32 inches*: Unweathered bedrock

## Description of Halcott

### Setting

- *Landform*: Hills, mountains
- *Landform position (two-dimensional)*: Backslope
- *Landform position (three-dimensional)*: Mountainflank, side slope
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex

- *Parent material:* A thin mantle of channery, loamy till derived from reddish sandstone, siltstone, and shale

### **Properties and qualities**

- *Slope:* 15 to 25 percent
- *Depth to restrictive feature:* 10 to 20 inches to lithic bedrock
- *Drainage class:* Somewhat excessively drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 1.8 inches)

### **Interpretive groups**

- *Land capability (nonirrigated):* 6s

### **Typical profile**

- *0 to 1 inches:* Slightly decomposed plant material
- *1 to 6 inches:* Channery silt loam
- *6 to 14 inches:* Extremely channery loam
- *14 to 18 inches:* Bedrock

### **VhF—Vly-Halcott complex, very steep, rocky**

#### **Map Unit Setting**

- *Elevation:* 1,800 to 2,400 feet
- *Mean annual precipitation:* 38 to 52 inches
- *Mean annual air temperature:* 41 to 45 degrees F
- *Frost-free period:* 100 to 125 days

#### **Map Unit Composition**

- *Vly and similar soils:* 48 percent
- *Halcott and similar soils:* 25 percent

#### **Description of Vly**

#### **Setting**

- *Landform:* Hills, mountains
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Mountainflank, side slope

- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: Channery loamy till that is derived mainly from reddish sandstone, siltstone, and shale

### Properties and qualities

- *Slope*: 35 to 55 percent
- *Depth to restrictive feature*: 20 to 40 inches to lithic bedrock
- *Drainage class*: Well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.2 inches)

### Interpretive groups

- *Land capability (nonirrigated)*: 7e

### Typical profile

- *0 to 2 inches*: Channery silt loam
- *2 to 28 inches*: Very channery loam
- *28 to 32 inches*: Unweathered bedrock

### Description of Halcott

#### Setting

- *Landform*: Hills, mountains
- *Landform position (two-dimensional)*: Backslope
- *Landform position (three-dimensional)*: Mountainflank, side slope
- *Down-slope shape*: Convex
- *Across-slope shape*: Convex
- *Parent material*: A thin mantle of channery, loamy till derived from reddish sandstone, siltstone, and shale

### Properties and qualities

- *Slope*: 35 to 55 percent
- *Depth to restrictive feature*: 10 to 20 inches to lithic bedrock
- *Drainage class*: Somewhat excessively drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Very low to moderately high (0.00 to 0.20 in/hr)
- *Depth to water table*: More than 80 inches
- *Frequency of flooding*: None

- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 1.8 inches)

### **Interpretive groups**

- *Land capability (nonirrigated)*: 7e

### **Typical profile**

- *0 to 1 inches*: Slightly decomposed plant material
- *1 to 6 inches*: Channery silt loam
- *6 to 14 inches*: Extremely channery loam
- *14 to 18 inches*: Bedrock

### **W—Water**

#### **Map Unit Setting**

- *Mean annual precipitation*: 36 to 44 inches
- *Mean annual air temperature*: 45 to 50 degrees F
- *Frost-free period*: 135 to 170 days

#### **Map Unit Composition**

- *Water*: 100 percent

### **WmB—Willowemoc channery silt loam, 3 to 8 percent slopes**

#### **Map Unit Setting**

- *Elevation*: 1,800 to 2,400 feet
- *Mean annual precipitation*: 38 to 52 inches
- *Mean annual air temperature*: 41 to 45 degrees F
- *Frost-free period*: 100 to 125 days

#### **Map Unit Composition**

- *Willowemoc and similar soils*: 85 percent

#### **Description of Willowemoc**

##### **Setting**

- *Landform*: Hills
- *Landform position (two-dimensional)*: Summit
- *Landform position (three-dimensional)*: Crest

- *Down-slope shape:* Concave
- *Across-slope shape:* Convex
- *Parent material:* Loamy till derived mainly from reddish sandstone, siltstone, and shale

### **Properties and qualities**

- *Slope:* 3 to 8 percent
- *Depth to restrictive feature:* 17 to 26 inches to fragipan
- *Drainage class:* Moderately well drained
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table:* About 16 to 24 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Very low (about 2.9 inches)

### **Interpretive groups**

- *Land capability (nonirrigated):* 2w

### **Typical profile**

- *0 to 6 inches:* Channery silt loam
- *6 to 21 inches:* Channery loam
- *21 to 60 inches:* Channery loam

### **WmC—Willowemoc channery silt loam, 8 to 15 percent slopes**

#### **Map Unit Setting**

- *Elevation:* 1,800 to 2,400 feet
- *Mean annual precipitation:* 38 to 52 inches
- *Mean annual air temperature:* 41 to 45 degrees F
- *Frost-free period:* 100 to 125 days

#### **Map Unit Composition**

- *Willowemoc and similar soils:* 85 percent

#### **Description of Willowemoc**

##### **Setting**

- *Landform:* Hills
- *Landform position (two-dimensional):* Summit
- *Landform position (three-dimensional):* Crest
- *Down-slope shape:* Concave

- *Across-slope shape*: Convex
- *Parent material*: Loamy till derived mainly from reddish sandstone, siltstone, and shale

### **Properties and qualities**

- *Slope*: 8 to 15 percent
- *Depth to restrictive feature*: 17 to 26 inches to fragipan
- *Drainage class*: Moderately well drained
- *Capacity of the most limiting layer to transmit water (Ksat)*: Moderately high to high (0.57 to 1.98 in/hr)
- *Depth to water table*: About 16 to 24 inches
- *Frequency of flooding*: None
- *Frequency of ponding*: None
- *Available water capacity*: Very low (about 2.9 inches)

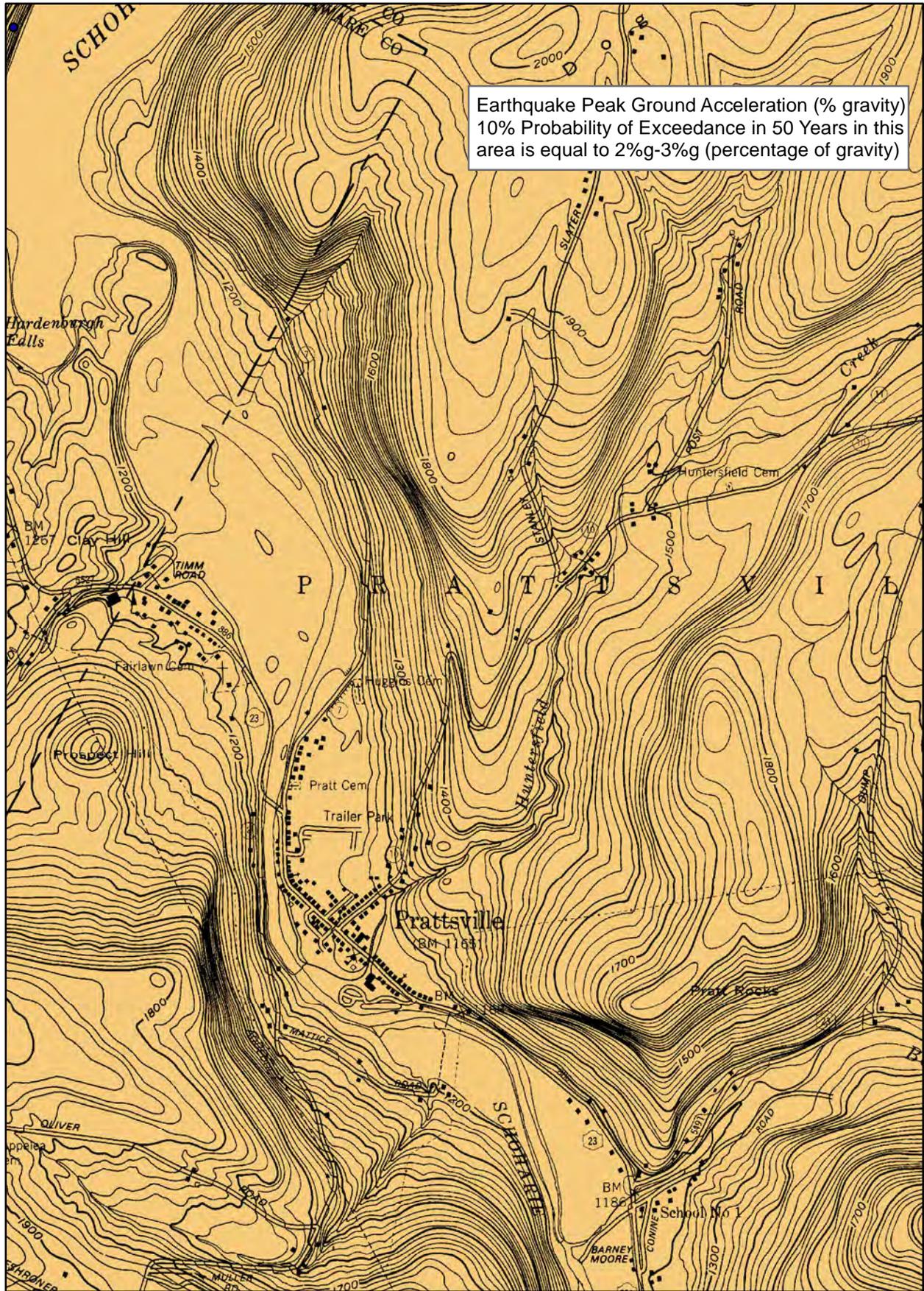
### **Interpretive groups**

- *Land capability (nonirrigated)*: 3e

### **Typical profile**

- *0 to 6 inches*: Channery silt loam
- *6 to 21 inches*: Channery loam
- *21 to 60 inches*: Channery loam

Seismic Hazard Evaluation Map  
(attached)



Source: USGS 2008 Seismic Hazard Maps and Data  
<http://earthquake.usgs.gov/hazards>

