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Surficial Geologic Materials
Town of Ancram, New York

Steven Winkley
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Ancram Groundwater Protection Plan
Plate No. 2

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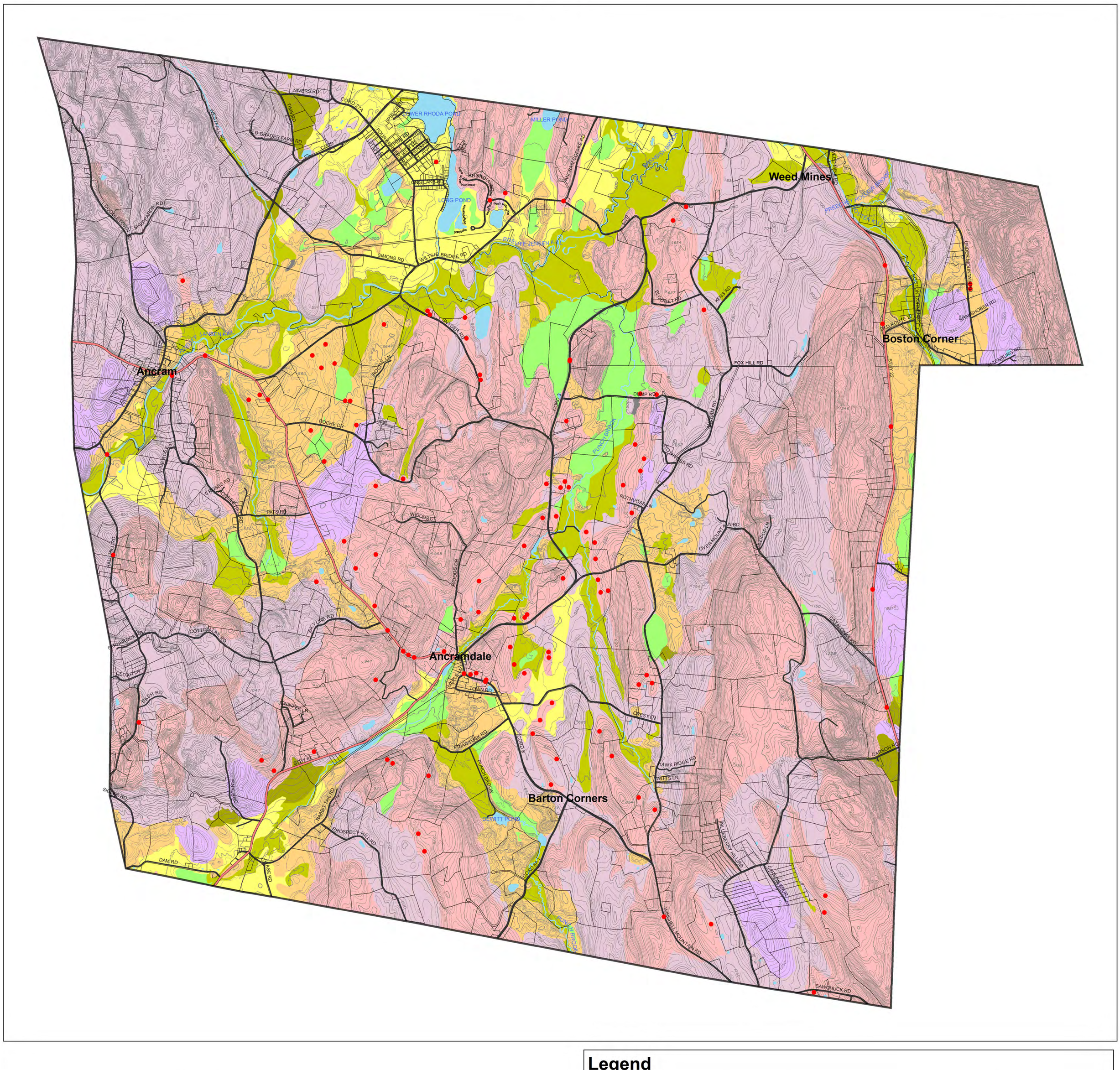
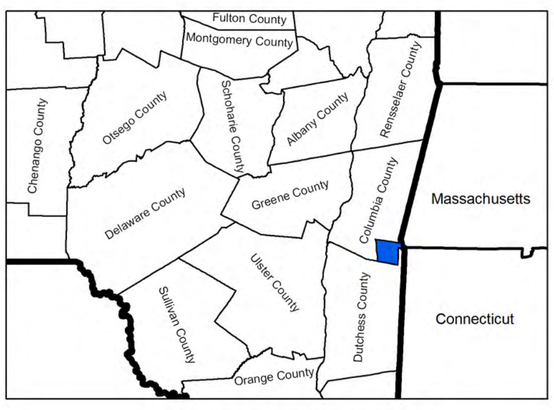


Scale

0 0.375 0.75 1.5 2.25 3 Miles



Location of Ancram, New York

Legend

Surficial Geologic Material

- Organic material
- Alluvium
- Alluvial fan deposits
- Glaciolacustrine deposits
- Outwash
- Kame deposits
- Thin till (<10 ft. thick; frequent bedrock outcrops)
- Till (occasional bedrock outcrops)
- Thick till (typically >20 feet thick)
- **Rock outcrop**

- **Local Road**
- **County Road**
- **State Highway**
- **Water Body**
- **Stream**

Note:

The New York Rural Water Association makes no guarantee, expressed or implied, regarding the correctness of the interpretations presented on this map and accept no liability for the consequences of decisions made by others on the basis of the information presented here. The geologic interpretations are based on data that may vary with respect to accuracy of geographic location, the type and quantity of data available at each location, and the scientific and technical qualifications of the data sources. This map is not meant to be enlarged.

About This Map:

This map shows the type and distribution of geologic materials found at or near the land surface. These materials are unconsolidated (loose) sediments that overlie solid rock (bedrock). However, bedrock outcrops and areas with thin unconsolidated deposits are shown on the map. Most of the surficial materials are deposits formed by glacial and deglacial processes during the last stage of continental glaciation. The principal material left by the advancing ice was glacial till, a relatively dense poorly-sorted mixture of boulders, gravel, sand, silt and clay. Till is commonly found in upland areas and may underlie other deposits in valleys. Thicker accumulations of till are sometimes found, marking the former edge or front of the glacial ice.

As the glacial ice in the region began to melt, glacial meltwater streams carried sand and gravel and subsequently laid it down as stratified deposits. Kame deposits are meltwater deposits laid down in contact with melting ice and are generally not as well-sorted as outwash sand and gravel that was deposited by streams beyond the glacial ice margin. Further away from the margin, finer-grained silt and clay were deposited in glacial lakes that occupied some of the larger valleys in the region.

Other surficial deposits are the products of postglacial geologic processes. Alluvial fan deposits are fan-shaped accumulations of silt, sand, cobbles, and boulders positioned where a faster flowing stream exits onto a flatter, broader valley. Alluvium is silt, fine sand and gravel deposited by modern streams often during flooding events. Organic deposits include peat, muck, and organic silt and sand largely found in poorly drained areas.

How This Map Was Made:

The surficial geology of the Town of Ancram, New York, was mapped by Steven Winkley of the New York Rural Water Association at a scale of 1:24000. The surficial geology was digitally mapped using a combination of: soil data (parent materials) from the 2006 Soil Survey Geographic (SSURGO) database for Columbia County, New York (USDA Natural Resources Conservation Service), interpretation of topographic expression from digital elevation models, field observations, and subsurface data from water wells and test borings.

Uses of This Map:

Surficial geologic maps have many different potential uses for planning purposes. One of the most frequent uses is to help identify sand and gravel aquifer boundaries. Surficial geologic maps are important for identifying economically important deposits such as sand and gravel for aggregate. Surficial geologic maps are also important to study environmental issues such as the potential for migration of groundwater contaminants. Finally, surficial geology maps are useful for planning site development activities such as designing and locating septic systems, building new roads, excavating foundations, etc.