New York State Museum New York State Geological Survey Mark Schaming, Director Universal Transverse Mercator, Zone 18 N Surficial Geologic mapping, 2010 North American Datum of 1983 Digital data and cartography, J. Manchester and K. Backhaus, 2011, 2021 New York State DOT Raster Quadrangle separates for Ulster and Greene Counties (https://gis.ny.gov/gisdata/inventories/member.cfm?OrganizationID=108). Geographic data layers from 2020 TIGER/Line shapes for transportation Shaded relief from 2014 3 County 1m, 2009 West Hudson 2m and NYS 10m DEM (http://gis.ny.gov/elevation/index.cfm) Magnetic declination from the NOAA online Declination Calculator: http://www.ngdc.noaa.gov/geomag-web/#declination CONTOUR INTERVAL: 10 FEET **UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET**

SURFICIAL GEOLOGY OF THE BEARSVILLE 7.5-MINUTE QUADRANGLE, GREENE AND ULSTER COUNTIES, NEW YORK

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*prepared by*Janet Manchesteri and Karl J. Backhaus

Supported in part by the U.S Geological Survey Cooperative Agreement as part of the National Cooperative Geologic Mapping Program (STATEMAP)

DESCRIPTION OF MAP UNITS

Holocene

Stratified silt, sand and gravel (Ha)

Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles and boulders. Inferred as post-glacial alluvium and includes modern channel, over-bank and fan deposits

Wetland Deposit (Hw)

Peat, muck, marl, silt, clay or sand deposited in association with wetland environments. Various sediments can be present at transitional boundaries from one facies to another

Diamict Colluvium (Hdc)

Unsorted and unstratified deposit of gravel, sand, silt, clay, with boulders/cobbles possible. Described as a mass-wasting deposit at the base of steep hillslopes and cliffs as part of a slump or hillslope failure.

Pleistocene

Silt and Clay (Psc)

Plsc Stratified, fine-grained sediment consisting of fine sand, silt and clay size particles. Inferred to be deposited in mid shore to deepwater settings of glacial lakes. May include marl, rythmites, and varves.

Cobbles to Sand (Pics)

Stratified ice contacted deposits, variable coarse-grained sediment consisting of boulders to sand size particles. Inferred to be deposited along an ice-margin. May include, interbedded coarse lenses of gravel and clast supported diamictons (flow tills).

Stratified sand and gravel (Psg)

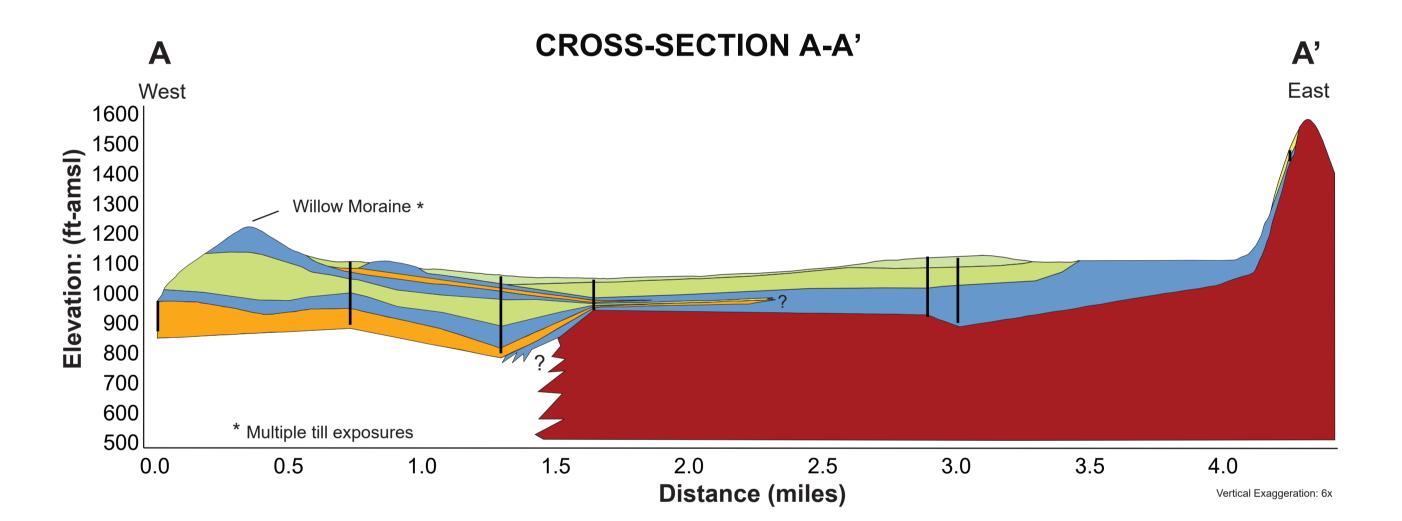
Well-sorted and stratified sand and gravel. May include cobbles and boulders. Inferred to be delta, fan or lag deposits in glacial channels or near former ice margins.

Diamicton (Pd)

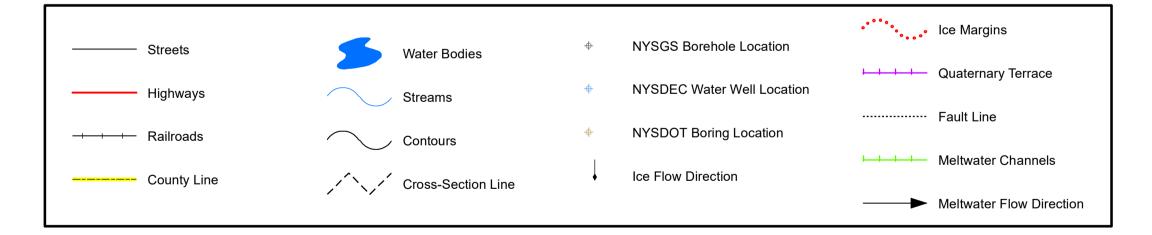
An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich. Can be found to be a thin layer over bedrock to several feet thick. Some areas within this quadrangle were found to be a sub-aqueous deposit.

Pre-Pleistocene

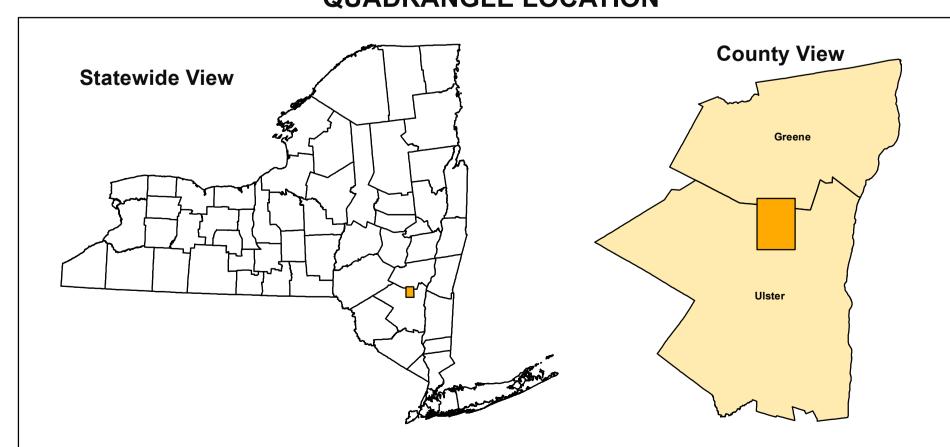
Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand and clay



SYMBOLS

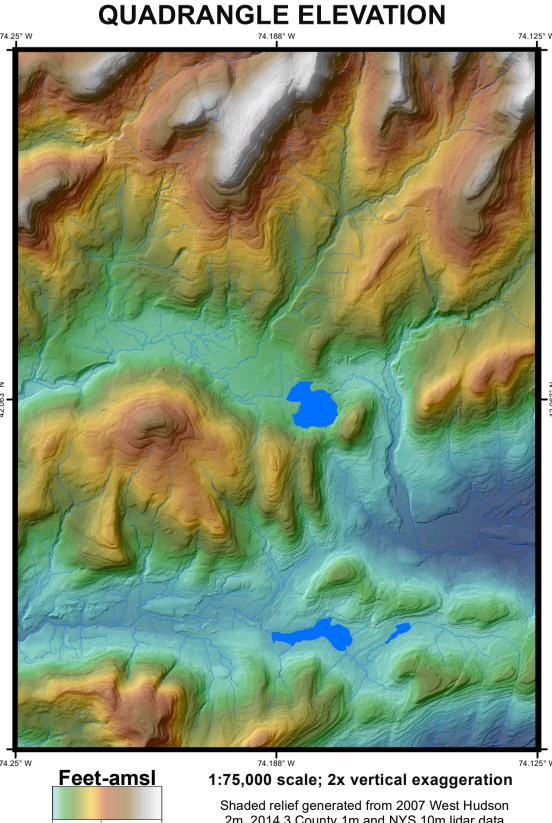


QUADRANGLE LOCATION



ADJOINING QUADRANGLES

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award in the year 2010 The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily presenting the official policies, either expressed or implied, of the U.S. Government. While every effort has been made to ensure the integrity of this digital map and the factual data upon which it is based, the New York State Education Department ("NYSED") makes no representation or warranty, expressed or implied, with respect to its accuracy, completeness, or usefulness for any particular purpose or scale. NYSED assumes no liability for damages resulting from the use of any information, apparatus, method, or process disclosed in this map and text, and urges independent site-specific verification of the information contained herein. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by



2m, 2014 3 County 1m and NYS 10m lidar data