

SURFICIAL GEOLOGY OF THE GENOA 7.5-MINUTE QUADRANGLE, CAYUGA AND TOMPKINS COUNTIES, NEW YORK

prepared by
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DESCRIPTION OF MAP UNITS

Holocene

- Af** **Artificial Fill (Af)**
Surficial sediment composed of coarse/fine and or crushed rock anthropogenically transported and used for construction purposes.
- Ha** **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
- Hw** **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

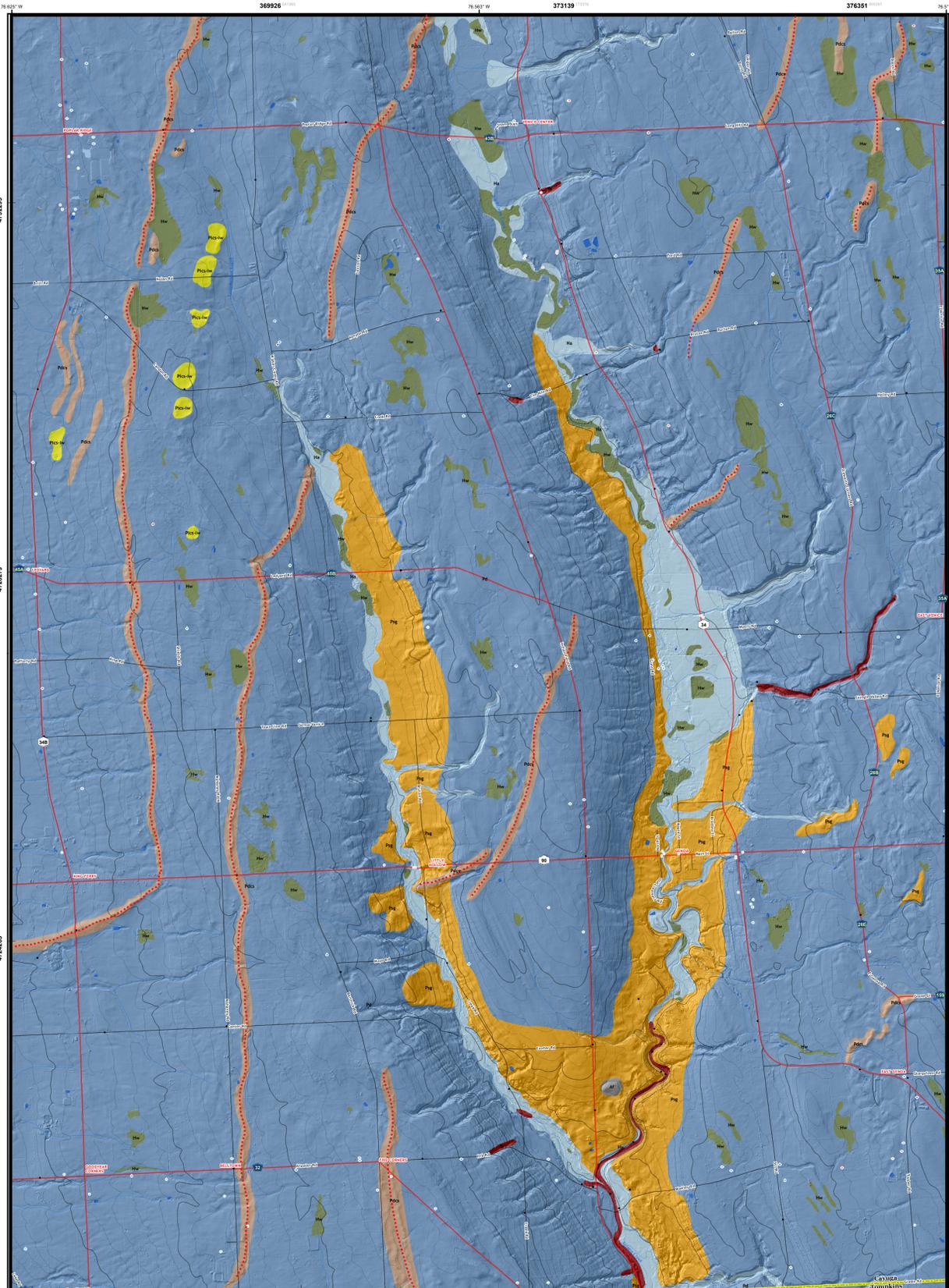
Pleistocene

- Pics-iw** **Ice Contact Silt and Clay (Pics-iw)**
Stratified, fine-grained sediment consisting of fine sand, silt and clay size particles. Constrained to isolated pockets, inferred to be deposited in circular depressions within or on former ice sheets.
- Psg** **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 ice margins.
- Pd** **Diamicton (Pd)**
An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.
- Pdcs** **Diamicton (Pdcs)**
An admixture of unsorted sediment ranging from clay to boulders. Generally clast supported, massive and clast-rich.

Pre-Pleistocene

- Br** **Bedrock (Br)**
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 in areas marked as Br.

SYMBOLS



Universal Transverse Mercator, Zone 18 N
North American Datum of 1983

Hydrology and platemetry layers from the New York State DOT Basemap Quadrangle separates for Cayuga, and Tompkins Counties
(<https://gis.ny.gov/gisdata/external/member.cfm?OrganizationID=108>)

Geographic data layers from 2017 TIGER/Line shapes for transportation and hydrography
(<https://www.census.gov/geographic/shapefiles/index.php>)

Shaded relief from Cayuga County 2 m Lidar (<http://www.cayugacounty.us/portals/0/planning/masctopogeo.htm>) 10 m DEM and Tompkins 2-meter LIDAR data sets (<http://gis.ny.gov/elevation/index.cfm>)

Magnetic declination from the NOAA online Declination Calculator:
<http://www.ngdc.noaa.gov/geomag-web/#declination>

Geologic mapping by A. Kozlowski, J. Leone, K. Backhaus, S. Staley, B. Reber, and B. Bird, 2015
Digital data and cartography, B. Bird and Karl J. Backhaus, 2015 & 2018.

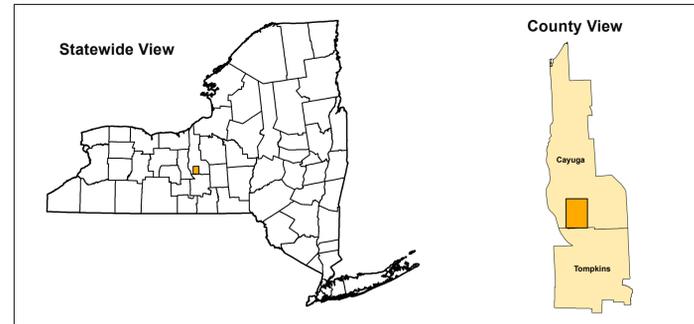
SCALE 1:24,000
1 0.5 0 0.5 1
1000 500 0 500 1000 2000
METERS

1 0.5 0 0.5 1
1000 500 0 500 1000 2000
FEET

Contours Interval: 10 Feet

UTM GRID AND 2016 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

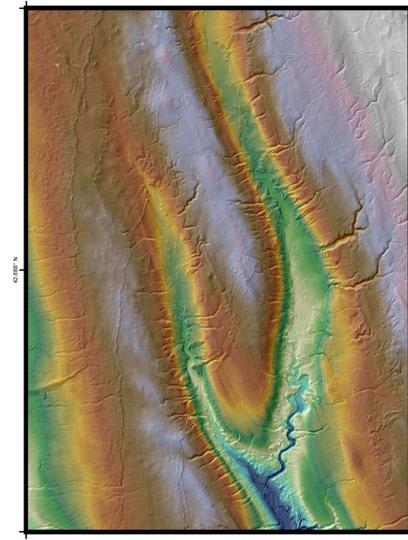
QUADRANGLE LOCATION



ADJOINING QUADRANGLES

Union Springs	Scipio Center	Onesaco
Sheldrake	Genoa	Moravia
Trumansburg	Ludlowville	West Groton

QUADRANGLE ELEVATION



Feet-amsl
650 1400

1:75,000 scale; 2x vertical exaggeration
Shaded relief generated from NOAA's 2000 Cayuga County New York Lidar data set and the Tompkins County Soil and Water Conservation District's 2008 Lidar data set.

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NOTICE
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award number G14AC00360 in the year 2014.
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