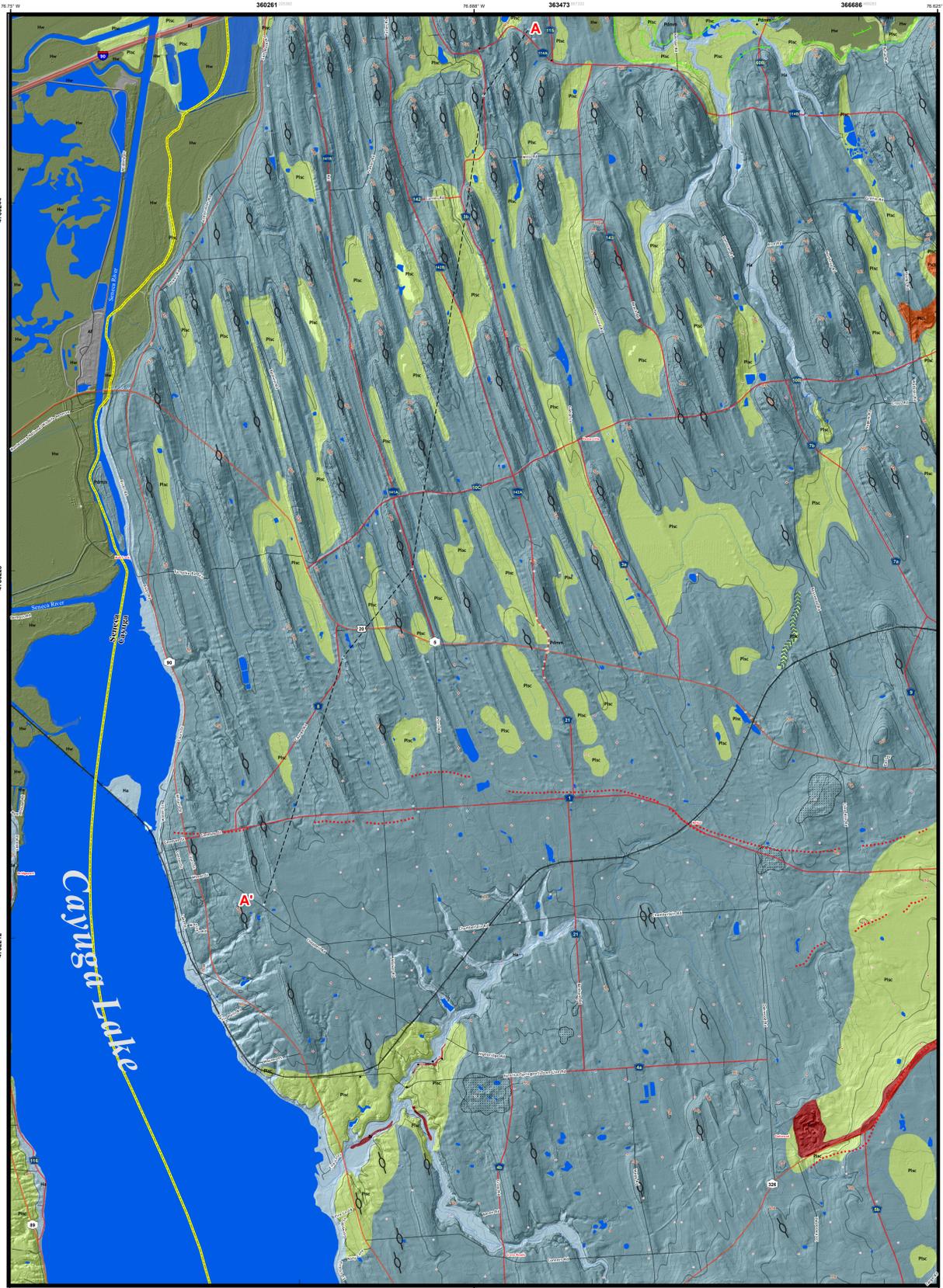


SURFICIAL GEOLOGY OF THE CAYUGA 7.5-MINUTE QUADRANGLE, CAYUGA AND SENECA COUNTIES, NEW YORK

prepared by
Brian C. Bird, Andrew L. Kozlowski and Karl J. Backhaus

Supported in part by the U.S Geological Survey's
National Cooperative Geologic Mapping Program Great Lakes Mapping Coalition Award Number G09AC00460



DESCRIPTION OF MAP UNITS

Holocene

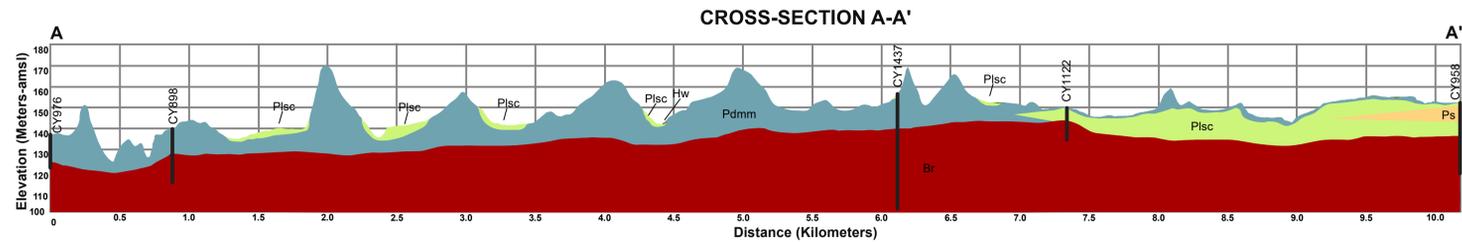
- Af Artificial Fill (Af)**
Surficial sediment composed of coarse/fine and or crushed rock anthropogenically transported and used for construction purposes.
- Ha Stratified silt, sand and gravel (Ha)**
Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles 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

- Plsc Silt and Clay (Psc)**
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.
- Pics 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).
- Pdmm Diamicton (Pdmm)**
An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.

Pre-Pleistocene

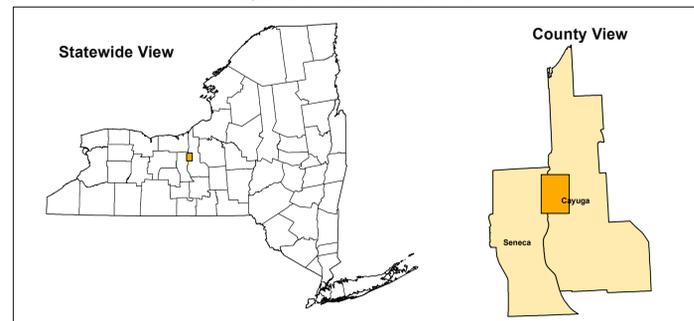
- Br Bedrock (Br)**
Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand and clay in areas marked as Br.



SYMBOLS

Streets	Lakes	NYSGS Borehole Location	Drumlins
Highways	Streams	NYSDEC Water Wells	Eskers
County Line	Cross-Section Line	NYSDEC Boring Location	Ice Margin
Contours	NYSGS Soil Sample Location	NYSDEC Oil & Gas Well Location	Meltwater Channels
			Hummocky Terrain

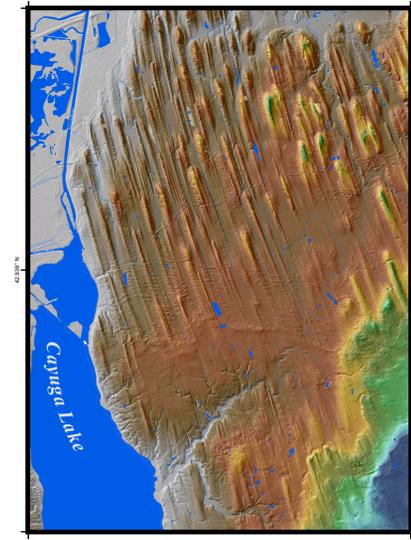
QUADRANGLE LOCATION



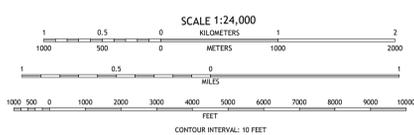
ADJOINING QUADRANGLES

Savannah	Montezuma	Westport
Seneca Falls	Cayuga	Auburn
Romulus	Union Springs	Scipio Center

QUADRANGLE ELEVATION



Universal Transverse Mercator, Zone 18N
North American Datum of 1983
Hydrology and planimetry layers from the
New York State OCT Raster Quadrangle separates for Cayuga and Seneca Counties
(https://gis.ny.gov/dataset/info/number.cfm?OrganizationID=100)
Geographic data layers from 2018 TIGER/Line shapefiles for transportation
and hydrography (https://www.census.gov/geographic/shapefiles/index.php)
Shaded relief from Seneca Lake Watershed 2 m,
NYS 10m DEM, and Cayuga County 2-meter LIDAR data sets
(http://gis.ny.gov/elevation/index.cfm)
Magnetic declination from the NOAA online Declination Calculator:
http://www.ngs.noaa.gov/gmg/geomag/#declination



Geologic mapping by A. Kozlowski and K. Backhaus,
2013 & 2018.
Digital data and cartography, B. Bird and
K. Backhaus, 2013 & 2018.

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2009

NOTICE
This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program Great Lakes Mapping Coalition award number G09AC00460 in the year 2009.
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1:75,000 scale; 2x vertical exaggeration
Shaded relief generated from 2012 Seneca Lake
Watershed lidar data set by the Federal
Emergency Management Agency and the 2000
Cayuga County 2-meter lidar data sets.