

SURFICIAL GEOLOGY OF ONONDAGA COUNTY, NEW YORK

Donald L. Pair

Supported in part by the U.S Geological Survey's
National Cooperative Geologic Mapping Program STATEMAP award G16AC00293.
1994-2016

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
Hdc	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

Ps	Stratified Sand (Ps) Well sorted and stratified sand, deposited by fluvial, lacustrine or eolian processes. Inferred as deposits associated with distal glacial environments.
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).
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 former ice margins.
Pd	Diamicton (Pd) An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.
Pdmm	Diamicton (Pdmm) 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.

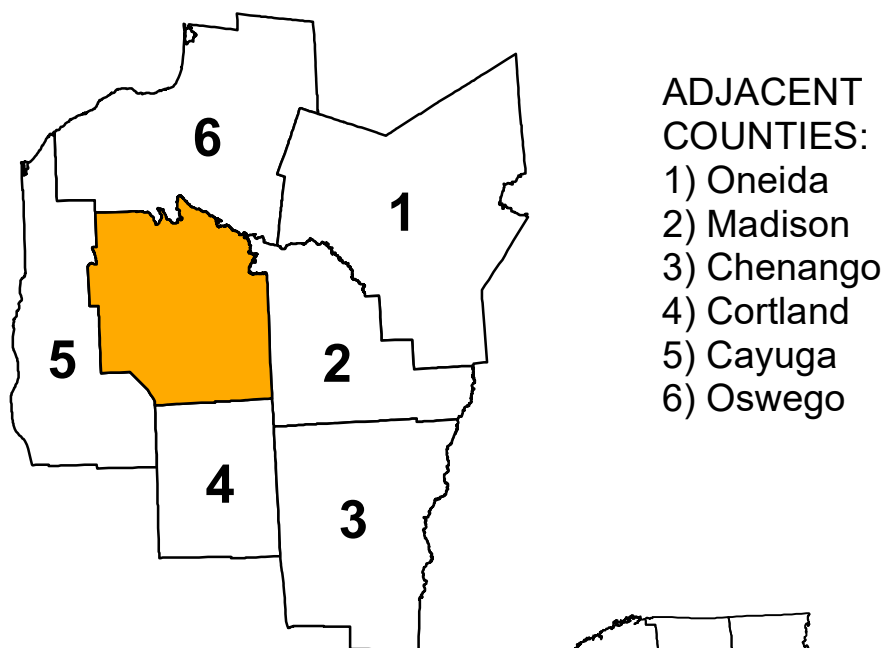
Pre-Pleistocene

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.
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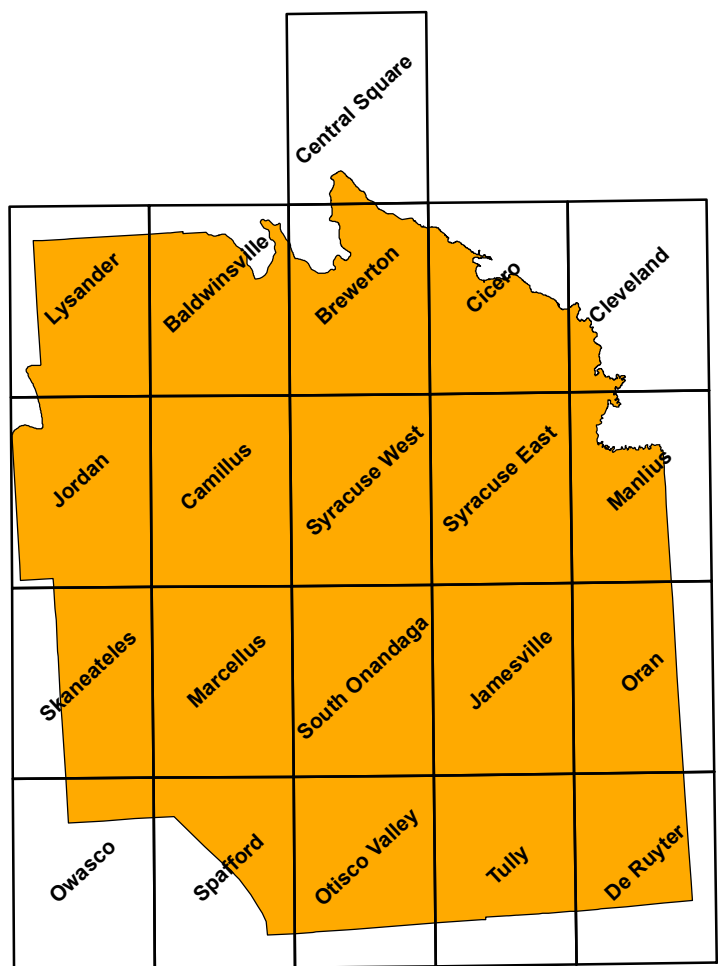
GEOGRAPHIC SYMBOLS

County, Federal and State Routes	Water Bodies
Interstates	Streams
Railroads	Rock Quarry
Airport Runways	Alluvial Fan or Delta
County Line	Beach

COUNTY LOCATION

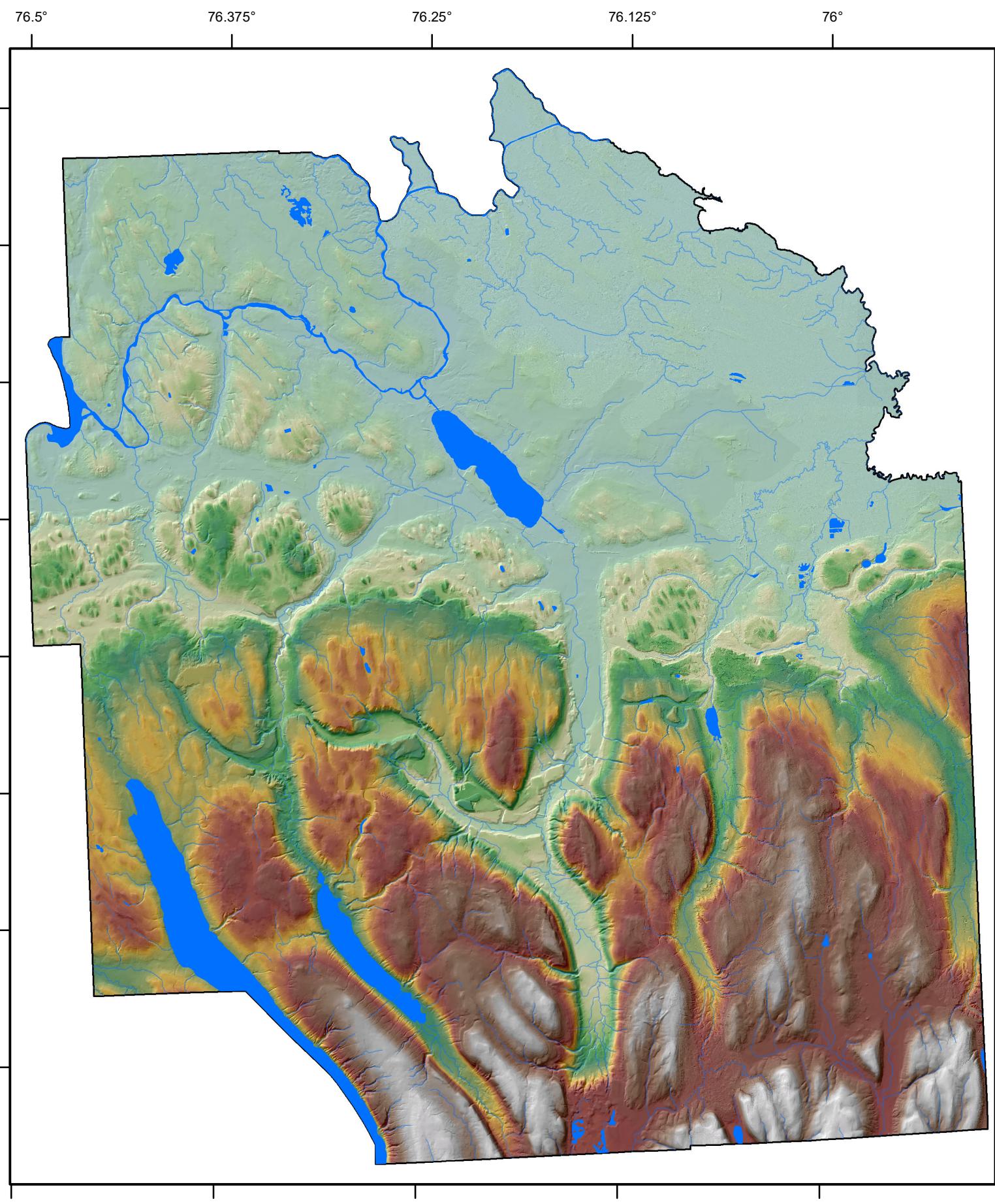


QUADRANGLES WITHIN



USGS 7.5-Minute Quadrangles
within Onondaga County, New York

SHADED RELIEF and ELEVATION MAP



Feet-amsl
350 2075
1:250,000 scale; 2x vertical exaggeration
Shaded relief and digital elevation model generated from the compilation of the Onondaga 3m, Oneida Basin 1m, Madison/Ostego 1m, and New York State 10m Lidar data

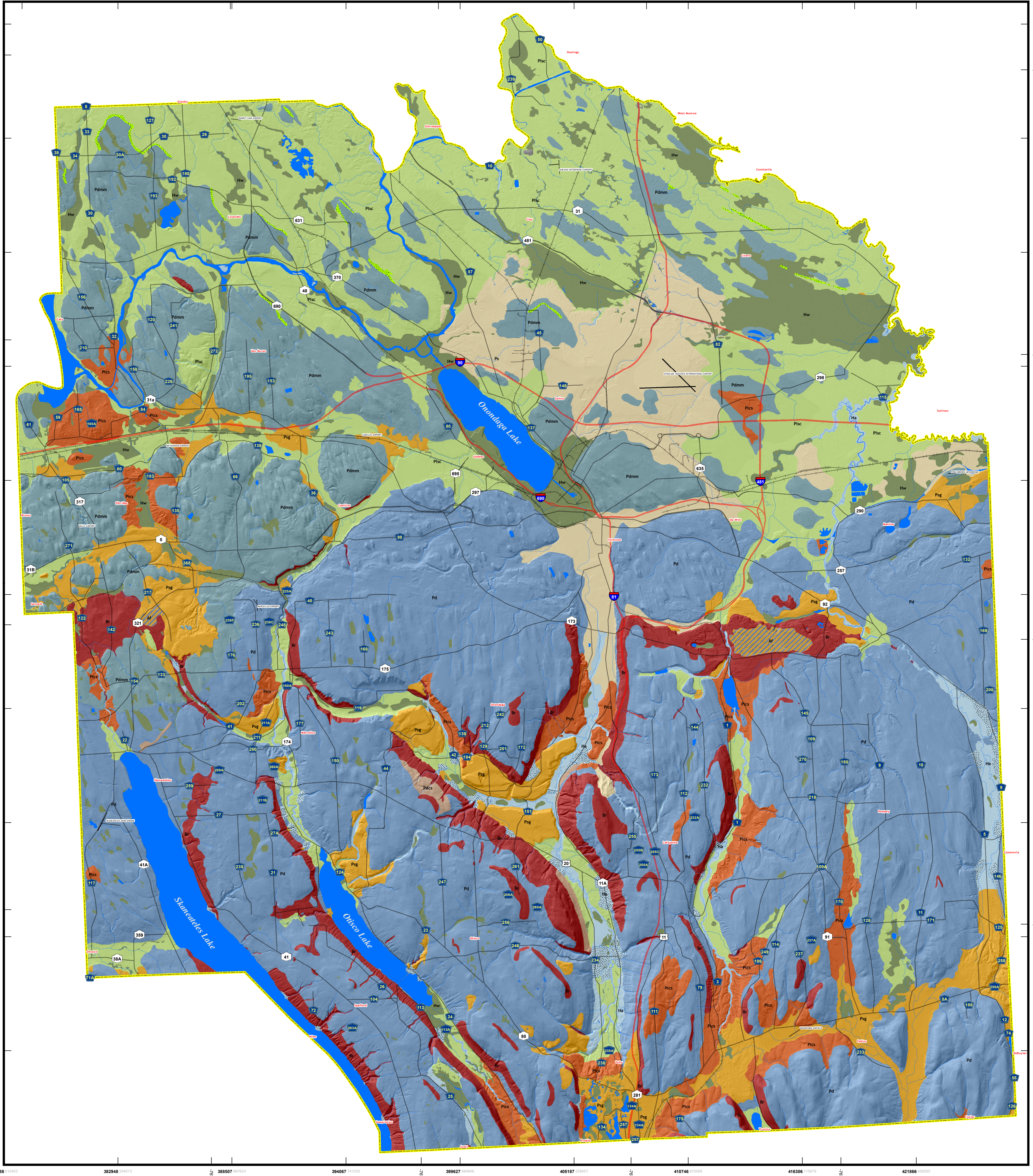
This map is a compilation of twenty one 1:24,000 scale surficial geologic maps completed from 1994 to 2016. Geology was mapped by Donald Pair, Cartography and digital data of individual quadrangles and final county wide product generated with contributions from Donald Pair, Katherine Schoenenberger, Janet Manchester, Brian Bird, and Karl Backhaus.
The final product of this Onondaga County surficial geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program. A award number G16AC00293 in the year 2016. Individual Quadrangles were also funded in part by the USGS National Cooperative Geologic Mapping Program.
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 NYSED.

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2016



Universal Transverse Mercator, Zone 18 N
North American Datum of 1983
Hydrology, and planimetry layers from the New York State DOT Raster Quadrangle separates for Onondaga County
(<https://gis.ny.gov/gisdata/inventories/member.cfm?OrganizationID=108>).
Geographic data layers from 2017 TIGERLine shapes for transportation and hydrography
(<https://www.census.gov/geog-data/tiger/tigerweb/index.php>).
Shaded relief from Onondaga County 3m, Oneida Basin 1m, Madison/Ostego 1m and the NYS 10m lidar data sets (<http://nys.gov/elevation/index.cfm>).
Magnetic declination from the NOAA online Declination Calculator:
<http://www.ngdc.noaa.gov/geomag-web/declination>

SCALE 1:100,000
2 1 0 2 4 6 8
2000 1000 0 2000 4000 6000 8000
Meters
2 1 0 2 4 6 8
2500 0 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000
Feet
CONTOUR INTERVAL: 10 FEET

Geologic mapping by D. Pair, B. Bird and K. Backhaus, 1994-2018
Digital data and cartography: B. Bird, and K. Backhaus, 2016-2018

UTM GRID AND 2016 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET