

SURFICIAL GEOLOGY OF THE WELLSVILLE SOUTH 7.5-MINUTE QUADRANGLE, ALLEGANY COUNTY, NEW YORK

prepared by
Duane D. Braun

Supported in part by the U.S Geological Survey's
National Cooperative Geologic Mapping Program STATEMAP Award Number G15AC00340

DESCRIPTION OF MAP UNITS

Holocene

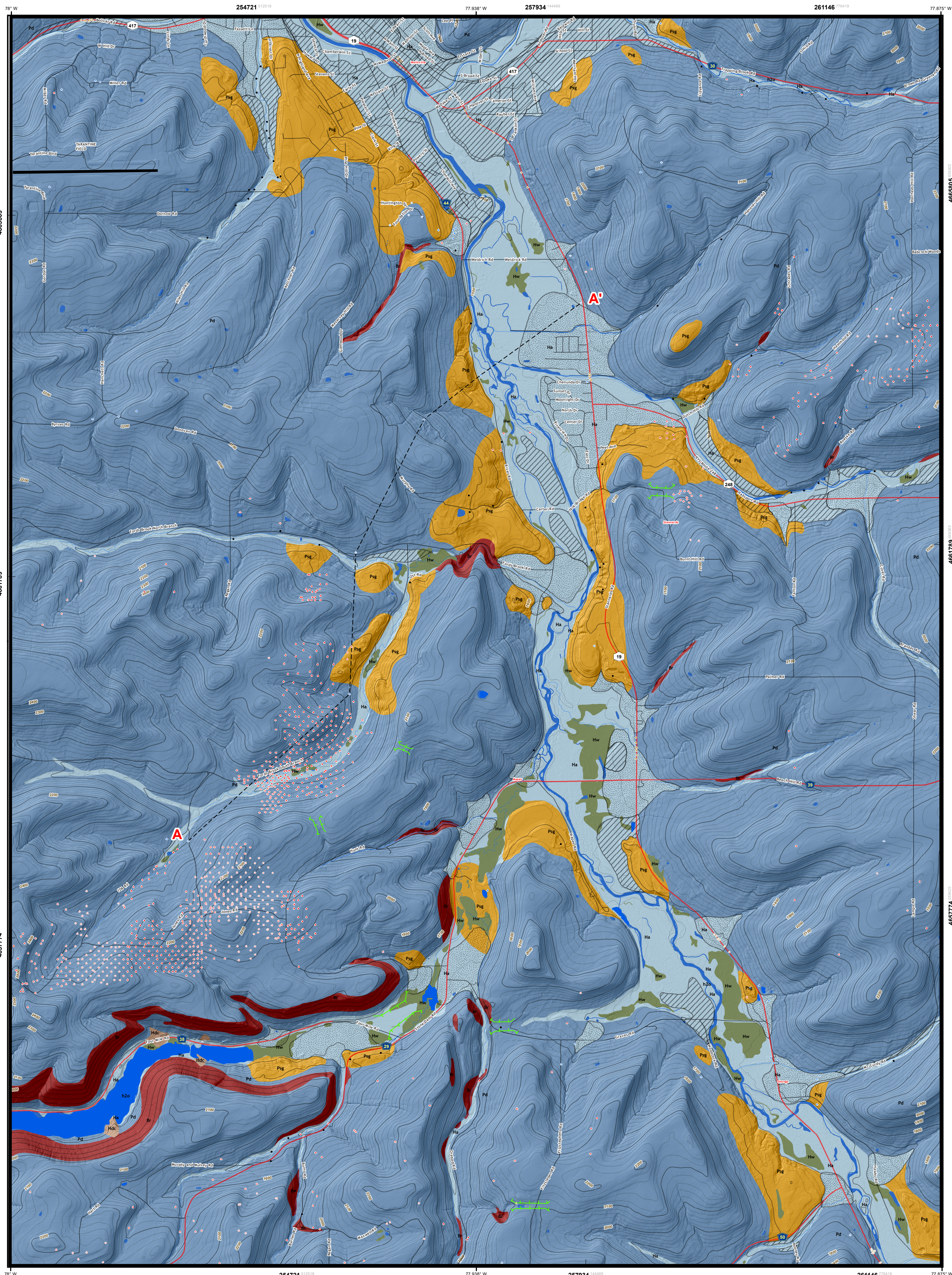
- Ha** **Stratified silt, sand and gravel (Ha)**
Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles and boulders. Inferred as post-glacial alluvium and includes modern channel, over-bank and fan deposits
- Hw** **Wetland Deposit (Hw)**
Peat, muck, marl, 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

- 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.

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.



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

Hydrology and planimetry layers from the
New York State (NYS) Raster Quadrangles for Allegany County
(<https://gis.ny.gov/gisdata/nysraster/quadrangles/member.cfm?OrganizationID=108>).
Geographic data layers from 2011 TIGER/Line shapefiles for transportation
and hydrography (<https://www.census.gov/geographic/tigerfiles/index.php>)

Shaded relief from 2016 Allegany & Steuben County 1-meter and the NYS
10-meter DEM LIDAR data sets
(<http://gis.ny.gov/elevation/index.cfm>)

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

SCALE 1:24,000

1 0.5 0 0.5 1
1000 500 0 500 1000 2000
KILOMETERS

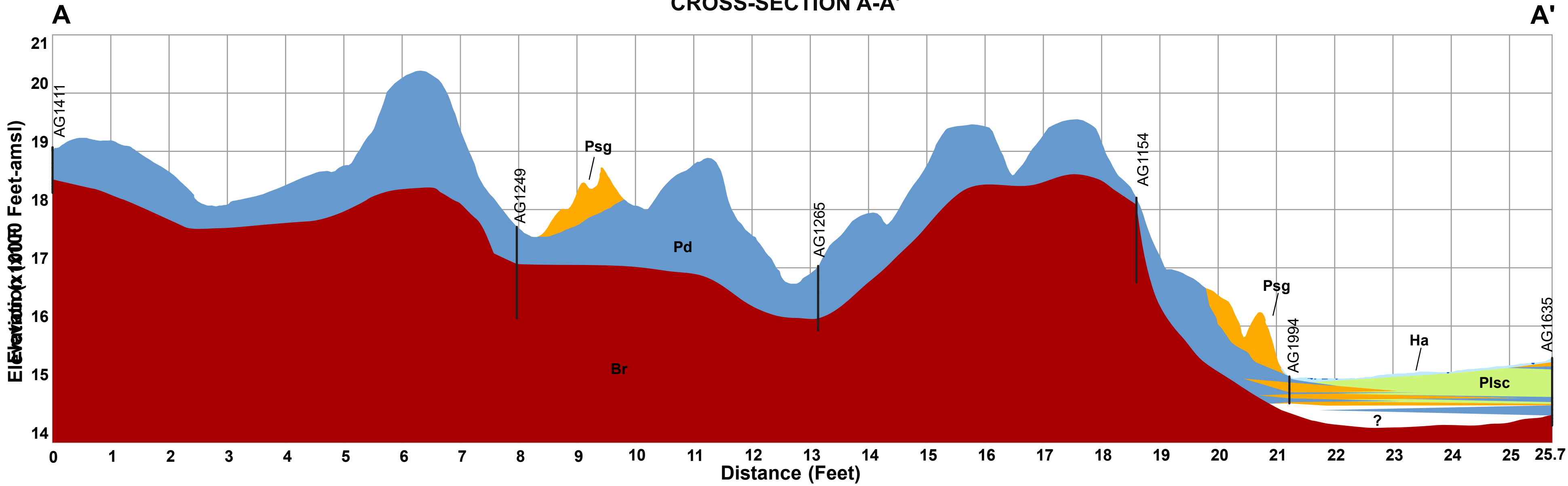
1 0.5 0 0.5 1
1000 500 0 500 1000 2000
FEET

CONTOUR INTERVAL: 10 FEET

UTM GRID AND 2016 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Geologic mapping by D. Braun, 1985
Digital data and cartography, B. Bird and
K. Backhaus, 2016 & 2019.

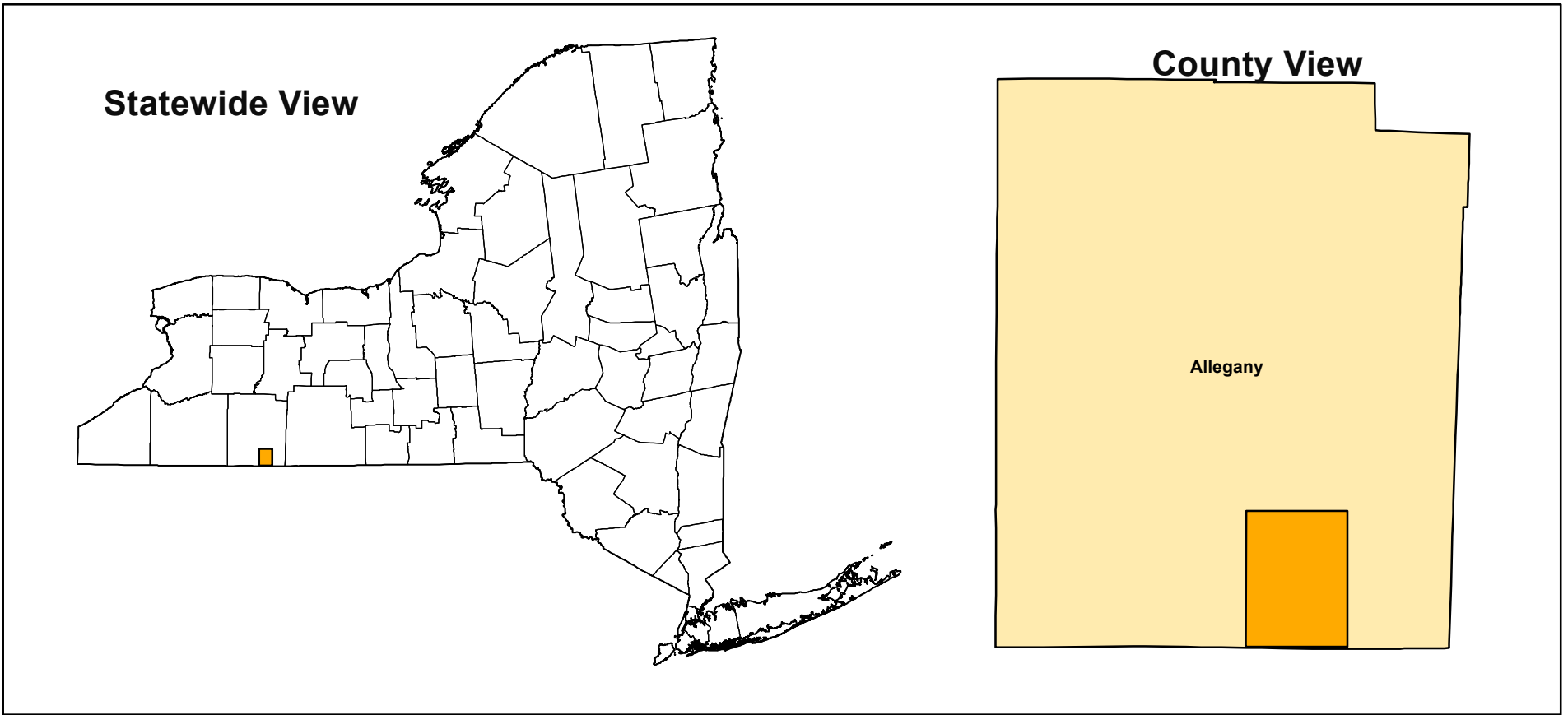
CROSS-SECTION A-A'



SYMBOLS

- Streets
- Highways
- Railroads
- Airport Runway
- Streams
- Water Bodies
- Cross-Section Line
- Contours
- NYSOG Soil Sample Location
- NYSDEC Water Well Location
- NYSOT Boring Location
- NYSDEC Oil & Gas Well Location
- Alluvial Terraces
- Alluvial Fan
- Meltwater Channels

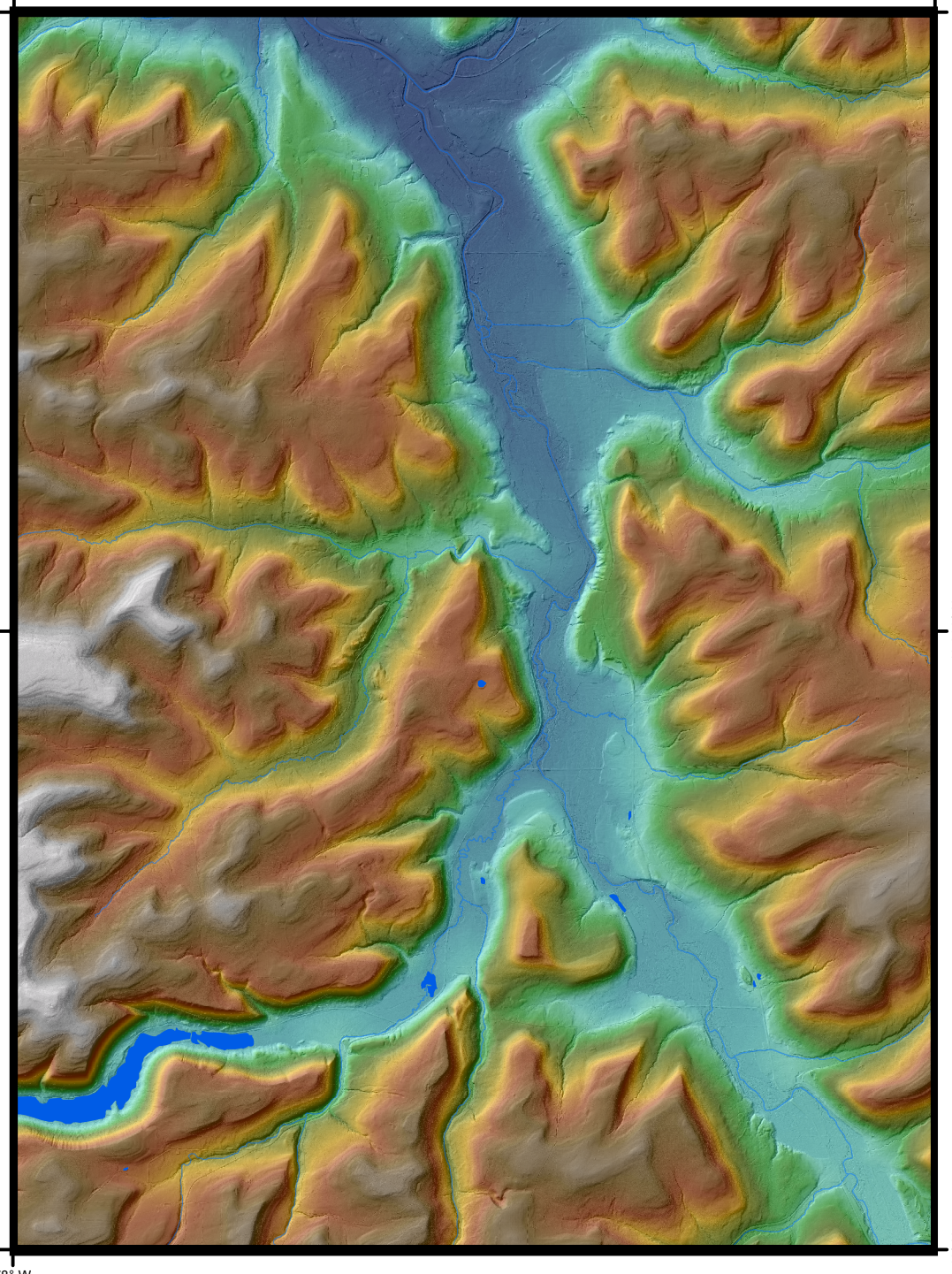
QUADRANGLE LOCATION



ADJOINING QUADRANGLES

Baltimore	Wellsville North	Andover
Allentown	Wellsville South	Whitesville
Owego	Ellisburg	Unyass

QUADRANGLE ELEVATION



Feet-amsl
1465 2495

1:75,000 scale; 2x vertical exaggeration
Shaded relief generated from 2016 Allegany &
Steuben County 1-meter LIDAR data set by the
New York State Group Purchasing Organization.

NOTICE

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award number G15AC00340 in the year 2015.

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2015