

**SURFICIAL GEOLOGY OF THE THIELLS 7.5-MINUTE QUADRANGLE,
ORANGE AND ROCKLAND 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

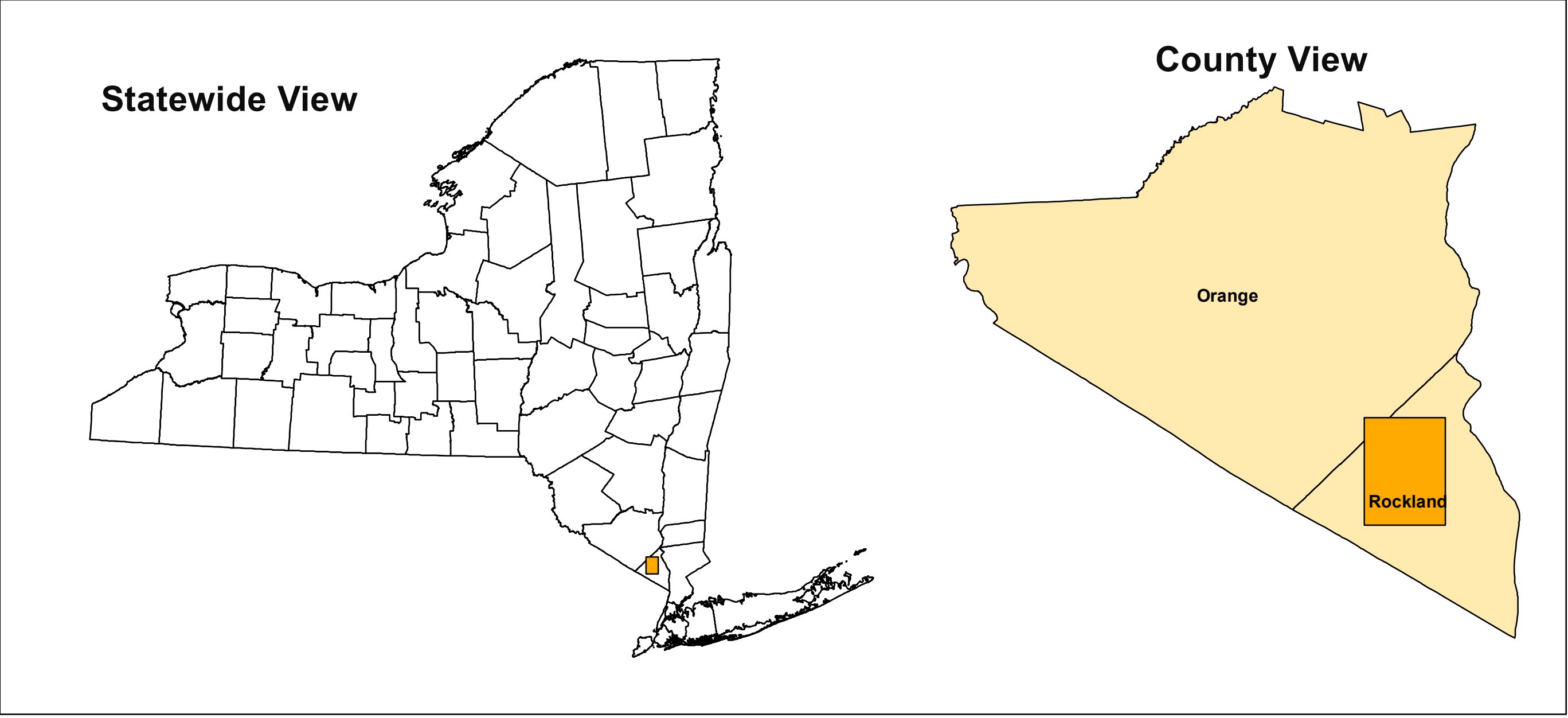
Pleistocene

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).
Pd	Diamicton (Pd) An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.

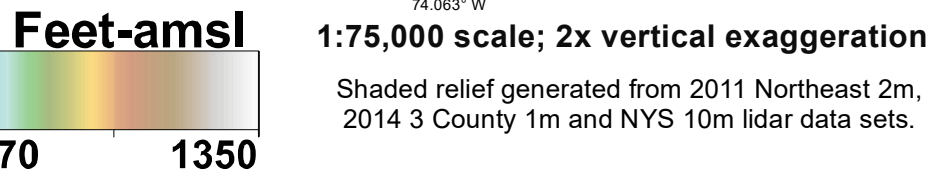
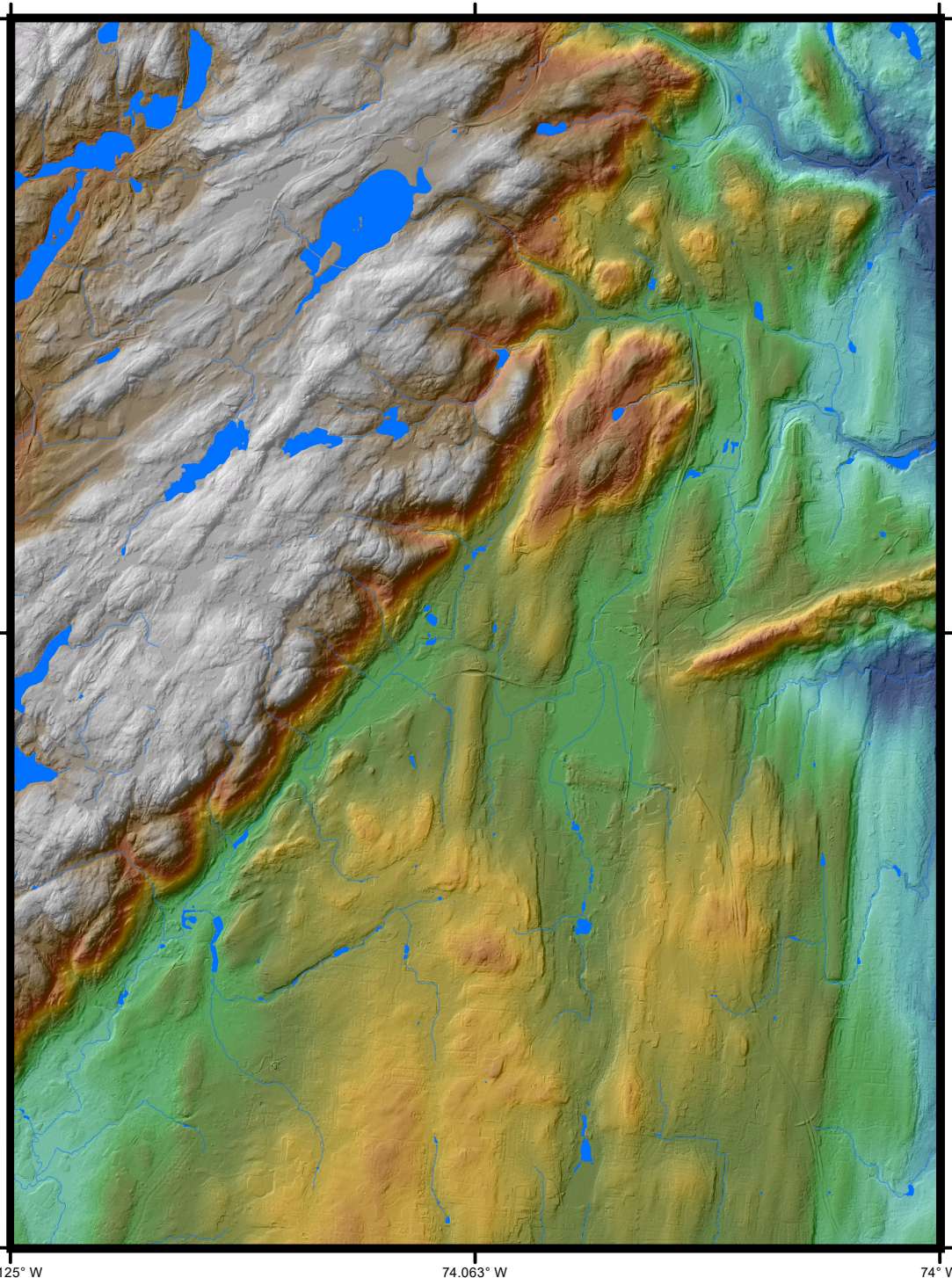
Pre-Pleistocene

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.
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QUADRANGLE LOCATION



QUADRANGLE ELEVATION

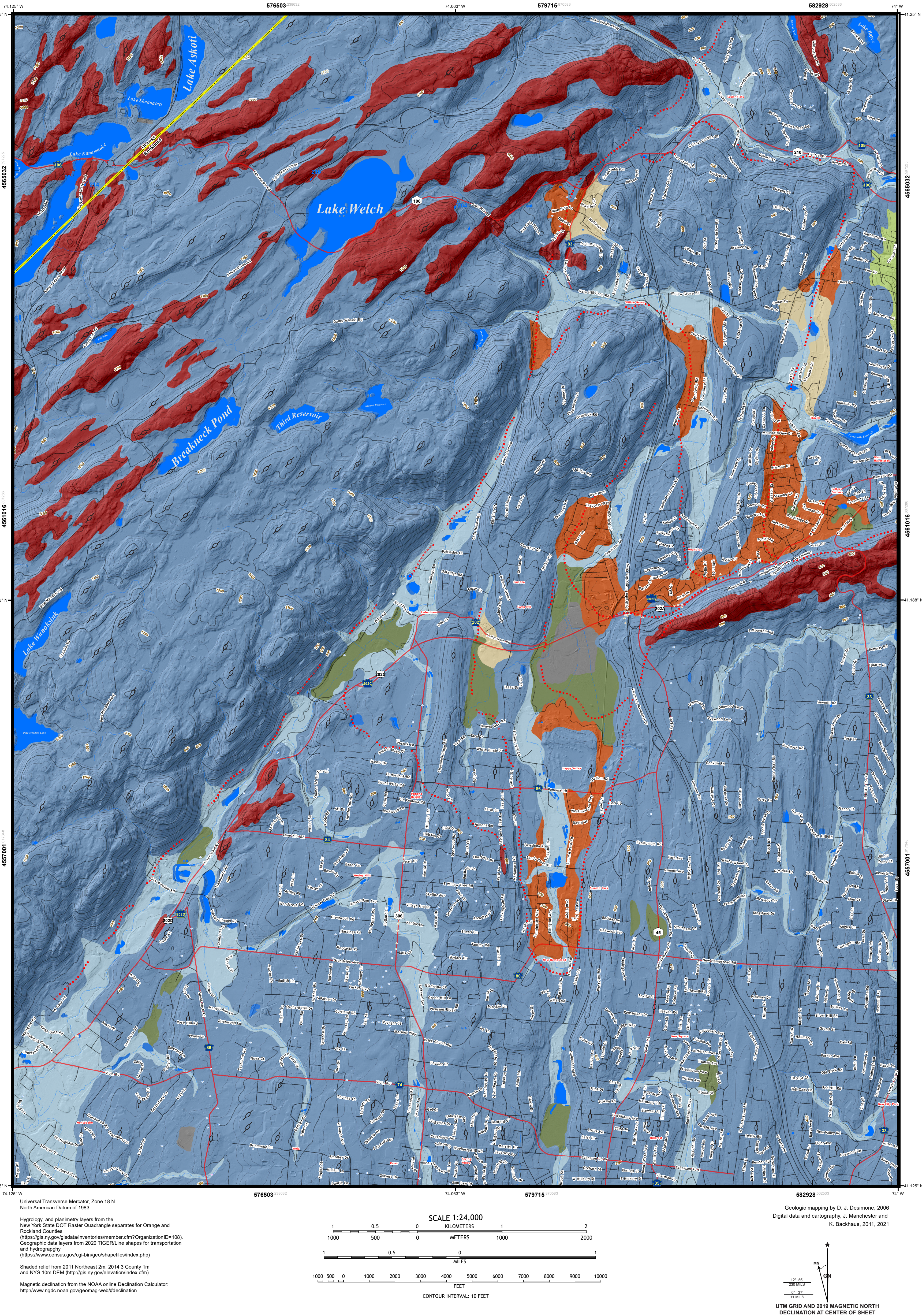


SYMBOLS

Streets	Streams	NYS DOT Boring Location
Highways	Contours	Drumlins
County Line	NYSDEC Water Well Location	Striations
Water Bodies	NYSTA Boring Location	Inferred Ice Margins

ADJOINING QUADRANGLES

Montee	Popolopen Lake	Peakskill
Stonsburg	Thiells	Hawestrow
Ramsay	Park Ridge	Nyack



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NOTICE
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