Surficial Geologic Map of the New London, New Hampshire 7.5' Quadrangle

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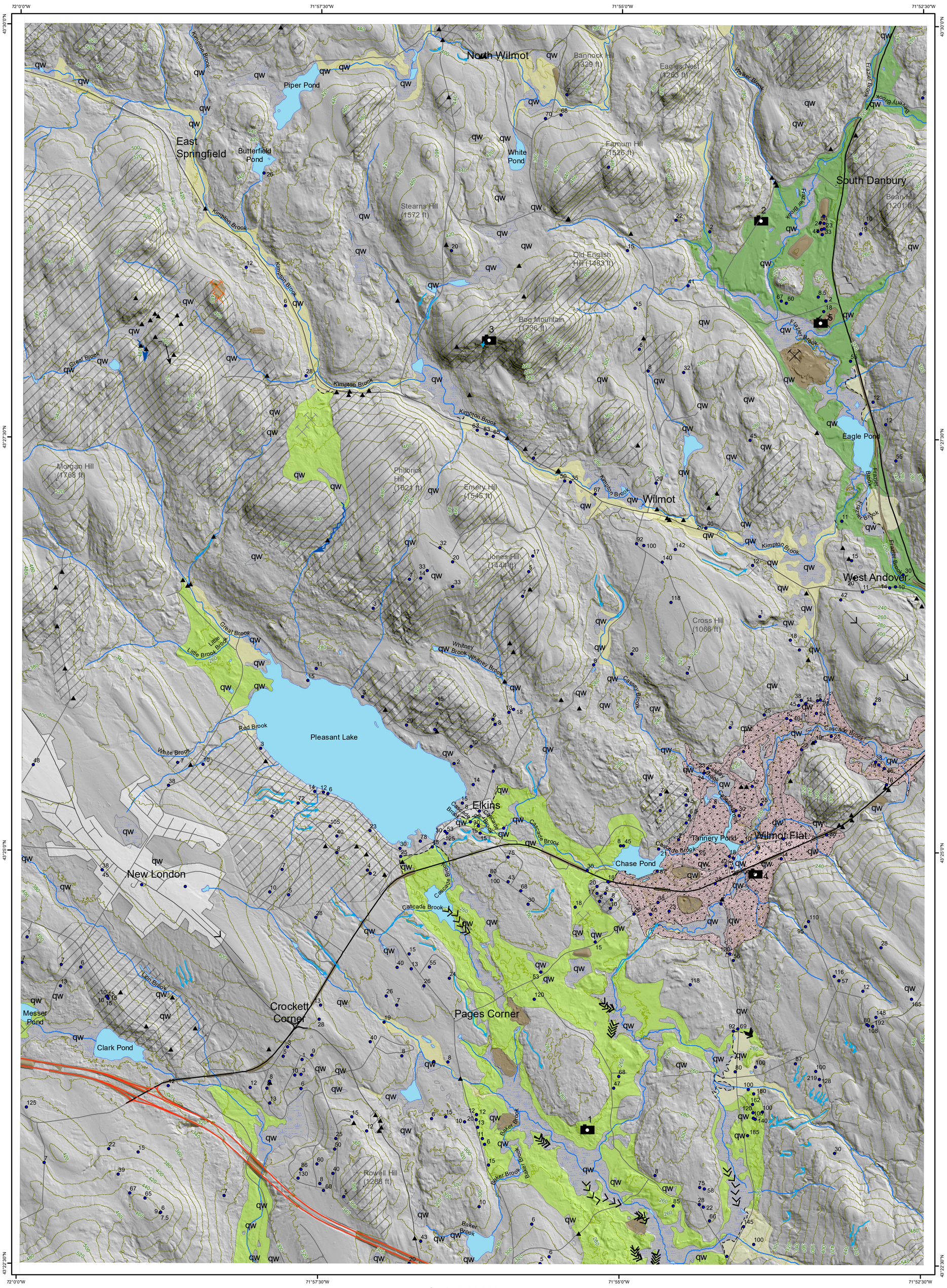
2017



DESCRIPTION OF MAP UNITS

UNIT

af — Artificial fill — Areas where surficial sediments may have been disturbed or removed and /or material transported from another location. Additionally, mine tailings from an old pegmatite mine along Route 4 A are included in the unit.

Qaf — Alluvial fan — Poorly sorted sand to boulder sized materials with some rounding, deposited in fan structures at the base of high sloping drainages. These fans may be the result of historic or periodic precipitation events that mobilized sediment down steep slopes. The resulting deposits can show some sorting but have limited amount of rounding to particles. These fans often overlie till at their upper, steeper sloped ends and valley bottom deposits, glaciofluvial or alluvium, at the distal end.

Qal — Alluvium — Sand to cobble, well rounded, poorly sorted deposits within the modern day floodplain.

Qc — Cilleyville/Andover village deposits — Sand and gravel fluvial sediments deposited initially at the glacier edge along Cascade Brook drainage near Wilmot Flat. Meltwater from dead ice located in southeast corner of the quadrangle and Pleasant Lake also contributed sediment to this formation. One sand and gravel pit exposure in the south-central portion of the deposit exhibits interbedded layers of thicker cross-bedded sands and gravels deposits overlying rippled layers of fine sand. Twenty foot high terraces are located throughout the unit and the deposit can be as much as 45 feet thick.

Qfzb — Frazier Brook Unit — Sand and gravel fluvial sediments initially deposited at the glacier edge along the south flowing drainage of Frazier Brook and grading to Cilleyville deposits on the neighboring Andover, New Hampshire 7.5' quadrangle. Both ripples and cross-cutting beds are exposed in two sand and gravel pits near the middle of the valley. These structures indicate a wide range in energy, vertically and horizontally, within the fluvial system that deposited this unit. This deposit is up to 70 feet thick.

Qic — Ice Contact — Glaciofluvial deposits laid down within or in close proximity to the ice margin. Deposits are generally poorly sorted, ranging from sands to moderately rounded cobbles with occasional boulders that may become increasingly stratified and may also grade to stratified deposits. Ice contact deposits can take the form of kames, eskers, ice channel fills and short braided streams.

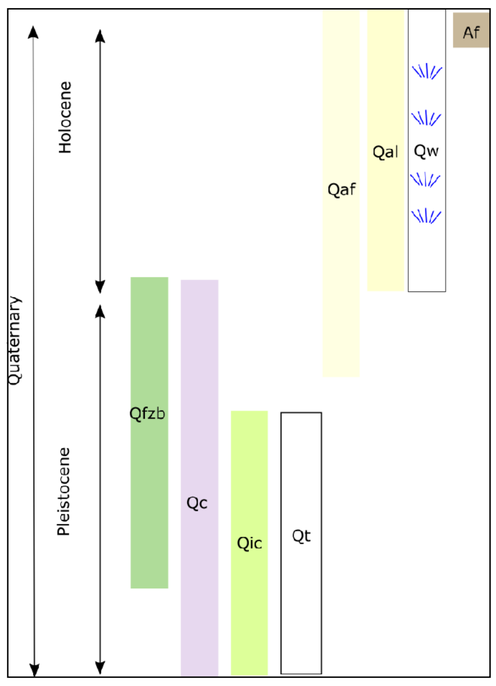
Qt — Till — Poorly sorted mixture of silt, sand, gravel, and boulders that may be differentiated as basal or ablation till based on mode of deposition. Basal tills are generally less oxidized, light to dark gray in color, and less dense than ablation till as a result of being deposited under the mass of ice as the glacier advanced. Ablation tills are a diamict deposited from melting ice during deglaciation and are often sandier, less compact, and stained with iron oxides.

Qtt — Thin till — Areas of exposed bedrock and till deposits interpreted to be less than 10 feet thick.

qw — Wetland — Organic rich water laid sediments.

Water

CORRELATION OF MAP UNITS



Scale 1:24,000

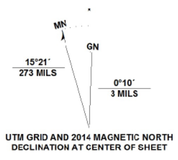
0 1,450 2,900 5,800 Feet

0 0.5 1 2 Miles

0 1 2 4 Kilometers

Topographic basemap developed from high resolution (1 meter) LiDAR data (hillshade and contours), National Hydrography Dataset and NHDOT roads data.

Projection: North American Datum 1983 New Hampshire State Plane Feet.



ENFIELD CENTER	GRAFTON	DANBURY
SUNAPEE LAKE NORTH	NEW LONDON	ANDOVER
SUNAPEE LAKE SOUTH	BRADFORD	WARNER

EXPLANATION OF MAP SYMBOLS

- Water well - Label indicates depth to bedrock
- Gravel Pit (active)
- Gravel Pit (inactive)
- Rock Quarry
- Glacial Striation
- Bedrock Field Point
- Contact - Approximate Location
- Esker
- Meltwater Channel
- Meltwater Spillway
- Stream Lined Hill
- Photo Points - labeled with photo number
- Texture Polygon
- 20-ft topographic contours from LiDAR

Surficial Geology of the New London 7.5' Quadrangle, New Hampshire

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