Introduction
Beginning in 2019, under the guidance and funding provided by the United States Geological Survey - Great Lakes Geological Mapping Coalition (award G20AC00401), the New York State Museum - Geological Survey began a statewide effort to conduct geologic mapping of bedrock elevations throughout New York. Cattaraugus County, of Western New York, is in the physiographic province of the Allegheny Plateau. The county is nestled between Chautauqua, and Allegany counties. Cattaraugus County is also located along two large bodies of water, Lake Ontario, and Orenda Lake. Surficial and subsurface bedrock point data and maps were compiled from publicly available sources, vetted, and organized into a comprehensive geospatial database. A technical workflow was developed to categorize the overall geology and differentiate between the underlying bedrock and overlying unconsolidated sediments. The resulting bedrock elevation map provides a detailed representation of bedrock topography across Cattaraugus County. This map is useful for various applications, including geological studies, engineering and construction, natural resource management (such as water or mineral resources), and environmental studies.

Methodology
A total of 9,476 bedrock control points were used to delineate bedrock topography in Cattaraugus County. These points consisted of 6,197 bedrock outcrops, 2,940 water wells, 286 engineering borings, 45 water locations, and eight oil and gas wells. These data were compiled from a variety of public sources and imported into ESRI's ArcMap 10.8 software platform. Ground surface elevations for all control points were extracted from a compilation of three separate digital elevation models (DEM) which were resampled to match a 1-meter LiDAR DEM cell size. Bedrock elevations were calculated at each location by subtracting the depth-to-bedrock from the ground surface elevation. 50-foot bedrock elevation contours were auto-generated and manually refined through a multi-step quality control process to resolve any interpolation errors. The finalized contours were converted into a 1-meter raster, using the "Topo to Raster" tool, that represents county-wide bedrock topography.

Explanation
- Data Point
  - 500 Bedrock Elevation: Contour
  - 100 Bedrock Elevation: Contour
  - Highway
  - Cattaraugus County Line
  - Allegany County
  - New York State Line
  - Water Body

Bedrock Topography
- Footnote
- BEDROCK TOPOGRAPHY OF CATTARAGUS COUNTY, NEW YORK

COUNTY LOCATION