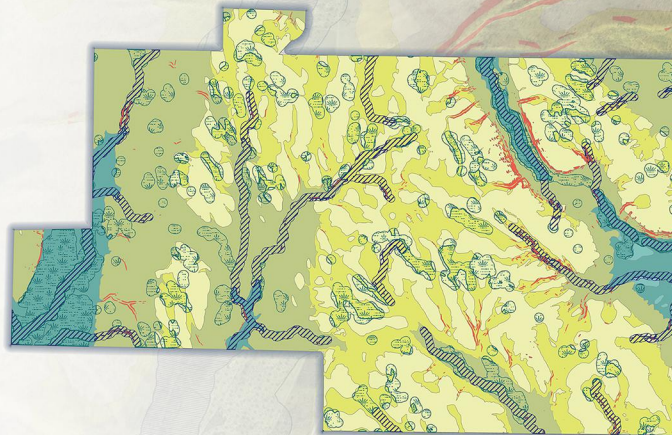


A GIS Landscape Model for Archaeological Survey of a Wind Energy Project

As part of the archaeological survey design for proposed commercial-scale wind power projects, the New York State Historic Preservation Office requires archaeologists to classify the project's **area of potential effect (APE)** into environmental zones and distribute archaeological testing accordingly.

The analysis was based on the following features:

- Topography-Based Environmental Zones (Valley Floor, Valley Wall, Upland Ridges)
- Micro-Topographic Features (Ridges and/or Knolls vs. Saddles)
- Proximity to Wetlands and Paleo-Wetlands (i.e. hydric soils)
- Proximity to Mapped Streams, Lakes, and Ponds
- Steep Slopes (>12%)



The result is a **GIS-based landscape classification analysis** tailored to the landscape's characteristics, with a wide range of applications including:

- Level of Effort/Cost for Archaeological Survey is Managed Relative to Archaeological Sensitivity
- GIS-Based Landscape Analysis Results in Site-Specific Research Design for Archaeological Survey
- Efficient Fieldwork/Implementation of Research Design using Online GIS in Mobile Tablet Applications
- Real-time Management of Fieldwork Effort/Results Relative to Proposed Research Design
- Regulatory Agency (SHPO) Concurrence/Satisfaction with Approach and Results

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- The main map displays a complex GIS landscape classification. It features a central river system with various colored zones along its banks and in the surrounding terrain. The zones are color-coded and pattern-coded according to the legend. A north arrow and a scale bar (0 to 2 miles) are located in the bottom right corner of the map area.
- ▨ Upland Ridge, Near Stream
 - ▨ Upland Ridge, Near Wetland/Hydric Soil
 - ▨ Upland Ridge, No Water
 - ▨ Upland Saddle, Near Stream
 - ▨ Upland Saddle, Near Wetland/Hydric Soil
 - ▨ Upland Saddle, No Water
 - ▨ Valley Wall, Near Stream
 - ▨ Valley Wall, Near Wetland/Hydric Soil
 - ▨ Valley Wall, No Water
 - ▨ Valley Floor Ridge, Near Stream
 - ▨ Valley Floor Ridge, Near Wetland/Hydric Soil
 - ▨ Valley Floor Ridge, No Water
 - ▨ Valley Floor, Near Stream
 - ▨ Valley Floor, Near Wetland/Hydric Soil
 - ▨ Valley Floor, No Water
 - ▨ Steep Slope