Ulster County, New York
Open Space Plan

5. Significant Ecological Communities

Through the display of six data layers related to ecological communities, a shade range from white to pale yellow to darker yellow has been created. This range shows where significant ecological communities occur. Darker yellow shades suggest areas that are more valuable for the preservation and conservation of ecological communities of significance than are white areas or paler yellow areas.

<u>Significant Ecological Communities Data Explained</u>
Six data layers, available in digital format, were chosen as inputs to create a shade range that begins to show where significant ecological communities occur. An additional data processing step was used in this mapping effort; 45-meter buffers were added to the hydrography and wetlands layers. These buffers are based on research by scientists interested in maintaining various ecological functions along riparian (stream) corridors. In an article by Ralph Tiner of the U.S. Fish and Wildlife Service[1], several riparian buffers are given for these various ecological functions.

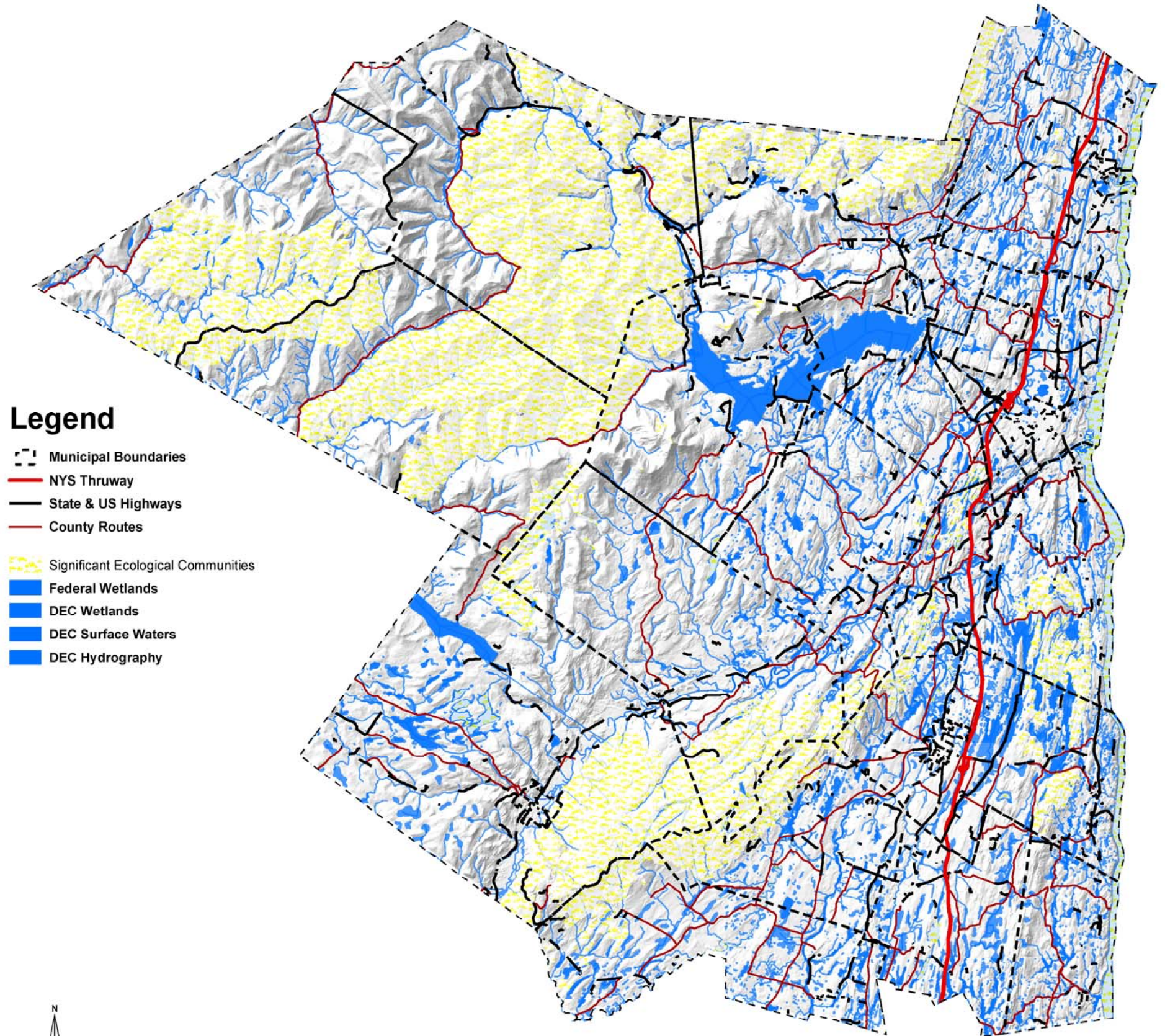| Buffer Function	Purpose	Buffer Width
Migratory bird habitat	Maintain a vegetated buffer along stream corridor for nesting and cover	100 meters wide
Stream temperature	Maintain a forested buffer along streams vital to certain fish species	10 to 30 meters wide
Amphibian habitat (also a proxy for other wildlife)	Maintain wildlife habitat for mole salamanders	164 meters wide
Sediment and pollutant adsorption	Filter pollutant from upland sources before they reach streams and waterbodies	45 meters wide

Data Sources

Significant Ecological Communities Source Data	Where Acquired	Description of Data
Wetlands (NWI, polygon)	United States Fish and Wildlife Service	Federal National Wetlands Inventory wetlands.
Significant Ecological Communities (polygon)	Obtained from the New York State DEC, Natural Heritage Program	Contains records of significant ecological communities occurring or partly occurring in Ulster County. These are based on information and maps from field surveys, museum specimens, and project reports, the location and boundaries of an element occurrence are determined as precisely as the available information allows.
Unfragmented Forests > 15,000 Acres (polygon)	Acquired from the Hudson River Estuary Program (1/05); used by permission of The Nature Conservancy	The Forest data is from The Nature Conservancy's Eastern NY Office. The Data are in UTM 18, NAD 83. The polygons represent areas of relatively unfragmented forest of 15,000 acres or greater.
DEC Hydrography (line)	New York State DEC, Division of Water	Streams of New York State as taken from USGS "blue line separation" from 1:24,000 scale topographic map series. Data has been edited by NYS DEC to include additional stream segments
Surface Waters (polygon)	New York State DEC, Division of Water	Surface waters of New York State as taken from USGS "blue line separation" from 1:24,000 scale topographic map series.
Wetlands (New York State DEC, polygon)	New York State DEC Wetlands Data, from CORNELL CUGIR website	New York State regulated wetlands.

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Datum and Projection: NAD 27, UTM 18
Map Date: June 2009

[1] Tiner, R. *Remotely-sensed indicators for monitoring the general condition of "natural habitats" in watersheds: an application for Delaware's Nanticoke River watershed.* Ecological Indicators 4 (2004) 227-243.

Legend

- ⬛ Municipal Boundaries
- — NYS Thruway
- — State & US Highways
- — County Routes

- Significant Ecological Communities
- **Federal Wetlands**
- **DEC Wetlands**
- **DEC Surface Waters**
- **DEC Hydrography**

0   5   10 Miles

This map is for informational purposes and was not prepared for legal, engineering, or surveying purposes. Users of this information should consult the primary data and information sources to ascertain the usability of the information.