

Appendices

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Appendix A

Description of Conservation Easement Lands Potentially Impaired by Edic to Fraser Transmission Line Expansion

Description of Conservation Easement Lands Potentially Impaired by Edic to Fraiser Transmission Line Expansion

Submitted to Otsego County Conservation Association by Otsego Land Trust
January 23, 2015

Otsego Land Trust (OLT) preserves the distinctive rural character of the Otsego Region in Central New York by maintaining the natural and cultural legacy handed down through generations, and by securing the working forests and farms, natural ecosystems, and scenic landscapes that define our region. OLT works to protect lands and waters in Otsego, Delaware, Schoharie, and Herkimer counties through conservation easements, which are legally binding agreements between the landowner and the land trust. The land remains in private ownership, but OLT is legally charged with stewarding and enforcing the protections outlined in the conservation easement. The conservation easement outlines specific purposes or conservation values for which OLT stewards into perpetuity. In 2008, OLT created its Conservation Blueprint, which identifies priority areas for protection based on watersheds, historical, and ecological attributes. The conserved properties that will be impacted by the transmission lines are within the Upper Otego Creek and Upper Unadilla Headwaters conservation areas. The expansion of the transmission lines will negatively impact the conservation values. Since OLT is legally bound by the conservation easement, therefore, we have a vested interest in ensuring the conservation values of these properties and in making sure those values are conserved.

OLT in no way represents landowners who own conservation easement properties. OLT is legally obligated to steward and protect conservation values as they are elaborated in the conservation easement, but have no legal responsibilities for or in connection to landowner decisions or responsibilities beyond the easement contract.

The expansion of the Edic to Fraiser transmission line along the existing Marcy South power line would run through four properties that are protected with conservation easements. Approximately 9,300 feet (1.75 miles) of the transmission lines runs through these properties. Several other conserved properties have visual impacts from the existing transmission line. The easement properties that will be impacted by the expansion of the power lines are as follows:

The Richfield Hill Farm: (Tax Parcel # 131.3-1-13.00 (Depot Road, Town of Columbia, Herkimer County). This conservation easement recognizes the great scenic and ecological values on the property. The purposes for the conservation easement on this 167 acre property are to conserve rural, agricultural, forested, scenic, open, and natural characteristics. The property has working agricultural land, wetlands, mixed hardwood, conifer and wetland cedar woodlands, old meadows, and is part of the Unadilla River watershed, a tributary to the Susquehanna River. The Unadilla Headwaters area is a conservation priority identified in the Otsego Land Trust 2008 Conservation Blueprint. The property contains a valuable and varied habitat that is home to a wide variety of plant and animal species.

The property was subdivided into three parcels in 2005. The original grantor of the conservation easement retained ownership of 55 acres, and sold approximately 26 acres to Michael Marmet, and approximately 85 acres to Amil Lall.

The Marcy South power line runs through the section of the property owned by Lall, but is visible to and will impact the other lands included in the conservation easement. The potential increases in height and width of infrastructure planned for the expansion of the Edic to Fraiser power line would negatively impact the scenic values as well as the physical values of the conservation easement. While the expansion of the power line will traverse only the Lall subdivision of the easement, it would have negative physical impacts on the habitats and ecological communities of the adjacent parcels as well. The level of traffic, noise, and physical exploitation of the land required to construct and maintain the transmission lines will disrupt wildlife, soils, and habitats within the corridor and beyond it as wildlife routes and plant communities will be significantly bisected. The conservation easement allows for a single building area in the northwest corner of the property. The landowner has not enacted their right to build in the area; however, if and when that happens, the visual impacts of the expanded corridor and increased infrastructure would be significant.

Greenwoods Conservancy: (Tax parcel # 95.00-1-19.01 & # 111.00-1-8.02 (Zachow Road, Town of Burlington, Otsego County) Greenwoods is an 1170-acre private nature preserve owned by the Peterson Family Charitable Trust and is comprised of seven different conservation easements. The mission of Greenwoods Conservancy is to establish a refuge that will focus on the protection and improvement of existing habitat by maintaining a mix of open fields, woodlands and marshes. The purposes protected by the conservation easement include conserving the scenic, open, ecological, and natural character of the property and to preserve the property for use as a valuable resource for education and scientific research, while providing for its limited development, management, and sustainable uses in compliance with the conservation easement. The areas of Greenwoods Conservancy impacted by the transmission lines are within the Upper Otego Creek conservation area as defined by OLT's Conservation Blueprint. (The Blueprint designates areas that are priorities for conservation because of their ecosystems, valuable natural resources, and connection to clean water.)

The Marcy South transmission lines physically run through three conservation easements properties and visually impacts two others. Therefore, the power line expansion will disrupt five of the seven easements that compose Greenwoods Conservancy. The height increase will disrupt valuable bird migrations and the research focused on these migrations as migratory routes cross the property. Golden eagles, a NYS endangered species, have been tracked at Greenwoods. The construction and maintenance of the power line will also impair fragile soils, wetlands and terrestrial habitats. The use of harmful herbicides to manage plant life under the power lines will negatively impact the wetlands and the habitats and ecological communities' wetlands support. Ongoing research that is being conducted by NYS DEC and the Biological Field Station will also be interrupted by the noise and land exploitation connected to construction. Trout Unlimited, the DEC, Ducks Unlimited, the US Fish & Wildlife, Sapsucker Woods at Cornell, Bucknell University and local Audubon and hiking groups also utilize the property for research, recreation and as a demonstration site. School groups and hiking groups that use the property for education and recreation will be negatively impacted by the vertical and horizontal expansion because of reduced access to healthy natural communities and experiences.

Albright: Parcels # 175.00-1-13.00 (Lena Road, Town of New Lisbon, Otsego County): The primary purpose of this conservation easement is to protect the natural values of the property by protecting forever its unique and special natural features, including wetlands and stream corridors and wildlife habitats, and potential habitat corridors, biological diversity, native flora and fauna, and the environmental and ecological processes which support them. This conserved property is within the Upper Otego Creek conservation area as defined by OLT's Conservation Blueprint

The Marcy South power line currently runs through the North West corner of this property. The expansion of the Edic to Fraiser power line will negatively impact the conservation purposes that the easement is meant to protect. There are several species of greatest conservation need, according to the Comprehensive Wildlife Conservation Strategy for NY (2006), known to be on the property which include heritage-strain brook trout, golden-winged warblers, worm-eating warblers, Cooper 's hawk, Northern goshawks, and sharp-shinned hawks. The expansion of the transmission line will impact the wetlands, riparian habitat, and stream characteristics of the West Branch of the Otego Creek that runs through the property. Increased traffic and maintenance to construct and maintain the transmission lines will cause negative impacts on the wildlife, soils, and habitats within the corridor. The positive visual impacts enjoyed by the public along Lena Road will be negatively impacted by the expansion of the transmission line. The increased height may also visually impact another conserved property, protected by the same landowner that is within 1 mile of this easement property. The conservation easement allows a single building area on the property near the power line. The landowner has not enacted his rights to build in the area, however, if/and when that happens the visual impacts would be significant.

OLT holds conservation easements on more than 9,000 acres in Otsego County. We have an ethical and legal responsibility to monitor our easements and assure the maintenance of their conservation values into perpetuity or until such time as the easement would be extinguished by extraordinary means. The supporters and funders of OLT are deeply invested in the outcomes of all energy and transmission projects that impact the environmental health of the Otsego region. Our conservation easement holders, particularly those directly affected by the Edic to Fraiser Proposal, are actively interested in and responsible for the maintenance of conservation values on their properties as they are delineated in their easement agreements.

The expansion of the Edic to Fraiser transmission line will severely impact the conservation purpose and values of these conserved lands. OLT expects mitigation for all impacts to easement protected properties.

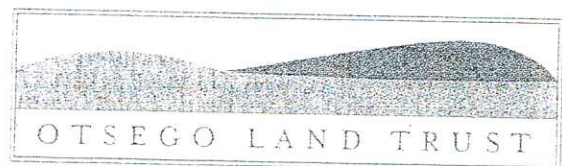
Appendix B

Otsego Land Trust Conservation Blueprint Land Conservation Plan

Otsego Land Trust Conservation Blueprint

Land Conservation Plan

Kate A. McConnell, 2008



Introduction and Context

The region in which the Otsego Land Trust focuses its protection efforts is the northeastern portion of the Susquehanna Basin, the northeastern-most portion of the Upper-Susquehanna sub-watershed. The Susquehanna Basin encompasses 4 million acres in south-central New York and is the largest river basin on the Atlantic Seaboard. The largest proportion of fresh water flowing into the Chesapeake Bay comes from the Susquehanna River and its tributaries; therefore, the river's water quality directly affects this important estuary's health and productivity. Protecting land within the watershed is critical to maintaining, and hopefully improving, water quality. In the meantime, land conservation protects habitats and working landscapes.

The Upper-Susquehanna sub-watershed drains 4,500 square miles of upstate New York. The portion of the Upper-Susquehanna sub-watershed in the Otsego Land Trust Region includes the river's headwaters at Otsego Lake as well as the watershed of one of its major tributaries, the Unadilla River.¹ Encompassing all of Otsego County, the Otsego Land Trust Region also incorporates portions of Herkimer County to the north; Oneida, Madison, and Chenango Counties to the west; and Delaware and Schoharie Counties to the south (Map 1). The region encompasses nearly 1,040,000 acres (Table 1).

The Otsego Land Trust Region is defined by its diverse landscapes and species. Agricultural landscapes dominate the numerous river and creek valleys, as well as a wide swath of land along the northern part of the region, generally along the Route 20 corridor. In addition to contributing to the local economy, cropland provides habitat for grassland birds and the area along the Route 20 corridor has been designated by the New York State Department of Environmental Conservation (NYSDEC) as a Grassland Focus Area. Forests top the ridges and rolling hills that run north/south across the region, with deciduous forests offering an ideal environment for a rich variety of species. Wetlands dot the landscape in the stream valleys and low lying areas and provide habitat for several rare or threatened plants and animals. Historic buildings, villages, and landscapes surprise travelers as they venture along routes traveled since the colonial era. Thus, the Otsego Land Trust derives its mission to "conserve the distinctive rural character of Otsego County, New York through protecting open space, lands of scenic value, fragile ecosystems, farmland, and forestlands" from this diverse landscape.

The Otsego Land Trust recently celebrated its 20th Anniversary and is poised to continue its land protection activities. During its existence the land trust has protected 5,203 acres, 1,043 acres in 2007 alone, through conservation easements. The short term goal of the land trust is to double this amount, protecting 10,000 acres by 2010. In order to meet this goal and, more importantly, to aid the Land Trust in developing and defining longer term goals the Otsego Land Trust developed a Conservation Blueprint.

The Conservation Blueprint

The Otsego Land Trust Conservation Blueprint is a strategic land conservation plan that guides the land trust in "identifying, prioritizing, pursuing, and protecting those specific tracts of land that will most effectively and efficiently achieve the land trust's mission."² Thus, in the short term, this blueprint will assist the Land Trust in reaching its goal of conserving 10,000 acres by 2010. Additionally, the blueprint

¹ New York State Department of Environmental Conservation. nd. "Susquehanna Basin," *Comprehensive Wildlife Conservation Strategy Plan*. p. 467. Online http://www.dec.ny.gov/docs/wildlife_pdf/susquehannatxt.pdf, accessed September 8, 2008.

² Land Trust Alliance definition of a strategic conservation plan.

will be the primary tool used to develop long term conservation goals and projects for the organization. The Conservation Blueprint will also aid the land trust in partnering with state and local governments and other conservation-minded organizations, with outreach and education, and to apply for grant and funding opportunities.

The Otsego Land Trust Conservation Blueprint consists of a series of 10 conservation areas in the Otsego Land Trust Region. Using an overlay analysis, the land trust identified these conservation areas for their conservation values, including aquatic, terrestrial, agricultural, and historic resources and the ability to increase habitat connectivity by conserving parcels proximal to protected lands, as well as for their threats, mainly development pressure that will cause both habitat and farmland loss.

Threats

Just as varied as the landscape of the Otsego Land Trust Region are the threats to this landscape. Development pressure is the largest threat to the region. Yet, this single threat has the ability to negatively affect every aspect of the region's landscape, including prime agricultural soils and working farms, standing forests, wetlands, historic resources and cultural landscapes, and wildlife habitat in general.

A report and data, *Farming on the Edge*, developed by the American Farmland Trust identified high quality farmlands under high and low development pressure in the United States. New York State ranked 13th in the loss of farmland between 1992 and 1997 when compared with other states. With regards to the Otsego Land Trust Region, the spatial data show that the northern portion of the region has high quality farmland that is under high development pressure.³ This area of prime agricultural soils and highly productive farms is easily accessible from U.S. Route 20 and relatively flat; therefore, it is also desirable for development.

The United States Forest Service undertook a similar study and generated a report and corresponding spatial data, *Forests on the Edge*, in 2005. This study determined that Otsego County and the Otsego Land Trust Region is undergoing a medium amount of housing development in private forests relative to the United States overall. Within the Upper-Susquehanna River Watershed, 5 to 10 percent of the private forests in the Otsego Land Trust Region are projected to convert from rural to exurban housing densities by 2030.⁴ When observing the spatial patterns of the Otsego Land Trust Region, the southern portion of the region is projected to experience the most housing development in private forests. While most of the area is projected to convert from rural I to rural II (16 or less housing units/acre to 17-64 housing units/acre) small pockets, generally near the most urbanized areas, are projected to change from Rural II to Exurban (17-64 housing units/acre to 65 or more housing units/acre) by 2030.

Increased development threatens each of the diverse habitats in the Otsego Land Trusts Region. The NYSDEC identified habitat loss and conversion of natural areas to developed land as the main threat to

³ American Farmland Trust. 2002. *Farming on the Edge Report*. Online at <http://www.farmland.org/resources/fote/default.asp>, accessed September 9, 2008.

⁴ Stein, Susan M. Stein, Ronald E. McRoberts, Ralph J. Alig, Mark D. Nelson, David M. Theobald, Mike Eley, Mike Dechter, and Mary Carr. 2005. *Forests on the Edge: Housing Development on America's Private Forests*. US Forest Service. Online at <http://www.fs.fed.us/openspace/fote/fote-6-9-05.pdf>, accessed September 9, 2008. p. 9-10.

the Susquehanna Basin in their *Comprehensive Wildlife Conservation Strategy (CWCS) Plan*.⁵ Currently, loss of farm fields endangers grassland birds that have adopted this habitat, which is similar to natural grasslands, over the last two centuries. Therefore, the northern portion of the Otsego Land Trust Region lies in a Grassland Focus Area identified by the NYSDEC as an area where bird conservation efforts will be directed. The residential development of deciduous forests, particularly sugar maple mesic forests, will result in the loss of species rich habitats across the region, as well as the economic opportunities associated with timber and forestry industries. Wetlands are an important species habitat that also helps maintain water quality in the Otsego Land Trust Region. Since Europeans arrived in the United States, the country has lost more than half of its wetlands.⁶ New York State applies this rule of thumb to wetlands statewide, emphasizing the need to prevent further wetland loss.

Historic resources and cultural landscapes also suffer the fate of development pressure. Increased investment in a region often results in the rehabilitation and preservation of historic buildings and settlements. However, and perhaps more readily, development can damage these historic resources. New residents or investors may opt to demolish a historic building rather than rehabilitate it. Moreover, the construction of new buildings that do not follow traditional forms or site layout at defined urban-rural boundaries or within intact cultural landscapes damage the integrity of these historic resources.

The Otsego Land Trust, therefore, is operating during a critical period of the region's development. The conservation work that the land trust undertakes during the next two decades will be beneficial to the landscape, both natural and cultural, the quality of life for the region's future residents, and the health of the Susquehanna River, the main tributary of the Chesapeake Bay.

Methodology

The Otsego Land Trust primarily used an overlay analysis to identify the 10 conservation areas in the conservation blueprint. To logically conceptualize the conservation areas, sub-watersheds of the Upper-Susquehanna sub-watershed were used as a base for the limits of the conservation areas. The Otsego Land Trust identified available spatial data and grouped it by resource type into the following three groups:⁷

- Aquatic Resources
 - NYSDEC identified wetlands
 - U.S. Fish and Wildlife Service identified wetlands
 - NYSDEC identified trout spawning and trout streams
 - Rare species point data
- Terrestrial Resources
 - Forest type/species richness
 - Bird Breeding Atlas data
 - Rare species point data
 - Grassland Focus Area
- Agricultural Resources
 - Prime agricultural soils

⁵ New York State Department of Environmental Conservation. nd. "Susquehanna Basin," *Comprehensive Wildlife Conservation Strategy Plan*. Online at http://www.dec.ny.gov/docs/wildlife_pdf/susquehannatbl.pdf, accessed September 9, 2008. Table 11.

⁶ Niering, William A. 1985. *The Audubon Society Nature Guides: Wetlands*. New York: Alfred A. Knopf. p 19.

⁷ Data sources, descriptions, and caveats are found in the Appendix.

- Active and abandoned agricultural parcels
- Agricultural districts
- Protected Land
 - State or county protected lands
 - Otsego Land Trust protected parcels
 - Parcels of 100 acres or larger
- Historic Resources
 - Sites listed in the National Register of Historic Places
- Threatened Areas
 - Farms on the Edge (prime agricultural land under high development pressure)
 - Forests on the Edge (private forests under high development pressure)

Using these data groups the Otsego Land Trust employed ArcGIS to layer the data on the Otsego Land Trust region sub-watershed map to identify concentrations of natural and cultural resources, as well as areas under high development pressure. Generally based on the sub-watersheds, a shape encompassing the resource concentrations was created for each resource group. Ten sub-watersheds with high resource concentrations were identified. Next, the Otsego Land Trust overlaid the series of resource group shapes by sub-watershed/resource concentration area to identify the shapes of 10 conservation areas. As a result, these conservation areas encompass high concentrations of all resource types or particularly important or intensive resources.

Upon identifying the 10 conservation areas, the Otsego Land Trust generated a series of five maps for each conservation area corresponding with the resource groupings used in the overlay analysis. The following resources are mapped for each conservation area:

- Aquatic Resources
 - State wetlands
 - Federal wetlands
 - Trout spawning and trout streams
 - Rare and threatened species
- Terrestrial Resources
 - Forest type/species richness
 - Bird Breeding Atlas data
 - Threatened and rare species point data
 - Grassland Focus Area
- Agricultural Resources
 - Prime agricultural soils
- Agricultural Resources
 - Active farms
 - Abandoned farms
 - Agricultural districts
- Miscellaneous
 - Sites listed in the National Register of Historic Places
 - State or county protected lands
 - Otsego Land Trust protected parcels
 - Privately protected parcels
 - Parcels of 100 acres or larger

By comparing the spatial and quantitative data derived from the conservation area maps, the land trust created a resource matrix to determine conservation areas with outstanding resource concentrations and/or high threat levels with regards to the other conservation areas. This resource matrix will assist the land trust in generating future and long term conservation goals.

Results

Using the overlay analysis, the Otsego Land Trust identified 10 conservation areas in which to focus their land protection efforts. A list of the conservation areas and their corresponding acreage is found in Table 1. Map 2 shows the conservation areas in the Otsego Land Trust Region.

Table 1: Conservation Areas and Acreage Identified in the Otsego Land Trust Conservation Blueprint

Conservation Area	Acres	% of Total
Butternut Valley	101,380	9.76%
Canadarago Lake Headwaters	21,423	2.06%
Charlotte Valley	14,357	1.38%
Cherry Valley	48,699	4.69%
Elk Creek	21,204	2.04%
Otsego Lake	48,366	4.66%
Panther Mountain	13,545	1.30%
Unadilla River Headwaters	107,456	10.34%
Upper Otego Creek	51,793	4.99%
Upper Susquehanna River	48,314	4.65%
<i>Conservation Area Total</i>	<i>476,537</i>	<i>45.87%</i>
<i>Otsego County Total</i>	<i>649,141</i>	<i>62.48%</i>
Otsego Land Trust Region Total	1,038,898	100.00%

Conservation areas tend to either encompass vast acreages or smaller intimate areas. Larger conservation areas include the Unadilla River Headwaters and the Butternut Valley. Both areas encompass more than 100,000 acres, each nearly 10 percent of the Otsego Land Trust Region. Conservation efforts in these areas will require long term, sustained efforts in order to protect lands at a scale that will positively impact the ecological health, agricultural sustainability, and quality of life in these areas. These larger areas are also resource rich, as will be discussed further in this section, allowing for a wider range of partnerships and funding opportunities for land protection.

Smaller, more intimate conservation areas are places where the Otsego Land Trust's land protection efforts will be less intensive but more efficient. In these areas, the land trust could protect fewer parcels while still making a profound impact on land conservation in the area. Oftentimes these conservation areas encompass an entire watershed, such as Elk Creek, a distinct ridge line, such as Panther Mountain, or a historic landscape, such as Charlotte Valley. Ranging from 13,545 acres to 21,204 acres, none of these conservation areas composes over 2 percent of the Otsego Land Trust Region. The smaller nature of these conservation areas lends itself to fewer, but more intense, concentrations of ecological and

historic resources. This characteristic will allow the land trust to focus its protection efforts, partnerships, outreach and education, and funding opportunities, on these resources.

The OTSEGO LAND TRUST Region's Threats

With regards to threats to the Otsego Land Trust Region, Maps 3 and 4 each show a general trend. The northern portion of the region is mainly threatened by the development of prime farmland and productive farms (see Map 3). Table 2 quantifies the threats to farmland by providing acreage of threatened areas by conservation area. Cherry Valley and Otsego Lake are experiencing the most development pressure with more than 60 percent of these areas having high quality farmland with projected high development pressure. Canadarago Lake Headwaters and Unadilla Headwaters are also noteworthy for their levels of development pressure with nearly all of Canadarago Lake and nearly 65 percent of the Unadilla Headwaters experiencing high or low development pressure.

Table 2: Acreage of Threatened Farmland by Conservation Area, 1997

Conservation Area*	Threat Level**	Acres	% of Total
Butternut Valley	High Q, High D	54	0.05%
	High Q, Low D	10,815	10.67%
Canadarago Lake Headwaters	High Q, High D	5,965	27.85%
	High Q, Low D	15,449	72.11%
Cherry Valley	High Q, High D	29,568	60.72%
	High Q, Low D	7,670	15.75%
Elk Creek	High Q, High D	3,397	16.02%
Otsego Lake	High Q, High D	30,425	62.91%
	High Q, Low D	8,217	16.99%
Panther Mountain	High Q, High D	2,208	16.30%
Unadilla River Headwaters	High Q, High D	30,490	28.37%
	High Q, Low D	38,869	36.17%
Upper Susquehanna River	High Q, High D	3,582	7.41%
<i>Conservation Area Total</i>	High Q, High D	105,690	16.28%
	High Q, Low D	81,020	12.48%
Otsego Land Trust Region	High Q, High D	148,416	14.29%
	High Q, Low D	51,659	4.97%

*Charlotte Valley and Upper Otego Creek did not fall within identified areas of development pressure and are not included in the table.

**High Q, High D - High quality farmland with high development pressure.

High Q, Low D - High quality farmland with low development pressure.

Forests in the southern part of the region are threatened by housing development in privately owned forests (see Map 4). Table 3 quantifies the threats to forests by providing acreage of threatened areas by

conservation area. Both the map and the table shows that forests in the southern conservation areas, namely the Butternut Valley, Elk Creek, and Upper Otego Creek, are the most threatened by housing development during the next 20 years. The Butternut Valley is the most threatened, with more than 5 percent of its land projected to be converted from Rural II to Exurban housing densities and another 50 percent converted from Rural I to Rural II. The Cherry Valley, Panther Mountain, and Upper Susquehanna River Headwaters are also experiencing notable development threat with each area projected to experience a conversion of more than 25 percent of private forests from Rural I to Rural II housing densities by 2030.

Table 3: Acreage of Threatened Forests by Conservation Area, 2005

Conservation Area	Threat Level*	Acres	% of Total
Butternut Valley	Rural I to Rural II	50,066	49.33%
	Rural II to Exurban	5,256	5.18%
Canadarago Lake Headwaters	Rural I to Rural II	1,867	8.71%
	Rural II to Exurban	15	0.07%
Charlotte Valley	Rural I to Rural II	1,314	9.15%
	Rural II to Exurban	10	0.07%
Cherry Valley	Rural I to Rural II	12,812	26.31%
	Rural II to Exurban	579	1.19%
Elk Creek	Rural I to Rural II	11,149	52.58%
	Rural II to Exurban	151	0.71%
Otsego Lake	Rural I to Rural II	8,317	17.20%
	Rural II to Exurban	190	0.39%
Panther Mountain	Rural I to Rural II	4,447	32.83%
	Rural II to Exurban	64	0.48%
Unadilla River Headwaters	Rural I to Rural II	16,766	15.60%
	Rural II to Exurban	650	0.60%
Upper Otego Creek	Rural I to Rural II	22,251	42.96%
	Rural II to Exurban	358	0.71%
Upper Susquehanna River	Rural I to Rural II	12,714	26.31%
	Rural II to Exurban	540	1.12%
Otsego Land Trust Region	Rural I to Rural II	303,537	29.22%
	Rural II to Exurban	24,039	2.31%

*Rural I - Land with 16 or fewer housing units per square mile.

Rural II - Land with 17-64 housing units per square mile.

Exurban/urban - Land with 65 or more housing units per square mile.

Conservation Area Resources

Aquatic Resources

Larger conservation areas, such as Butternut Valley, Unadilla River Headwaters, and Canadarago Lake Headwaters, and those with a focus on a particular water resource, namely the Upper Susquehanna River Conservation Area, have a range of aquatic resources. Each of these conservation areas is notable for its identified endangered, threatened, and rare species. Some boast a large concentration of trout

spawning and trout streams, while others have a larger percentages of wetlands when compared with the Otsego Land Trust Region overall.

Two of the smaller, more intimate conservation areas, Elk Creek and Panther Mountain, have the highest concentration of trout streams and the percentage of wetlands respectively when compared with the 10 conservation areas, as well as in the Otsego Land Trust Region in general. About 75 percent of the streams in the Elk Creek watershed are trout spawning streams and the remainders of the watercourses are trout streams. Nearly 9 percent of Panther Mountain is classified as a wetland based on satellite imagery that measured land cover in 2001. This is compared to 2.37 percent in the Otsego Land Trust Region overall.

More detailed aquatic resource data for each conservation area is found in Table 4. Maps of these resources can be found in Maps 5-14.

Terrestrial Resources

One indicator of a resource with high protection value is forest cover type. Using forest type, species richness, or the number of predicted species by land cover type based on the New York State GAP Analysis, can be predicted.⁸ Sugar Maple Mesic forests have the highest predicted number of species of all land cover types. Sugar Maple Mesic forest comprises more than 21 percent of the land in the Butternut Valley, Charlotte Valley, Elk Creek, Upper Otego Creek, Cherry Valley, Upper Susquehanna River Conservation Areas. Two conservation areas, the Butternut and Charlotte Valleys, each have more than 28 percent of their land areas covered by Sugar Maple Mesic forests.

The Cherry Valley Conservation Area has the most diverse terrestrial resources. In addition to a large percentage of Sugar Maple Mesic forest, the conservation area boasts a wide coverage of a variety of threatened birds, a threatened plant, and it lies within the Grassland Focus Area. The Upper Susquehanna River, Otsego Lake and Butternut Valley are also notable for a variety of terrestrial resources.

Table 5 provides more information about the terrestrial resources of each conservation area and Figures 15-24 map these resources.

Agricultural Resources

Mirroring the threats to productive farmland the conservation areas with the most important agricultural resources, including prime agricultural soils, land in active agriculture, and croplands, logically lie in the northern portion of the Otsego Land Trust Region. River valleys throughout the region also sport some of the best agricultural soils. These conservation areas include Canadarago Lake Headwaters, where nearly 77 percent of the land is actively farmed, Otsego Lake with 66.5 percent of the land in agriculture, Unadilla River Headwaters at nearly 57 percent actively farmed, and Cherry Valley where active farms compose 43 percent of its acreage. These areas are also characterized by their prime agricultural soils and amount of croplands, which ranges from 31 percent in Cherry Valley to 52 percent in the Canadarago Lake Headwaters Conservation Area.

⁸ The NYS GAP Analysis used three statewide species databases to compare the predictive vertebrate distributions by land cover, the NYS Museum, the NYSDEC Amphibian and Reptile Atlas, and the NYS Breeding Bird Atlas.

Table 6 provides more detailed statistics related to agricultural resources in each conservation area. Figures 25-34 show agricultural soils by conservation area and Figures 35-44 show parcels in active agriculture, abandoned agricultural parcels, and agricultural districts by conservation area.

Historic Resources

Since this region has been settled and actively farmed since the colonial era, the landscapes of working farms and historic hamlets often remain intact as important cultural landscapes. The Butternut Valley Conservation Area has the highest collection of historic resources, with Cherry Valley, Otsego Lake, and Unadilla River Headwaters following close behind. While a variety of historic resources have been identified in the Otsego Land Trust Region by listing in the National or State Registers of Historic Places, many more resources, including entire landscapes and villages, are on par with those already identified. One such area is the Charlotte Valley which has seen very little modern intrusions over the past century.

See Table 6 for more information about historic resources in each conservation area and Figures x-x for maps of these resources.

Recommendations

Using the Conservation Blueprint, the Otsego Land Trust will develop long term land conservation goals. Based on the identification of the 10 conservation areas and their corresponding resources, the land trust could decide to focus on particular conservation areas based on criteria such as high threat levels, resource variety, or specific resource concentration. Other tactics that the land trust could employ would be focusing on specific resource types, such as agricultural land or trout spawning streams, as well as identifying and focusing on parts of conservation areas that are under the most development pressure.

The Otsego Land Trust will also use the Conservation Blueprint to identify organizations and/or programs with similar land conservation and resource protection goals. These organizations and programs will lead to partnerships, funding, and outreach and education opportunities. Organizations could include local, county, or state governments, as well as various private non-profit groups with matching interests. Programs could include those focusing on the Susquehanna Basin conservation, the Grassland Focus Areas, agricultural preservation, forest protection, and stream restoration/protection.

This Conservation Blueprint should also assist the Otsego Land Trust in reaching its short term goal of protecting 10,000 acres of land by 2010.

Additional Data Needs

To continue and refine the analysis of conservation areas in the Otsego Land Trust Region, the following data sources need to be collected through additional survey work:

1. Biological Inventory
2. Historic Resource Inventory⁹
3. Trails and public access locations
 - a. Identify existing resources

⁹ Note that mapped National Register eligible sites will be available in the future for public use. The NYSHPO did not provide a timeframe for data availability. Also, locations of high archeological probability areas is available on the NYS Historic Preservation Office website at <http://nysparks.state.ny.us/shpo/resources/index.htm>. However, data for organizational use is only available to Native American tribes.

- b. Identify potential trails/routes, such as the former trolley line
- 4. Complete viewshed inventory
- 5. Inventory agricultural infrastructure
- 6. Inventory forestry infrastructure

Table 4: Aquatic Resources by Otsego Land Trust Conservation Area

Otsego Land Trust Region		Aquatic Resources							
Conservation Area	Acres	% Total	Wetland (acres)	Wetland (% Total)	E,T,R species	Significant Natural Community	Trout Spawning Stream	Trout Stream	Public Stream Access
<i>Thresholds</i>	N/A	N/A	N/A	>3%	Yes	Yes	>40%	Trout Spawn >50%	Yes
Butternut Valley	101,380	9.76%	2,299	2.27%	Green, Floater, Hellbender, Longtail Salamander, Yellow Lampmussel	no	~50%	~25%	Yes
Canadatego Headwaters	21,423	2.06%	1,143	5.34%	Pink, Wintergreen, Rain's Head, Lady'slipper, Spreading Globeflower	Yes	~1%	~5%	No
Charlotte Valley	14,357	1.38%	243	1.69%	no	no	~75%	10%	Yes (?)
Cherry Valley	48,699	4.69%	729	1.50%	no	no	0	<50%	No
Elk Creek	21,204	2.04%	376	1.77%	no	no	~75%	~25%	No
Otsego Lake	48,366	4.66%	1,358	2.81%	no	Yes	<1%	~50%	Yes
Panther Mountain	13,545	1.30%	1,211	8.94%	no	no	~40%	~15%	No
Unadilla River	107,456	10.34%	3,621	3.37%	Green, Floater, Northern, Hellbender, Scowthrop's Sedge, Scorpion Feather, Moss, Spotted Cripple, Yellow Lampmussel	Yes (2)	~5%	~50%	Yes
Upper Otsego Creek	51,793	4.99%	1,971	3.81%	no	no	50%	~25%	Yes
Upper Susquehanna River	48,314	4.65%	2,494	5.16%	Green, Floater, Hellbender, Yellow Lampmussel	no	~10%	~25%	Yes
Conservation Area Total	476,537	45.87%	15,445	3.24%		4			
Otsego Land Trust Region Total	1,038,898	100.00%	24,625	2.37%		8 locals/ 12 comm			

Table 5: Terrestrial and Historic Resources by Otsego Land Trust Conservation Area

General Conservation Area	Terrestrial Resources			Threatened Birds Identified throughout CA	Grassland Focus Area	E,T,R Species	Historic Resources/Large Parcels					
	Sugar Maple Mesic (acres)	Sugar Maple Mesic (% Total)	>20%				NR Listed Site or District	Scenic Byway	# 100+ Acre Parcels	Largest Parcel (Acres)		
Conservation Area	Acres	% Total										
Thresholds	N/A	N/A			Yes	Yes	>4	Yes	N/A	>350		
Butternut Valley	101,380	9.76%	29,506	29.11%	no	none	8	no	271	731		
Canadatego Headwaters	Lake	21,423	2.06%	2,074	9.68%	Northern Harrier, Bald Eagle, Upland Sandpiper	2	Yes	126	383		
Charlotte Valley	14,357	1.38%	4,956	28.25%	Northern Harrier	no	2	no	53	163		
Cherry Valley	48,699	4.69%	10,800	22.18%	Bald Eagle, Northern Harrier, Upland Sandpiper	Yes	5	no	185	358		
Elk Creek	21,204	2.04%	5,281	24.91%	Northern Harrier	no	0	no	75	402		
Otsego Lake	48,366	4.66%	6,627	13.70%	Bald Eagle, Least Tern, Northern Harrier, Pied-billed Grebe, Upland Sandpiper	Yes	4	no	208	219		
Panther Mountain	13,545	1.30%	2,377	17.55%	Bald Eagle	no	4	no	42	375		
Unadilla Headwaters	River	107,456	10.34%	13,153	12.24%	Bald Eagle, Least Tern, Northern Harrier, Pied-billed Grebe, Upland Sandpiper	4	no	349	169		
Upper Otsego Creek	51,793	4.99%	17,374	33.57%	Bald Eagle	no	2	no	142	492		
Upper Susquehanna River	48,314	4.65%	16,586	34.34%	Northern Harrier, Bald Eagle, Pied-billed Grebe	no	3	no	155	428		
Conservation Area Total	476,537	45.87%	96,474	20.24%	4		36		1,606			

Table 6: Agricultural Resources by Otsego Land Trust Conservation Area

General		Agricultural Resources							
Conservation Area	Acres	% Total	Cropland (acres)	Cropland (% Total)	Prime Soils	# Active Farms	Acres in Active Ag	Active Ag (% Total)	Ag District
<i>Thresholds</i>	N/A	N/A	N/A	>30%	<i>northern section</i>	N/A	N/A	>40%	N/A
Butternut Valley	101,380	9.76%	23,094	22.78%	river valleys	404	32,328	31.89%	~25%
Canadarago Lake Headwaters	21,423	2.06%	11,221	52.38%	<i>northern section</i>	233	16,485	75.95%	<25%
Charlotte Valley	14,357	1.38%	3,198	22.27%	river valley (west)	18	2,322	16.17%	<25%
Cherry Valley	48,699	4.69%	14,869	30.53%	<i>river valley & northern section</i>	264	20,993	43.11%	50%
Elk Creek	21,204	2.04%	5,963	28.12%	river valley	107	5,416	25.54%	~75%
Otsego Lake	48,366	4.66%	20,673	42.74%	<i>northern section</i>	307	32,165	66.50%	>75%
Panther Mountain	13,545	1.30%	3,556	26.25%	pockets	32	3,128	23.09%	~5%
Unadilla River Headwaters	107,456	10.34%	48,254	44.91%	<i>river valleys & northern section</i>	791	60,996	56.76%	~25%
Upper Otsego Creek	51,793	4.99%	10,530	20.33%	southern	155	11,542	22.28%	<25%
Upper Susquehanna River	48,314	4.65%	10,544	21.82%	river valley	225	15,830	32.76%	~25%
<i>Conservation Area Total</i>	476,537	45.87%	151,901	31.88%		2,536	201,205	42.22%	
Otsego Land Trust Region Total	1,038,898	100.00%	270,485	26.04%				19.37%	

Appendix

Aquatic Resources

- NYSDEC identified wetlands
 - Data Source: NYSDEC Geodata Inventory, Regulatory Freshwater Wetlands - New York State - 2002 <http://www.dec.ny.gov/geodata/ptk>
 - Description: The NYSDEC ranks wetlands according to their ability to perform wetland functions and provide wetland benefits. Class I wetlands have the highest rank, and the ranking descends through Classes II, III and IV" (6 NYCRR Part 664.4).
 - Caveats: All wetland classes are similarly depicted on conservation area maps. The NYSDEC threshold for recording and evaluating wetlands is 12.4 acres. Anything below this size is not recognized by the state. Wetlands sizes and shapes may have changed since these data were created.

- Federal identified wetlands
 - Data Source: U.S. Fish and Wildlife Service Wetlands Geodatabase <http://wetlandsfws.er.usgs.gov/NWI/download.html>
 - Description: The goal of the National Wetlands Inventory is to provide the citizens of the United States and its Trust Territories with current geospatially referenced information on the status, extent, characteristics and functions of wetland, riparian, deepwater and related aquatic habitats in priority areas to promote the understanding and conservation of these resources. For a description of federal wetland classifications refer to the *Classification of Wetlands and Deepwater Habitats of the United States*. http://www.fws.gov/nwi/Pubs/Reports/Class_Manual/class_titlepg.htm.
 - Caveats: In this report, all wetland classifications except for open water are similarly depicted on aquatic resource maps. The U.S. Fish and Wildlife Service does not limit the size of federally designated wetlands. The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis. The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems. Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

- NYSDEC identified trout spawning and trout streams
 - Data Source: NYSDEC Geodata Inventory – Water Quality Classifications (WQC) - NYS (NYSDEC) – Polyline <http://www.dec.ny.gov/geodata/ptk>
 - Description: This data set provides the water quality classifications of New York State's lakes, rivers, streams and ponds, collectively referred to as water bodies. All water bodies in the state are provided a water quality classification based on existing, or expected best usage, of each water body or water body segment. Under New York State's Environmental Conservation Law (ECL), Title 5 of Article 15, certain waters of the state are protected on the basis of their classification. Streams and small water bodies

located in the course of a stream that are designated as C (T) or higher (i.e., C (TS), B, or A) are collectively referred to as "protected streams."

- Caveats: These digital water quality classifications are an unofficial version of the State's water quality classifications. For the official version please refer to Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6NYCRR) Part 800 et seq. (<http://www.dec.ny.gov/regulations/regulations.html>). The water quality classifications have been developed by the Department of Environmental Conservation, Division of Water from the most current sources available. Where there were inconsistencies in the maps the most current representation has been used. These data have not been submitted to the Department of State and they are not official classifications. However, they are largely consistent with the official regulations. Therefore, the public should not make any business decisions and/or financial commitments based on the water quality classification data until they have secured the necessary permissions from the Department of Environmental Conservation.2.

- Rare species point data

- Data Source:

Nicholas

Information

New

New

625

Albany,

(518)

nbconrad@gw.dec.state.ny.us

York

State

Broadway,

Resources

Natural

Department

NY

Heritage

of Environmental

5th

Conrad

Coordinator

Program

Conservation

Floor

12233-4757

402-8944

- Description: Locations of rare plants and animals and significant natural communities. With regards to rare plants and animals, one file shows buffered areas where rare species have been identified and provides a general description of the resource. These data can be made available to the public. The other file shows specific locations and names of the rare species. These data are for internal use only and is not for public use. We signed a data agreement to this effect. The agreement also precludes sharing these data with others.
- Caveats: Not all of the Otsego Land Trust Region (or state) has been systematically inventoried. These data are continually updated. The latest data that Otsego Land Trust obtained are from mid-August 2008.

Terrestrial Resources

- Forest type/species richness

- Data Source: National Land Cover Database 2001, Cornell University Geospatial Information Repository (CUGIR) <http://cugir.mannlib.cornell.edu/index.jsp>
- Description: The National Land Cover Database 2001 was produced through a cooperative project conducted by the Multi-Resolution Land Characteristics (MRLC) Consortium, a partnership of federal agencies (www.mrlc.gov), consisting of the U.S. Geological Survey (USGS), the National Oceanic and Atmospheric Administration (NOAA), the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture (USDA), the U.S. Forest Service (USFS), the National Park Service (NPS), the U.S. Fish and Wildlife Service (FWS), the Bureau of Land Management (BLM) and the USDA Natural Resources Conservation Service (NRCS). One of the primary goals of the project is to generate a current, consistent, seamless, and accurate National Land cover

Database (NLCD) circa 2001 for the United States at medium spatial resolution. This landcover map and all documents pertaining to it are considered "provisional" until a formal accuracy assessment can be conducted. For a detailed definition and discussion on MRLC and the NLCD 2001 products, refer to <<http://www.mrlc.gov/>>. The NLCD 2001 is created by partitioning the U.S. into mapping zones. A total of 66 mapping zones were delineated within the conterminous U.S. based on ecoregion and geographical characteristics, edge matching features and the size requirement of Landsat mosaics. Zone 13 (the northeastern U.S.) consists of mapping zones 60, 61, 63, 64, 65, and 66, which collectively encompasses the entirety of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, and Maryland, as well as portions of Pennsylvania, West Virginia, Virginia, and North Carolina.

- Caveats: The land use/land cover determinations are based on satellite imagery from 2001. Therefore, land uses and covers may have changed and data may be interpreted incorrectly.

- Bird Breeding Atlas data

- Data Source:

Katherine				Barnes
cartographic			technician	3
Habitat			Inventory	Unit
NYS	Dept.	of	Environmental	Conservation
625				Broadway
Albany,			NY	12233-4754
kfbarnes@gw.dec.state.ny.us				
Phone:				518-402-8940
FAX: 518-402-8925				

- Description: Spatial data are represented in a single map for each species found breeding in NYS and depicts the range of species identified by Bird Breeding Block for 2000-05. Bird breeding survey blocks are 5x5 km (3x3 mile) areas used during the survey. All data was collected during the 2nd Breeding Bird Atlas Survey from 2000-2005. For more information see the NYSDEC Breeding Bird Atlas website, <http://www.dec.ny.gov/animals/7312.html>.
- Caveats: Breeding bird data was collected by volunteers interested in ornithology and over a five year period. Therefore, some data may be incorrect based on observer skill or habitat changes during the last 3 to 8 years.

- Grassland Focus Area

- Data Source: : NYSDEC Geodata Inventory <http://www.dec.ny.gov/geodata/ptk>
- Description: GIS shapefile of Grassland Focus Area 4. Grasslands are one of the most important and imperiled habitats across our state. These dynamic habitats are home to a significant community of bird species, including the endangered Short-eared Owl and the threatened Henslow's Sparrow and Upland Sandpiper, contributing significantly to the biodiversity of our state. Due to changing land-use patterns, natural vegetative succession, and development, grasslands are fragmenting and disappearing. Habitat loss and degradation have resulted in sharp declines in grassland bird populations in New York since 1966, according to the 2nd New York State Breeding Bird Atlas (BBS) survey data. Affected species (with percent annual change) include Henslow's Sparrow (-14.7 %), Grasshopper Sparrow (-9.0 %), Vesper Sparrow (-8.5 %), Upland Sandpiper (-6.3 %),

Horned Lark (-5.1 %), Eastern Meadowlark (- 5.0 %), Savannah Sparrow (-2.4 %), Northern Harrier (-2.5 %), and Bobolink (-0.3 %). The net result has been an astounding 80-99 % decline in abundance of each species in just four decades. These species, especially Henslow's Sparrow, Upland Sandpiper, Grasshopper Sparrow, Short-eared Owl and Eastern Meadowlark are area-dependent species, meaning that they need large unbroken expanses of grasslands to thrive and reproduce. How much grassland habitat do these species need? The answer to this question is unclear and appears to depend on several other factors such as location, shape, surrounding habitats, and vegetative composition. However, as a general rule, grasslands need to be at least ten acres in size to offer appropriate habitat for at-risk grassland birds in New York. Text from and for more information see the NYSDEC LIP Grassland Protection Project website, <http://www.dec.ny.gov/pubs/32891.html>. Also refer to "A Plan for Conserving Grassland Birds in New York: Final Report to the New York State Department of Environmental Conservation under contract #C005137."

- Caveats: This artificial boundary should be used to identify lands that qualify for habitat protection programs and not to identify the location of grassland birds and their habitat.

Agricultural Resources

- Prime agricultural soils
 - Data Source: USDA Natural Resources Conservation Service Soil Data Mart <http://soildatamart.nrcs.usda.gov/>
 - Description: Data spatially represent prime agricultural soils, agricultural soils of statewide significance and prime agricultural soils if drained. This data set is a digital soil survey and generally is the most detailed level of soil geographic data developed by the National Cooperative Soil Survey. The information was prepared by digitizing maps, by compiling information onto a planimetric correct base and digitizing, or by revising digitized maps using remotely sensed and other information. The data have been field verified.
 - Caveats: Photographic or digital enlargement of these maps to scales greater than at which they were originally mapped can cause misinterpretation of the data. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale. The depicted soil boundaries, interpretations, and analysis derived from them do not eliminate the need for onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, these data and their interpretations are intended for planning purposes only. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.

- Active and abandoned agricultural lands
 - Data Source:
 - Otsego County
 - Bennett Sandler
 - Herkimer County
 - Chuck
Herkimer County I.S. Vivacqua,
315-867-1218 Director
cvivacqua@herkimercounty.org
 - Delaware County
 - Stephen McGrail

GIS Technician
Delaware County Real Property Tax Service Agency
111 Main Street
Delhi, NY 18753
(607) 746-3747

▪ Oneida County

- Jeff Quackenbush
GIS Coordinator
Herkimer Oneida Counties Comprehensive Planning Program
Boehlert Center @ Union Station
321 Main Street - Third Floor
Utica, NY 13501
- phone: 315-798-5710
- fax: 315-798-5852
- email: jquackenbush@ocgov.net

▪ Madison County

- Jim Petreszyn, Associate Planner
Madison County Planning Department
County Office Building
PO Box 606
Wampsville, NY 13163
Phone: 315.366.2620
Fax: 315.366.2742
jim_petreszyn@co.madison.ny.us
Find business card

▪ Chenango County

- Steven Graham
Sr. Tax Map Technician
Chenango County
Real Property Tax Services
5 Court Street
Norwich, New York 13815
Email: steveng@co.chenango.ny.us
Phone: (607) 337-1494

▪ Schoharie County

- Marjorie Troidl, Director
Schoharie County Real Property Tax
PO Box 308
Schoharie, NY 12157
518-295-8349
troidlm@co.schoharie.ny.us

- Description: In general, these GIS parcel data provide name, address, location, acreage, property class code (sometimes description), and more for each parcel.
- Caveats: Active and abandoned farm data were based on assessors assignment of property class codes and may be incorrect or inconsistent since human judgment was

involved. Codes 100-190 represent active agricultural uses and code 321 represents abandoned agricultural land. See <http://www.orps.state.ny.us/assessor/manuals/vol6/ref/prclas.htm#AGRICULTURAL> for more description of agricultural property class codes.

We do not have parcel data for any of Chenango County. The tax mapping department does not have a resolution to provide data for free to non-profit organizations like the other counties in the Otsego Land Trust Region. If the land trust wants to obtain this data, it costs \$250 and a signed and notarized agreement is required. The southernmost portion of the Butternut Conservation Area is in Chenango County. We also do not have data for the Town of Litchfield in Herkimer County. The contact/county is a little behind technologically. If you want this data set, I suggest contacting Jeff Quackenbush instead. He was very nice and helpful.

- Agricultural districts
 - Data Source: Cornell University Geospatial Information Repository (CUGIR) <http://cugir.mannlib.cornell.edu/index.jsp>
 - Description: These GIS files represent geographic boundaries for lands that are under the protection of NYS Agricultural District Law, administered by the New York State Department of Agriculture and Markets. The boundaries are derived from New York State Agricultural District, 1:24,000-scale, maps produced at county agencies. The district boundaries correspond to tax parcel data. District boundaries are joined into a file representing all of the Agricultural Districts within an entire county. Note that 2003 legislation allows lands to be added to districts on an annual basis. Tax parcel detail and secondary rights-of-way are not included in this dataset. Rights-of-way for state and federal highways, railroads and utilities are only included when they are delineated on the original 1:24,000 scale maps. The data files are in ArcGIS shapefile format.
 - Caveats: Electronic data provided here created or last updated in 2006.

Miscellaneous

- Sites listed in the National Register of Historic Places
 - Data Source: New York State Historic Preservation Office <http://nysparks.state.ny.us/shpo/index.htm>, contact for updated GIS shapefile
Michael P. Schifferli
Historic Preservation Program Analyst
New York State Office of Parks,
Recreation & Historic Preservation
PO Box 189
Waterford, NY 12188-0189
Tel:518-237-8643 x.3281
Fax: 518-233-9049
Michael.Schifferli@oprhp.state.ny.us
 - Description: Data represent sites listed in the State or National Register of Historic Places.
 - Caveats: The last time that this data were obtained was the winter of 2007-2008. This data are continually updated and additional sites may have been listed and added to the shapefile. Sites determined *eligible for* listing in the National Register of Historic Places

are currently not available as GIS shapefiles. According to the NYSHPO, these data should be available in the future, but they don't know when.

- State or county protected lands
 - Data Source: DEC Lands – NYS, NYSDEC Geodata Inventory <http://www.dec.ny.gov/geodata/ptk> and GIS parcel data
 - Description: DEC Lands -GIS parcel data showing Lands under the care, custody and control of DEC, including Wildlife Management areas, Unique Areas, State Forests, and Forest Preserve. For Otsego County, these data include DEC lands data as well as parcels owned by the state or county and with a property class code and description denoting forested land or open space. Additional information regarding property class codes can be found in the Office of Real Property Services manual, *Property Type Classification and Ownership Codes*, online at http://www.orps.state.ny.us/assessor/manuals/vol6/rfv/pdf_files/rfv_propclasscodes.pdf
 - Caveats: DEC Lands - This dataset is a work in progress. Information on state owned recreation land boundaries is available from a number of sources that do not necessarily agree. Reconciliation of boundary discrepancies is underway, but the process is slow. The Division of Lands and Forests would appreciate reliable information on boundary corrections. For counties in the Otsego Land Trust Region other than Otsego, only data downloaded from the NYSDEC Geodata Inventory are used.
- Otsego Land Trust protected parcels
 - Data Source: Otsego Land Trust
 - Description: GIS shapefile of parcels with Otsego Land Trust easements.
 - Caveats: Should be updated periodically to show latest easements.
- Parcels of 100 acres or larger
 - Data Source: see Active and Abandoned Agricultural Lands for contact info by county
 - Description: All parcels that are 100 or more acres.
 - Caveats: Includes state and county protected land. Includes parcels that are intersected by the conservation area boundary as well as those totally within the boundary. Do not have parcel data for Chenango County (Butternut Valley) or the Town of Litchfield, Herkimer County (Unadilla River Headwaters). See Active and Abandoned Agricultural Lands for more details on obtaining this data.

Threatened Areas

- Farming on the Edge
 - Data Source: American Farmland Trust, *Farming on the Edge Report* <http://www.farmland.org/resources/fote/states/default.asp> (report only)
Contact American Farmland Trust for GIS data
 - Description: These data portray development threats to high quality farmland based on two thresholds: prime quality or unique farmland and high rates of development between 1992 and 1997. Both thresholds are relative to statewide mapping unit averages.
 - High-quality farmland areas have relatively large amounts of prime or unique farmland. AFT defined high-quality farmland by combining the USDA's "prime farmland" designation (land most suitable for producing food, feed, forage, fiber

and oilseed crops) with the AFT's unique farmland definition (land used to grow vegetables, grapes and horticultural crops, including fruits, nuts and berries, that have unique soil and climatic requirements.)

- High-development areas have experienced relatively rapid loss of high-quality farmland to development. Development is defined as the change in urban built-up land occurring within each of the 33,000 nationwide mapping units between 1992 and 1997.
- Other areas do not meet the two threshold tests.

Because farmland conversion is taking place in every state, the map identifies high-quality farmland that is important relative to statistical benchmarks established for each state. The spatial data identify where conversion was most intense within each given state.

To do this, AFT used two threshold tests:

- High-quality farmland included mapping units that in 1997 had greater than their statewide mapping unit averages of prime or unique farmland; and
- High development included mapping units that experienced a rate of development greater than their statewide mapping unit average, providing it had at least 1,000 acres developed between 1992 and 1997.

Mapping units shaded in light red exceeded the average amount of high quality farmland found in mapping units within their state, but they experienced a lower rate of development than the average mapping unit in their state or had less than 1,000 acres of development. The dark red areas on the map signal rapid development and a higher threat to high quality farmland.

- Caveats: Spatial data created in 2002 using changes from 1992 to 1997. This data are now more than 10 years old. Interpretation of the data should include the caveat that high-quality farmland areas are relative to their state benchmarks. <http://www.farmland.org/resources/fote/about/history.asp>.

- Forests on the Edge

- Data Source: U.S. Forest Service, Forests on the Edge: http://www.fs.fed.us/openspace/fote/national_forests_on_the_edge.html (report only) Contact U.S. Forest Service for GIS data
- Description: This information is from a national study and is best used for general planning purposes. The report (and data) focuses on lands around national forests; however, it has useful information on other regions and the potential conversion of private forestlands. Housing density projections in this study focus on increased housing densities on lands that are currently rural. The projections are based on past and current housing density and population statistics, road density data, past growth patterns, and proximity to urban areas. Housing density projections are based on 2000 population estimates and the projected population for 2030. In 2000, the national population was estimated at 276 million persons and the forecasted to reach 385 million persons by 2030. Across the nation approximately 1.4 billion acres of all lands are privately owned. Of these lands, some 153 million acres (about 10%) are projected to experience increased housing density in Rural I and Rural II areas.

- Caveats: Data should be used at a regional or gross scale, not at the parcel level. Data was generated in 2005 using population data from 2000. The national level figures for all private land may under or overstate the situation for specific rural areas where housing development could be more or less intense.

Appendix C

Otsego County Soil & Water Conservation District (OCSWCD) Letter



**“Hold Your Ground!!!”
Support your local
SWCD!**



Otsego County Soil & Water Conservation District

967 CO HWY 33 – RIVER ROAD – COOPERSTOWN, NEW YORK 13326-9222 – PHONE (607) 547-8337 ext. 4

To whom it may concern:

The Otsego County Soil & Water Conservation District (OCSWCD) has reviewed relevant land uses and natural resources that will be impacted by the expansion of a proposed “Edic to Fraser” utility line that would establish a 105 foot wide right-of-way adjacent to the existing “Marcy-South” utility line.

The OCSWCD in collaboration with the Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) utilized geographic information systems (GIS) to determine right-of-way land surface area that would impact state wetland, federal wetland, highly erodible-classified land, hydric soils, and land used for agricultural purposes within Otsego County. NRCS and FSA conservation easements were also reviewed for potential impact. The result of these analyses is listed below.

Natural resource	Land surface area affected
State wetland	11.3 acres
Federal wetland	10.1 acres
Highly erodible land	324.2 acres
Hydric soil	19.8 acres
FSA conservation easement	1 easement
NRCS conservation easement	5 easements
Agricultural land	83.1 acres



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Otsego County Soil & Water Conservation District

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The Otsego County SWCD strongly encourages contractors to be aware of the surrounding environmentally sensitive areas. Any and all disturbed areas should be mulched and seeded as soon as possible, especially areas that are considered karst topography. Doing so will dramatically decrease movement of sediment off of the worksite.

If surrounding wetlands and/or hydric soils have to be disturbed during construction all and any steps that will aid in minimizing disturbance should be implemented. Any and all spill preventive measures should be in place to minimize the potential hazardous spill (ex. hydraulic fluid, diesel fluid) that could occur during this project. Both state and federal agencies should be contacted and consulted to achieve the goals of minimizing the unnecessary impacts.

All Highly Erodible Lands that have potential of being disturbed should have all erosion prevention practices in place prior to land disturbances in accordance with their sediment and erosion control plan.

All steps should be taken to either avoid or minimize disturbance of any federal/state/local conservation easements or lands enrolled in conservation programs. These lands were put into contract because they are valued as environmentally sensitive areas with importance to water quality and wildlife.

Agricultural land that has potential of being disturbed during construction should be seeded down and mulched and brought back into production. Agricultural lands are important to the landowners for either crop production or grazing purposes. Interference and or effects from construction should be marginalized as much as possible to greatly lower the potential of negative effects.

Best Regards,

Jordan Clements
District Manager

Appendix D

OCCA Visual Resources Report

Exhibit 5A: Site Visit—Impacts to the Holbrook Farm

**Prepared by:
Danny Lapin
Environmental Planner (OCCA)**

3/16/2015 Site Visit—Holbrook Farm in the Town of Otego



Image One: Taken on the northern edge of the Holbrook property facing west in the Town of Otego. Comparable with KOP Photo #3.



Approx. 80 ft. away from Marcy South ROW.

Image Two: Taken on the northern edge of the Holbrook property facing south in the Town of Otego. The arrow indicates the amount of vegetative clearing that is expected to occur in this particular area and the potential visual impacts from this viewpoint.

3/16/2015 Site Visit—Holbrook Farm in the Town of Otego

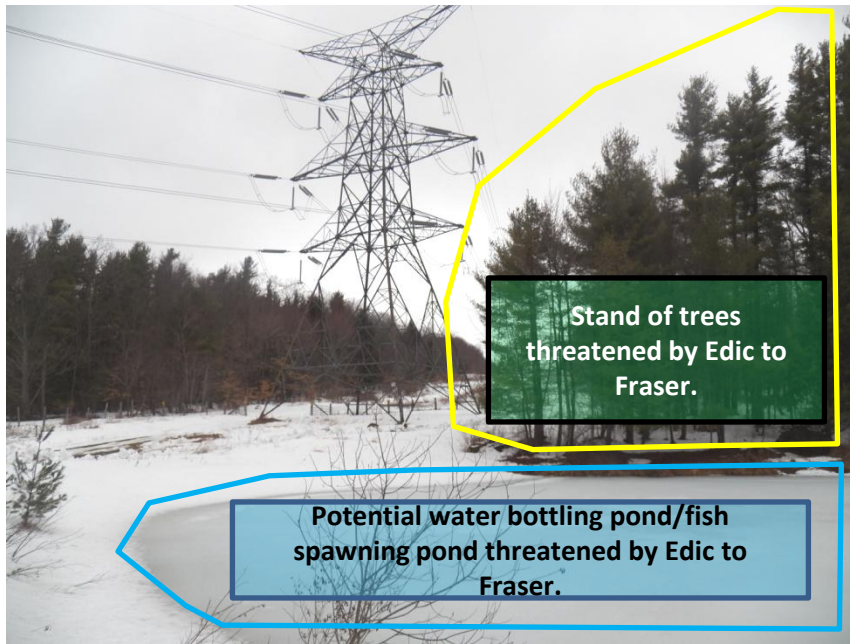


Image Three: Taken on the northern side of the Holbrook property in the Town of Otego. This photo indicates visual impacts of Edic to Fraser, impacts to forest resources and impacts to fish spawning/drinking water areas.

Image Four: Taken on the northern side of the Holbrook property facing east. The photo shows visual impacts to views from the top of Baker Hill Road, impacts to topsoil loss and impacts to working ag land.

3/16/2015 Site Visit—Holbrook Farm in
the Town of Otego



Image Five: Taken on the northern edge of the Holbrook property facing south in the Town of Otego. Comparable with KOP Photo #3.

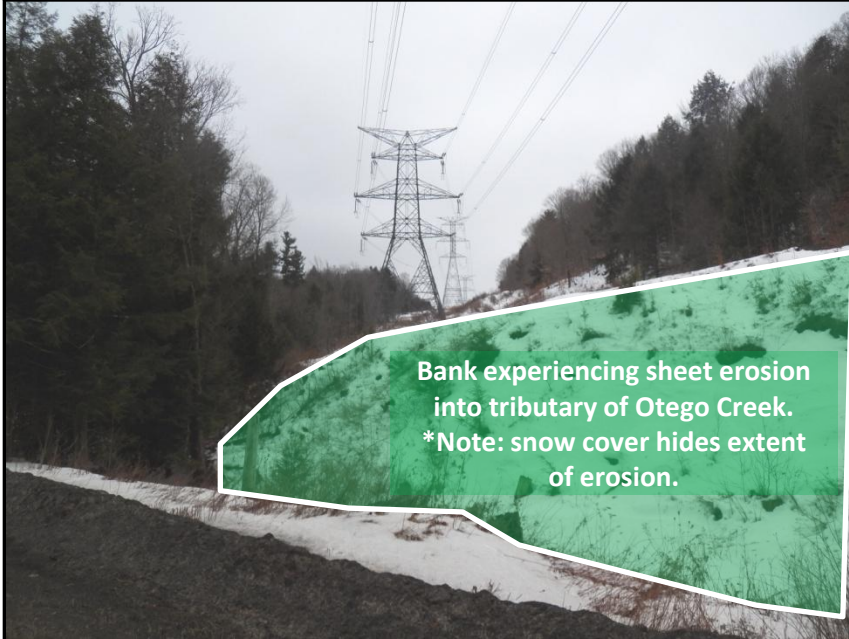


Image Six: Taken at the southern edge of the Holbrook property facing east in the Town of Otego. This photo illustrates visual impacts to Holbrook's pasture lands as a result of Marcy South and shows a heavily eroded bank that is impacting a tributary of the Otego Creek.

Exhibit 5B: Site Visit—Visual
Resource Impacts from
Millers Mills Site Visit

Prepared by:
Danny Lapin
Environmental Planner (OCCA)

3/27/2015 Site Visit—Hamlet of Millers Mills and Town of Richfield



Image One: Taken from Huxtable Road in the historic hamlet of Millers Mills facing west. Comparable with KOP Photo #2.



Image Two: Taken from Richfield Hill Road in the Town of Richfield facing north. Comparable with KOP Photo #2.

3/27/2015 Site Visit—Hamlet of Millers Mills and Town of Richfield



Image Three: Taken from Huxtable Road in the historic hamlet of Millers Mills facing east. Comparable with KOP Photo #2.



Image Four: Taken from Millers Mills Road in the Hamlet of Millers Mills facing south. Comparable with KOP Photo #2.

Appendix E

Comments on Cultural Resources of Otsego County

J Ravage – Preservation Consultant

Comments on Draft Supplemental Generic Environmental Impact Statement

Submitted to New York State Department of Conservation for review period ending 11 January 2012

15 December 2011

Jessie Ravage, Preservation Consultant (36 CFR certified)

34 Delaware Street, Cooperstown, New York 13326

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Professional Qualifications

I have lived in Otsego County for twenty-two years and have researched and conducted historic resource surveys and National Register of Historic Places (NR) nominations on a consultancy basis for nineteen years. In my home county, these projects include historic resource surveys in the Village of Milford and the towns of Cherry Valley, Hartwick, Otsego, Roseboom, and Springfield, as well as National Register nominations for listed historic districts in the mill hamlets of Roseboom and Fly Creek and the Main Street district in the City of Oneonta. Moreover, I prepared the Lindesay Patent (9,200 acres) NR nomination in the western portion of Cherry Valley and the Glimmerglass Historic District nomination (15,000 acres) taking in the viewshed of Otsego Lake. A third large district nomination for the 17,000-acre Waggoner Patent in Springfield is determined eligible.

In Schoharie County, I completed a reconnaissance-level historic resources survey in the Town of Sharon in 2004 and prepared HABS-HAER documentation for the former Junction Road bridge in Esperance. I have also surveyed in eastern Chenango and Madison counties, mainly in the Chenango and Unadilla valleys, and in most towns in northern Delaware County. For nearly five years, I performed architectural review in compliance with Section 106 of the National Preservation Act of 1966 and Section 14.09 of the New York State Historic Preservation Act of 1980 for proposed NYS Department of Transportation projects, mainly in Regions 3 and 9, but also in Regions 4 and 6.

This work area—encompassing much of the Allegheny Plateau east of Syracuse and parts of the Southern Tier—retains extensive tracts of historic landscape representative of its settlement and development as an agricultural region by Euro-Americans from the mid-1700s through ca.1960 (roughly the required 50-year anniversary for listing in the National and State Registers of Historic Places). The proposed allowable density of drilling sites scattered over this area's rural landscape will compromise the historic integrity—embodied in the National Register's aspects of integrity of location, design, setting, materials, workmanship, feeling, and association—of these tracts. This integrity is expressed in a consistently high degree spanning thousands of square miles throughout this region. The potential impacts of hydraulic fracturing would similarly affect historic resort development, which occurs on a smaller scale around the area's lakes and extending westward beyond Rochester.

The chapters of the revised draft Supplemental Generic Environmental Impact Statement (rdSGEIS) addressing visual and environmental impacts and the mitigation of potential impacts should address this important aspect of the region's historic community character, but it falls woefully short in providing meaningful detail. The following comments suggest ways required under federal and state law to do so.

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Comments on Chapter 2: “Visual Resources”

Chapter 2 of the rdSGEIS discusses visual resources located in the region where drilling for natural gas is proposed. The statement mentions the region’s community character, or sense of place (2.4.15), and its transportation network (2.4.14) among these resources and states that its community character may be altered by drilling and drilling-related actions. The statement fails, however, to delineate the cultural components that comprise a sense of place or to acknowledge the potential lacunae in the process by which such components are identified and determined eligible for listing in the State and National Registers of Historic Places. This results in a failure to convey the scope of potentially National Register-eligible (NRE) cultural resources that might be affected by the proposed drilling for natural gas. Neither does the statement adequately recognize the current and potential economic importance derived from that sense of place.

The potential visual impact of activities related to and including hydraulic fracturing on cultural resources that define the region’s community character is not merely aesthetic. These resources are evidence of long standing uses of this landscape by people who live and work here. Agriculture on small holdings, light industry, and tourism are all parts of this economy. These activities have developed in scale with this landscape, and the landscape accommodates their scale. These cultural resources function both as emblems and tools of the region’s economy. Development on a radically different scale will not only be visually intrusive; it will also alter for many years to come, possibly forever, the potential economic benefits of the region’s intact cultural landscapes.

Delineating community character or sense of place

Community character is often sensed in a subjective way, but it may also be delineated and evaluated objectively in landscapes where human activity is clearly evident *via* cultural geography. This study of the relationships between humans and their environments explores the cultural meanings of human-made features as responses to a natural setting. Features include a region’s spatial plan or plans, circulation features, vegetation patterns, and buildings. All may carry potential cultural meanings—the multiple embodiments generating a sense of place.

The methodology used to prepare nominations to the State and National Registers of Historic Places provides a consistent set of criteria and themes to identify and document components contributing to community character, or sense of place. The district nomination format and the multiple property documentation form (MPDF)—which identifies unifying themes of significance applicable to physically discontinuous resources to be listed individually or in districts—provide structures for developing context statements delineating the components of community character and their cultural meanings. In rural areas where vernacular agricultural activity predominates, where sense of place is best understood when individual properties are considered as components of a larger historic landscape extending over many hundreds of acres, the criteria and themes discussed in a context statement can be especially useful tools.

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In the area of the Allegheny Plateau roughly bounded by the Schoharie and Charlotte creeks, the Mohawk Valley's southern escarpment, and the Susquehanna and Chenango rivers, human-made resources are chiefly related to the settlement and the longtime development and use of this region as farmland from the 1780s through the post-Civil War era. Where the land remains open, the spatial organization established during the first eighty years of settlement and cultivation is evident in property lines marked by vegetation, stone fences, and roads. Numerous contiguous historic farm properties are bounded by these visible property divisions, which follow the earliest plats surveyed by patent holders and land speculators. As a group, these properties form a sweeping patchwork of individual farms, each with open land, fields, meadows, pastures, and woodlots.

Many individual farms retain a cluster of buildings representative of this period of significance. These clusters usually include a farmhouse, most often a vernacular example with details illustrating stylistic tastes popular in the nineteenth century, and a group of outbuildings built and reused for the various agricultural endeavors of the region's farmers throughout the period of significance. Their degree of historic significance as understood using National Register criteria is enhanced by their placements and plans over broad stretches of rural landscape at densities matching historic development.

The glaciation history of the Allegheny Plateau region provided landscapes well-watered not only for agricultural endeavor: this geology also gave rise to lakes flooding its long U-shaped valleys and small cirques. These sheets of water attracted American summer holiday makers by the mid-1800s. Resort tourism in the nation's youth was founded in great part by recently minted city dwellers, who wanted to return to rural places in the warm months. Led by prominent tastemakers and trendsetters of the pre-Civil War era, they identified the highly intact rural land surrounding the region's bodies of water as the settings of a collective agrarian past. By the late 1800s, simply agricultural locales also claimed summer clientele, and they continue to do so especially in the Catskill Mountains and southern Chenango County adjacent to the I-88 corridor. Much of the county retains the rural mien that drew people then, and far more of the region than has been assessed for its historic integrity would, if evaluated, be found to retain high levels of historic integrity representative of its settlement and agricultural development in the 1800s.

Importance of transportation network to community character

Historic circulation patterns are often overlooked as a significant cultural component integral to vernacular rural landscapes. The rdSGEIS notes that local roads, as defined by federal criteria, comprise 65% of the mileage of the area covered by the statement. These thoroughfares include early town highways, historic state roads predating private turnpike charters, turnpikes chartered in the early 1800s, and both county and New York State highways designated in the early 1900s. Designed and used as local roads for local traffic, they are also the vantage point from which most of us view our landscape. These routes continue to connect scattered historic farm properties with the hamlets and villages located chiefly along the main valley routes in much the same way as they

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did two centuries ago. Their width, grade, and surface—adjusted in the early 1900s—match the demands of a rural population traveling mainly in fairly light vehicles, trucks moving agricultural products, and relatively small-scale agricultural machinery appropriate for working small holdings. Not only do these highways and byways comprise an important part of how the region is experienced as one moves through it, but they are also the artifacts of how we designed access to our landscape. As such, they retain cultural meaning.

The region's roads illustrate at least two main patterns of historic road development. One tendency, brought from earlier settlements, conforms to the topography. In the glacially carved landscape overlying the Marcellus and Utica shales, this tendency includes two main road types. The generally older type follows the land's contours; the other type, usually later, overlies the land with comparatively little regard for topography. Both types remain mostly two-lane highways with little or no shoulder.

The earlier pattern is characterized by valley roads winding along the contours of the first benches formed above gently flowing creeks and rivers. These roads are connected across the ridges by steep, winding roads, paralleling swift watercourses cutting narrow clefts, or gulphs. The valley routes often have short sight lines with few places safe for passing. The connector roads were built using the traditional cut-and-fill method, where the roadway was cut as narrowly as possible from the side of the cleft and the fill removed was used to buttress the roadway from below. Many of these "cross" roads, especially those on the west faces of the ridges, remain unpaved and cannot be reliably maintained in winter.

The later tendency to build straight roads following the ranges of a rectilinear plat was pioneered in central New York State during the early republic. It moved west with settlement on land surveyed entirely in squares using a variety of plat plans, which were eventually distilled into the Public Land Survey System employed by the federal government west of central Ohio. These straight highways cross fairly level uplands and also climb and descend the glacial ridges, often with little regard for grade. Built to connect scattered farmsteads, many of these roads in New York State are no wider than those of the earlier tendency.

In addition to this, the entire Allegheny Plateau—described historically as a well-watered region—is criss-crossed by numerous small streams, and all of its highways have many small culverts and bridges designed for fairly light weight traffic. Their small scale adds to community character and serves to calm traffic. A majority cannot carry vehicles with gross vehicle weights calculated in hundreds of tons.

Counting NRE cultural resources contributing to community character

The rdSGEIS addresses several thousand square miles of land in New York State. The very small number of NR-listed and NRE cultural resources noted in the statement shows *not* that few places there are NRE, but that the kind of survey and evaluation required using NR criteria has been

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carried out in very few locales. Moreover, the statement is misleading because it counts NR-listed and NRE individual properties and districts encompassing numerous resources as *single* resources. In actual fact, thousands of properties are listed in Otsego County alone; thousands more are located in *identified* eligible districts. And, an even larger number would surely be identified using the NR criteria if such work were undertaken, not only in Otsego County, but throughout the state in regions overlying the Marcellus and Utica shales.

Identifying and evaluating potentially NRE rural vernacular landscapes using the NR criteria is time-consuming and can be relatively costly. In Otsego County, three large landscape NRE districts have been documented in the past two decades. These include the 9,200-acre Lindesay Patent in the Towns of Cherry Valley and Roseboom (listed 1993) encompassing more than 700 properties, and the 17,000-acre Waggoner Patent in the Town of Springfield (nomination pending) including roughly 75 historic farmsteads and additional hamlet properties in Springfield Center and East Springfield. The 15,000-acre Glimmerglass NRHD surrounding Otsego Lake incorporates the resort development on its shores as well as its larger visual setting, codified in views created in the nineteenth century. Throughout the region, several more such districts surely could be documented, determined NRE, and subsequently listed if the financial resources were available.

The majority of National Register of Historic Places nominations are sponsored by local people—individuals, preservation and historical organizations, and municipalities—as part of the community planning process. Typically and traditionally, individual properties and small districts centered on hamlets and villages are identified and listed. Otsego County, as an example, encompasses nine historic villages and many more unincorporated hamlets. Part or all of the villages of Cherry Valley, Cooperstown, Gilbertsville, Milford, Richfield Springs, and Unadilla are listed on the National Register. Similarly, the hamlets of Fly Creek, Middlefield, Roseboom, and South Worcester are at least partially listed. Parts of the villages of Milford and Morris and hamlets in Hartwick have been determined NRE.

Such centers punctuate the county's landscape, providing local services at generally regular intervals, usually at road and stream crossings, in long-lasting historic patterns. The placements and buildings of these densely settled locales can often tell us why different hamlets grew up: mill seats on streams; turnpike or railroad intersections with local highways; commerce and services like blacksmiths and wagonmakers; civil and religious centers. Many of these centers expanded throughout the nineteenth century, with small, densely packed house lots along narrow streets carved from land immediately surrounding the center. These characteristics set these communities off from the surrounding open land. At the same time, their historic scale, appearance, and functions set them visually within the larger rural vernacular landscape and illustrate their roles in the context of the larger landscape.

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The documentation methodology for such densely settled locales is established and comparatively simple to execute. Hamlet and village nominations take less time to carry out and are generally easily understood in comparison to landscape nominations encompassing sizable tracts of land within their boundaries. Architectural historians comfortably evaluate and convey the significance of historic building styles. They often find it more difficult to delineate function and establish the historic significance of the broader vernacular rural setting, even though villages and hamlets located in rural areas—where vernacular architecture and agricultural land use predominate—are most often component parts of much bigger and intact cultural landscapes. Thus, many such centers are more fully understood in this broader landscape context.

The lack of consistent survey documentation and NR listings encompassing vernacular rural landscapes does *not* indicate a lack of such cultural resources in many areas considered in the rdSGEIS. Rather, it indicates that so far, planning efforts in many communities—even where comprehensive plans identify “community character” and “sense of place” as characteristics they wish to preserve and enhance—have not yet undertaken such review. Many residents grasp intuitively that their communities retain a sense of place, but they remain unaware of the mechanisms embodied within historic preservation legislation and associated requirements and documentation structure designed to delineate and document the components of a sense of place found by many people to be ineffable.

Eligibilities may also be determined in advance of projects funded by federal or state monies and projects requiring a state or federal permit. This type of review is generally carried out under contract by non-local firms. Those firms may or may not be attuned to local patterns of vernacular cultural landscape development and might not investigate deeply into local history. In areas where there are few high-style buildings, this can lead to reviews where locally significant cultural resources are overlooked, or worse, ignored as “commonplace.” This occurs even though the eligibility of the largest number of resources determined NRE and/or listed in the State and National Registers in New York State are based on Criterion C. This criterion encompasses resources that “embody distinctive characteristics of type, period, or method of construction” and those that “represent a significant and distinguishable entity whose components may lack individual distinction.” In other words, these cultural resources are significant and NRE in the aggregate, even if not individually eligible. If reviewers fail to evaluate resources in the aggregate, their documentation in rural regions characterized by farms and small holdings will fail to see resources meeting the requirements of Criterion C. These resources, the building blocks of rural vernacular cultural landscapes, may well be overlooked even though they are protected by the dual layers of the state and federal preservation acts.

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Comments on Chapter 6: “Environmental Impacts”

Chapter 6 describes potential environmental impacts of well pad construction, drilling, hydraulic fracturing, natural gas production and distribution, and reclamation after wells cease operation. Impacts detailed that seem most pertinent to the region’s cultural resources and community character include visual (6.9), transportation (6.11), community character (6.12), and possibly seismicity (6.13).

Visual Impacts

The rdSGEIS notes that new well sites and support facilities will generate new landscape features potentially “incompatible with existing visual settings and land uses.” The development, fracking, re-fracking, and servicing of well sites will all produce features out of scale with the surrounding landscape, as illustrated photographically in the statement. The addition of numerous access roads and construction of well pads will add features that will remain throughout the life—as much as 30 years or more than a generation of human existence—of wells dug singly and in groups. Over this period, these will assume the status of permanent fixtures and will eclipse the potential for locally based economic enterprises. By the time they are finally closed and “reclaimed” under the guidelines of the rdSGEIS, locations within the cultural landscapes where wells existed will have lost continuity with their historic sense of place.

Impacts on Transportation Network, a Defining Component of Community Character

The impact of drilling-related activity will be very great on the region’s historically significant transportation system. The primary function of this network over much of the region is to connect outlying areas with small service centers. The scale of these routes matches the historic and current uses of the landscape, and they are defining cultural features.

In rural areas, the impacts will be primarily in the breaking up of swathes of landscape and punctuating them with structures out of scale with historic development. Well pads of several acres differ fundamentally in scale and appearance even from the largest scale dairy farms found in the region. Numerous new access roads will more closely mimic patterns of subdivision not generally used here.

In village and hamlet centers, the existing transportation network doubles as those centers’ main streets. Main streets are lined by densely packed historic commercial buildings and dwellings, many with limited frontages. Curbs, sidewalks, street trees, and parking areas provide the essential pedestrian scale of these historic downtowns. In these densely settled locales, a program of road widening and straightening and the replacement of historic-scale crossings to accommodate the weight of numerous large vehicles, will destroy the accommodations that make historic downtowns inviting and help them retain economic vitality. A bypass system will strangle such centers forever.

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Seismicity

While Chapter 6 does discuss seismic impacts, it fails to address the seismic impact of the literal shaking of the buildings located in the region's historic downtowns, where people most easily perceive community character. Even though this shaking may be intermittent, its impact should be accounted for when calculating the impact of truck traffic on the historic built environment. As yet, not even seismic impacts near to well sites concentrated in lightly settled areas appear to be fully understood. Might these also have an impact on cultural resources located over the broader landscape?

Comments on Chapter 7: "Mitigation Measures"

Chapter 7 proposes mitigation measures for the wide range of potential impacts of hydraulic fracturing for natural gas in the Marcellus and Utica shales, including visual and environmental resources identified in earlier sections of the rdSGEIS. It recommends screening, relocation, camouflage, low profiles for permanently sited equipment, downsizing, alternative technologies, non-reflective materials, and minimizing lighting to mitigate these impacts. Such mitigations can only partially hide the large industrial scale of the proposed drilling. The density of well pads and the addition and alteration of roads and the substantial traffic to service those well pads will overwhelm identified cultural resources, not to mention those cultural resources not yet identified and documented.

For those resources identified as NRE or already NR-listed, the permitting process should invoke Section 106 of the National Preservation Act of 1966 and Section 14.09 of the New York State Preservation Act of 1980. Both laws require such review: the DEC, the DOT, the Army Corps of Engineers, even the armed forces, are all accustomed to such review. Without review, cultural landscapes eligible for protection will be irretrievably altered or destroyed before these resources are acknowledged or understood beyond a localized ineffable sense of their significance. In other words, a sense of place developed over two or more centuries may be obliterated before its eligibility for a measure of protection under the National and New York State preservation acts is even established or documented.

Since the broad physical range of threats to as yet undocumented, but potentially NRE, cultural resources are so widespread, reconnaissance-level surveys by 36 CFR architectural historians qualified under the regulations of the National Historic Preservation Act of 1966 to review and research rural vernacular cultural landscapes should be more broadly undertaken in advance of any permitting. Existing roads should be included in this review to identify potentially contributing NRE cultural resources. This review methodology should include, but not be limited to, correlating historic mapping with the current built environment; documenting resources photographically and cartographically; and research into public and private records using an established methodology for such review. Much would be learned about resources in rural areas of

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New York State, a set of resources that are not especially well understood in a holistic sense. This would establish a true baseline rather than the false one presented in Chapter 2 of the rdSGEIS, which presents a deceptively short list of NRE resources over the Marcellus and Utica shale regions. Consistent review would clarify the degree to which proposed drilling might sever the relationships of the larger cultural landscape—its lands, structures, and buildings—and diminish its coherence as an intact and historically significant region.

The impacts of reconstructing the historically significant transportation network roads for heavy and frequent truck traffic over the course of initial development and then re-fracturing existing wells to access these sites will permanently disrupt the landscape's historic patterns of development, most especially its nineteenth-century circulation patterns. The scale—width, grade, and lack of curvature—of road, culvert, and bridge structures required to safely carry the trucks is out of keeping with that of the region's established, historic, and largely locally maintained roads.

Within farm properties, new roads would create road patterns similar to suburban cul-de-sacs. This will disrupt the internal historic integrity of individual properties, an effect multiplied across the landscape of contiguous historic properties. While wells might not be drilled within village limits or in the county's hamlets, the cultural resources providing a distinctive sense of place will surely be altered by this activity. Increased truck traffic will quite literally shake historic buildings to their foundations and force the removal of sidewalks, verge lawns, and historic trees lining streets to accommodate heavy vehicles. If bypassing these centers is considered a solution, it would be wise to consider the importance of moderately paced traffic to the economies of these local service centers. Historic circulation systems play a pivotal role in sustaining local economies, and moving traffic away from these centers imperils their survival.

Finally, the assumption that a cultural landscape developed during the nineteenth and first half of the twentieth centuries can be "reclaimed" in the mid-twenty-first century is surely naïve. The rdSGEIS describes the drilling of wells and extraction of gas as temporary—lasting up to 30 years before a well's potential *via* repeated hydrofracking is exhausted. Actions proposed in the rdSGEIS will provide short term fixes with ruinous, permanent, and long term consequences far outlasting the drilling industry's presence in the Marcellus and Utica shale regions. The technologies and demands of an earlier time directly influence the structure and appearance of the component resources of a cultural landscape developed in that era. While this might be used to argue that such resources are now obsolete, we demonstrate more and more that such resources are in actual fact more durable physically, economically, and culturally than many of more recent date. The sense of place they provide is but part of what they offer in terms of durability, energy efficiency, and economic potential. They must be reviewed, documented and afforded the protections for cultural resources in accordance with the Preservation Acts of enacted at both the federal and state levels.

Appendix F

NYSOPRHP Letter
October 10, 2013



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

October 10, 2013

New Lisbon Town Board
Charlene R. Wells, Clerk
829 County Highway 16
Garrattsville, NY 13342

Re: Reconnaissance Level Historic Resources Survey
Town of New Lisbon, Otsego County, NY

Dear Ms. Wells:

Your preservation consultant, Jessie Ravage, sent us a copy of the completed Reconnaissance Level Historic Resources Survey for the Town of New Lisbon, Otsego County, New York. The survey report is well researched and written and meets the State Historic Preservation Office's standards for reconnaissance-level surveys.

Reconnaissance-level surveys are by their very nature "broad brush" in their approach and generally do not provide the level of research and documentation required to make official determinations of National Register eligibility. For example, while several historic farmsteads and potential historic districts were identified, we would need more site-specific documentation on their history, setting, outbuildings, and overall integrity in order to make informed evaluations of their relative significance and define boundaries. That said, we feel that New Lisbon retains a variety of properties that are particularly compelling and may be worthy of possible listing in the State/National Registers and/or local designation. This is dependent upon public interest or property owner participation. One benefit of historic designation for homeowners to consider is that listing would make their property eligible for the New York State homeowner tax credit.

Our recommendations are organized by resource type, similar to how the historic resources were grouped in the Reconnaissance Level Historic Resources Survey report.

Historic Districts

While we do not have detailed building histories or interior descriptions at this time, based on the current information and a field visit conducted in August 2013, we recommend the Town consider a larger Butternut Valley Rural Historic District. Rural historic landscapes are better

reviewed as a collection of resources because their components work together to generate a feeling of history or sense of place. The Butternut Valley retains the spatial organization of the land and vernacular architecture that reveals the historic land use patterns and agricultural development of the community. A larger historic district could encompass hamlets, historic farmsteads, schoolhouses, and cemeteries.

The Butternut Creek originates north of New Lisbon's town line in the Town of Burlington and enters the Town of Morris near New Lisbon's southwest corner. It flows through the Town of Butternuts before joining the Unadilla River. Within the valley there are already two National Register-listed historic districts – the Villages of Morris and Gilbertsville – and additional individually eligible and/or listed properties. The proposed boundaries for the rural district would encompass the entire Butternut Valley, extending from the Town of Burlington to the north, to the Town of Butternuts to the south. The ridge lines would form the east-west boundary.

If the Town does not wish to pursue a larger rural historic district, we concur that the Hamlets of Garrattsville and New Lisbon appear to be eligible for listing in the National Register under Criteria A and C as representative examples of hamlet patterns and rural vernacular architecture of the nineteenth century in central New York. Both retain the variety and development density of buildings that set a hamlet off from the surrounding countryside, presenting a strong sense of place. There is virtually no infill housing or no construction blurring the historic demarcation between the hamlet and open land. Intensive survey may be warranted to determine building specific histories and possible revisions to the district boundaries. Enclosed please find our determinations of eligibility, list of contributing and non-contributing properties, and proposed historic district boundaries.

The hamlet of Stetsonville, while perhaps containing contributing resources to a larger Butternut Valley Rural Historic District, it does not appear to retain enough integrity to be recommended eligible for listing in the National Register as a stand alone hamlet.

Schoolhouses

Although there is high survival rate of one-room schoolhouses in the Town, we are concerned with the integrity of these resources. Based on information provided in the survey report and field visit in August 2013, a Multiple Property Documentation Form (MPDF) is not recommended. If the Town proceeds with a larger Butternut Valley Rural Historic District, Schoolhouses Nos. 1 (1651 CR 12), 2 (4400 NY 51), and 14 (3760 NY 51), would fall within the proposed study area and be considered contributing properties.

Cemeteries

We concur that a MPDF is a useful organization tool and logical way to approach documenting the community and individual family cemeteries in New Lisbon. Both types are characteristic of early settlement in the late eighteenth and early nineteenth-century in central New York. As noted in the survey report, some of the cemeteries were not accessible from the public right-of-way and therefore may require additional reconnaissance or intensive-level survey in order to answer research questions and assess eligibility for listing in the National Register of Historic Places.

Farmsteads

Farmsteads encompass the house, outbuildings, and land of an agricultural property, and based on information provided in the survey report, these form the largest group of historic resources in New Lisbon. We concur that as representative examples of a type, several may be individually eligible for listing in the National Register. If the town pursues the larger Butternut Valley Rural Historic District nomination, many of the farmsteads would be considered contributing resources. Additional reconnaissance or intensive-level survey may be warranted to identify individually eligible farmsteads outside the proposed boundaries for the larger rural district.

Individual Houses

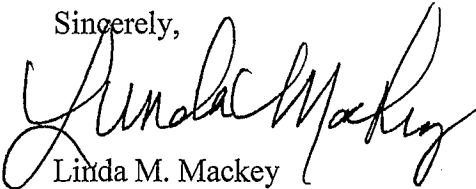
We concur that several individual houses (some may have associated outbuildings, but do not present as farmsteads) may be individually eligible for listing in the National Register and/or, if pursued, contributing properties to a larger Butternut Valley Rural Historic District. Additional reconnaissance or intensive-level survey may be warranted to identify individually eligible farmsteads outside the proposed boundaries for the larger rural district.

Based on information provided in the survey report, we can concur that the following individual properties are not eligible for listing in the National Register:

- 267 Blue Jay Hollow Road
- 1322 CR12
- 361 Lena Road
- 384 Lena Road
- 203 Stahl Road
- 305 Stahl Road

The survey should be used as a tool for education and outreach efforts and prioritizing historic resource identification efforts in New Lisbon. It is our hope that this survey and future intensive level survey work will help the Town to preserve its beautiful agricultural landscape and unique sense of place. We commend the Town of New Lisbon for undertaking this survey which will be an important tool for the Town Board as they prioritize efforts to protect and recognize potentially endangered resources.

Sincerely,



Linda M. Mackey
Historic Preservation Specialist

cc: Jessie Ravage, Preservation Consultant
Erin Tobin, Preservation League of New York State

Appendix G

Paper by Michael Marmet
April 2015

Our Historical Landscape; Subjective & Objective Approaches to Preservation

(The Negative Impact of the Proposed Edic to Fraser Power Line Project)

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Summary. This public comment promotes a two armed approach to developing a reasonable, calculated doubt as to the thought to be mitigated impact in the using of the existing corridor of the already built Marcy South Power Transmission line to solve the electrical energy transmission “bottleneck” that occurs north of the state’s largest population density. The usage of subjective elements by presenting a narrative involving; vernacular architecture, local history, presumed positive externalities, heritage, community, a sense of place, a sense of self identity will be the first component addressed. Secondly, we will look into the concept of utility, using econometric analysis with a standard binary logit model, which produces a strong non-substitutability effect of historic structure and landscape which constitutes a public good. The struggle to develop an effective method with a balanced view of preserving our environment (both constructed, and natural) while dealing with inevitable change can be resolved when a contextual narrative is understood, and a utilitarian formula is used. These will allow a metric for dominant social paradigms to be understood, and a governing body to essentially create a decision within true utility constraints.

I. Maple Hill Farm

In 2006, we received a Barn Grant from the New York State Office of Parks, Recreation and Historic Preservation. This grant was for the stabilization of a circa 1815 creamery building, passed through the generations by its colloquial name, the “Cheese House.” We quickly learned through the barn grant agents that the building thought to be worth preserving was in fact one of the most original intact examples of a creamery from the early 19th century in upstate New York.

The earliest part of our home was built in 1793, by Asa Young who was a Revolutionary War soldier from Chepachet, Rhode Island. The Young family and several other pioneer families from Rhode Island settled the Northwest part of Otsego County. Houses, barns, mills, shops, a church, and a school soon followed in this small hamlet of Richfield Springs, NY. The Young family established a homestead with traditional lines of diverse agriculture present in the early 19th century. Cattle for beef and dairy, horses, sheep, swine, poultry, an orchard for apples, hay, small grains, vegetables, maple sugar & “maple molasses,” and hops were grown on our small farm. The 1850 NY Agricultural Census captured the following;

2 Horses
18 Milch (Milk) Cows
1 Swine
15 Bushels of Wheat
100 Bushels of “Indian” Corn
40 Tons of hay
170 Pounds of “Irish” Potatoes
40 Pounds of “Orchard Produce”
300 Pounds of Butter
8,000 Pounds of Cheese

Asa Young, the “founding father” of our farm, died in 1847 at age 93, just 3 years short of the agricultural census giving a glimpse of a mid 19th century pioneer farm. The 1875 Agricultural Census shows the transitioning of agriculture in New York State as the railroads carved deeper into the remote areas allowing fluid milk to be transported far distances to market. Our farm no longer directly produced 8,000 pounds of cheese, however the dairy herd was numbered at 26 cows. An orchard had grown wherein 4 barrels of cider, and 100 pounds of apples were pressed or harvested. 250 pounds of maple sugar, and 10 gallons of “maple molasses” (syrup) were sugared off. The story continues from Asa to his son Nathan, then Salathiel, then Floyd, to his two sons Morris Young, and Horace Young, who were the last original descendants to work the land.

Morris passed away in 1993 at the age of 97. As a boy, growing up a mile down the road in what was the local schoolhouse converted into a residence, Morris would tell me the names of the people, the places, and the stories of our farm going back to the late 1700s. I would ask, “Do

you remember the year 1900?,” and he would smile, then tell me about traditions, contra dances, traveling by horse pulled buggies, his reaction to the first automobile he ever saw come bouncing down the dirt path that is now the paved road to our farm. He would give sound to the first single cylinder primitive tractor in the neighborhood, and ultimately gave depth of character to names that now are a flat dimension chiseled into stone grave markers. Morris Young’s narrative was a link to the past, the closest way I could travel in time to understand who we are as rural New Yorkers, as Americans. I cherish those memories, the knowledge he passed onto me, and the trust I feel to preserve our story, our place.

We purchased the farm in 2004. The buildings were run down, the house was unoccupied and unlivable. A decade of work followed to stabilize and restore this significant historical complex. Maple Hill Farm remains a part of our sacred rural landscape.

II. Significant Shapes of Everyday Life

A category of architecture characterized by the regional or local needs, the materials available for construction, and a reflection of local heritage is a fairly succinct definition of Vernacular Architecture. This was never in itself a study or understanding in an academic view of architectural style or development, but has been created as our anthropological understanding of architecture in how we react to our environmental, and cultural constraints. This conversation has gained relevancy over the past five decades as we are increasingly put at odds with the need to construct new dwellings while the sensitivity to preserve the environment has become paramount to our sustainability. Academic concepts of architecture are referred to as “polite” architecture wherein elements of style and design are deliberately added for no other purpose than aesthetics, serving no function. Ronald Brunskill defines Vernacular Architecture as:

“...a building designed by an amateur without any training in design; the individual will have been guided by a series of conventions built up in his locality, paying little attention to what may be fashionable. The function of the building would be the dominant factor, aesthetic considerations, though present to some small degree, being quite minimal. Local materials would be used as a matter of course, other materials being chosen and imported quite exceptionally.”

Traditional builders learn their trade through apprenticeship and by imitating admired models and artisans rather than through formal education. Rather than being called an architect, the designer of a house, barn, or bridge may have been called simply a builder, or craftsman. The recognition of this school of architectural study gives a visible face and functional core to local patterns, ethnic, and regional character.

Our home, Maple Hill Farm, is significant to the Vernacular Architecture of Otsego County during the Federal Period. The currently Marcy South Power Line runs on the East side of the farm. The Marcy South Power Transmission Line structures dominate the conversation that pertains to architecture and landscape, leaving only a sentence or two for the small farm that sits near to it.

While researching for the previously referenced barn grant, it was alarming that the level of academic study specifically devoted to our rural structures is entirely lacking when contrasted to scholarly forms of polite architecture. In developing an understanding, I was able to trace the origins of local barn builder tradition; English, Dutch, German, which was focused to particular nuances of the actual builder of each building. The ability to classify very specific “families” of barn beam joinery, hewn styles of squaring, bracing on bents, queen rafters set with notch and pin, or dowed to a ridge beam is still a documentable study in its infancy.

The relationship between structure and site location are critical in this understanding. They exist in a symbiotic relationship, each defining each other as an expression of a regional culture. People live in environments and not merely in buildings. We build our environments, and their relationship with other environments are important. Vernacular buildings often reflect an intention to conform to a micro climate, a particular topography, and usage of materials specific to a limited radius.

One of the more interesting historical characters who lived in Burlington, near to the Marcy South Power Line corridor, was Jedediah Peck, b. 1748 d. 1821, farmer, surveyor, Revolutionary War Soldier, Soldier in the War of 1812, and a New York State legislator (Assembly 1798-1804, Senator 1804-1808). He is credited as being the founder of public schools, and a fierce opponent to the Federalists. Peck was arrested by Judge William Cooper, a stalwart Federalist, part of the new post Revolutionary War power elite, and of course, founder of “Cooper’s-town.” The arrest was for Peck’s circulation of a petition against the Alien & Sedition Acts, a series of laws, one of which changed the citizen residency requirements in the United States, where most of the “citizens” were English, Scottish, or Irish born, the truth of the law was that it eliminated votes for people likely to support Thomas Jefferson. It was a self serving, politically motivated law that fooled no one, including Burlington’s Jedediah Peck. Peck was a war hero paraded in chains which caused the local and regional population to rise up in protest, Peck was released and never sent to trial. The politically motivated component to the new law failed, Thomas Jefferson was elected president in the year 1800. Several structures contemporary to Jedediah Peck’s lifetime still stand in Burlington. A New York State Historical Marker along Route 80 reads, *“In memory of Hon. Jedediah Peck, a Revolutionary Patriot, who died Aug. 15, 1821, in 74th year of his age. The annals of the State bear record of his public usefulness and the recollection of his virtues bear testimony of his private work.”*

I contend that adding an additional powerline suggests a level of disregard to the already damaged cultural assets that have not been properly studied. In Otsego County, 40 miles of our community will be impacted by an adjacent power line to the existing Marcy South right of way.

The towns of Richfield, Exeter, Burlington, New Lisbon, Laurens, Otego, and Oneonta, will be additionally scarred by the Edic Fraser Power Transmission Line .

Fifty-Eight places of historic architectural and environmental significance will be impacted in Otsego County;

Richfield: Young Homestead (NYS Barn Grant, oldest occupied home in Richfield), Arnold Farm site, Bargey Farm site, Shaul House, Cole Farm (2006 recipient of a NYS Barn Grant located on Scenic Route 20), Hitchins Farm, Wheeler Homestead, Schoolhouse No. 6, Mapleshade Farm, Barstow Homestead, Jones Farm, Owens Farm.

Exeter: Gates Farm, Caleb Huntley Farm, D.C. Huntley Farm(Greek Revival), Monk Homestead, Schoolhouse #7 (Cobblestone 1841 Architecture), Cole Homestead, Pratt Farm, Higgins Farm, D.C. Hollister Farm.

Burlington: Smith Homestead, Bliss Homestead, D. Stits Farm, Brady Farm, Telfer site, A. P. Bolton Sugar House site, Schoolhouse No. 5, Pratt Sawmill site, Schoolhouse No. 8, Hall Farm, Schoolhouse No. 11 site.

New Lisbon: J. P. Porter Homestead, Home Park site, S. Gardner site, Potter Homestead, Schoolhouse No. 5, Otego Creek, New Lisbon Cheese Factory, Schoolhouse No. 12 site, Eldred Homestead, Gilbert Lake.

Laurens: Naylor's Cold Corner Spring, Whorton Valley Lodge, Elm Valley Farm, Whorton Creek, Dunbar Hop Kiln, Pleasant Creek, Brewsters Mills, Schoolhouse No. 8, Sherburne Turnpike, Harrison Creek.

Oneonta: Jenks Homestead, Otego River, Thayer Farm, Susquehanna River, Indian Cemetery, Quakenbush Farm.

The list was taken from homes or cultural sites established prior to 1868 as referenced through the F. W. Beers Atlas of Otsego County NY. This would more accurately reflect homes built before access to outside materials (railroad influence) became abundant thus promoting stronger significance to their historical importance in multiple academic platforms of study.

III. The Narrative

The narrative for the communities, homes, and people impacted by the addition of a second power transmission line is a sad one. The existing Marcy South Corridor will take you to homes with low level incomes, little education, low property tax bases, and many families living subsistently. One could conclude the level of vulnerability and lack of ability to oppose the destruction of our region, creates a perfect approach for a corporate entity to take advantage of.

Wendell Berry stated, "...I am talking here about the common experience, the common fate of rural communities in our country for a long time. The message is plain enough, and we have ignored it for too long: the great centralized economic entities of our time do not come into rural places in order to improve them... They come to take as much of value as they can take, as cheaply and as quickly as they can take it."

Otsego County has continually struggled to maintain economic viability. Our county is rural, deeply rooted in agricultural tradition, and one of the most vulnerable to forced change because of proximity, and our lack of preparedness to the well funded, well experienced corporate entities. Conversely, we are one of the most visited counties in New York State offering beautiful lakes, breath taking views, and a glimpse into a romantic ideal of beautiful rural countryside. We are a visual reminder to travelers that New York is lakes, woodlands, and valleys in addition to sky scrapers, concrete, and streets.

The level of poverty in rural New York is a known statistic. Rural New York that once prospered during the golden age of farming now suffers with one of the largest income disparities in the nation when contrasted to the New York City region. The bifurcation of rural upstate and urban down state New York can best be demonstrated through a close examination of US Census data where core economic factors that include; upward mobility, job growth, median income, and income growth all rank below century long impoverished southern Appalachia.

Rose Harvey, Commissioner, NYS Office of Parks, Recreation and Historic Preservation stated in the 2015 to 2020 Preservation Plan, "Our relationship with family, friends, and colleagues are shaped by our environment. Our homes, our places of work and those places we learn and relax play hugely important roles in our daily lives. Every community is a combination of its parts; a streetscape, a park, a farm- and our perception of the totality of them creates our sense of place. If that streetscape, park, or farm is destroyed, we forever sever our connection to a part of the community that may have special meaning to us, diminishing our sense of place and the opportunity for that part of the community to enrich the lives of future generations."

IV.

Utility: Non-Substitutability of Historic Structure & Landscape

Utility, as an economic definition, is an abstract concept rather than concrete, or an observable quantity. The units to which we assign an “amount” of utility, therefore are arbitrary, representing a relative value. In this case we understand the need to construct a second electrical power transmission line is a total utility or aggregate sum of satisfaction or benefit that a group will gain from consuming a given service. Although total utility usually increases as more of a service is consumed, marginal utility usually decreases with each additional increase in the consumption of a service. Lord Kelvin stated, “when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is a meager and unsatisfactory kind.”

Where does this leave us in seeking a reasonable solution to the energy bottleneck with the onset of higher energy cost? Economists Kling, Revier, and Sable wrote a paper: Estimating the Public Good Value of Preserving a Local Historic Landmark, i.e. The Role of Non-Substitutability and Citizen Information. They state that the challenge of concretely estimating the benefits of a public good has been a major impediment to the consistent application of efficiency criteria to decisions about public projects, particularly when the benefits extend beyond “use values.” Because of the importance of such non use values in the case of the natural environment, and environmental quality, those areas have been the most frequent contexts for the application of a stated preference valuation, and related approaches which alone can capture both use and non use values. In this case in regards to the changing of an environment that modifies a historic contextual landscape, stated preference valuation can be applied to at risk rural architectural assets wherein the aesthetic and heritage aspects constitute a public good.

Historic preservation is equivalent to environmental preservation; although the environment is cultural and man made rather than natural, it typically involves both use and non use values that are analogous. Willingness to pay (WTP), and willingness to accept (WTA) are essential concepts that economists tend to favor as valuation constructs, based on well established models of individual preferences and rational decision making.

Willingness to pay (WTP) is defined as the maximum amount would willingly pay given their current income as well as current levels of market prices, and other background conditions, to receive a specified increment of public good. Conversely, willingness to accept (WTA) is the minimum amount of compensation one would willingly accept to forego a proposed increment (or to accept a threatened loss), under similar given conditions. Under standard assumptions, theory predicts marginal WTP and marginal WTA should be about equal, and should reflect a willing buyer matched to a willing seller with an agreed price if a true market for the good were feasible. The divergence of WTA and WTP will be effected by what is referred to as a substitution, as significant ranges in in WTA and WTP have been found when no income disparities exist. If there are private goods that are readily substitutable for the public good, there

ought to be little difference between an individual's WTP and WTA for a change in the public good. However, if the public good has almost no substitute, the Adirondack Mountains, or Otsego Lake for example, there is no reason why WTP and WTA could not vastly differ. WTP could equal the individual's entire income (finite), WTA could be infinite as discussed by economist Haneman in his 1991 article in *American Economic Review*.

This is the basis of the "Non-Substitutability Effect." Non-substitutability will prevail in the evaluation of generally unique aspects of the natural environment, and cases of culturally built environment, i.e. one's heritage.

I suggest the willingness to pay a higher rate in downstate energy is prevalent due to a lack of acceptability in the destruction of a region used for unparalleled recreational activities by the downstate population. I firmly believe the legitimate metric has not been adequately demonstrated to foster overwhelming support to destroy our historical and natural resources. Multiple articles define to great detail the specific formulae in the Economic Valuation Method in the Environmental Impact Assessment which would be most applicable to this particular situation. An example valuation construct that has been directly defined and applied in multiple models that place a concrete metric to a historical environment is shown below.

$$\text{Mean WTP} = \frac{\beta_0 + (\sum \beta_n X_n)}{-\beta_1}$$

There are variable sets of conditions to ensure a higher percentage of exactitude in the formulae that can be additionally provided, but are perhaps not appropriate at this level of commentary. Please review the references found at the end of this commentary if additional insight into econometric analysis applied to the preservation of historic environments is needed.

V.

Culture of Conservation: Sustainable Future

Conserving a community or regional heritage is the responsibility, and challenge of everyone. As New York revitalizes, and rejuvenates our local economies, we must focus on a balanced approach that does not sacrifice irreplaceable value under the misconception that such an action is utilitarian and ultimately for the public good. The loss of pastoral landscape, historic environments, and sense of community is not easily quantifiable, but can be quantified. The question is what we are "willing" to pay and accept. Rural environments provide an already unremunerated positive externality for the public as provided by land owners who purposefully choose preservation over development.

I was 12 years old when the Marcy South Power Transmission lines were strung up through our home. I personally have been impacted in continual sadness to a memory of what once was pristine, sadness to what is a permanent scar to our beautiful region. As a farmer, I can attest to the electrical hiss and crackle one hears when working beneath the wires, or a livestock fence that is always electrically charged with current absorbed through the air that has high level EMF. These are subjective components that although emotionally moving, are not as compelling as an econometric analysis that will provide a solid construct proving the un-substitutable value of our historic landscape.

Wendell Berry wrote that, "...the care of the earth is our most ancient and most worthy and, after all, our most pleasing responsibility. To cherish what remains of it, and to foster its renewal, is our only legitimate hope."

In the end, this is a story of many generations; revolutionary war soldiers, pioneers with calloused hands, law makers, farmers with hope, children's laughter, parent's sorrow, times of innocence, times of drought, times of harvest: lush green fields, sacred forests, clear water creeks. It's a story of who we all are; on a farm, in a town, in a county; seeking to preserve life over the destruction of an irreplaceable part of us.

"For, in the final analysis, our most common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children's future. And we are all mortal." -JFK

It is our duty as stewards of New York, stewards for the generations to come, to be our best, to set politics aside, to be reminded that this is a permanent decision, a decision on an action that we hope will not make our epitaph an apology.

References

Beers, F. W., Ellis, A. D, and G. G. Soule. 1868. Atlas of Otsego County NY

Berry, W. 2002. The Art of the Commonplace: The Agrarian Essays of Wendell Berry

Bille Hansen, T. 1997. The willingness-to-pay for the Royal Theatre in Copenhagen as a public good. Journal of Cultural Economics

Boyce, R., T. Brown, G. McClelland, G. Peterson and W. Schulze. 1992. An experimental examination of intrinsic values as a source of the WTA-WTP disparity. American Economic Review

Brown, T., and R. Gregory. 1999. Why the WTA-WTP disparity matters. Ecological Economics

Chambers, C., P. Chambers and J. Whitehead. 1998. Contingent valuation of quasi-public goods: validity, reliability, and application of valuing a historic site. *Public Finance Review*

Everts, and Fariss. 1878. *History of Otsego County, New York 1740-1878: Town of Burlington.*

Frey, B. 1997. The evaluation of cultural heritage: some critical issues. In *Economic Perspectives on Cultural Heritage*, edited by M. Hutter and I. Rizzo. New York: St. Martins

Grosclaude, P., and N. Soguel. 1994. Valuing damage to historic buildings using a contingent market: A case study of road traffic externalities. *Journal of Environmental Planning and Management*

Hanemann, W. M. 1989. Welfare evaluations in contingent valuation experiments with discrete response data: Reply. *American Journal of Agricultural Economics*

Hanemann, M. 1991. Willingness to pay and willingness to accept: How much can they differ? *American Economic Review*

Harvey, R., 2015. *New York State Historic Preservation Plan 2015-2020: Division for Historic Preservation: NYS Office of Parks, Recreation and Historic Preservation*

Kennedy, J. F. 1956. *Profiles In Courage*

Kling, R. W., Revier, C. F., and K. Sable 2003. *Estimating the Public Good Value of Preserving a Local Historic Landmark: The Role of Non-Substitutability and Citizen Information.* Colorado State University

Kotkin, J. 2014. *Where Inequality Is Worst In The United States: Forbes*

Loomis, J., G. Peterson, P. Champ, T. Brown and B. Lucero. 1998. Paired comparison estimates of willingness to accept versus contingent valuation estimates of willingness to pay. *Journal of Economic Behavior and Organization*

Peacock, Alan. 1998. "The economist and heritage policy: a review of the issues" in *Does the Past Have a Future: The Political Economy of Heritage*, edited by Alan Peacock. London: The Institute for Economic Affairs

Rypkema, D. D., and C. Cheong. 2011. *Measuring the Economics of Preservation: Recent Findings*, Advisory Council on Historic Preservation.

Stonecash, J. M. 1994. *Governing New York State, 6th Edition: SUNY Press.*

Taylor, A. 1995. William Cooper's Town: Power and Persuasion on the Frontier of the Early American Republic, New York.

Throsby, D. 1997. Seven questions in the economics of cultural heritage. In Economic Perspectives on Cultural Heritage, edited by M. Hutter and I. Rizzo. New York: St. Martins

US Census Data: www.census.gov

Ward, R. B. 2011. Downstate Pays More, Upstate Gets More: Does it Matter: Observations, Rockefeller Institute.

Willis, K.G. 1994. Paying for heritage: What price for Durham Cathedral? Journal of Environmental Planning and Management

Appendix H

Town of Exeter Statement

Town of Exeter NY

The town of Exeter is part of Otsego County, New York. The town is located in the northern part of the county. There are three villages in this township; Schuyler Lake, West Exeter, and Exeter. The topography is generally hilly, some of the elevations being 300 feet above the valleys. It is drained by Herkimer and Sutherland creeks which flow into Candarago Lake and by Butternuts and Wharton creeks which then flow into the Unadilla River.

The Town of Exeter people pride themselves on their historical roots. There is a lot of agriculture in this area; in many cases, land has been passed down through several generations. There is also a growing population of organic farmers in this area. The town attracts a lot of tourism throughout the year and we pride ourselves on the natural beauty of our township. People come to fish, snowmobile, hunt, hike, and visit our state forest. Candarago Lake also enjoys a lot of tourism and is plentiful with fisherman year round.

The town is concerned about the Edic to Fraser line being placed parallel to the Marcy South Line. The major concern is to what extent we should continue to allow our township to be used for major projects such as the Marcy South and Edic to Fraser line. When will another proposed project begin and to what extent will our land and historical value continue to dwindle?

There are 28 large parcels of properties directly affected by placing another transmission line. Only six of these parcels are currently occupied by permanent residents and three are vacation properties. Nineteen parcels are currently unoccupied farming, agriculture, and forest lots. Is this vacant land a result of the direct impact of the Marcy South line? No one is going to want to buy agriculture or farm listed property with two major power lines running through it. It decreases the property value of this vacant property and decreases the potential value of our township. No one is going to want to buy vacation and hunting properties next to two major power lines.

How safe is this line and how well will it be maintained? How often and to what proportions will they spray the lines with pesticides to keep down vegetative growth? This directly impacts our well being as a society. It impacts our local farmers, our growing population of organic farmers, vegetative plant growth, and our hunting and fishing livestock.

Once these lines are in place how much additional noise will they make? There is an additional risk of fires. How far is "safe distance" for home owners and livestock to inhabit? Will there be fencing around the property of this transmission line?

The proposed Edic to Fraser Line will further decrease the property value to the land owner and in turn the property value of the township which has already been negatively impacted by the Marcy South Line. This then decreases the tax revenue for this township which is heavily relied upon for town upkeep. Again I stress the critical impact of these continued projects will have on our communities. They continue to impair our general public health, our environment, and the value of our towns as a whole.

The reason there has not been any major feedback from the land owners is because the power project coordinators are choosing vacant land that has no voice.