

Exhibit 5

**Community Character Report
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COMMUNITY CHARACTER ANALYSIS

**Finger Lakes LPG Storage, LLC
Town of Reading, Schuyler County, N.Y.**



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COMMUNITY CHARACTER ANALYSIS

1. Introduction

This report considers whether the proposal of Finger Lakes LPG Storage, LLC (FLLPG) to develop a liquid petroleum gas (LPG) facility in the Town of Reading, New York (Project), is consistent with the community character of the Finger Lakes region, generally, and the Seneca Lake area, in particular. FLLPG proposes to store 88 million gallons of LPG underground and to install a rail depot, tanks for temporary storage of 150,000 gallons of propane and butane, pipelines, compressors, brine ponds, a flare, and other industrial facilities on the western shore of Seneca Lake. To assess the Project's potential community character impacts, I have used the theoretical and methodological approach of "cultural landscape studies."

"The cultural landscape of an area is formed by the interaction of people and places and is imbued with the historic and cultural influences that make it special on a personal, regional, or national level."¹ Studying an area's cultural landscape illuminates the social, economic, historic, environmental, and cultural contexts of a geographically defined space, which over time shape a sense of place and identity—community character. Although a variety of subjects familiar to environmental impact analysts influence a region's cultural landscape—including aesthetics, noise, historic resources, and socio-economics—the relationship of these diverse elements to the people identified with a particular place is evolving and iterative. Community character thus is not merely the sum of those elements but rather emerges as their collective and dynamic manifestation.

To conduct my cultural landscape study, I reviewed and analyzed a wide array of relevant documents and websites—including, academic books and articles, marketing materials, municipal government publications and resolutions, and press reports—all of which illuminate the history and self-image of the Finger Lakes and Seneca Lake communities and their core character. I also conducted a number of personal interviews with leading community members. That research showed that the character of the Seneca Lake community and the wider regional community is based in deeply felt connections to the region's natural beauty and the pace of small-town rural life. After 50 years studying and teaching geography, including 40 as a professor at Vassar College, it is my opinion that the industrialization of Seneca Lake represented by the Project will have significant adverse impacts on community character for which no effective mitigation is possible.²

1.1. Community Character: an Environmental Concern

"Environment," according to the State Environmental Quality Review Act and its regulations, is defined as "the physical conditions which will be affected by a proposed

¹ Katherine Ghilain, "Improving Community Character Analysis in the SEQRA Environmental Impact Review Process: A Cultural Landscape Approach to Defining the Elusive 'Community Character,'" *NYU Environmental Law Journal*, vol. 17, no. 2 (2009), pp. 1194-1242, at 1194.

² A copy of my curriculum vitae is annexed as hereto as Exhibit A.

action,” and an action’s environmental impacts include effects on the natural landscape or physical environment such as impacts on the land, including geology, topography and soil; atmosphere; water, both surface and subsurface; ecology, including flora and fauna; and human environmental or cultural landscape features including demographic and spatial patterns of population concentration, distribution, and growth; quality-of-life issues, including noise; visible objects of historic and aesthetic significance; and existing community or neighborhood character. Significant adverse impacts on community character can be ascertained through examination of potential impacts on the natural environment, aesthetic and historic resources, and socio-economic resources, even though the static picture revealed by that process will not fully capture the dynamic quality of the cultural landscape.

Landscapes evolve over time. The history of change in the Finger Lakes region can be seen in the early land use of the Iroquois, followed by the actions of the Sullivan-Clinton campaign during the Revolutionary War; the movement of early settlers into and through the region and their agricultural practices including growing grapes and attempts at wine making; developing an economic and transportation infrastructure; and evolution into a post-industrial economy dependent on recreational activities, heritage and agritourism, especially an internationally important wine industry. In this report, I discuss potential impacts of the proposed LPG storage facility on the community character of the Finger Lakes region and its cultural landscape, Seneca Lake and its immediately surrounding aesthetic landscape, and the evolving economy of the designated American Viticultural Areas (AVAs) against that historical background. For the purposes of this document, the geographic and spatial scale of analysis includes cultural landscapes at both regional and local levels.

1.2. Community Character: a Cultural Landscape Approach

Community character is the sense of place formed through a people’s relationship to its environment. It is a community’s formulation of an identity through history and can be found in the landscape as a combination of visual elements, such as natural landforms, buildings, or other cultural artifacts, as well as in more subjective and value-laden expressions of identification with place. Community character can be discerned through studying the cultural landscape as a people’s “unwitting autobiography,” that helps “to establish their identity, articulate their social relations, and derive cultural meaning.”³

The scale of a community, or neighborhood of interest, relates to the history of land use and economic and social relationships among the people who inhabit the cultural landscape. New York State has recognized that the scope of the term “community”

³ Paul Groth, “Frameworks for Cultural Landscape Study,” in *Understanding Ordinary Landscapes*, ed. Paul Groth and Todd W. Bressi (1997); Peirce Lewis, “Axioms for Reading the Landscape,” in *The Interpretation of Ordinary Landscapes: Geographical Essays*, ed. D.W. Meinig (NY: Oxford University Press, 1979), pp. 11-32; see also Dolores Hayden, “Forward: In Search of the American Landscape,” in *Preserving Cultural Landscapes in America*, eds. Arnold R. Alanen and Robert Z. Melnicj (1997); D.W. Meinig, “The Beholding Eye: Ten Views of the Same Scene,” in *The Interpretation of Ordinary Landscapes*, pp. 33-50.

changes with the circumstances. For example, for the proposal by the St. Lawrence Cement Company, LLC to construct a cement plant in the Town of Greenport, New York, the assessment of community character included a multi-municipal group of two counties, two towns, and one city.⁴ In this analysis of community character, the scale expands from the community surrounding Seneca Lake (from Watkins Glen to Geneva and Seneca Falls), to the wider Finger Lakes region, which is a clearly identifiable region with similar historic, economic, and scenic values and assets.

1.3. Community Character: Impact Analysis of the Project

In a substantive review of the elements that dynamically interact to form the region's community character, the role of natural beauty and an agricultural landscape, including a viticultural landscape, are central to the Finger Lakes region's sense of place over time and to the branding of the emerging tourism economy. The community is consciously pursuing economic development strategies—especially recreation and agri-tourism—that will enable it to preserve these aesthetic and environmental values and to continue enjoying the high quality of life central to its self-image. In the following analysis, I first explain the historic context and then examine nine facets of existing community character that could be adversely affected by the Project: (1) scenic views, including of vineyards and the rural landscape; (2) historic sites and districts; (3) scenic roads and transportation corridors, especially the state-designated Seneca Lake Scenic Byway and the Seneca Lake Wine Trail; (4) parks, open space, and land trusts; (5) American Viticultural Areas; (6) wine tourism; (7) agricultural tourism; (8) recreational tourism, particularly fishing; and (9) comprehensive planning. This cultural landscape analysis of potential community character impacts associated with the Project clearly indicates that the construction and operation of such a facility will cause significant and unmitigated adverse impacts on the character of the Finger Lakes region generally and the area around Seneca Lake in particular.

Historical Influences on Community Character

2. Landscape History

Residents of the Finger Lakes region constitute a community of interest; their identity and sense of place incorporates a natural and cultural landscape that includes the area from Keuka Lake eastward to Seneca Lake and Cayuga Lake. It is a landscape rich in history, with a visual texture blending rural economic activity harmoniously with

⁴ Harvey K. Flad, "Community Character," in *Visual Impact Assessment of St. Lawrence Cement Proposal, Hudson, NY* (Albany, NY: Department of State, 2005); Harvey K. Flad, "The Influence of the Hudson River School of Art in the Preservation of the River, its Natural and Cultural Landscape, and the Evolution of Environmental Law," in *Environmental History of the Hudson River*, ed. Robert E. Henshaw (Albany: State University of New York Press, 2011), pp. 293-313; Miriam D. Silverman, *Stopping the Plant: The St. Lawrence Cement Controversy and the Battle for Quality of Life in the Hudson Valley* (Albany: State University of New York Press, 2006). Ms. Silverman provides the full text of New York State Secretary of State Randy Davis's "Objection to Consistency Certification," which denied a permit to construct the St. Lawrence Cement plant due to its incompatibility with the area's economic future in heritage tourism, in her book's Appendix, pp. 119-155.

natural forms. Scenic views of working vineyards cascading down steep slopes towards glistening pure lakes meld with rural farmsteads, orchards and small villages and towns. It is a relatively open countryside interspersed with rather small, nucleated settlements. The rolling topography offers scenic views both dramatic and pastoral, a humanized landscape where community character has been shaped by a deep history and current substantial progress in heritage- and agri-tourism.



View from Route 414 in Hector looking west over Seneca Lake (2006)

2.1. Natural History

During North America's last great Ice Age, approximately 15,000 years ago, areas of what is now New York State were covered with up to a mile in ice. The Finger Lakes region emerged about 10-12,000 years ago with deep lakes, rivers and streams and rolling topography oriented in a northerly direction. During glacial retreat the lakes were formed by glacial scouring while the hills and vales resulted from glacial outwash deposits and the remnants of massive prehistoric Lake Albany which left rock layers of sandstone, shale and limestone interspersed with pockets of minerals, such as salt at the southern end of Seneca Lake. This geological history offered a rich mixture of natural resources for human use over the next thousands of years. Although winter air temperatures are very cold, the narrow deep lakes, such as Seneca Lake, do not freeze and the waters also moderate the local temperature. The soils, many of which are finely textured and

granular, offer good drainage especially on the steep slopes adjacent to the lakes. For example, flora and fauna around Seneca Lake are especially diverse. Its bioregion includes the steep slopes, deep lakes and climatic challenges that would become over the years the productive fields of Native Americans, settlers and immigrant viticulturists, that would transform the economy from one based on extractive resources, such as the lumbering of hard wood forests or mining salt, to one of sustainability, including thousands of acres of fruit orchards and vineyards and incorporating low-impact tourism.

The Finger Lakes ecosystem is both geologically and biologically diverse. The 2001 inventory of “Unique Natural Assets of Schuyler County, New York” declares:

Schuyler County is home to a very large diversity of plants and animals. Over 250 species of birds either nest here or utilize our natural assets during their migrations. The New York Breeding Bird Atlas has identified over 140 avian species breeding in the county. The New York Reptile and Amphibian Atlas has identified 32 species in the county. Plants exist here that have been extirpated elsewhere. The Botanical Atlas project of the New York State Museum lists 11 species of rare native plants in Schuyler, although more are being discovered. Thirty-nine species of mammals, including us, inhabit our county. Fifty of the 64 tree species found here are native to Schuyler County and our Butternut trees (*Juglans cinera*) are listed as a regional sensitive species. Fifty-seven butterfly species have been found and a few are quite uncommon. A new study is underway to identify Dragonflies and of the more than fifty thus far confirmed, one very large and unusual species is dependent on the specific environment found in our gorges. Underpinning all of this life is the unique geology that contributes the habitat upon which all life depends.⁵

The authors of the inventory further note: “Some species exist here which have been extirpated in all other areas of the Finger Lakes and the Northeast.”⁶

2.2. Cultural History

The Finger Lakes region in upstate New York from Lake Canandaigua and the land east to the junction of the Mohawk and Hudson rivers was inhabited by the Haudenosaunee, or Iroquois Indian Nation, when the earliest Europeans arrived in the 17th century.⁷ The original Five Nations consisted of the Seneca, “Keepers of the Western Door”; Cayuga, “people of the marsh” and “Keepers of the Great Pipe”; Onondaga, “name bearers” and “Keepers of the Central Fire” who held the wampum that contained

⁵ John and Sue Gregoire, *Unique Natural Assets of Schuyler County, New York: An Annotated Inventory* (Burdett, NY: Kestral Haven Avian Migration Observatory, 2001), p.4.

⁶ *Id.*, p.2.

⁷ For a list of scholarly publications on this subject, see the bibliography in Harvey K. Flad, *The City and the Longhouse: A Social Geography of American Indians in Syracuse, New York*, (Ph.D. Dissertation, Syracuse University Department of Geography, 1973).

the history of the Iroquois; Oneida, “stone people” symbolized by the Great Tree; and Mohawk, “Keepers of the Eastern Door;” they were joined by the Tuscarora as the Six Nations to form the Iroquois Confederacy. For hundreds of years they hunted, trapped, fished and grew diverse crops in villages that produced a settled agricultural landscape interspersed with vast tracts of wilderness forest. The Iroquois were highly sophisticated and productive farmers, with farmed crops representing 50 percent of their food.⁸ Early relations with French, Dutch and English explorers, missionaries and traders were mainly in economic and social spheres, although such negotiations were disrupted by the French and Indian wars of the early 18th century and subsequent expansionist settlement by English colonists.

The aftermath of the American Revolution saw rapid changes to the landscape. In 1779 General George Washington ordered the destruction of all Native American settlements. In the Sullivan and Clinton campaigns waged during that year, between 40 and 50 towns, nearly 1,200 dwellings, surrounding fields of vegetables and fruit trees, and perhaps 1,000,000 bushels of corn were burned and laid waste. As Seneca Chief Cornplanter declared in 1790, Washington and all subsequent United States presidents would be given the appellation of “Town Destroyer.” Washington’s reasons have been described by historians as: giving protection to defenseless frontier settlements; cutting off the food supplies of corn and dried vegetable and fruits from the Indians to Loyalists and the British forces, necessary in order to capture the strong forts at Oswego and Niagara; and finally to create an “inland empire” for the emerging new nation. Vast numbers of Indians fled north to British Canada, including many Seneca and Cayuga, leaving their former lands forever. Many died as refugees in the brutal winter of 1778-79. The net effect of the Sullivan-Clinton campaign’s “scorched earth” policy was to reduce the Iroquois population approximately by half and reduce the original land holdings of the Iroquois of approximately 25,000,000 acres to less than 87,000 acres by the late 20th C. After the Treaty Fort Stanwix in 1784, Euro-American settlement of the lands began; the westward expansion of the nation would not stop until it reached the Pacific Ocean.

The settlers found a landscape that had been productively cultivated for hundreds of years. The National Park Service brochure for the Fort Stanwix national monument notes that the soldiers on the Sullivan-Clinton campaign were surprised to find that the Indian’s homeland did not consist of

the crude bark huts or longhouses of ‘Savages’ but instead orderly rows of houses built of hewn timbers and frame houses with windows. Well-cultivated vegetable fields extended out from the villages, along with extensive apple, peach, and cherry orchards. Many of these Indian villages

⁸ Laura Winter Falk, *Culinary History of the Finger Lakes: From the Three Sisters to Riesling* (Charleston, SC: American Palate, 2014), p. 24.

rivaled or surpassed the towns that the soldiers had come from.⁹

As one soldier wrote in his journal, the cultivated fields produced “the best corn I Ever saw.”

Settlement was not uniform, as topographic features, soil conditions, and transportation routes differed throughout the vast interior, but within just a few years after the Treaty of Paris in 1785 a “land rush” spread settlers “into nearly every nook and corner suitable for habitation.”¹⁰ By 1800, the census indicated that there were more than 100,000 inhabitants west of the old colonial settlements in the Mohawk, Wyoming, and Cherry valleys. Central to the opening up of the western lands were acts by the state that created Military Tract lands as payment to soldiers in lieu of non-existent funds. Also, the state sold off huge tracts of land to speculators and land companies who in turn sold properties to individuals. Settlers came from many source areas, particularly New England where population pressure, associated with poor and thin soils, and fostered by local promoters, fostered whole communities to migrate. Other source regions were Pennsylvania and New Jersey from where colonists traveled up the Delaware and Susquehanna into the Finger Lakes along with New Englanders from Connecticut and Long Island. Villages at the ends of the lakes grew quickly, such as Skaneateles, Auburn and Ithaca, or near particular natural resources such as Syracuse near the salt springs of Onondaga Lake, or along the main transportation routes and turnpikes such as Utica and Rochester along the Genesee Road, later chartered as the Seneca Turnpike.

Towns sprang up as thousands moved west, each with hopes of becoming the major center of economic and social activity. The cultural landscape of post-Revolution America is visible in the use of classical names for new settlements, the Classical Revival style in the architecture of private and public buildings, and the rapid expansion of the use of the rectangular grid in town planning and transportation networks. Plotting and interpreting the spatial and temporal patterning of “the peculiarly American practice of memorializing the ancient world of Greece and Rome in the place-names of the United States” offers, according to one geographer, “persuasive evidence pleading the American’s image of himself as the reincarnated Athenian or Roman.”¹¹ The spatial extent and pattern of classical toponyms indicates the time frame of settlement from the 1790s to the 1820s westward along the Seneca Turnpike, through the Finger Lakes region towards the Ohio Valley. For example in the area surrounding Seneca Lake are towns and villages named Romulus and Ulysses; both of these municipalities have passed resolutions opposing the plans of FLLPG to establish a gas storage facility on the shores of Seneca Lake. Mingled with Indian place-names, such as of the lakes themselves, the

⁹ “The Clinton-Sullivan Campaign of 1779,” <http://www.nps.gov/fost/historyculture/the-western-expedition-against-the-six-nations-1779.htm>.

¹⁰ D.W. Meinig, “Three and a Half Centuries of Change: Geography of Expansion, 1785-1855,” in *Geography of New York State*, ed. John H. Thompson (Syracuse, NY: Syracuse University Press, 1966, 1977), p. 140.

¹¹ Wilbur Zelinsky, “Classical Town Names in the United States,” in Wilbur Zelinsky, *Exploring the Beloved Country* (Iowa City: University of Iowa Press, 1994), p. 296.

cultural landscape is a remarkably American creation and forms a framework for regional community character.

2.3. Economic History

2.3.1. Transportation

The organization of a transportation network was crucial to the development of the local and regional economies. Routes to, through and within the region began along well-worn Indian paths, then turnpikes and wagon roads. In 1825 the Erie Canal opened along the route of the Mohawk River and the Seneca Turnpike from Albany to Buffalo and the Great Lakes to bring in the era of greatest growth. As presented by the U. S. National Park Service at the visitor center for the Erie Canalway National Heritage Corridor, the Erie Canal “made New York the Empire State and confirmed New York City’s status as the young nation’s most prosperous and vibrant seaport.”¹²

Feeder canals extended the spatial reach of the Erie Canal; for example, the Cayuga & Seneca Canal was chartered in 1815 and completed in 1828 shortly after the Erie Canal opened. As a link to both lakes the Cayuga & Seneca Canal promoted the export of agricultural products and timber from the farms around both lakes. Steamboats plied lakes Seneca and Cayuga throughout the ante-bellum period. The Seneca Lake Steamboat Company was chartered in 1825 and established a route from Geneva to Watkins Glen after 1828. Views of the picturesque and beautiful scenery of Lake Seneca became important assets to the emerging tourism economy. As a guidebook for tourists traveling to the natural wonder of the Glen outside the village of Watkins in 1879 enthused, travel to the village “is also reached by a line of steamers, running from Geneva to Watkins, touching all the parts along the lake. This is a delightful way of reaching the Glen from the north, as the scenery of this beautiful lake is equal to anything on the Continent.”¹³ Lake steamboats traveling north from Watkins carried freight, including coal, and passengers to link with the canals, and eventually the east-west rail lines.

Railroads followed in the mid-nineteenth century and by the end of the century New York had captured the economy of the mid-west through its links to Chicago. The New York Central followed the canal route and served the towns at the north ends of the lakes while the New York & Erie opened up the Southern Tier with service to the towns at the south end of Seneca and Cayuga lakes. Other trunk lines connected the two major east-west lines, such as the Fall Brook System which consolidated a number of small railways to bring coal from western Pennsylvania coal fields north through Corning and Watkins Glen to Geneva and Lyons. At the end of the century the Fall Brook Railway Company was renamed the Geneva, Corning and Southern Railroad, which consolidated into the reorganized New York Central system in 1914.¹⁴ Currently known as the

¹² “Erie Canalway National Heritage Corridor,” brochure (Washington, DC: National Park Service, n.d.), http://www.nps.gov/erie/planyourvisit/upload/ERCA_unigrid.pdf.

¹³ A. J. Michener, *Descriptive Guidebook of the Watkins Glen and its Romantic Surroundings*, 1879, (Philadelphia: Culbertson & Bache, 1879) p. 10.

¹⁴ “Introduction,” <http://fallbrookrailway.com/>.

Norfolk and Southern Railroad, its tracks run along the western shore of Seneca Lake and are proposed for transportation of butane to Reading for storage and from there to refineries on the urban East Coast. Salt mining had begun around Lake Seneca in the 1860s.¹⁵ Relicts of this industry still operate on the southern and southwestern shore, but they are inconsistent with the efforts of the Seneca Lake to develop its recreational and tourist economy, and the expanded industrial use of the area will damage the new economic and cultural landscape.

Railroads and steamboats not only carried freight but also passengers, particularly tourists to visit the lakes, waterfalls, glens and gorges in the area surrounding Seneca and Cayuga lakes. Early settlement at the south end of Lake Seneca began in 1788, only nine years after the Sullivan expedition, with the foundation of the village attributed to Dr. Samuel Watkins in 1828. His name of Salubria for its moderate climate was later changed to Jefferson upon its incorporation in 1842 and subsequently renamed Watkins a year after his death in 1851.¹⁶

2.3.2. Tourism

Over the next few decades the Village of Watkins prospered and by 1863 became a noted summer resort with the opening of Glen Mountain House. According to an 1879 guidebook, during that first year “from 8,000 to 10,000 persons visited the Glen during the balance of the season; and their number has continued to increase.”¹⁷

Tourism continued in the decades after the Civil War as guidebooks dramatized the attractions of the gorge with classic romantic prose: “There is not to be found a more strikingly wonderful and beautiful freak of nature than Watkins Glen. Differing in all its characteristics, from any other remarkable locality of natural interest, it has as distinct an individuality as Mount Blanc, the Falls of Niagara, or the Mammoth Cave.”¹⁸ By 1916 the glen was incorporated into a state park adding an important boost to 20th century recreational tourism in the local and regional economy.

In the 20th century, tourists sought not only the romantic pleasures of the picturesque, including the sublime views associated with grand vistas or the intimate and mysterious passageways of dark wilderness footpaths or tumbling streams in gorges and glens. Rather, recreational activity focused on outdoor activities such as boating, fishing, and swimming in the cold clear lakes as well as camping and traveling through the more pastoral and bucolic landscape in the countryside. Special events drew visitors as well, such as county and state agricultural fairs, automobile races at Watkins Glen raceway, and wine tasting at the lakes many wineries. The culture of tourism was changing and the economic landscape adapted; small family-owned businesses emerged in the form of

¹⁵ John Corbett, *The Lake Country: An Annal of Olden Days in Central New York* (Rochester, NY: Democrat and Chronicle Print, 1898), p. 105.

¹⁶ Brian Altonen, “1778 to 1795 – The ‘First Settlers’ of Salubria,” <http://brianaltonenmph.com/6-history-of-medicine-and-pharmacy/hudson-valley-medical-history/1795-1815-biographies/john-w-watkins-natural-products-land-use-and-health/1778-to-1795-the-first-settlers/>.

¹⁷ Michener, *Descriptive Guidebook*, pp. 5-6.

¹⁸ Michener, *Descriptive Guidebook*, p. 9.

B&Bs and direct-sales wineries associated with independently-owned vineyards, as boat tours on Seneca lake offered scenic views of the lake and cultivated landscape on its shores. The economic landscape of the 21st century was of a rural, agricultural, terraced vineyard and small town cultural landscape. Remaining resource extraction or other industrial activities were vestiges of the past, rejected in favor of a more sustainable future.

2.3.3. Vineyards and Wineries

The history of grape and wine production goes back to the earliest French Jesuit Catholic missionaries in the 17th century. According to a letter dated 1668 from Father Jacques Bruyas of Mission St. Francis Xavier, “There are also vines, which bear tolerably good grapes, from which our fathers formerly made wine for the mass. I believe that, if they were pruned two years in succession, the grapes would be as good as those of France.”¹⁹ A century and a half later sacramental wine would also be made from local grapes. As settlement progressed after the Revolutionary War, churches sprung up next to taverns and general stores in villages and towns among the lakes. The Rev. William Bostwick arrived in Hammondsport at the head of Keuka Lake in 1829 as rector of the village’s first church. He was an amateur horticulturist “with a secular appreciation for wine and a visionary interest in hybridization” who planted *Vitis labrusca* (Catawba and Isabella) in his rectory garden.²⁰ He distributed cuttings to parishioners and soon offshoots from his vineyards spread throughout the region. Others soon followed, including German immigrants who attempted to grow European varieties with varying degrees of success. By the 1850s, terracing of the steep slopes overlooking lakes Keuka and Canandaigua began to change the look of the land. It would become the characteristic cultural landscape of the Finger Lakes wine district.

Vineyards were typically small, no more than a few acres in size. This pattern, too, would continue, as both consolidations and various corporate entities purchased their grapes from small individual vineyards. Commercial viticulture officially began in 1862, when the Hammondsport and Pleasant Valley Wine Companies were founded. The Pleasant Valley Wine Company was the collective venture of 13 grape-growing stockholders, the largest of whom began with 30,000 vine cuttings while the smallest grower had but one acre of vines. His “little vineyard climbed the slope behind property he deeded to the company for construction of a wine cellar.”²¹ Two more companies were formed three years later. The region became famous for its sparkling wines, with the Pleasant Valley Wine Company winning European awards in 1867 and 1873. These successes spurred growth in commercial plantings in the area, and by the end of the century there was 25,000 acres (10,117 ha) planted throughout the region.²²

¹⁹ Richard Figiel, *Circle of Vines: The Story of New York Wine* (Albany: State University of New York Press, 2014), p. 30.

²⁰ Figiel, *Circle of Vines*, pp. 32-3.

²¹ Figiel, *Circle of Vines*, p. 39.

²² Wikipedia, “Finger Lakes AVA,” http://en.wikipedia.org/wiki/Finger_Lakes_AVA.

In 1866, the western shores of Seneca Lake became home to its first winery, the Seneca Lake Grape Wine Company. The winery planted 100 acres (0.4 sq. km.) of grapes. At the time, it was the largest vineyard in the state. By 1869 they were producing 14,000 US gallons of Seneca Lake's first commercial wine. Then, in 1882, New York State opened its Agricultural Experiment Station in Geneva, New York, located at the north end of Seneca Lake. Its grape breeding and research programs helped to establish Seneca Lake as a prominent player in the grape growing industry. By 1900 there were over 20,000 acres (80 sq. km.) of vineyards throughout the Finger Lakes and more than 50 wineries.²³

A few large producers, such as Taylor and Wiemers, established headquarters in the area, although their bottled wines often contained primarily California wine rather than locally produced vintages. Most grapes harvested in the Finger Lakes region went to the fresh fruit market as Temperance advocates pressured the state to direct crop research at the experiment station in Geneva towards fruit production. The passage of the 18th Amendment to the US Constitution in 1919 began the Prohibition era that ended only in 1932 with its repeal by the 21st Amendment. Only the largest wineries were able to survive by making grape juice and sacramental wines. Also, jellies and other products were made by the Welch brothers who first bottled grape juice at a plant in Watkins Glen from vineyards around Seneca Lake. However, the Welch Company soon moved west to Chautauqua County. Sweet Kosher wines were also produced during Prohibition in the north and west on the Lake Ontario plain. When Prohibition was repealed, the wine and grape growing industry remained a shadow of its former self. The Seneca Lake Grape Wine Company had folded, and area farmers struggled to survive in a much reduced New York State market.

Most wines made from American grape varieties were sweet. It was not until the post-WWII period that individual winemakers began to grow French hybrids and varieties successful and profitably.

A major change in Finger Lakes viticulture occurred when two young European viticultural pioneers named Charles Fournier and Dr. Konstantin Frank began to research and experiment with vinifera grapes in the Finger Lakes region. Frank, a Ukrainian immigrant with a PhD in Plant Science, came to work for Cornell University Geneva Experiment station in 1951. Commercial growers and researchers at the Geneva Experiment Station were convinced that European *Vitis vinifera* varieties could not grow in the cold Finger Lakes climate.²⁴ After years of planting *Vitis vinifera* in the colder climate of the Ukraine, Dr. Frank was sure that it could be grown in the Finger Lakes if grafted onto the proper, cold-hardy native rootstock. He proved this in 1962 when he started Vinifera Wine Cellars, in Hammondsport. Dr. Frank successfully grew and produced wine from *Vitis vinifera* grapes such as Riesling, Chardonnay, Pinot noir, Gewurtztraminer, and Cabernet Sauvignon, grafted onto native rootstock.

²³ Wikipedia, "Seneca Lake AVA," http://en.wikipedia.org/wiki/Seneca_Lake_AVA.

²⁴ *Id.* (citing James L. Newman, "Vines, Wines, and Regional Identity in the Finger Lakes Region," *Geographical Review*, vol. 76, no. 3 (1986), pp. 301-316).

During the same period, Walter S. Taylor, grandson of the founder of the Taylor Wine Company (now a division of Coca-Cola, a publicly held corporation) bought back the Taylor family homestead on Bully Hill outside of Hammondsport to start his own independent winery. He planted various French hybrids and varietals, and bottled and sold his wine with distinctive labels promoting their New York State origin. Both Taylor and Frank campaigned against “wine factories” such as the Taylor Corporation that combined cheap California wines with sweet New York grape juice. They became the most prominent faces of the New York State wine industry as it changed from commercial production of sweet wines to varietals that became favorites of the emerging wine lovers of the late 20th century and 21st century.

At Seneca Lake, Fournier and Frank’s initial research had found the most favorable microclimates conducive for growing vinifera grapes. In the early 1970s, Fournier planted 20 acres (81,000 sq. m.) of vinifera on the east side of Seneca Lake. At the same time, a German native named Hermann Wiemer bought and planted 140 acres (0.6 sq. km.) of vinifera on the west side of Seneca Lake. The success of these two vineyards along with the establishment of a wine research program at the New York State Agricultural Experiment Station in Geneva helped to start the revitalization of Seneca Lake in the grape growing and wine producing industry.²⁵

Wiemer promoted growing Riesling as the answer to the viticulture problems with the region’s cool climate. As the author of a history of winemaking in the Finger Lakes commented to the food editor of the New York Times, “[a]t the time, [Wiemer’s] dogmatic view that Riesling was the answer looked foolhardy... People were slow to follow, but 15 to 20 years later they realized he was right.”²⁶ The 21st century Riesling wines have become the premier quality white wine of the region.

Plantings of *Vitis vinifera* varieties spread throughout the region along with grafting of French hybrids, reinvigorating the Finger Lakes wine region’s growth and popularity. Passage of the New York State Small Farm Winery Act in 1976 aided the spread of both French-American hybrids and *vinifera*. Lessening the restrictive licensing on wine-making during the Prohibition era, the “Farm Wineries and Cider Mills Low-Cost License Law,” lowered taxes and licensing fees and encouraged a new scale of operations in the wine industry, “an eastern parallel to the so-called boutique wineries in California. In 1976, there were 19 wineries when the Farm Winery law was passed.²⁷ By 1985, 26 wineries of this sort, each featuring hybrids or *vinifera*, had opened in the region.”²⁸

As of 2008, there were nearly one hundred wineries in operation in the Finger Lakes AVA, most of which are in the counties of Seneca (33), Yates (36), Cayuga (10) and Schuyler (25). In 1985, along Seneca Lake they included: Four Chimneys; Hermann J. Wiemer; Glenora; and Giasi on the west bank, and Wagner; Poplar Ridge; Hazlitt

²⁵ Wikipedia, “Seneca Lake AVA,” http://en.wikipedia.org/wiki/Seneca_Lake_AVA.

²⁶ Eric Asimov, “Deep Lakes, Icy Climate, Great Wine,” *The New York Times* (October 11, 2011).

²⁷ Figiel, *Circle of Vines*, p. 159.

²⁸ Newman, “Vines, Wines, and Regional Identity,” p. 313.

“1852”; Wickham; and Rolling on the east. By 2014 these nine had grown to over thirty named vineyards or wineries, and the regional wines had received its own Seneca Lake Appellation.

Quality of the region’s wines is rapidly gaining. In 2013 *Wine Spectator*, one of the world’s leading and most quoted publications on the subject, conducted its first official tasting and analysis of Finger Lakes wines.²⁹ Of 325 Finger Lakes wines reviewed, two-thirds received 85 points or higher on the magazine’s 100-point scale; 28 received a rating of 90 or better.

The region is also drawing nationally and internationally recognized winemakers. Vineyards that formerly grew Concord grapes for grape juice now grow vinifera stock and produce medal-winning wines by winemakers such as Johannes Reinhardt, originally from Germany, and Peter Bell, originally from New Zealand.³⁰ However, the possibility that the FLLPG project may be built has concerned some significant winemakers from further investments. In a recent letter to Governor Cuomo, Paul Hobbs, of the Sonoma Valley in California, and Johannes Selbach, of Germany’s Mosel Valley, asked the governor to reject the gas-storage plan and to “let the wine industry reach its full potential in Watkins Glen and the Finger Lakes.” They also said “they were considering holding off further investment in their vineyard – and a handsome visitors center – ‘until the question of gas storage expansion is resolved.’”³¹

Tourism to the Finger Lakes region and to Seneca Lake in particular grew progressively in the latter half of the 20th century. The Seneca Lake Wine Trail was founded in 1986 in response to the increase in visitation to the Seneca Lake region and as a coordinated approach to support the economic importance of the wine industry. In 2014, the wine trail links over thirty vineyards and wineries that bottle and sell wines directly to customers that “principally [use] grapes harvested with the federally recognized Seneca Lake Appellation.”³²

Constructing Community Character

3. Elements of Community Character

Communities can express aspects of their historical and cultural identity with observable features in the landscape. A combination of such elements can provide a

²⁹ Don Cazentre, “Finger Lakes wines win long-awaited recognition, praise from Wine Spectator,” *Syracuse Post-Standard* (February 4, 2013) http://blog.syracuse.com/cny/2013/02/finger_lakes_wines_win_long-awaited_recognition_praise_from_wine_spectator.html; listing in *Wine Spectator* (January 31-February 28, 2013 issue) <http://www.winespectator.com/magazine/show?id=47893>.

³⁰ “Reinhardt and Bell on Top Winemaker List at *Vineyard & Winery Management* magazine,” *Finger Lakes Wine Gazette* (Winter 2015), p. 8.

³¹ Jesse McKinley, “What Pairs Well With a Finger Lakes White? Not Propane, Vintners Say,” *The New York Times* (December 26, 2014), p. A25.

³² “Seneca Wine Trail Guide 2014” http://www.senecalakewine.com/images/stories/brochures/SWLT_2014-LowResForWeb.pdf.

framework useful in assessing community character, especially if these assets have been recognized and officially designated for their value to the community. For the Seneca Lake community, the following have been officially recognized:

3.1 Scenic Views and Aesthetic Resources

3.2 Historic Sites and Districts

3.3 Scenic Roads and Transportation Corridors

3.4 Parks, Open Space, and Land Trusts

3.5 American Viticultural Areas

An analysis of these officially recognized cultural landscape assets indicates that aesthetic values persist through history in the region's creation of its identity. Those values are preserved and fostered in the tourist economy of the 21st C through efforts in:

3.6 Wine Tourism

3.7 Agricultural Tourism

3.8 Recreational Tourism

3.9 Comprehensive Planning

The analysis below discusses the community character of the Finger Lakes region with primary focus on Seneca Lake and its surrounding area with regard to the nine inter-related historic, cultural, and economic components listed above.

3.1. Scenic Views and Aesthetic Resources

The Finger Lakes region as a whole and the landscape in close proximity to and including Seneca Lake have been recognized for over a century for its beauty, natural wonders and cultural historical and aesthetic resources. As described by the Seneca Lake Scenic Byway Project Team and the Hector Community Association citizen's committee in their proposal to establish the Seneca Lake Scenic Byway, and reviewed, accepted and thereby designated by the state, the landscapes of Schuyler and Seneca counties contain views of "unsurpassed natural beauty." There are "incredible views of rolling vineyards, orchards, and breath taking vistas of the Hector and Lodi rural community on Seneca Lake" and the lake itself.³³ The natural landscape of waterfalls, gorges, and lakes, and the cultural landscape of vineyards, orchards, fields, dwellings, farms and associated farm structures, fences, cemeteries, and communities and their small commercial districts offer scenes of rural landscape in harmony with its natural and cultural features.

³³ Seneca Lake Scenic Byway Project Team, *Seneca Lake Scenic Byway Nomination Proposal*, rev., 2010, p. 5.

3.1.1. Wineries

Views of the wineries and their carefully tended vineyards are quite exotic, reminiscent of the terraced vineyards in France and Italy. Guidebooks from the 19th century to the 21st century comment on this rather romantic association, with hints as to a landscape character of multi-cultural history and economic significance.³⁴ Many of the wineries advertise the scenic vistas from and towards Seneca Lake to promote tours and tastings at their vineyard. Visitors travel to wineries on roads with expansive views of the lake and the patterned rows of grapes that offer colorful displays from the yellow-green leaves of spring through the dark green of summer to the deep purples of fall harvest, set in a landscape of autumnal reds and rusts. These viewscapes have been captured in art and photographs and on post cards, travel brochures and yearly calendars for over a century.

3.1.2. Rural Recreational Landscape

The community character of this landscape, from Reading on the west bank of Seneca Lake to Hector and Lodi on the east bank and Watkins Glen at the south end of the lake is both enjoyed and advanced by these local communities, county and state through efforts to promote recreational and heritage tourism. For example, the creation of public parks, camping sites, hiking paths, boat launches significantly encourages activities including fishing, boating, touring and picnicking.

3.1.3. Natural Landscape

Natural features such as lakes, gorge, glens, and waterfalls are equally picturesque. Nineteenth-century artists and tourists with “pencil” and camera sought out such natural wonders throughout New York State, including iconic Niagara Falls,



View from Hector Falls below Route 414, looking west (2008)

³⁴ Michener, *Descriptive Guidebook*.

Kaaterskill Falls in the Catskill Mountains, and the wilderness in the Adirondacks.³⁵ Scenes and views of America's natural landscape became the source of the new nation's identity. Seneca Lake and the Glen at Watkins would do the same for Schuyler County and remain as foundational features in the 21st century, combined with photographic views of picturesque waterfalls and vistas of the rural landscape. For example, Hector Falls in the village of Burdett, Town of Hector, is a 165-foot series of vertical plunges and cascades on Route 414, approximately three miles north of Watkins Glen, on the east bank, with excellent views of Lake Seneca 150 feet below and its western shore.

3.2. Historic Sites and Districts

3.2.1 Watkins Glen

Sites of historic significance reflect the community character of local and regional communities. In Schuyler County, the Watkins Glen Commercial Historic District focuses on the establishment of the urban center of Watkins and Watkins Glen during the heyday of tourist explorations of the picturesque landscape promoted by the Hudson River School of artists in the Hudson River Valley. Hotels and Mountain Houses were established that brought visitors to the natural and cultural landscapes that were promoted.³⁶ The promotion of the glen and gorges outside of the village of Watkins brought hundreds and thousands of tourists to the area, beginning what would become the foundation for heritage tourism in the 21st century.³⁷

The village of Watkins Glen contains a number of sites listed on the National Register of Historic Places.³⁸ The *First Baptist Church in Watkins Glen*, 1888-89, a classic eclectic 19th C building with elements of Romanesque, Gothic Revival and Eastlake architectural elements; the *A. F. Chapman House* (1870-73 Gothic Revival; modified 1888-94 Queen Anne Victorian); *Schuyler County Courthouse Complex* (1855); *United States Post Office* (1934-35, Colonial Revival); *Watkins Glen Commercial Historic District*, a cohesive group of 33 buildings dating from 1844 to 1939 of mostly Italianate and Commercial styles, including Second Empire, Romanesque, Colonial Revival and Classical Revival, including theaters, a hotel and opera house; and *Watkins Glen Grand Prix Course*, 1948-52, with its original 6.6 miles (10.6 km) course that passed through the village, starting and finishing in front of the historic Schuyler County Courthouse.³⁹

³⁵ Harvey K. Flad, "Following 'the pleasant paths of Taste': The Traveler's Eye and New World Landscapes," in *Humanizing Landscapes: Geography, Culture and the Magoon Collection*, exhibit catalogue (Poughkeepsie, NY: Vassar College Frances Lehman Loeb Art Center, 2000), pp. 69-102.

³⁶ Charles R. Mitchell and Kirk W. House, *Around Watkins Glen* (Charleston, SC: Arcadia, 2006), pp. 49-58; for a review of mountain house resorts in the Hudson Valley, see Harvey K. Flad, "The Parlor in the Wilderness: Domesticating America's First Iconic Landscape," *Geographical Review*, vol. 99, no. 3 (2009). Pp. 356-376; and Harvey K. Flad, "Scenes 'most impressive and delightful': Nineteenth-century Artists in the Shawangunks," *The Hudson River Valley Review*, vol. 31, no. 1 (2014), pp. 95-120.

³⁷ Watkins Glen Area Chamber of Commerce and Schuyler County Historical Society.

³⁸ *Village of Watkins Glen Comprehensive Plan*, "Watkins Glen Road Map," (Albany, NY: Laberge Group, 2012), pp. 19-21.

³⁹ Mitchell and House, *Around Watkins Glen*; and *National Register of Historic Places* nomination forms.

All physical elements of the Watkins Glen streetscape create visual coherence to the cultural-historical landscape.⁴⁰ They help to define the village's community character and are place markers of memory for all inhabitants of the region.

3.2.2 Seneca and Schuyler County Historic Markers

The historic landscape becomes visible through signs and maps that locate sites and routes that give substance to community identity. For example, Seneca County has memorialized the route of the Clinton-Sullivan Campaign and the sites of a number of former Seneca Indian villages. Scenic heritage tours have been developed along the Seneca Lake Scenic Byway that take visitors past historic sites of significance that have already received New York State designation with state historic markers in place. The State University of New York College of Environmental Science and Forestry study in 1997 indicated the following New York State Historic Markers: Hector #1 Railroad Tunnel 1892 on Satterly Hill Road; #3 Ciprich House built 1780; #4 Sullivan-Clinton Military Route 1770; #5 Presbyterian Church 1827; #6 Methodist Church 1842; #7 Baptist Church and Grange Hall 1836, Tug Hollow Road; #8 CCC Camp 1930s, west of Gates Farm; and #9 Willow Grove Mills 1820, adjoins the Village Park.

3.2.3 Montour Falls

Historic preservation is an important tool in urban and small town revitalization. Grants from the New York State Main Street Program to the Schuyler County Partnership for Economic Development (SCOPED) were instrumental in the restoration of 1854 Montour House as a mixed use project with commercial shops on the first floor and residential units above. The preservation and reuse of historic assets are place-makers for community character.

3.2.4 Geneva

Geneva's position at the north end of Seneca Lake on the Genesee Road, the major east-west route for travelers in the 18th and 19th centuries, offers visitors insights into the nation's growth and expansion.⁴¹ Excellent examples of Greek and Italianate Revival architecture represent the mid-nineteenth century wealth associated with population movement westward to the Genesee country and the Ohio Valley and the construction of the Cayuga & Seneca Canal in 1818 which connected Seneca Lake and Cayuga Lake to the Erie Canal allowing farmers to ship their agricultural produce to larger markets and resulting in the doubling of the village's population between 1820 and 1840.⁴²

⁴⁰ Alita Trouble Howard, *A Landscape Look at Watkins Glen*, n.d. <http://www.paduaprep.com/Images/PDFs/LandscapesLook.pdf>; see also John R. Stilgoe, *Common Landscape in America, 1580-1845* (New Haven: Yale University Press, 1982).

⁴¹ Meinig, "Three and a Half Centuries of Change," pp. 143-51.

⁴² City of Geneva, *City of Geneva Waterfront Infrastructure Feasibility Study* (Parsons Brinckerhoff, Inc., 2012), p. 7.

3.2.5 Seneca Falls

Landmarks of social history significantly alter and constitute the cultural landscape of a place or region. Similar to historic markers and plaques, memorials and museums identify important events or individuals that have changed the local, regional or national culture. *The Women's Rights National Historic Park* in Seneca Falls on the Cayuga-Seneca Canal identifies a specific place and group of individuals who were vanguards in the Suffragist Movement of the 19th century. The park was established in 1980 and consists of 6.8 acres in Seneca Falls and adjoining village of Waterloo; it contains four major historic properties, including the Elizabeth Cady Stanton House that now serves as a museum that contains artifacts and materials related to the Seneca Fall Convention of 1848.⁴³ A *Votes for Women History Trail* begins at the park and extends west across Upstate New York linking various sites related to women's efforts to gain the right to vote. The museum and park are tourist magnets that bring thousands of visitors to the Seneca Lake area, many of whom also visit Geneva's historic sites and travel the length of Seneca Lake to Watkins Glen by boat or auto, viewing the scenery along the lake shore and the vineyards and rural landscape of Seneca county adding to the region's tourism economy. Many will travel the scenic roads designated by the state to encourage tourist visitation with the area's aesthetic resources.

3.2.6 Cayuga-Seneca Canal

The *Erie Canalway National Heritage Corridor* was established in 2000. National heritage corridors are special places designated by Congress. As described by the National Park Service:

Each is distinctive, selected because they illustrate significant chapters in the American experience. Corridor features and stories remind us of the connections between geography and human events that shaped the course of American history.

National heritage corridors promote cooperative preservation and community renewal efforts through joint efforts by governments, organizations, businesses, and individuals...

National heritage corridors are more than monuments to the past, they represent living traditions. Residents are proud of their heritage and many have worked for years to preserve the *distinctive character of their communities*.⁴⁴

⁴³ National Park Service, *Women's Rights National Historic Park* brochure, n.d.

⁴⁴ National Park Service, *Erie Canalway* brochure, n.d. (emphasis added)
http://www.nps.gov/erie/planyourvisit/upload/ERCA_unigrid.pdf.

Over 30 municipalities in the four counties bordering Seneca Lake are incorporated into the Heritage Corridor. They include the 13 municipalities of Reading, Hector and Dix and village of Watkins Falls in Schuyler County; towns of Fayette, Lodi, Ovid, Romulus, Seneca Falls and Waterloo in Seneca County; city and town of Geneva in Ontario County; and town of Starkey in Yates County. The majority of these towns and villages have passed resolutions objecting to locating the FLLPG facility on the western shore of the lake.

In 2014 the entire *New York State Barge Canal Historic District* that incorporates the Corridor was placed on the National Register of Historic Places.⁴⁵ The National Historic District includes the four branches of the canal system that was first built in the 1820s: the Erie, Champlain, Oswego, and Cayuga-Seneca canals. It covers 450 miles over 18 counties, including the Finger Lakes counties of Seneca, Schuyler, Ontario, and Yates, and encompasses 23,000 acres.

3.3 Scenic Roads and Transportation Corridors

The New York State Scenic Byways program was created in 1992 by the State Legislature. State Scenic Byways are transportation corridors that “are of particular statewide interest. They are representative of a region’s *scenic, recreational, cultural, natural, historic or archaeological significance*.”⁴⁶

Overlooking the Project site on the western shore of Lake Seneca, the *Seneca Lake Scenic Byway* “presents,” according to the state description of the route:

a *scenic paradise* capped by the topography including waterfalls, caverns and gorges all left by the Last Ice Age. Seneca Lake presents travelers with recreational opportunities such as boating, canoeing, fishing and swimming...The area presents a history as visitors can visit landmarks that represent the interaction between Native Americans and European settlers. Rich bounties of agricultural products from wine to fruit and vegetables, are produced in the area.⁴⁷

A project team of 13 citizens that included members of local and municipal town and village boards of the Hector and Lodi communities nominated the Byway in the spring of 2005. The state assisted with advice from the Department of Environmental Conservation and officially designated the route as a State Scenic Road. After the proposal was accepted by the state the 501(c)(3) “Seneca Lake Byway, Inc.” has

⁴⁵ New York State Barge Canal Historic District website, http://www.eriecanalway.org/get-involved_hist-pres_NRupdate.htm.

⁴⁶ New York State Scenic Byways, “NYS Scenic Byways Program,” (<http://www.dot.ny.gov/display/scenic-byways/programs>) (emphasis added).

⁴⁷ New York State Scenic Byways, “Seneca lake, Hector and Lodi Scenic Byway,” (<https://www.dot.ny.gov/display/programs/scenic-byways/seneca>) (emphasis added).

continued to coordinate plans for the Byway. As described in the Scenic Byway proposal:

A scenic byway corridor is managed to protect its *outstanding character* and to encourage economic development through tourism and recreation.

Located in the Finger Lakes Region of Central New York State, scenic Seneca Lake and specifically the Towns of Hector and Lodi, have long been sites of interest for visitors and residents. Rich in natural landscapes, recreational opportunities, and diverse history, the proposed NYS Route 414 Seneca Lake Scenic Byway provides visitors and residents 19 miles of unsurpassed natural beauty. This corridor provides incredible views of rolling vineyards, orchards, and breathtaking vistas of the Hector and Lodi rural community on Seneca Lake, while also highlighting our rich history and traditions predating the arrivals of Europeans to our area.⁴⁸

As an economic development project, the local citizen authors of the Seneca Lake Byway Proposal describe many features of their local landscape that constitute their perception of community character. In their own words they identify the cultural landscape elements as opportunities for visitors to appreciate, such as views of the lake and the rural farms and orchards, and the numerous recreational activities available along the corridor.

The NYS Route 414 Seneca Lake Scenic Byway is the north-south corridor through the Towns of Hector and Lodi, that features overlooks of the shores of Seneca Lake, rural and woodland landscapes and numerous intrinsic recreational, natural, tourist and cultural attractions. This thoroughfare provides visitors an opportunity to observe the glacial formation characteristic of Seneca Lake, visit landmarks of historic significance, explore the Finger Lakes National Forest, experience local wineries, farms and trades people, and enjoy the extensive recreational activities associated with Seneca Lake...

The Byway offers panoramic views of Seneca Lake, the area's agricultural fields, rolling woodlands, vineyards and orchards. In addition to scenes of Seneca Lake, the rural roadside includes views of waterfalls, common and rare

⁴⁸ Seneca Lake Scenic Byway Project Team, *Seneca Lake Scenic Byway Nomination Proposal*, rev., 2010, p. 5.

indigenous plants, and many sites of cultural and historical significance. ...

Visitors and residents appreciate the agricultural beauty of the region. Wineries along Seneca Lake offer wine-tasting tours, and sell bottles of their locally grown vintages...roadside farm stands and Bed and Breakfast's (*sic*) offer visitors seasonal favorites. ...

Recreation seekers have long enjoyed the clean air, natural landscape, and wide variety of opportunities in the Seneca Lake region. Boating and swimming are always popular lakefront activities...and world-class fishing for brown, lake and rainbow trout, salmon, pike and numerous other game fish within Seneca Lake. At the south end of the Byway is access to Queen Catherine's Marsh bird sanctuary providing ideal opportunities for bird watchers. Choices of golfing, cross-country skiing, horseback riding, bicycling, and hiking are also available through federal, municipal or private facilities.⁴⁹

The creation of the State-designated Scenic Byway is a result of a local citizens' coalition from Hector and Lodi, towns in Schuyler County, including the West Hector Community Association and the Hector Scenic Byway Project Team and Town of Lodi Board Members as the Seneca Lake Scenic Byway Project Team, with eastern shorelines on Seneca Lake, overlooking the lake and scenic western shore as well as the proposed Project site. The formation of this multi-municipal project team is substantive proof of the organizing principal of community character in local decision-making and cultural understanding of sense of place.

3.4 Parks, Open Space, and Land Trusts

The Finger Lakes Land Trust and other local and regional designations for open space preservation identify the region's community character as rural, scenic and heritage-agri-cultural tourism related. Many municipalities have planned parks and recreational areas, such as the Clute municipal park, Waterfront Park & Marina, and the Watkins Glen State Park in Watkins Glen at the south end of Seneca Lake, the Lodi park in Lodi overlooking the western shore of the lake and the FLPPG project site, and the Finger Lakes National Forest in Hector and Lodi. The designated public lands of FLNF encompasses 16,032 acres and has over 30 miles of interconnecting trails that traverse gorges, ravines, pastures, and woodlands. These lands constitute a significant community land trust in the preservation of scenic and recreational values associated with the cultural landscape immediately surrounding Seneca Lake.

⁴⁹ *Id.* at 6.

There are three state parks and several municipal parks in the area. They include Seneca Lake Park, Sampson State Park, and Watkins Glen Park, as well as Clute municipal park. The 16,036 acre Finger Lakes State Forest is within the Seneca Lake watershed as well.

3.5 American Viticulture Areas

AVAs are federally designated economic zones that have a substantive economic and social context that define them as a region. They are cultural landscapes that have, as their community character, an historical and contemporary economic and social coherence. The scenic landscape of vineyards and wineries of the Finger Lakes AVA and Seneca Lake AVA is a visual and perceptual image of the region's community character.

3.5.1 Finger Lakes AVA

Established in 1982 and amended 1987, the Finger Lakes AVA, according to the Federal designation, is an "American Viticultural Area located in Upstate New York, south of Lake Ontario. The Finger Lakes encompass eleven glacial lakes, but the area around Canandaigua, Keuka, Seneca, and Cayuga Lakes contain the vast majority of vineyard plantings in the AVA. Cayuga and Seneca Lakes each have their own American Viticultural Areas completely contained within the Finger Lakes AVA (Cayuga Lake AVA and Seneca Lake AVA). The Finger Lakes AVA includes 11,000 acres (4,4451 ha) of vineyards and is the *largest wine-producing region in New York State.*"⁵⁰ In recognition of the significance of the local environmental and cultural conditions, wine produced in the Finger Lakes containing grapes grown in the AVA district were given their own Finger Lakes appellation in 2007.

The environmental conditions and historical development of vineyards in the Finger Lakes region are described on the Finger Lakes AVA website:

The deep lakes in the region help to moderate the local microclimate. Stored heat is released from the deep lakes during the winter, keeping the local climate mild relative to surrounding areas and preventing early season frost. Most vineyards are planted on steep hillsides overlooking the lakes which helps provide the vines with good drainage, better sun exposure, and a reduced risk of frost...the soil in the region is generally deep, providing good drainage.⁵¹

3.5.2 Seneca Lake AVA

The federally designated Seneca Lake AVA includes portions of Ontario, Schuyler, Seneca and Yates counties, consisting of approximately 204,600 acres (82,799

⁵⁰ Wikipedia, "Finger Lakes AVA," http://en.wikipedia.org/wiki/Seneca_Lake_AVA (emphasis added).

⁵¹ *Id.*

ha) with a vineyard planted area of 3,700 acres (1,497 ha) and 44 wineries. Focused on the lands surrounding Seneca Lake, a “glacial lake about 35 miles (56km) long and up to 600 feet (180 m) deep. The lake does not freeze in winter, and acts as a giant heat storage unit for the vineyards surround the lake, extending the growing season. The most commercially important variety in the region is Riesling, although a wide variety of *Vitis vinifera* and French hybrid grapes are grown.”⁵² Wine produced in the Seneca Lake *terroire* can be sold with its officially designated Seneca Lake appellation.

Tourism Economy – 21st Century

In 2011, Governor Andrew Cuomo called upon all regional development councils and corporations to develop proposals to the state for funding specific projects that would be of region wide significance and substantially benefit its economic progress. Noting that “the proposed Seneca Lake industrial gas projects are inconsistent with local wineries,” the Finger Lakes Regional Economic Council (REDC) emphasized that tourism contributes significantly to the regional economy. For example, in 2010 tourism generated nearly \$60 million in Yates County and \$43.3 million in Seneca County, which represented a 34 % increase from 2005. In Schuyler County, tourism accounted for 530 jobs, \$1,936,000 in local taxes, and \$10,781,000 in labor income.⁵³

3.6 Wine Tourism

The Finger Lakes REDC’s strategic plan also “recognizes the importance of the area’s agricultural and tourism industries. The plan notes that the Finger Lakes hosted more than 90 wineries in 2011, accounting for 85% of the State’s wine production.”⁵⁴ According to the New York Wine and Grape Foundation, there are now 108 wineries in the four counties surrounding Seneca Lake. They contribute substantially to the economic benefits from tourism through sales, tours, tasting, lodging and restaurants.

In 2014 Governor Cuomo recognized the Finger Lakes REDC’s focus on the wine industry. He participated in the “Governor’s Cup Wine tour” of the four counties surrounding Seneca Lake, where he earlier had called attention to the “great wines and the breathtaking places that produce them.” During the tour the governor “pledged to support New York’s position as a leader in wine production and boost tourism to grow the economy Upstate.”⁵⁵ As the winner of the best in show, the 2014 Governors Cup was awarded to Chateau Lafayette Reneau 2013 Semi-Dry Riesling of Hector, Schuyler County, overlooking Lake Seneca.⁵⁶

⁵² *Id.*

⁵³ Finger Lakes Regional Economic Council, “The Proposed Seneca Lake Industrial Gas Projects Are Inconsistent with Local Wineries and the Governor’s Pledge to Support Tourism in the Region,” (REDC, 2014).

⁵⁴ *Id.*

⁵⁵ *Id.* (quoting a press release released on day of 2014 Governor’s Cup Wine Tour).

⁵⁶ Laura Nichols, “Chateau Lafayette Reneau wins Governors Cup,” *Democrat and Chronicle* (August 14, 2014).

3.6.1 Wine Industry

New York State's wine industry has grown to include 53 of the state's 62 counties, and according to figures from the New York Wine & Grape Foundation in 2013, has an estimated economic impact of \$4.8 billion a year.⁵⁷ Since the state legislature's approval of the New York Winery Act in 1976, the 14 wineries in just 9 counties that year grew to 54 wineries in 14 counties ten years later, 125 wineries in 24 counties by 2000, and 416 wineries in 53 counties in 2013.⁵⁸ The number of vineyards and wineries in the Finger Lakes grew since 1976 to over 100 in 2014; 55 are within the local region, 34 of which are on the Seneca Lake Wine Trail.

The study by the New York Wine & Grape Foundation claimed "that wine is the ultimate value-added product and a major economic engine."⁵⁹ The study cited the following data: 25,000 full-time equivalent jobs; \$1.4 billion in wages paid; 5.29 million tourist visits; \$401.5 million in wine-related tourism expenditures; and \$408 million in New York State and local taxes paid. The data show continued growth in the economic impact of the state's wine industry from \$3.14 billion in 2005 and \$3.75 billion in 2008 to the 2013 figure of \$4.8 billion. Wine tourism has been a major part of the economic engine. According to *Wine Enthusiast* magazine, tourist visits increased over the past three decades from 340,000 to over 5 million in 2014.⁶⁰

For 2015, *Wine Enthusiast* magazine has named the Finger Lakes as one of the world's top ten "wine travel" destinations, along with nine other destinations from Italy, New Zealand, France and Spain.⁶¹ The identity of the Finger Lakes region as a wine tourism destination has clearly emerged.

In 2013, *Wine Spectator* listed more than 300 wines from 50 wineries through a tasting test; two thirds received 85 points or higher.⁶² The Seneca Lake Wine Trail lists 34 participating wineries of which 16 submitted wines for tasting, 15 received 85 or higher on one or several of their wines and 5 of these also received ratings of 90 or better on one or more of their wines.

3.6.2 Seneca Lake Wine Trail

The Seneca Lake Wine Trail was established in 1986 and currently lists 34 wineries and vineyards, a distillery, two breweries and a meadery as participating businesses. The businesses collaborate to market their products and

⁵⁷ Don Cazentre, "How the wine industry spread across New York state and grew into a \$4.8 billion business," *Syracuse Post-Standard* (March 31, 2014).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Wine Enthusiast Magazine*, "Wine Enthusiast's 2014 Wine Star Award Winners: Wine Region"

⁶¹ Don Cazentre, "Finger Lakes named one of the world's top 'wine travel' destinations in new report," *Syracuse Post-Standard* (January 1, 2015).

⁶² Listing in *Wine Spectator* (January 31-February 28, 2013 issue)
<http://www.winespectator.com/magazine/show?id=47893>.

see themselves as a *community of winemakers* who come together at local eateries such as the Stonecat Café to bring the austere beauty of Seneca Lake to the glass. Each vineyard brings its own personality and flavors to the lake's edge, making for a comprehensive tourist destination that features events throughout the year.⁶³

A growing interest in the culinary arts is increasing tourism. As a visitor to the area described in a 2014 travel article in *The New York Times*, “We ate (and drank still more cider) on the deck at Stone Cat, surrounded by weeping willows and a lush garden above Seneca Lake.”⁶⁴ Moreover, “Stonecat Café has a good reason to focus on homegrown wines. It is located on the Seneca Lake Wine Trail, which holds 32 wineries on the deepest of the Finger Lakes, about a four-hour drive from Central Jersey, making it a sound pick for a long weekend getaway, especially in autumn due to the changing foliage. Each winery is located at a three-minute drive or less from the next alongside various roads running next to Seneca Lake.”⁶⁵

3.7 Agricultural Tourism

Agriculture has a significant impact on the tourism industry and economy of Schuyler County. Tourists come to visit u-pick farms and wineries, harvest organic foods on community supported agriculture (CSA) farms, and enjoy farm-to-table eating at local restaurants. An analysis reported in the county's comprehensive plan indicates that it

produces much higher economic multipliers than any other sector of the Schuyler County economy, and as a result comprises a large portion of the County's economy. The three components of agriculture [farms, forestry and vineyards] contribute over \$100 million to the local economy. ... Agriculture has helped shape Schuyler County into what it has become today and is poised to continue to do so in the future.⁶⁶

3.7.1 Cheese Trail

In addition to tourism associated with vineyards and wineries, visits to the area's farms, orchards and cheese factories help to maintain local farming and dairying. Thirteen family farms that make artisanal cheeses have organized a Finger Lakes Cheese Trail.⁶⁷ “Destination farms” are open for visits while the creameries and cheese companies also offer their organic products at the Finger Lakes Cheese Festival.

⁶³ Seneca Lake Wine Trail, <http://www.senecalakewine.com/seneca-lake/about-us/about-the-seneca-lake-wine-trail.html> (emphasis added).

⁶⁴ Freda Moon, “Sips From a Cider Spree in New York State,” *The New York Times* (September 24, 2014)

⁶⁵ Jenna Intersimone, “Travel: A Taste of the Seneca Lake Wine Trail,” *MyCentralJersey.com* (October 7, 2014).

⁶⁶ *Schuyler County Countywide Comprehensive Plan (CWCP)*, (Steinmetz Planning Group, 2014), p. 13

⁶⁷ “Finger lakes Cheese Trail” brochure, n.d. (2014) <http://www.flcheesetrail.com/>.

Primarily as a result of New York State becoming the number one producer of yogurt in the nation, the state's total dairy production is second in the nation. Cheese is a higher value-added product that helps small farms, as in the Finger Lakes region, and adds additional value as an important feature of the agri-tourism industry.

3.7.2 Organic Farms, CSAs and Farmers Markets

The growth of Farmer's Markets and CSAs throughout the Finger Lakes region has been a significant factor in stabilizing the agricultural industry and preserving farmlands. As existing farmers retire, young men and women interested in educating the public on food issues are taking up organic and sustainable farming methods. CSAs include families as shareholders as they learn about growing and harvesting crops that provide their food supply. Local economies also benefit, as money is not spent on food grown outside the area. For example, a 2013 study in one Finger Lakes county suggested, "about 4,500 shares, equal to approximately \$2.25 million...was spent and kept in the local economy through the CSA system."⁶⁸

A number of farms, such as the growing number of organic farms, truck their produce to New York City once or twice a week, while farm stands dot the local roads during the harvest season. Local restaurants advertise their farm-to-table cuisine as "locavore" and "slow food" culinary arts have gained strength in the regional food culture. Distribution of sustainably produced artisanal food products outside the area as a value-added export began in 1989, by the company *Regional Access*, owned by Gary Redmond and his wife. A quarter century later the company works with over 150 regional farms and small-scale producers, and employs over two dozen workers with a self-defined mission to "redefine regional food systems" that create "value-chains in which all participants in a system receive an equitable portion of the profit structure."⁶⁹

3.8 Recreational Tourism

3.8.1 Accommodations: Lodging and Food

Regional growth in tourism has promoted the development of facilities that cater to a more diverse customer base. Dozens of new restaurants have opened that serve farm-to-table meals and other local products.⁷⁰ A number of wineries have added restaurants and rooms for overnight visitors to their wine-tasting venues, such as Glenora Wine Cellars with a restaurant featuring regional seasonal cuisine and local wines and a thirty-room inn overlooking their vineyards and Seneca Lake. Many small events, such as those sponsored by the members of the Wine Trail association, encourage visitation throughout the year, including in winter.⁷¹

⁶⁸ Laura Winter Falk, *Culinary History of the Finger Lakes: From the Three Sisters to Riesling* (Charleston, SC: American Palate, 2014), p. 120.

⁶⁹ Interview with Asa and Stephanie Redmond (January 7, 2015); and www.RegionalAccess.net.

⁷⁰ Falk, *Culinary History of the Finger Lakes*.

⁷¹ "Seneca Wine Trail Guide 2014."

http://www.senecalakewine.com/images/stories/brochures/SWLT_2014-LowResForWeb.pdf.

Conferences and other large gatherings are accommodated at the upscale Watkins Glen Harbor Hotel with its 300-seat private conference room, and Geneva on the Lake and the Belhurst, an 1880s castle in Geneva. Bed & Breakfasts and Inns are found throughout the region; for example, Schuyler County is home to approximately 15 hotel/motels and 20 B&Bs. Scores of these facilities host weddings and receptions. For example, a half-dozen facilities on Seneca Lake host 40-45 weddings per year and smaller venues from 6-12 weddings per year. Bridal parties come from outside the Finger Lakes AVA and the state, and generate hundreds of thousands of dollars in annual revenue (food, music, etc.) and jobs (caterers, musicians, etc.), in addition to room revenue. Workers in these service industries constitute an important segment of the community. As a result of increased tourism within Schuyler County, “room tax figures have increased steadily [since 2005] and are expected to continue to increase into the future.”⁷²

3.8.2 Fishing

Seneca Lake is a destination for the fishing community looking for lake trout as well as perch. Every Memorial Day weekend, Seneca Lake is the site of the *National Lake Trout Derby*. In 2014, more than 1,500 entrants vied for the \$5,000 grand prize. Many fishermen arrive from outside the region and decide to purchase cottages on the lake’s shore as vacation homes. As a reporter for *The New York Times* wrote in 2007, prices for homes on Seneca Lake are relatively cheap compared to other New York State vacation areas. Price is not the only factor for fishermen. According to one respondent, despite being 38 miles long, Seneca Lake has very little boat traffic, a pleasant situation for trolling.⁷³

The cultural landscape of the Seneca Lake neighborhood reflects the integrated social and aesthetic values of the residents and vacationers. Vacation and weekend homes line the shores of the six major Finger Lakes, from Skaneateles on the eastern end of the chain to Canandaigua and Keuka on the west, and vineyards march down the hills above the lakeside roads. It is a social landscape that adds to the local region’s community character. According to the *New York Times*:

Not all of the homeowners like to fish. Some concentrate on boating, sailing, water skiing and swimming, or just gazing out at the silver-blue water and sipping the wine. And not all are content with simple cottages. According to several local real estate brokers, prices of property on the Finger Lakes surged after 9/11. ... Yet despite the presence of the occasional multimillion-dollar lakeside property...and the renowned local wineries, the Finger lakes remains largely a region of real general stores and

⁷² Schuyler County *Countywide Comprehensive Plan (CWCP)*, (Steinmetz, 2014), p. 15

⁷³ David Wallis, “Lake Trout: Big, Deep and Seductive,” *The New York Times* (August 17, 2007).

front-porch gatherings. Not to mention the gas stations that also sell bait.⁷⁴

The economic multiplier effects from fishing activities reach many kinds of local small businesses, from tackle shops that sell fishing and camping gear to gas stations that sell gas and worms, to grocery stores that sell beer and ice, and restaurants, motels and hotels. The nine towns surrounding Seneca Lake (Burdett, Dundee, Geneva, Hector, Himrod, Lodi, Penn Yan, Rock Stream, and Watkins Glen) are home to a number of historic bed-and-breakfast hotels.

3.8.3 Events

Motor racing events in Watkins Glen bring thousands of visitors to the village and area surrounding Seneca Lake. Originally, races were run on a route through the village. In 1953, the competition moved to a different course outside the village where international races began in 1958. For example, Watkins Glen hosted the *United States Grand Prix* from 1961-80 and other national and international competitions as well as vintage car racing events from 1984 to the present. The thousands of motor-sports fans who attend these events also engage in the other attractions of the area, including the gorges and waterfalls in Watkins State Park, boating on Seneca Lake, enjoying the culinary arts in local restaurants, visiting nearby vineyards, and purchasing locally produced medal-winning wines. Shopping for antiques, locally-produced artisan crafts and sustainably grown farm produce also contribute to the local economy.

Other events also boost the economic significance of tourism. For example, an economic study of the 2012 Musselman Triathlon indicated that the three-day multi-sport weekend (swim-bike-run races) “brought over 3,000 unique visitors to Geneva and was responsible for the infusion of approximately \$4 million into the Geneva economy. In addition to these new dollars, the event also confers accessory benefits to the region in the form of return visits, the introduction of a desirable [*sic*] tourist demographic to the region, and positive national press.”⁷⁵ More than 50 per cent of the participants and their friends and families were from outside the Finger Lakes region. For example, 95 percent of the participants in the half-iron event traveled more than 100 miles or more, including 39 per cent between 200 and 400 miles, with 17 percent traveling to Geneva from over 400 miles away. These participants spent more than one night in the area, spent money for lodging and food, and visited various attractions, most notably wineries.

3.9 Comprehensive Planning

3.9.1 Rural Landscape Preservation

The Finger Lakes landscape combines rural agricultural lands with small towns, villages and cities. Three of the counties surrounding Seneca Lake are among the six least populated counties in New York State: second to last is Schuyler County with

⁷⁴ *Id.* at 2.

⁷⁵ “Musselman Triathlon: Economic Impact” (41 pp., December 2012), p. 2.

18,518; Yates County 25,256; and Seneca County 35,436. Within the Seneca Lake watershed the largest places are Geneva (2010 population 13,261) and Watkins Glen (2010 population 1,859). During the past few decades, counties and local municipalities in the region have developed plans to preserve their historic heritage to encourage the growing rural tourism economy.

In 2014 Schuyler County adopted the *Countywide Comprehensive Plan* (CWCP).⁷⁶ The CWCP examines the goals and objectives of all the municipalities in county: “As a community, the decisions we make shape our physical, social, and economic character.”⁷⁷ In its introduction, Schuyler County is described as being “comprised of a vibrant community of small towns and villages supported by a flourishing agricultural, winery and tourist industry. Schuyler County offers a variety of landscapes, outdoor recreational activities, wildlife habitats, and economic opportunities.”⁷⁸

As a rural county, the plan recognizes that tourism and agriculture are two of the largest sectors of the Schuyler County economy. “The challenge [for future social and economic development] is to ensure the continued protection of our resources (i.e. land, air and water), rural character and sense of place.”⁷⁹

Federal and state policies have assisted in this effort. According to the Trust for Public Land and the National Trust for Historic Preservation, historic rural landscapes:

provide a living record of our collective past. The result of the long interaction between humans and nature, rural landscapes have been shaped over time by historical land use and management practices. These landscapes of heritage were formed by the activities and habits of past generations, and to the careful observer they offer a glimpse of long-forgotten lifestyles and traditions...Unfortunately, the historical integrity and visual character of many rural landscapes are threatened by change...a good starting point...for understanding, appreciating, and eventually protecting historic landscapes is from the network of public roads. People largely experience private, working lands from public roads and highways. These public places provide us with visual access to the countryside, where surrounding views reveal themselves as sequences of images which color our perceptions of the environment.⁸⁰

⁷⁶ Schuyler County, *County Comprehensive Plan* (Steinmetz Planning Group, 2014).

⁷⁷ *Id.* at 2.

⁷⁸ *Id.* at 6.

⁷⁹ *Id.* at 23 (emphasis added).

⁸⁰ David H. Coppins, *Views From the Road: A Community Guide for Assessing Rural Historic Landscapes* (Washington, D.C.: Island Press, 1995), pp. 3-5.

The Seneca Lake Scenic Byway is an example of local community planning and action, with support from New York State, to experience views of the rural countryside that are visible aspects of regional community character.

Conserving cultural landscapes maintains and reinforces place and community identity, as further observed by the National Trust:

Our own, expanded concept of conservation...embraces the idea of *community* as a resource, from individual farms or landholdings, to social institutions, to the local economy and sustainability of the community as a whole...Rural conservation, then, includes protecting natural and scenic resources, preserving buildings and places of cultural significance, and enhancing the local economy and social institutions.⁸¹

Wine-makers and vineyard owners have worked together to create a cultural landscape and viable economy in the Finger Lakes region. The Project could undermine that effort. As an article reporting on the wine community's concern about the project, *The New York Times* reports: "Over the last two decades, vintners in the Finger Lakes region of New York State have slowly, and successfully, pursued a goal that could fairly be described as robust, with a lively finish: to transform their region into a mecca for world-class wines, and invite an influx of thirsty oenotourists."⁸²

New York State's agricultural policies that have helped preserve farming and grape growing in the Finger Lakes, such as the Small Farm Winery Act (1976) and the Craft New York Act (2014) are governmental actions that have also conserved the rural working landscape.

3.9.2 Local Government Planning

Public reaction to the proposed Project offers important insight into the factors that interact to form community character. Resolutions by counties, municipalities, and other local governmental bodies document many of the features that residents and communities agree construct their sense of place and identity. Between 2013 and 2015, over a dozen resolutions were passed by local government bodies, expressing concern about potential negative impacts of the proposed Project. These bodies, also shown on the map below, include:

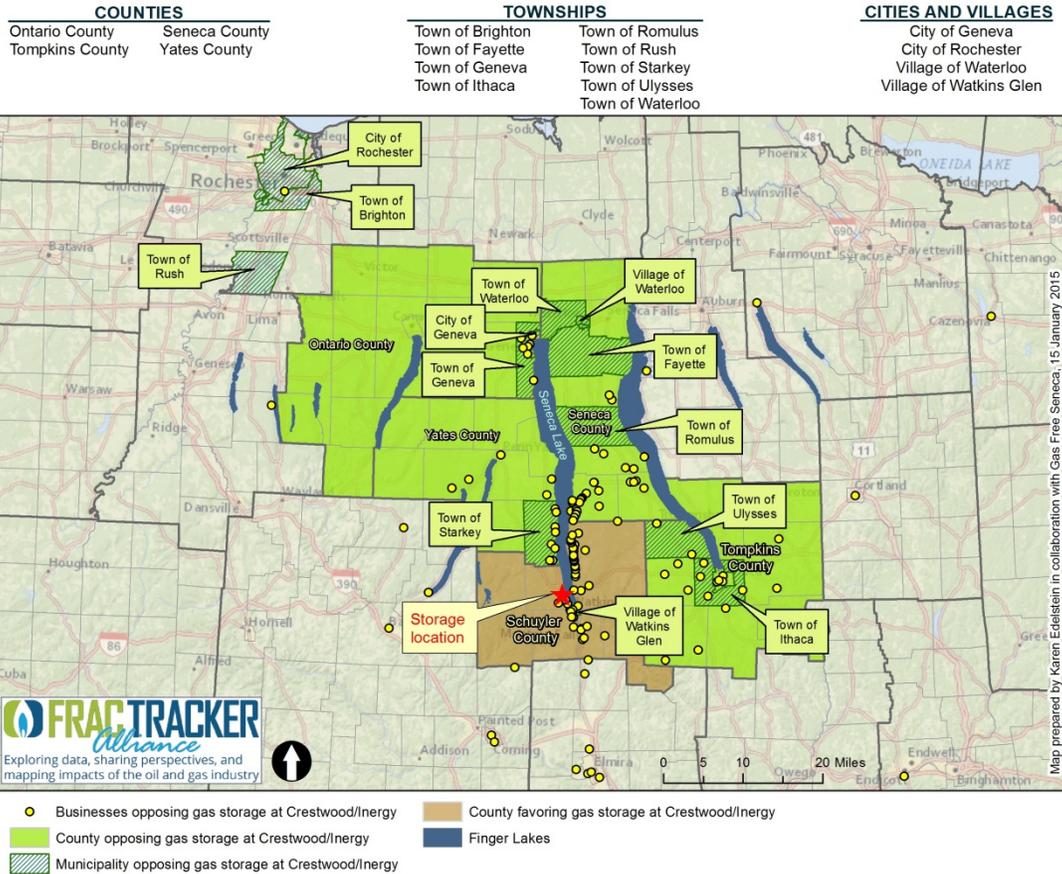
1. Ontario County;
2. Seneca County;

⁸¹ Samuel N. Stokes, A. Elizabeth Watson and Shelley S. Mastran, *Saving America's Countryside: A Guide to Rural Conservation*, second ed. (Baltimore: The Johns Hopkins University Press, 1997), p. 2 (emphasis in the original).

⁸² Jesse McKinley, "What Pairs Well With a Finger Lakes White? Not Propane, Vintners Say," *The New York Times* (December 26, 2014), p. A25.

3. Tompkins County;
4. Yates County;
5. Town of Brighton
6. Town of Fayette;
7. Town of Geneva;
8. Town of Ithaca;
9. Town of Romulus;
10. Town of Rush and Rush Conservation Board;
11. Town of Starkey;
12. Town of Ulysses;
13. Town of Waterloo;
14. City of Geneva;
15. Village of Watkins Glen; and
16. Village of Waterloo.⁸³

REGIONAL GOVERNMENTS AND BUSINESSES OPPOSED TO GAS STORAGE IN SENECA LAKE SALT CAVERNS



⁸³ Copies of the resolutions, as well as a letter in opposition to the Project signed by the members of the City Council of the City of Rochester, are available at http://www.gasfreeseneca.com/?page_id=493.

Geneva and Watkins Glen have developed planning documents that encourage economic development, especially in tourism and revitalization of their waterfronts and commercial districts. The town and city planning process requires public participation, where citizens develop their vision for a future cultural and economic landscape that defines their community character.

From 1958 to 2012, the City of Geneva produced over 15 development plans and waterfront studies focused on lakefront recreational amenities.⁸⁴ As in many North American cities after world War II, industries in Geneva moved from their 19th C locations on urban waterfronts, leaving behind a shoreline of abandoned buildings and, often, toxic soils. Federal funding through urban renewal began to clear many of the sites, and cities developed parks, playgrounds, and boat docks to increase public access for recreational use of the lakes and other water bodies. Urban landscapes entered a post-industrial phase of economic development strategies focused on recreation, historic preservation and tourism.

In 1997, Geneva's *City Master Plan & Local Waterfront Revitalization Program (LWRP)* addresses this economic and land use transformation as an important change in the city's community character:

A community's interest in its cultural and historic character says a lot about the way a community views itself and the impression it wants to give to others. Attention to the historic and visual aspects of the City will help restore a positive self image. Activities such as preserving the historic and cultural resources that define the City, improving the primary gateway entrances, and supporting efforts to make Geneva a center for regional tourism will enhance the City's image.⁸⁵

The implementation of Geneva's *Master Plan & LWRP* is ongoing, with current development in phases as outlined in its 2012 *Feasibility Study*.

The Village of Watkins Glen has developed similar plans for its lakefront historic commercial district. Various studies over the past decade include a master plan, waterfront revitalization program titled "Project Seneca," and revitalization of the Village's downtown through New York State's "Main Street" program.⁸⁶

Project Seneca has been designed by Schuyler County's economic development agency, SCOPED, as a waterfront revitalization strategy. It is an estimated \$200 million investment in Watkins Glen's waterfront, and is expected to spur \$1 billion in private

⁸⁴ City of Geneva, *City of Geneva Waterfront Infrastructure Feasibility Study*, 2012, p. 1.

⁸⁵ City of Geneva, *Master Plan & Local Waterfront Revitalization Program* (Saratoga Associates, 1997), pp. II-18 and II-19.

⁸⁶ *Village of Watkins Glen Comprehensive Plan*, "Watkins Glen Road Map," (Albany, NY: Laberge Group, 2012).

investment.⁸⁷ As with the City of Geneva’s planning, both historic preservation of structures and the provision of recreational amenities are themes that underlie the transformation of the Village’s image from an earlier industrial town to a destination location for recreation and tourism.

Impacts on Community Character

4. Visual Impact

The visual impact of a facility is less a matter of seeing something as it is, but more a matter of understanding what is seen. The environmental impact of a proposed industrial facility and its infrastructure can be both measured within a specific viewscape and regarded as a subtle indicator of change to the local or regional economy and sense of place. Images of the Project conflict with the community’s perception of its rural character and its plans for a tourism-based economy.

The visual impact of a facility can go well beyond an imposed spatial limit of five or even ten miles, and it is not a function of the size of the facility within the view. Rather small, yet symbolic, indicators of change can alter one’s perception of landscape beauty or integrity. The Project’s footprint may be somewhat limited, but its visual message is clearly contrary to the character of the locality and region.

4.1 Hector Falls

Specific views of a facility from significant historic, cultural, or natural sites are important, as they supply the context within which the facility is judged as to whether or not it contributes to the community’s economic future or emerging character. The direct view from Hector Falls, a natural landmark of extraordinary beauty throughout the seasons and important to local tourism, is not addressed in the recent “Visual Impact Analysis” (VIA). The VIA simply refers to Schuyler County’s description of a “grand view” of Seneca Lake and its “western shore.” In my opinion, the Project will have a significant adverse visual impact of the view from Hector Falls.



View of Facility Bordering Project Site from Hector Falls along Scenic Byway (2013)

⁸⁷ *Schuyler County Countywide Comprehensive Plan (CWCP)*, (Steinmetz Planning Group, 2014), p. 16

4.2 Gas Flare

The impact of the gas flare at the Project site also has not been thoroughly examined. When the gas flare is in operation, it will be seen from the eastern shore and from the lake. The bright light, 60 feet above the Project, will be especially noticeable during the night. For both tourists and residents, it will disturb an otherwise tranquil scene. Such facilities are dramatic visual indicators of the industrializing of the local landscape, which will have a significant negative effect on the Seneca Lake community and its recreational economy.

4.3 Brine Ponds

Views from the road, such as the Scenic Byway, have a direct effect on viewers' appreciation of local landscapes. Structures or signs seen from the road inform the viewers' knowledge of local or regional community character. Historic markers and way-finding signs help establish regional identity, although billboards do not, as New York State has established in legislation banning them along major state highways.⁸⁸ The Project's brine ponds remain visible to viewers on Route 14, and, although to some degree mitigated by vegetation, continue to posit a discordant feature.

5. Traffic Impact

5.1 Truck Traffic

Although the revised "Product Transportation Allocation" anticipates that trucks will not be used to transport product in or out of the facility, FLLPG has made no binding commitment to forgo the use of trucks for the life of the Project.⁸⁹ Indeed, the document leaves open the possibility that FLLPG will pipe product across the street to TEPPCO's facility, for truck distribution from that site. Unless future use of trucking is taken permanently off the table, the worst-case scenario should be assumed for environmental review purposes. Any increase in truck traffic on Route 14 and other local roads will have an impact on visitor experience. Tourists traveling through vibrant rural agricultural landscapes appreciate them as "working landscapes," with active farms, orchards and vineyards. An increase in heavy truck traffic can cause a change in perception as the landscape becomes less interesting and scenic roads become less "scenic."

5.2 Rail Traffic

According to the revised "Product Transportation Allocation," all butane volumes (in and out) will be transported by rail, and "the average number of rail cards in or out per day is 6.8 cars...[but] some days may come close to the maximum of 32 rail cars."⁹⁰ The construction of a new rail depot and the increased use of the former Fall Brook Railway

⁸⁸ Harvey K. Flad, *Blighted Empire: The Visual Environment of New York State* (Albany: New York State Council of Environmental Advisors, 1975).

⁸⁹ 2014-12-02, Product Transportation Allocation – Revised December 2014, letter and attachment.

⁹⁰ *Id.*

(New York Central's Norfolk and Southern Railroad) is a visible indicator of "re-industrializing" the Seneca Lake shore.

Tank cars hauling liquids or gases are a potential industrial safety hazard. In 1972, a train derailment "caused 60,000 to 70,000 of oil to spill into Indian Creek which flows into Seneca Lake."⁹¹ In 1980, a train traveling from Watkins Glen derailed in Geneva, causing great concern among the citizens that "it's only a matter of time before a tank car filled with a dangerous chemical derails."⁹² During 2013 and 2014, tank cars carrying Bakken oil from Canada across upstate New York to Albany and south along the Hudson River have gone off the tracks, leaked, and caused fires.

Increased train traffic will also have an industrializing effect as a result of noise created by rolling stock; whistling at crossings; and braking, stopping, and starting at the facility when uncoupling cars for unloading and loading of product.

6. Noise Impact

The intensity, variability, and pitch of sound are important elements in the perception of a community's sense of place and quality of life. Recreational spaces such as parks and lakes are important natural landscapes that offer quiet repose away from the noise emanating from industrial and commercial activities, highway or railroad traffic. For boaters on Lake Seneca, or winery or B&B guests overlooking the lake, intrusive sound from the Project, such as truck noise during construction or increased rail activity, would have a significant impact on community character, especially during the summer months, when most residents are outside, windows are open, and campers and tourists are enjoying outdoor recreational activities. The noise study prepared in connection with this proceeding confirms that noise will travel from the Project site across the lake to west-facing receptors in Hector.

7. Economic Impact

A more detailed analysis of the economic elements of the regional cultural landscape is contained in the report 2015 "Sources of Economic Development in the Finger Lakes Region: The Critical Importance of Tourism and Perceptions of Place" by Dr. Susan Christopherson. As the author notes, the emerging regional "brand" that emphasizes scenic beauty and lake-based leisure could be irretrievably damaged by the expansion of an industrial site on Seneca Lake and "have a significant adverse effect on the growth trajectory in the region."⁹³

⁹¹ Greenway Stuart, "Oil spills into Seneca Lake," *The Geneva Times* (July 20, 1972).

⁹² Jean Jones, "Chemical, nuke waste transport concern city," and "Another derailment," and "Derailed tank car contained only wine," *Finger Lakes Times* (January 4, 1980).

⁹³ Susan Christopherson, "Sources of Economic Development in the Finger Lakes Region: The Critical Importance of Tourism and Perceptions of Place," (January 14, 2015), p. 2.

7.1 “Industrialization”

Citizens, public officials, and local businesses have worked hard to change the foundations of their economy and recognize how these changes are observable in the regional and local landscape. The image of the regional environment shared by visitors and residents alike centers on aesthetic values, such as scenic views; prospering wineries and vineyards; culinary arts; heritage sites; and recreational activities, such as fishing and boating. The region is very consciously entering a post-industrial period of growth that could be reversed by the operation of the proposed Project.

An “industrial” landscape image is completely at odds with the current cultural landscape and is contrary to future progress as planned by local, regional and state officials. The Village of Watkins Glen Board emphatically states that “the Crestwood project has polarized the region with valid concerns of *rampant industrialization*, negative environmental impacts, safety risks, negative impacts to infrastructure and, the potential to *negatively affect the economic livelihood of a region dependent on tourism.*”⁹⁴

7.2 Planning

Proposals for regional development focused on recreational and agri-tourism, especially grape growing and wine-making, are also in the plans of counties and municipalities around Seneca Lake. Both the Village of Watkins Glen and the City of Geneva have adopted comprehensive plans that identify tourism as the most vital economic benefit to the community. Both municipalities are disturbed by the potentially adverse impact of the Project on their water supply, quality of life, and tourist- and recreation-based economy. In a resolution “in opposition of the construction of an underground liquefied petroleum gas storage facility,” the Watkins Glen Board identified several State and Federal “financial investments...in recognition of the vital importance that tourism has on the area.”⁹⁵ They include: “Project Seneca,” a multi-million dollar project to help revitalize the shores of Seneca Lake; NY Main Street Program funding to improve the building facades of the Village’s commercial district, along with funding from the Rural Area Revitalization Program (RARP) for exterior lighting; and Transportation grants to enhance Village entrance ways for eco-tourism.

7.3. Scenic and Historic Assets

In a resolution by the Seneca County Board of Supervisors that “opposes LPG storage adjacent to Seneca Lake,” the designation of its Scenic Byway is specifically noted as an asset to the county’s promotion of tourism, which serves as an engine of its

⁹⁴ Village of Watkins Glen, “Resolution of the Village of Watkins Glen Board in Opposition of the Construction and Operation of an Underground Liquefied Petroleum Gas Storage Facility,” 2014 (emphasis added).

⁹⁵ *Id.*

economy.⁹⁶ The legislatures of both Tompkins County and Yates County also mention the Scenic Byway as an important asset to the regional tourism economy.

The regional landscape and its many natural features such as waterfalls and Seneca and Cayuga Lakes are notable for their beauty. As the Village of Watkins Glen Board resolution notes, “the Fingerlakes [*sic*] Region, including Seneca Lake, is an area known for its natural and scenic beauty...and the natural wonder that is the Watkins Glen State Park, home to 19 waterfalls [and] gorges.”⁹⁷ If the Project is approved, it will have a significant negative effect on the view from the Scenic Byway, which cannot be mitigated.

The cultural landscape of Schuyler and Seneca counties within the Seneca Lake watershed contain numerous historic sites that are listed on the National Register of Historic Places and on New York State and local inventories. Together they constitute a palimpsest that is the foundation of the region’s changing community character as a rural, post-industrial economic landscape.

7.4 Recreation

Businesses and municipalities are extremely concerned about the impact that the proposed facility would have on its recreational resources. Seneca Lake has a regional and statewide reputation for swimming, boating, and fishing. Its clear, cold water offers excellent fishing for lake trout; each summer the National Lake Trout Derby attracts thousands of fishermen who camp or lodge and eat in local venues. It is an important annual event in the local economy. Equally, the decade-long success of the Musselman Triathlon is dependent upon maintaining water quality in Seneca Lake. Bicycle touring in the region is an increasingly popular recreational pursuit for an emerging middle-class generation. The Project, a highly visible industrial facility right along the lake, undermines the lake-side community’s self-image as a clean and serene destination for water-based recreation.

7.5 Wineries

The growth of the Finger Lakes AVA and Seneca Lake AVA has coincided with the increase of tourism to the area. Within the last few decades, the viticulture industry has seen many new vineyards and wineries developed in the districts. It has successfully grown and bottled prize-winning vintages and organized wine trails around both Seneca and Cayuga Lakes. Visitors come to tour the scenic beauty of the “viticultural landscape,” experience wine-tasting at the wineries, and purchase wines directly at the source. The industrial image of the Project and its impact on the aesthetic values inherent in the rural cultural landscape could be devastating, both economically and in terms of identity, or community character.

⁹⁶ Seneca County, “Seneca County Board of Supervisors Opposes LPG Storage Adjacent to Seneca Lake,” 2014.

⁹⁷ Village of Watkins Glen, “Resolution of the Village of Watkins Glen Board in Opposition of the Construction and Operation of an Underground Liquefied Petroleum Gas Storage Facility,” 2014.

Impact on the wine industry is most often cited by municipal officials, as well as the REDC, as the basis for opposition to the “industrialization” of the Seneca Lake landscape. According to economic geographer Dr. Susan Christopherson, who cites a 2013 study by Tuck and Gartner, New York winery tourists accounted for an estimated 1360 jobs and \$35.4 million in labor income.⁹⁸ The New York Wine and Grape Foundation, an industry affiliated group, added a figure of \$401.5 million in wine-related tourism expenditures. As one of the most significant sectors of the local economy, and the leader in the emerging tourist economy, its economic importance is the reason why local counties and municipalities and 200 regional businesses oppose the LPG storage facility. They are rightly concerned that the Project will have a significant and unmitigated impact on the scenic and bucolic community character that has emerged largely as a result of their efforts.

Conclusion

“Community Character” is a complex composite of social and economic history, cultural and natural landscape features, and aesthetic or visual elements, which collectively and over time, produce a distinctive identity and sense of place. The landscape of the Finger Lakes region, with special focus on the area surrounding Seneca Lake, is recognized for its beauty and amenities as a tourist destination. Cultural and natural landscape features such as vineyards, wineries, parks, historic sites, waterfalls and the deep, cold, glacial Seneca Lake are some of the visible expressions of the community’s character that would be adversely impacted by new industrial development.

This analysis of impacts has teased apart nine elements of the Finger Lakes cultural landscape that collectively emerge as community character: (1) scenic views and aesthetic resources; (2) historic sites and districts; (3) scenic roads and transportation corridors; (4) open space; (5) American Viticulture Areas; (6) wine tourism; (7) agricultural tourism; (8) Recreation; and (9) comprehensive planning by local governments. The community character of the Finger Lakes Region and Seneca Lake cannot be reduced to these elements, however, but is in fact greater than their sum—the product of their interaction over time with the people who are tied to the place. Community character joins space and time, weaving together social, cultural, environmental, and economic history, to define what the community means to its members. Even moderate impacts on the elements of the cultural landscape could have a significant impact on community character.

In my opinion, the Project will overlay an indelible industrial image on the cultural landscape of Seneca Lake, and the Finger Lakes more broadly, which will significantly and adversely affect the inhabitants’ hard-won and prized community character. The seriously detrimental effects of the Project that I have identified include: (1) disruption of scenic vistas, including views over the lake and its surrounding rural, small town, and viticultural landscape; (2) traffic and noise impacts, potentially of trucks

⁹⁸ Susan Christopherson, “Sources of Economic Development in the Finger Lakes Region: The Critical Importance of Tourism and Perceptions of Place,” (January 14, 2015), p. 2.

and certainly of railroad, especially on recreational users of Seneca Lake and lake-side residents seeking peace and quiet; and (3) socio-economic impacts on the region's wineries and tourist-related business, which depend on stable community character as the foundation of their brand. The draft supplemental environmental impact statement has no discussion whatsoever of community character and therefore necessarily fails to take a hard look at these significant adverse impacts on that area of environmental concern. Given the nature of those impacts, moreover, no conditions that may be added to the underground storage permit will be able to mitigate their damage, if it is allowed to occur.

Exhibit A

**Curriculum Vitae of
Harvey K. Flad, Ph.D.**

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EDUCATION

Ph.D., Syracuse University, Geography, 1973
MA, Syracuse University, Geography, 1972
BA, University of Colorado, 1962

EMPLOYMENT

ACADEMIC APPOINTMENTS (Vassar College)

Assistant Professor Geography 1973-79; Associate Professor 1980-89; Professor 1989-2004.

ADMINISTRATIVE APPOINTMENTS (Vassar College)

Chair, Faculty Policy and Conference Committee, 2001-2003; Director, American Culture Program, 1998-2001; Director, Exploring Transfer Program, 1999; Chairman, Department of Geology and Geography, 1988-1998;; Director, Office of Affirmative Action, 1991-1993; Director, Urban Studies Program, 1983

OTHER WORK EXPERIENCE

Executive Director, Hudson River Shorelands Task Force, Red Hook, NY, 1980-1981; Assistant Map Curator, American Geographical Society, New York, NY, 1965-1968; Peace Corps, Nigeria, 1962-1964

FELLOWSHIPS, GRANTS, HONORS, AWARDS

Helen Wilkinson Reynolds Award for Scholarship, Dutchess County Historical Association, 2010.
Senior Associate Fellow, Association of American Geographers, 2005.
Russel Wright Award for Environmental Preservation, Manitoga, 2003.
Fulbright Fellow, awarded 1996 for Lectureship in Kyrgyzstan, Central Asia, 1997-1998.
Ford Scholar Program Research grants, 1990, 1994, 2003.
Research Resident Fellow, New York State Library, Albany, N.Y., 1993-1994.
Research Fellow, The Institute on Man and Science, Rensselaerville, NY 1977-78.
County Award, Dutchess County Cooperative Extension Association, 1977.
Ford Fellowship in Ethnic Studies, Ford Foundation, 1971-72.

PUBLICATIONS

BOOKS, MONOGRAPHS

Main Street to Mainframes: Landscape and Social Change in Poughkeepsie. (Co-author Clyde Griffen)
Albany: The State University of New York Press, 2009. ISBN: 978-1-4384-2613-6.

Blighted Empire: The Visual Environment of New York State. Albany: New York State Council of Environmental Advisors, 1975. (Cited by the *New York Times* in article and editorial).

ARTICLES, ESSAYS and CHAPTERS IN BOOKS

- “Scenes ‘most impressive and delightful’: Nineteenth-century Artists in the Shawangunks, *The Hudson River Valley Review*, vol. 31, no. 1 (Autumn 2014), pp., 95-120, 134-36.
- “Photographs as Place Makers of the Urban Landscape: Poughkeepsie’s Downtown,” *Thinking Historically: Dutchess County Historical Society 2014 Yearbook*, vol. 93, pp. 25-34.
- “IBM’s Early Days in the Hudson Valley: Poughkeepsie and Kingston,” in *Kingston-The IBM Years*, ed. The Friends of Historic Kingston (Delmar, NY: Black Dome Press, 2014), pp. 9-32.
- “The Influence of the Hudson River School of Art in the Preservation of the River, its Natural and Cultural Landscape, and the Evolution of Environmental Law, Chapt. 20 in Robert E. Henshaw, ed., *Environmental History of the Hudson River: Human Uses That Changed Ecology, Ecology That Changed Human Uses* (Albany: State University of New York Press, 2011), pp. 293-313.
- “The Hudson River Valley and the Geographical Imagination,” *AAG Newsletter*, vol. 46, no. 5 (May 2011), pp. 1, 10-11.
- “History of Urban Studies at Vassar College,” “Histories” web page, Sesquicentennial web site, (Vassar College, 2010), <http://150.vassar.edu/histories/urban-studies/index.html>.

- "History of Earth Science and Geography at Vassar College," "Histories" web page, Vassar 150 web site, (Vassar College, 2010), <http://150.vassar.edu/histories/earth-science-and-geography/index.html>.
- "The Natural Resources of Dutchess County in the Past, Present and Future," Natural Resource Inventory web site, (Poughkeepsie, NY: Dutchess County Department of Planning and Development, 2010), <http://www.co.dutchess.ny.us/CountyGov/Departments/Planning/19401.htm>
- "The Parlor in the Wilderness: Domesticating America's First Iconic Landscape," *Geographical Review* vol. 99, no. 3 (July, 2009): 356-376.
- "Photography Changes Our Perspective of the American Landscape," (Smithsonian Institution, Click! Photography Changes Everything, 2009), <http://click.si.edu/Story.aspx?story=271>.
- "A Tree and Its Neighbors: Creating Community Open Space," co-authored with Craig M. Dalton, *Hudson River Valley Review*, vol. 21, no. 2 (Spring, 2005), pp. 56-67.
- "Audubon Terrace, The American Geographical Society, and the Sense of Place," *Geographical Review*, vol. 94, no. 4 (October, 2004), pp. 519-529.
- "Introduction to Ed Zahniser, and 'Wilderness and Our Community of Life'," *The Forest Preserve*, vol. 18, no. 1 (October, 2004), pp. 50-1.
- "The Hudson River Valley and the Geographical Imagination," *Watershed Journal*, ed. Miwon Kwon. (N.Y.: Minetta Brook, 2002), pp. 45-55.
- Editor, *Seen From the Other Shore: English and American Landscapes*, by David Lowenthal. (John Christie Lecture Series) Poughkeepsie, NY: Vassar College, American Culture Program, 2001.
- "The Hudson River Valley and the Geographical Imagination," in Ines M. Miyares, Marianna Pavlovskaya and Gregory A. Pope, eds., *From the Hudson to the Hamptons: Snapshots of the New York Metropolitan Area*. (Washington, D.C.: Association of American Geographers, 2001), pp. 8-15.
- "Following 'the pleasant paths of Taste': The Travelers Eye and New World Landscapes," in *Humanizing Landscapes: Geography, Culture and the Magoon Collection*, exhibit catalogue. (Poughkeepsie, NY: Vassar College, Frances Lehman Loeb Art Center, 2000), pp. 69-102.
- "The Parlor in the Landscape: Nineteenth Century Mountain House Resorts and the Shaping of Nature," in *European Identity and its Expression in Philosophy, Science, Literature and Art*. CD-Rom. Bergen, Norway: International Society for the Study of European Ideas, 2000.
- "War won when power plants lost" and "Modern roads rooted in the past," in *The Hudson Valley: Our Heritage, Our Future* (Poughkeepsie, NY: Poughkeepsie Journal, 2000), pp. 128 and 136-7.
- "Kyrgyzstan" and 200 other entries in *The Columbia Gazetteer of the World*. (NY: Columbia University Press, 1998)
- "Country Clutter: Visual Pollution and the Rural Roadscape," in *The Annals of the American Academy of Political and Social Science*, vol. 553 (Sept., 1997), pp. 117-129.
- "Matthew Vassar's Springside: '... the hand of Art, when guided by Taste'," in *Prophet with Honor: the Career of Andrew Jackson Downing*, ed. by George W. Tatum and Elizabeth B. MacDougall. (Dumbarton Oaks Colloquium on the History of Landscape Architecture XI). (Washington, D.C.: Dumbarton Oaks Trustees for Harvard University, 1989), pp. 219-257.
- "Hudson Valley Landscapes: Fieldtrips in the Hudson River Valley, New York State," in *North American Culture*, vol. 5, no. 2 (1989), pp. 39-63.
- "A Time of Readjustment: Urban Renewal in Poughkeepsie, New York, 1955- 75," in *Poughkeepsie's Past: New Perspectives*, ed. by Clyde Griffen. (Poughkeepsie, N.Y.: Dutchess County Historical Society, 1988), pp. 152-180.
- "Meaning (and Morality) in Preserved Landscapes," *North American Culture*, vol. 4, no. 2, pp. 4-21.
- "Preserving 'Springside': Andrew Jackson Downing's only extant landscape," *Bulletin of American Garden History*, Vol. II, 1 (Spring, 1987), pp. 2, 5.
- "The Country and the City," in *Meeting the Future on Purpose: Papers in Honor of Lewis Mumford*, edited by Richard C. Wiles. Annandale-on-Hudson, N.Y.: The Bard College Center, 1983).
- "Preservation of an Historic Rural Landscape: Roles for Public and Private Sectors," co-authored with Robbe Stimson, in *Farmsteads and Market Towns: Preserving the Cultural Landscape*. (Albany, N.Y.: Preservation League of New York, 1982), pp. 32-36.
- "The Hudson River Shorelands Task Force: Citizen Participation in the Preservation of an Historic Landscape," *Partnership in Conservation* (Second Conference of National Trusts), (Edinburgh, Scotland: The National Trust of Scotland, 1980), pp. 57-62

RESEARCH REPORTS

The Philipstown Turnpike: An Historic Cultural Landscape Study. Prepared for the Putnam Preservation League, Patterson, New York, 1988.

Historic Preservation and Tourism in Dominica: Recommendations for Scotts Head and Soufrière.
Prepared for the Government of the Commonwealth of Dominica, Ministry of Cultural Affairs and Tourism. Submitted in behalf of Dominica/Dutchess County Partners, 1986

Scenic District Management Plan for the Mid-Hudson Historic Shorelands Scenic Area, co-authored with Robert M. Toole and Robbe Stimson. Albany, N.Y.: NYS Department of Environmental Conservation, Heritage Task Force for the Hudson Valley, 1983.

EXHIBITS, VISUAL AND GRAPHIC PRODUCTIONS

A Digital Tour of Poughkeepsie, DVD. Produced by Urban Studies Program, Vassar College. (Script researcher, writer, and narrator), Vassar College, 2006; uploaded to Vassar YouTube, 2010.

"Humanizing Landscapes: Geography, Culture and the Magoon Collection". Gallery exhibit. (Co-curator of gallery exhibit). Frances Lehman Loeb Art Center, Vassar College, Oct. 5-Dec.20, 2000.

"Panorama of the Hudson River from New York to Albany," map reproduction of original engravings by William Wade, 1845, republished in five panels with additions and changes over 135 years by Hudson River Sloop Clearwater 1980. (Principal project consultant); team also included artist Alan Gussow, art historian John K. Howat, and cinematographer Jack Ofield.

United States Geography, filmstrip program produced by the Encyclopedia Britannica Educational Corporation, Chicago, IL. (Principal program and design consultant of five series), 1977-1980. Coordinator of individual consultants in geography (Harm deBlij, Merle Prunty, James Vance, Richard Morrill, and Wilbur Zelinsky). Series 17111K, published 1979-80.

Hyde Park, 16mm film, produced and directed by Ralph Arlyck; co-produced by the Hyde Park Visual Environment Committee, with additional funds from NYS Council on the Arts. (Researcher and interviewer on the historical, social, and visual aspects of the "Sense of Place"). Poughkeepsie, NY: Ralph Arlyck Film, 1977. Winner of First Prize, National Trust for Historic Preservation Film Festival, Mobile, Ala., October, 1977. National television showing on PBS (Channel Thirteen, New York sponsoring station), April, 1978. Available on video-cassette from Timedexposures.com.

OTHER PROFESSIONAL ACTIVITIES (selected)

CONSULTATION AND EXPERT TESTIMONY

Historical consultant, Greater Walkway Region Discovery Zone / Gateway signs, Branding subcommittee, Walkway Over the Hudson and Scenic Hudson, 2012-14.

Historical consultant, *The Seer of Poughkeepsie*, documentary film, produced and directed by Julia Johnson, Vassar College film department, 2013. Available on Vassar College Youtube.

Curatorial consultant, "Hudson River Panorama: 400 Years of History, Art & Culture," Albany Institute of History and Art, Hudson 400 exhibit for the Hudson-Fulton-Champlain Quadricentennial, 2009.

Cultural landscape consultant, "Landscape Character," Scenic Hudson, *et. al.* In visual impact assessment of Kingston Harbor proposal, 2006.

Cultural landscape consultant, "Community Character," Scenic Hudson, *et. al.* In visual impact assessment of St. Lawrence Cement proposal, Hudson, NY. Albany, NY: Department of State, 2005.

Editorial consultant, National Geographic Society, "Heart of the Hudson" by Patrick Smith in *National Geographic*, vol.189 (March, 1996), PP. 72-95.

Geography consultant, United States Information Agency (USIA), technical assistance to University of Klaipeda, Lithuania, 1995.

Cultural landscape consultant, Delaware County Historical Association, for exhibit on ethnic resorts in the Catskills, NEH and NYS Council on the Arts Folk Arts Program grants, 1994.

Cultural Landscape consultant, The Berkshire Museum, Pittsfield, MA, for exhibit "Labor and Leisure in Berkshire County," 1987-88. National Endowment for the Humanities, 1988.

Expert witness, "Prepared Testimony in the Matter of Central Hudson Gas & Electric Corp. Danskammer Coal Conversion", NYS Department of Environmental Conservation, submitted on behalf of Scenic Hudson, Inc., co-authored with John F. Sears, 1984.

Expert witness, "Prepared Testimony on Aesthetic Impact of Greene County Nuclear Power Plant," submitted on behalf of Columbia County Historical Society, *et al.*, U.S. Nuclear Regulatory Commission, and Power Authority of the State of New York, Case 8006, Docket No. 50-549, Albany, NY, March 2, 1979. (60 pp.)

COMMISSIONS/BOARDS/PANELS

Mohonk Preserve, 1982 - present

Waterfront Advisory Commission, City of Poughkeepsie, 1986-1997, 2011-present.

Advisory panel, Manitoga-The Russel Wright National Historic site, 2003-present.

Annual Meeting, of the Association of American Geographers, New York, 2000-01 and 2011-12.
 Science Advisory Panel, Smithsonian Photography Initiative, Smithsonian Institution, 2004.
 Faculty host, Visiting Fulbright Scholars from Vietnam (1997-98) and Central Asia (2001)
 Board of Review, New York State Archives, New York State Library, 1999-2000.
 A.A.G. Committee on the Status of Women in Geography, 1998-2000
 Founding member of Environmental Studies caucus, American Studies Association, 2000
 Faculty, NEH Summer Institute for College Teachers, "Hudson River Valley
 Images and Texts: Constructing a National Culture in
 Nineteenth-Century America," Vassar, 1993.
 National Panel, Division of Preservation and Access, National Endowment for Humanities, 1991-92.
 Advisory Panel, The Hudson River Valley--A Heritage for All Time, NYS D.E.C., 1979-80.

REVIEWS

Book reviews, professional journals: *Geographical Review* (2004); *Journal of Regional Science* (2004, 2012); *Society and Natural Resources* (2004); *H-Net Reviews in the Humanities & Social Sciences* (2011)
 Manuscript reviews – both professional journals and scholarly publishers