

# Potential Impacts of Hydraulic Fracturing on Historic Resources in the Town of Middlefield

Presented to Town of Middlefield, 10 May 2011

Prepared by Jessie Ravage

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## INTRODUCTION

Much has been said about the potential impacts of heavy industry, including drilling for natural gas using hydraulic fracturing, in the Town of Middlefield, Otsego County, New York, but I believe few, if any, have commented on the irreparable damage such widespread activity of this kind would cause to the town's historic landscape. Middlefield retains extensive—if not extensively documented—historic resources representative of its development as an agricultural region and a lakeside resort from the 1780s through the mid-twentieth century. Any heavy industry, including the proposed drilling, would have deleterious impacts on these resources.

In the instance of the proposed drilling, the number of well sites scattered over the county's rural landscape would compromise its historic integrity because the town's greatest significance is embodied in the consistently high degree of preservation across broad spans. The scale and density of wells and their associated structures would overwhelm the mainly nineteenth century rural scale of these resources, intruding upon their contexts and potentially eliminating the sense of place they engender. Finally, the volume of heavy truck traffic associated with drilling wells—or any other heavy industry—would inflict damage to both the historic rural road network—itsself a cultural resource—and the densely settled hamlets and Village of Cooperstown, which are connected by that network.

Some of these resources have been identified, documented, and assessed for their historic significance and integrity using an established standard. The portion of Otsego Lake's shoreline located in Middlefield and the area contiguous to the south and in the Village of Cooperstown is part of the Glimmerglass National Register Historic District. Likewise, the hamlet of Middlefield at the intersection of County Highway 35 and Rezen and Middlefield roads is listed in the National Register of Historic Places as is the Benjamin D. North House located on NY 166. The town as a whole, however, has never been consistently reviewed, and other properties and districts may be eligible for listing in the National Register.

## THE RESOURCES: UNDERSTANDING AND EVALUATING THEIR SIGNIFICANCE

Since local people usually initiate historic resource surveys and subsequent listings in the National Register of Historic Places, the lack of consistent survey documentation and National Register listings does *not* indicate a lack of historic resources and landscape in other parts of Middlefield. Rather, it indicates that so far, planning efforts in the town have not yet included reviewing these resources in a consistent manner.

The Town of Middlefield's historic resources are chiefly related to its longtime development and use as farmland beginning in the 1780s. By the Civil War period, much of the county's land was cleared, and vernacular farms were scattered across its hilly surface sculpted by

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glaciers. Where the land remains open, Middlefield preserves the spatial organization established during the first eighty years of its settlement. This period is represented by numerous contiguous historic farm properties still bounded by property divisions following the earliest plats surveyed by patent holders and land speculators.

These properties form a sweeping patchwork of individual farms retaining open land, fields, meadows, pastures, and woodlots. Many of these farms retain a cluster of buildings representative of the period of significance. These clusters usually include a farmhouse—most often a vernacular example with details illustrating stylistic tastes popular in the nineteenth century—and a group of outbuildings built and reused for the various agricultural endeavors of Middlefield farmers for more than two centuries. Their placements and plans over broad stretches of Middlefield's landscape match historic development densities dating from settlement and persisting to the present day. Each is more significant and provides a greater sense of place when considered as a component of a larger historic landscape extending over many hundreds of acres.

Middlefield's circulation patterns might easily be overlooked as a significant component integral to its historic rural landscape, but they are a key component. As a network, they connect scattered historic farm properties with hamlets and villages located chiefly along the main valley routes in the same way as when they were laid out around the turn of the nineteenth century. The entire system follows the historic patterns established in much older settlements, with routes conforming to the topography. Main thoroughfares parallel the valley watercourses and the lakeshore. These are connected across the prominent ridges by cut-and-fill roads built in the clefts cut by smaller streams draining the uplands.

By the 1820s, this local road network connected the region with the Erie Canal to the north; in 1870, it linked Middlefield with the former Delaware & Hudson Railroad at Cooperstown and Milford. The Susquehanna River, which originates at Cooperstown and flows through Milford, is also Middlefield's western boundary south of Otsego Lake. This watercourse was used to carry supplies for General Clinton's army to Tioga Point, where the Chemung flows into the Susquehanna, during the American Revolution.

The region's historic road network links villages and hamlets across the larger landscape. Middlefield preserves two historic unincorporated hamlets—Middlefield and Middlefield Center. The eastern section of the Village of Cooperstown is also within its bounds. Such centers expanded throughout the nineteenth century, with contiguous house lots along narrow streets carved from land immediately surrounding the center. This settlement pattern sets these centers off from the surrounding open land, and they punctuate the region's landscape. Their historic scale, appearance, and function codifies them visually within the town, and by extension with the county and the larger region's rural vernacular historic landscape.

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As early as the mid-1800s, Otsego County's rural landscape drew American summer holiday makers. Resort tourism in the nation's youth was founded in great part by recently minted city dwellers returning to their rural roots in the warm months. Many found the embodiment of these roots in Otsego County's highly intact rural landscapes. Cooperstown and Otsego Lake have a history as a summer resort, which predates even the alleged founding date of baseball. The Middlefield shore of Otsego Lake became a haven for summer camping holidays during the 1860s and 1870s. For summer visitors staying in Cooperstown's many summer hotels, riding out into the surrounding farmland along country roads was among the most popular pastimes.

Much of the county retains the rural mien that drew people then, and far more of the county than has been assessed for its historic integrity would, if evaluated, reveal high degrees of historic integrity representative of its settlement and agricultural development in the 1800s. This should be part of the planning process. Adoption of the master plan and zoning changes proposed in Middlefield should prompt such review, which would provide follow-up recommendations. These actions would improve the town's ability to protect the cultural resources that define Middlefield's sense of place.

## POTENTIAL IMPACTS

Heavy industry of any kind is incompatible with the scale of Middlefield's historic landscape. The proposed drilling for natural gas in the shale layers underlying the Town of Middlefield using hydraulic fracturing could lead to the dense placement of industrial-scale well sites across the town's rural historic landscape. The height of initial drilling structures and the lasting footprint of individual well pads will far exceed the scale of any established infrastructure. This threatens the historic integrity of the entire rural landscape because the consistent visual relationships between these historic farmsteads—encompassing their lands, structures, and buildings—play a critical role in defining the landscape's overall historic significance.

The access and transportation network required to support the development of heavy industrial endeavors such as well construction and natural gas extraction would alter both the internal historic integrity of individual properties within the larger landscape and also that of the region's nineteenth-century circulation patterns. Within farm properties, the new roads would create road patterns similar to suburban cul-de-sacs. This road structure is out of keeping with the county's established circulation patterns, which generally connect places via through and cross roads. Further, the historic roads themselves would be irreparably damaged by heavy and frequent truck traffic. Not only would the pattern of locating roads be broken, but individual roads might lose their historic character through widening and straightening not necessary under current use conditions.

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Finally, while heavy industry might not be undertaken within village limits or in Middlefield's hamlets, these small communities will surely feel the impact of any such activity. Both Middlefield and Cooperstown are historic districts listed in the National Register of Historic Places. Increased truck traffic on the roads, which function as connectors between these local centers, would quite literally shake their historic buildings to their foundations, causing significant structural damage. Historic streetscapes including sidewalks, verge lawns, and trees might be compromised or removed by road widening to accommodate trucks. Historic circulation systems play a pivotal role in sustaining local economies, and in this scenario, dismantling them would irreparably compromise the sense of place engendered by the historic, human-scale infrastructure. They will be increasingly difficult to preserve in a landscape broken up by scattered industrial sites, and they will lose the sense of place that draws us at a level many cannot put into words but most assuredly feel.

## MY QUALIFICATIONS

I am a 36 CFR architectural historian (federal qualification outlined in regulations pursuant to the Historic Preservation Act of 1966) and hold a master's degree in history museum studies awarded by the Cooperstown Graduation Program and the State University at Oneonta in 1992. I have lived in Otsego County for twenty years and have researched and conducted historic resource surveys and National Register of Historic Places (NR) nominations on a consultancy basis in central New York state and Montana for seventeen years. In my home county, these projects include historic resource surveys in the towns of Cherry Valley, Hartwick, Otsego, Roseboom, and Springfield, and National Register nominations for districts in the mill hamlets of Roseboom and Fly Creek, the Village of Milford, and the Main Street district in the City of Oneonta. Moreover, I prepared the Lindesay Patent (9,200 acres) NR nomination in the western portion of Cherry Valley and the Glimmerglass Historic District nomination (15,000 acres) taking in the viewshed of Otsego Lake. A third large district nomination for 17,000 acres in the Waggoner Patent in Springfield is determined eligible.