

Revitalizing the Esopus/Delaware Region of the Central Catskills

**Towns of Andes, Middletown, and Roxbury
Villages of Margaretville and Fleischmanns
(Delaware County)**

**Towns of Olive and Shandaken
(Ulster County)**

March 2013



This document was prepared for the New York State Department of State with funds provided under Title 11 of the Environmental Protection Fund.

Table of Contents

SECTION 1 - Introduction.....	2
SECTION 2 - Revitalization Area Boundary	5
SECTION 3 - Completed and Ongoing Plans, Reports, and Studies.....	6
SECTION 4 - Assets and Constraints for Economic Revitalization.....	9
SECTION 5 - Area Profile and Inventory	14
5.1 Environmental Resources.....	14
5.2 Land Use	24
5.3 Waterfronts and Waterfront Access	35
5.4 Recreational, Cultural and Historic Resources	42
5.5 Infrastructure.....	48
5.6 Demographic Overview	55
5.7 Economic/Market Analysis	59
5.8 Regional Business Survey Results	78
5.9 Second Homeowner Survey Results.....	86
5.10 Results of Public Meetings.....	95
SECTION 6 - Common Threads: Vision and Goals for Revitalization	96
SECTION 7 - Recommended Actions and Projects.....	100
7.1 Recommended Actions and Projects.....	100
SECTION 8 - Implementation and Action Plan	119
8.1 Prioritizing Actions.....	119
8.2 Project Partners and Funding Sources.....	134
8.3 Regional Economic Development Councils	138
8.4 Action Plan.....	140
SECTION 9 - Maps.....	151
APPENDICES (Separate Document)	

Acknowledgments

Project Advisory Committee

Peg Ellsworth, MARK Project
Carol O’Beirne, Central Catskills Chamber of Commerce
Alan White, Catskill Center for Conservation and Development
Kent Manuel, Delaware County Planning Department
Dennis Doyle, Ulster County Planning Board
Andrew Labruzzo, NYS Department of State
Jaime Reppert, NYS Department of State

Local Government Representatives

Martin Donnelly, Supervisor, Town of Andes
Marjorie Miller, Supervisor, Town of Middletown
Thomas S. Hynes, Supervisor, Town of Roxbury
Berndt J. Leifeld, Supervisor, Town of Olive
Robert A. Stanley, Supervisor, Town of Shandaken
Todd Pascarella, Mayor, Village of Fleischmanns
William Stanton, Mayor, Village of Margaretville

Collaborative Partners

Catskill Center for Conservation and Development
Catskill Watershed Corporation
Central Catskills Chamber of Commerce
MARK Project
Watershed Agricultural Council

Consultant Team



Nan Stolzenburg, AICP CEP
Adam Yagelski



Ellen Morosoff Pemrick

Don Meltz Planning & GIS

Don Meltz, AICP

All photographs taken by Ellen Pemrick: July 2010 (Andes, Roxbury, Middletown, Fleischmanns, and Margaretville) and August 2011 (Olive and Shandaken).

SECTION 1 - Introduction

The Towns of Andes, Middletown, and Roxbury and the Villages of Fleischmanns and Margaretville in Delaware County and the Towns of Olive and Shandaken in Ulster County have collaborated with the MARK Project and the Catskill Center to prepare this economic revitalization plan. It is designed to capitalize on the natural, scenic, agricultural and recreational assets of the East Branch of the Delaware River, the Esopus Creek and its tributaries, and associated lands.



Funded by the New York State Department of State's Local Waterfront Revitalization Program¹, this Plan is the result of a regional planning effort aimed at the revitalization of the Esopus and East Branch corridors (State Routes 28 and 30) in the central Catskills. The planning process was an inter-municipal effort through which these communities worked together to protect and promote the region's resources.

¹ NYS Executive Law, Article 42, § 911 defines the state's Coastal area, Coastal area boundaries, Coastal waters, and Designated inland waterways. In § 911 – 4, the state's Inland waterways are defined, with the Delaware River specifically listed as one of the state's major rivers in paragraph (b), and the upper and lower branches of the Esopus specifically listed in paragraph (c). Additionally, paragraph (e) states that inland waterways shall include "...the adjacent shorelands to the extent that such inland waters and adjacent lands are strongly influenced by each other including, but not limited to, islands, wetlands, beaches, dunes, barrier islands, cliffs, bluffs and erosion prone areas."

This document is intended to promote village, hamlet and Main Street revitalization that emphasizes enhanced access to and use of waterways and public lands to increase recreation-based tourism. It does so by recommending new opportunities for water-based recreation, natural resource based economies, and associated tourism-based economic development. This strategy also recognizes that the region's significant scenic and natural resources are vital to both economic prosperity and quality of life for residents.

The Esopus/Delaware watershed is an important environmental resource for both fisheries (trout) and as a large part of the watershed for the New York City water supply. The region's economy centers on recreation and related tourism activity, significant open spaces, and cultural and historical resources.

The watershed forms the basis of the region's environmental, cultural, and economic landscape. It is a significant feature that can be the focus to bring new life and energy to the five towns and two villages included in this planning effort.

To assist in community revitalization, this document inventories current conditions in the region, establishes a common vision and goals, and identifies priority projects that can be put to work to promote and enhance the economy. This is especially important to the recovery of the region after the 2011 Hurricane Irene. The Plan seeks to provide the participating communities with actionable strategies that can be put to work to create new economic activity.

Priority actions reflect public and professional consensus as to what are the most important actions local governments and organizations can take to revitalize the region. Recommended projects include a wide variety of strategies including:

- new stream access sites
- enhanced linkages between streams, hamlets, and villages,
- improved signage, and
- methods to promote an institutional and organizational framework.

Another important aspect of this plan is to collate many years of planning work that has already been completed into one place so that effective regional efforts can be promoted. This strategy incorporates the knowledge and creativity learned from a decade or more of excellent planning. Consequently, this revitalization strategy can be viewed as a comprehensive regional plan that weaves together, in one place, the data, maps, vision, goals, and creative actions from past and current plans and studies.

Because this strategy reflects community consensus generated over many years, it will increase the region's ability to market and promote itself to attract appropriate development. Appropriate development is that which respects the rich cultural and natural characteristics found here.

The Department of State works with communities in the Catskill region through the Local Waterfront Revitalization Program to promote community revitalization and resource protection through community-based plans and projects that enhance public access to waterways and state lands for water-based recreation, promote sustainable economic development, protect and improve water quality, and revitalize hamlets and downtowns. Communities along Designated Inland Waterways are eligible for grants from the Environmental Protection Fund Local Waterfront Revitalization Program to prepare and implement Local Waterfront Revitalization Programs. Adjacent communities are encouraged to work

together to implement projects which are inter-municipal in nature, including watershed management plans, corridor plans, and blueway trail plans.

The Planning Process

This revitalization effort was coordinated by MARK and the Catskill Center. The planning process included the following steps:

1. Compiling a profile and inventory of environmental, cultural and economic resources, including a market analysis to characterize the region,
2. Identifying common threads (issues, goals, actions and strategies) found in other plans already accepted or adopted in the region,
3. Reaffirming the direction with new public input and confirming goals and actions that are still relevant,
4. Identifying and analyzing key issues and opportunities,
5. Developing partnerships,
6. Prioritizing strategies, and
7. Refining final strategies into a plan of action.

Implementation of this strategic plan in the future will include:

1. Adopting necessary laws and practices,
2. Undertaking project planning and feasibility analysis,
3. Finding markets and obtaining financing,
4. Constructing projects, and
5. Ongoing cooperation and collaboration on decision making.

Public Input

The public was invited to participate in development of this plan in several significant ways including:

1. Joint meetings of organizations and agencies in Delaware and Ulster Counties.
2. A survey of the local business community.
3. The creation of a second-homeowner focus group and a subsequent survey of the second-homeowner community.
4. Small group meetings to discuss vision, goals, and possible actions in each community (see Appendix A for the Public Participation Plan).
5. Organization of a regional economic revitalization conference. In October 2012, a Regional Economic Revitalization Conference was held in Arkville with various stakeholders, including municipal leaders and representatives of regional agencies and organizations. The objectives of the conference were to describe work accomplished to date on the revitalization plan; share information about existing economic development, waterfront revitalization, and community improvement initiatives in the region; and discuss how participants can more effectively coordinate programming and market available resources to address regional economic development needs. The conference also contributed to the development of this plan.
6. Public meetings to gain feedback on the final draft plan.



SECTION 2 - Revitalization Area Boundary

The Esopus/Delaware Revitalization Strategy brings together five towns and two villages in the Central Catskills:

- Towns of Andes, Roxbury and Middletown in Delaware County,
- Towns of Olive and Shandaken in Ulster County, and
- Villages of Margaretville and Fleischmanns in Delaware County (see Base Map).

Each town includes several hamlets such as Arkville in Middletown and Pine Hill and Phoenicia in Shandaken. Along the Route 28 corridor, the revitalization boundary includes the Town of Olive in Ulster County and runs to the western gateway in the Town of Andes in Delaware County. Along the Route 30 corridor, the boundary runs north/south from the Town of Middletown to the Town of Roxbury in Delaware County.

This significant and unique region is largely defined by the geology and hydrology of the Central Catskills. The study area includes three major reservoirs in the New York City Watershed (Ashokan to the east, Pepacton to the west, and Schoharie to the north), and the Esopus Creek and the East Branch of the Delaware River.

Communities in the revitalization region share common physical, environmental, geographical, transportation, and land use features. They also share numerous recreational and cultural resources such as trails, parks, fishing access points, and preserved open space lands. These resources are described in greater detail in subsequent sections of this document.

SECTION 3 - Completed and Ongoing Plans, Reports, and Studies

Over the past 15 to 20 years, the revitalization area has benefited from the development of a multitude of plans, studies, and reports that help the Central Catskill communities understand their resources, strengths, weaknesses and opportunities. Many of these plans have excellent recommendations still relevant today but that have not yet been implemented. Past plans and studies remain very valuable and are included in this Plan so that positive history of planning for economic success in the region can be used and implemented.

A review of these past plans and studies revealed:

- Each town and village within the region has completed, or is in the process of completing, a municipal comprehensive plan.
- There are several town- and village-level strategic plans addressing hamlet revitalization, resource protection, and community empowerment needs.
- Many economic development plans, environmental impact statements, open space plans, stream management plans, and transportation plans have been developed for the region and are mostly up-to-date.
- A review and analysis of existing plans and studies shows many “common threads” and themes, particularly with respect to economic development and community revitalization. These common threads, which represent elements of an overall vision for the Esopus/Delaware region, relate to such topics as:
 - Business development
 - Main Street and hamlet revitalization
 - Small town character
 - Tourism related to cultural, historical, recreational, and other resources
 - Environmental preservation
 - Updated infrastructure

A common issue noted in many of the comprehensive plans is perceived conflicts between the desire to strengthen the local economy, preserve environmental resources, and deal with regulatory constraints imposed by the NYS Department of Environmental Conservation (DEC) and the NYC Department of Environmental Protection (DEP). However, the goals of environmental protection and economic development, are not necessarily at odds with one another. This is especially true in a region with a wide array of natural and recreational resources on which an economic development and community revitalization effort can capitalize.

This revitalization plan recognizes that a wealth of creative thinking already exists within the many previous planning efforts. The planning process has therefore focused on finding ways to learn from past efforts, capitalize on the opportunities already identified, and help the Central Catskill towns and villages move forward with actionable strategies for community revitalization.

Below is a list of the plans, reports, and studies reviewed as part of the preparation of this document.

Comprehensive Plans

1. Town of Roxbury Comprehensive Plan (2002)²
2. Town of Andes Comprehensive Plan (2003)
3. Town of Shandaken Comprehensive Plan (2005)
4. Village of Margaretville Comprehensive Land Use and Action Plan (2008), including the Village of Margaretville Existing Conditions and Trends Working Paper
5. Village of Fleischmanns Comprehensive Plan (2009)
6. Town of Middletown Draft Comprehensive Plan (2011)
7. Town of Olive Comprehensive Plan (draft, July 2011)

Town and Village Strategic Plans

8. Resource Protection and Economic Development Strategy for the Town of Shandaken, Ulster County in cooperation with the Town of Middletown, Delaware County (1994)
9. Historic Analysis, Existing Conditions and Schematic Planning – Kirkside Park (1999)
10. Village of Margaretville Revitalization and Recreational Use Plan (2001)
11. Strategy for Revitalizing Fleischmanns, NY - prepared by SUNY New Paltz students in association with the MARK Project (2007)
12. Catskill Center for Conservation and Development – Community Empowerment Initiatives. Conducted in Pine Hill, Phoenicia, and Fleischmanns; several of the projects have been advanced (e.g. a design was prepared for a Phoenicia River Walk).

Economic Development and Tourism-Oriented Plans

13. West of Hudson Economic Development Study for the Catskills Watershed Corporation (1998)
14. Central Catskills Planning Alliance - Tourism Development Plan for the Central Catskills (1998)
15. Watershed Communications Corporation Catalyst Catskills Implementation Study (2004)
16. Ulster Tomorrow: Sustainable Economic Development Plan for Ulster County (2007)
17. Open Space Institute: Private Lands, Public Benefits. Open Space Resources and Preferred Growth Areas in the Catskills (2007)
18. Delaware County - Gateway Community Tourism Assessment (2008)
19. NYC Watershed Economic Impact Assessment Report (2009)
20. Southern Tier East Comprehensive Economic Development Strategy Annual Report (2009 & 2010)

Environmental, Open Space and Land Preservation-Oriented Plans

21. Catskill Gateway Conservation Study: A Design Strategy for Land Protection (1990)
22. New York State Department of Environmental Conservation - Catskill Forest Preserve Public Access Plan (1999)
23. East Branch Delaware River Stream Corridor Management Plan (2007)
24. Upper Esopus Creek Stream Management Plan (2007)

² The Town of Roxbury is currently updating its comprehensive plan.

25. West Branch Delaware Stream Corridor Management Plan (2007)
26. New York State Department of Environmental Conservation - Catskill Park State Land Master Plan (2008)
27. Extended NYC Water Ashokan Watershed Stream Management Program – 2010-2012 Action Plan
28. Extended NYC Watershed Land Acquisition Program DEIS (2010)
29. Ashokan Watershed Stream Management Program – 2010-2012 Action Plan
30. Catskills Access: A Study of Accessibility to State Forest Preserve Lands and to Recreational and Water Resources along Route 28 (n.d.)

Transportation, Infrastructure, and Corridor Plans

31. Land Use Dynamics in a Catskill Corridor (1990)
32. Route 28: Scenic Road Study (1991)
33. The Catskill Corridor Study (1991)
34. Draft Guidelines for Highway Facilities within the Catskill Park (1999)
35. Route 28 Corridor Study Atlas. (2000)
36. Ulster and Delaware Railroad Corridor Trail Feasibility Study (2006)
37. Ulster County Non-Motorized Transportation Plan (2008)
38. SUNY College of Environmental Sciences and Forestry - Community Resilience in the Central Catskills (2010)
39. Ulster County Long Range Transportation Plan FFY 2011 through FFY 2035.
40. Delaware County Coordinated Public Transportation Implementation Study Locally Developed Public Transit Human Services Coordination Plan (2011)
41. Catskill Mountains Scenic Byway Corridor Management Plan (draft, September 2011)

Other Plans, Studies, Project Review Documents, Etc.

42. Belleayre Resort at Catskill Park DEIS (2003) and SDEIS (2011)
43. Final Scoping Document - Belleayre Mountain Ski Center Unit Management Plan – DEIS (2008)
44. Southern Tier East Regional Planning and Development Board – Delaware County Fact Book (2007)
45. Southern Tier East Regional Broadband Telecommunications Action Plan, 2009 Update (2009)
46. Various local Historic District nomination applications
47. Draft Environmental Impact Statement, Moersville Energy Center, Town of Roxbury and Town of Stamford (2008)
48. Open Space Institute - Ground Up: Cultivating Sustainable Agriculture in the Catskill Region (2010)
49. Watershed Agricultural Council – Strategic Plan for Economic Viability of Agriculture and Forestry (2012)

SECTION 4 - Assets and Constraints for Economic Revitalization

Based on the review of past studies and plans, the Esopus/Delaware region's strengths/assets, weaknesses/constraints, and opportunities for economic development and community revitalization are identified below. Identification of these characteristics is an important part of the planning process because the communities should implement actions that maintain and capitalize their strengths, mitigate their weaknesses, take advantage of opportunities, and prevent threats from occurring.

Assets for Economic Development and Community Revitalization

- Natural Resources and Scenery
- Vast expanses of scenic open space that are preserved and publicly accessible
- Beautiful and plentiful natural resources
- Clean air and water
- Unique habitats, diversity in habitats, forests that are not fragmented
- Trout fisheries
- Agricultural base in some locations, with an assorted bounty of goods
- Forest resources for wood products activities
- Scenic qualities, natural beauty in mountains, hills and valleys

Recreational Opportunities

- Excellent recreational opportunities
- Hiking and biking trails in the Catskill Park
- Proximity to Belleayre Mountain and other ski centers
- A myriad of available recreational activities including hiking, biking, fishing, hunting, golfing, horseback riding, kayaking, tubing, etc.
- Municipal parks and recreational facilities – e.g., community swimming pool in Fleischmanns

Small Town Character

- Attractive communities with a unique character that can serve as the basis for development
- Small town ambiance and rural charm
- Walkable villages and hamlet areas

People

- Community values (e.g., neighborliness, friendliness, small town atmosphere)
- Emerging leadership among public officials
- Ethnic diversity in Fleischmanns

Second Homeowners

- A thriving second-homeowner population that helps support the local tourism base
- Part-time and seasonal residents bring outside funds into the local economy
- Second homeowners and weekend visitors from the New York City metropolitan area provide an important source of creative and investment capital

History and Architecture

- Rich history
- Local history and sense of pride
- Various historic districts and structures
- Historic architecture on main streets in villages and hamlets
- Architecturally significant civic and cultural buildings, including the Skene Memorial Library

Cultural Facilities and Institutions

- Museums and libraries
- Arts and music festivals – e.g., Phoenicia’s Festival of the Voice
- Art galleries and studios
- A variety of venues for public events, such as the Margaretville Village Pavilion

Location/Proximity

- Proximity to major markets – offers prime opportunities for short vacations and day trips to a huge population base, which is underused in marketing of the region
- Transportation access via NYS Route 28
- Unspoiled landscapes within relatively short distances of major metro areas

Other Assets

- High quality of life
- Quiet, peaceful area
- Affordable homes and commercial spaces compared to urban areas
- Active chambers of commerce and other organizations
- Municipal sewer and water systems in some villages and hamlets, with excess capacity to accommodate new growth
- Lack of competition (for businesses) in the area
- Margaretville as a hub for the delivery of health care services

Weaknesses/Constraints to Economic Development and Community Revitalization

- Limited services and amenities
- A lack of modern amenities for residents and visitors
- Lack of essential services in some communities (e.g., a drug store, medical and dental offices, a supermarket, child care)
- Few tourist shopping opportunities
- Lack of social activities, especially for children

Limited Tax Base

- Economic and fiscal challenges (e.g., low tax base, limited job opportunities)
- Lack of business opportunities and jobs
- A fair amount of business turnover in villages and hamlets
- Declining tax base and disinvestment

Infrastructure Issues

- Infrastructure constraints outside villages/hamlets due to topography, low densities, high costs
- Need for public transportation and easier ways to link with urban areas; no major airport
- Limited transportation alternatives within the region: the two tourist railroads are disconnected and their operating segments are very short
- Limited cell phone service and high speed Internet
- Need to improve emergency communications systems
- The poor condition of roads and sidewalks in some locations

Flooding

- High potential for significant flood impacts, as evidenced by significant flood events over the past several years and particularly in 2011
- Because of the topography of rivers and mountains, flooding continues to be a periodic concern
- Highly erodible soils

Lack of Developable Land/Suitable Sites for Development

- Large state land holdings result in the lack of developable land, which limits opportunities for creation of major tourist facilities and other businesses
- Much of the area is comprised of slopes too steep for development

Building Conditions/Appearance

- Need for renovation and repair of buildings; buildings in poor condition are eyesores
- A significant amount of vacant commercial space on some main streets
- General disinvestment and incompatible infill development

Demographic and Labor Issues

- Decline in year-round population – not enough labor and people to support businesses
- The proportion of the population with a college degree is behind the state average
- The “best and brightest” young people are leaving for work opportunities elsewhere
- Low income levels, which affect disposable income, represent a challenge for local business owners
- An aging population: increasing numbers of older residents, declining numbers of those ages 18-34
- Small labor force; difficulty recruiting/retaining certain types of workers (e.g., medical professionals)

Affordable Housing Issues

- Limited affordable housing opportunities for low and moderate income households, young families and first-time home buyers; housing costs driven up by second-home market
- Relative scarcity of decent and affordable rental housing

The Cost of Doing Business and Related Challenges

- High business costs – especially utilities and taxes
- Limited funds for economic development; incentives generally not available to the types of businesses that predominate in the region
- Competition from regional retail centers

- The seasonal nature of the tourism industry makes it difficult to sustain a year-round business
- High taxes and land costs and the deterioration of farm support infrastructure are perceived as obstacles to farming

Branding/Marketing

- No defined identity or theme of the area, its history, culture or traditions
- Tourism marketing is conducted mainly at the county – not regional – level
- Limited online presence of the region as a destination
- No coordinated tourism development and marketing plan for the region as a whole

Gateway/Signage Problems

- Need for attractive gateways, directional signage, and interpretive guidance in the Catskill Park
- No sense of arrival to the Catskills as a specific destination, particularly from the NYS Thruway
- Inadequate signage to direct travelers from one place to another

Other Tourism Challenges

- No single anchor destination to serve as a magnet for the region
- Lack of adequate/modern overnight and tourist facilities
- Natural resources are plentiful but underutilized
- Not enough places for travelers and weekenders to spend their money on a consistent basis; some businesses are open only a fraction of each week or seasonally
- Need to enhance waterfront access, information, and services in some locations

Other Issues

- Lack of coordination between communities, agencies, and organizations – fragmented efforts
- Lack of local capacity, which has hampered implementation of strategies proposed in past plans
- Negative attitudes among year-round population towards seasonal residents and visitors
- Lack of leadership and cooperation
- Low levels of interest among private forest owners in forest management and wood product activities

Opportunities for Economic Development and Community Revitalization

Access to the NYC Metropolitan Area

- The region is accessible to over 20 million people via an excellent road system
- A portion of the existing railroad lines are intact and can provide a major tourist attraction and an alternative transportation network
- Proximity to major markets offers prime opportunities for short vacations and day trips to a huge population base
- The Catskills are “a natural treasure within a couple of hours travel from the richest and most populous metropolitan area in the world”

Build On Opportunities for Tourism

- The Belleayre Ski Center has the potential to become one of the finest ski destinations in the northeast if trails are expanded and it is linked to nearby villages
- Promote recreational opportunities related to the natural and scenic beauty of the area to rural

- professionals and area retirees who have comparatively more leisure time
- Interest in the environment via eco-tourism is a viable economic strategy
- Expand the tourism base by encouraging the development of lodging and expanding events that feature locally-produced goods
- A pattern of weekend travel that continues to expand, with Americans now taking 4 or 5 long weekends per year
- The search for health, well-being, rest and relaxation
- Delaware County's rich agricultural history and stunning rural landscapes make it ripe for the development of culinary tourism, with activities such as farm dinners, cooking classes, farmers markets, and other food-related festivals
- Cultural organizations can create economic activity

Use Hamlets and Villages/Main Streets as Anchors

- Existing hamlets and villages have unique character and can become focal points for development
- Hamlets and villages can serve as an anchor for the tourist economy
- Potential to develop biking and walking trails that connect Main Streets and downtown shopping opportunities

Pursue Niche Opportunities

- Potential for specialty manufacturing and artisans, which utilize and promote local resources
- Potential for expanded wood products industry
- Potential for agriculture to fulfill the growing demand for local and organic produce, while maintaining open land and the region's historic character
- Potential for value-added industries and niche employment in forestry and mining
- Attract additional arts and crafts businesses, capitalizing on the currently thriving arts culture

Promote Entrepreneurship

- Market the high quality of life to attract entrepreneurs and telecommuters
- Promote opportunities for new businesses to locate in vacant Main Street commercial buildings
- Provide support services, networking opportunities, and telecommunications infrastructure to encourage the development of a more entrepreneurial culture

Threats

(Please note that some weaknesses are also a threat, but are not listed again in this section.)

- Competition with regional retail centers and other communities
- Competition and/or lack of coordination among counties in the Catskills
- Continued decline in year-round population (aging, loss of school-aged children, lower income levels mean there is not enough labor and people to support businesses)
- Declining tax base and disinvestment
- Limited growth of commercial uses
- Limited online presence of the region as a destination
- Lack of leadership and coordination
- Reduced level of State and Federal funding for tourism and economic development
- Climate change causing reduced snowfall and winter sports opportunities

SECTION 5 - Regional Profile and Inventory

5.1 Environmental Resources



Spotlight on Environmental Resources

Conclusions

- The Esopus/Delaware region is rich in natural resources. A diversity of physical and geological features contributes to a diversity of environmental conditions and habitats. These include valleys, forested lands, steep slopes, mountaintops, stream corridors, ravines, cliffs, rocky outcrops, wetlands, etc. Large expanses of preserved lands provide high quality, un-fragmented forested habitats and a multitude of related outdoor recreational opportunities. Dense sub-alpine coniferous forests are also common in the high peaks of the area that provide critical and unique habitats.
- Stream corridors and associated riparian vegetation are critical to water quality for maintaining local fisheries. Water quality is generally unimpaired and excellent for plant and animal survival. This contributes to a high quality of the environment and economic opportunities related to the environment (fishing, hiking, and other outdoor recreational activities.)
- Significant diversity in topography exists, ranging from narrow, flat valleys, to rolling hills, to mountain- top environments.
- Flooding remains an issue for communities along both the Esopus Creek and East Branch Delaware River.
- Numerous rare or threatened wildlife or plant species can be found in the region.
- Region soils are highly erodible. Routine erosion and sedimentation, especially in the Esopus Basin, are ongoing problems. Valley areas and locations with slopes < 15% are suitable for agriculture. Steep slopes and forested lands limit crop and traditional agricultural activities in Shandaken and Olive. Andes, Roxbury and Middletown are thus more suitable for agricultural land uses.
- The region abounds with scenic resources, from long-range views of mountains to scenic roads. It also includes many forested areas that are suitable for forest management activities.

The Catskill Park

The Catskill Park is comprised of 705,500 acres of public and private land. Privately-owned lands within the Park constitute an additional 381,070 acres, or about 53% of the total park area. State-owned lands

within the Catskill Park are included in the 290,000-acre Forest Preserve, as are lands owned by New York City for water supply purposes. Within Delaware County, there are 42,000 acres of Forest Preserve land; there are 154,200 acres within Ulster County. State Forest Preserve lands are categorized into wilderness, wild forest, intensive use, or administrative land categories.

The Forest Preserve was created through New York State Statute in 1885 following exploitation of the region during the 19th century by a series of natural resource-based industries, including the leather tanning industry, the wood products industry, acid factories and the bluestone industry. It was created, in part, to reverse or avoid negative impacts to the region's tremendous water resources that were being impacted by these industries. Creation of the Forest Preserve was one of the earliest attempts at land preservation in the United States. In 1894, an amendment to the State Constitution gave constitutional protection to Forest Preserve lands, providing that they be "forever kept as wild forest lands" and directing that they "shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed." This mandate, now Article XIV, Section 1 of the New York State Constitution, was designed to ensure lasting protection for one of the State's most valuable resources.

Most State-owned lands, and many private holdings in the Catskill Park are primarily forested, but meadows, lakes, rivers, wetlands, waterfalls, cliffs, and mountain peak habitats are also found. These lands provide a rich diversity of habitats for many species of fish, wildlife, and plant life, filling niches from valleys to mountain tops. Pure air and water, expansive forests, clear-flowing streams, cascading waterfalls, grand panoramic views, and historic villages characterize the Catskill environment.

Public use in the Forest Preserve has grown in intensity over the years. Campgrounds, ski areas, fishing access, trails (hiking, snowmobile, horse, and bicycle), lean-to's and primitive campsites are all available for recreational use. The Esopus/Delaware region is in the heart of the Catskills and contains 81,242 acres of wild forest, wilderness, and other forest preserve lands.

The following state lands are located in the region (see Public and Preserved Lands Map):

- Dry Brook Ridge Wild Forest
- Shandaken Wild Forest
- Woodland Valley Campground
- Big Indian Wilderness
- Hunter-West Kill Wilderness
- Phoenicia – Mt. Tobias Wild Forest
- Mink Hollow Primitive Bicycle Corridor
- Overlook Mountain Wild Forest
- Kenneth Wilson Campground
- Balsam Lake Wild Forest

In addition to the Forest Preserve, New York City owns or controls (i.e. owns in fee or holds easements on) another 40,500 acres of land in the study region (See Public and Preserved Lands Map). Of the total land area of Catskill Park itself (i.e. inside and outside the study area), City-owned land (37,729 acres), reservoirs (23,102 acres), and easements (14,771 acres) make up a total of 11% (75,602 acres). However, in Delaware and Ulster County, a higher percentage of land is controlled (owned or subject to

easements) by New York City. Roxbury and Andes have state lands that are located outside the Catskill Park boundary.

Major Watersheds

East Branch Delaware River

The East Branch of the Delaware River includes eight sub-basins that contribute to the Pepacton Reservoir, and it drains 371 square miles of land, with 644.4 miles of stream contained in the Allegheny Plateau. The river flows through a variety of landscapes from rolling hills to steep mountain sides. It borders on the high peaks of the Catskills where elevations approach 3500 feet. Andes, Middletown and Roxbury are entirely within the East Branch watershed and are contiguous to the main stem of the river. Part of Shandaken is also in the East Branch watershed. All of the revitalization area's major population centers are within the watershed as well, including Margaretville, Fleischmanns, Arkville, Roxbury, Halcottsville, New Kingston and Andes. Grand Gorge is within the Schoharie watershed.

The East Branch is a perennially-flowing river with a branching, tree-like drainage pattern. It flows through areas having sedimentary bedrock with upland areas covered with glacial till. Valleys have an uneven landscape due to past glacial influences, and are made up of sand, gravel, silt, glacial till, and clay soils. Alluvial fan deposits in the valleys were also formed by glaciers and are the areas in the watershed best suited for agriculture and building. Another significant feature found in the valleys of the East Branch is the considerable ground water resources that contribute to a year-round flow of water to the river.

Soils within the watershed are all glacial deposits. The most common soil type is till. Soils range from poor to fair for agricultural uses, with some excellent farmland soils found on slopes that are less than 15%. Most soils in the region are well-drained to moderately well-drained, although some can be excessively drained.

Compared to other streams and rivers in New York, the East Branch has unusually high year-round flows of water. This is due to storage of water in the watershed's sandstone rocks that is slowly released by springs and subsurface seepage. This geological condition is critical to maintain the East Branch as trout habitat for most of the year.

The East Branch has more wetlands than any other sub-basin in the region, but it still has only about 360 acres of wetlands (or 1.1%). Most of these wetlands are relatively small (.64 to 1.5 acres) and can be found associated with stream channels. Although not a significant feature of the landscape, wetlands remain critical habitats and ecological features of the East Branch watershed.

(Upper) Esopus Creek

The Upper Esopus Creek has a 192 square mile watershed starting from its headwaters at Winnisook Lake on Slide Mountain and ending in the Ashokan Reservoir. The towns of Shandaken and Olive are within the Esopus Creek watershed. Most of the watershed is within the Catskill Park. The Creek has 330 stream miles and drains 21 mountain peaks that are greater than 3,000 feet in elevation. The Creek passes through an elevation change from Slide Mountain (highest peak in the Catskills and within the Esopus watershed at 4,180 feet) to the Ashokan Reservoir (633 feet).

The vast majority of the Upper Esopus Watershed is forested (about 95%). There are no large scale agricultural uses in the watershed. The built environment is found mostly along the Route 28 corridor where low density development - including the traditional population centers of Mount Pleasant, Beechford, Cold Brook, Woodland, Chichester, Allaben, Big Indian, Olivera, Highmount, Bushnellsville, Boiceville, Pine Hill, Phoenicia, Hardenburgh, Mt. Tremper, Olivebridge, Shandaken, Ashokan, West Shokan, Samsonville, Krumkill, and Shokan, is found.

As with the East Branch, the environmental and physical character of the Esopus watershed is also a consequence of past glacial activity. The predominant reddish layered clays are ancient glacial lake sediments eroded from nearby red siltstones and shale found along mountain slopes. This dense clay is a rich glacial till that is very susceptible to stream erosion, making it a main contributor to turbidity in the watershed streams.

A major feature of the region is the Shandaken Tunnel (also known as “the Portal”), an 18 mile aqueduct connecting the Schoharie Reservoir to the Upper Esopus Creek. This aqueduct is part of the New York City Water Supply System, diverting water from the Schoharie Reservoir to the Ashokan watershed where it then is delivered into the Catskill Aqueduct.

Water Quality

Because of its importance as part of the New York City water supply system, water quality in both the East Branch Delaware River and Esopus Creek is regularly monitored and studied. Overall, water quality is good in both watersheds. Most of the water quality concerns are associated with the protection of the quality of the waters of the New York City water supply reservoirs rather than current impacts or impairments in the watershed. Known impairments are largely the result of atmospheric deposition of pollutants - mercury and acid rain - from outside the watershed. Major water quality concerns are:

- Acid rain, which limits the fish community and aquatic life;
- Atmospheric deposition of mercury, which restricts fish consumption; and
- Protection of New York City Water Supply Reservoirs (Pepacton, Cannonsville, Neversink, Rondout, Schoharie and Ashokan).

East Branch Delaware River

DEC has determined that there are minor impacts due to nonpoint source nutrients in the water, but aquatic life is considered to be fully supported in all the East Branch tributaries, and there are no significant parameters of concern. However, many communities experience flooding, and erosion/sedimentation remains an ongoing issue. Many of the stream segments are classified by the New York State Department of Environmental Conservation as C (TS) and C (T), while several have even better water quality and are classified as A (T) (see explanation below). Waters with these classifications all support trout, or trout spawning.

The latest water quality and aquatic life monitoring indicates the following stream classification for East Branch tributaries:

- The Tremper Kill (Andes) is classified as A (TS) in its lower reaches and C (TS) in its upper reaches. Other tributaries to the Tremper Kill include Shaver Hollow Brook, Bussey Hollow Brook, Wolf Hollow Stream, State Road Stream, Bullet Hole Brook, Campbell Hollow Stream, Liddle Brook, Reservoir Brook, Farmers Hill Brook, and Front Gladstone Brook.

- The Plattekill (C(TS)) includes Jones Hollow Brook, Palmer Hollow Brook, Canada Hollow Brook, and Winters Hollow Brook, all of which are classified as C(T) or C(TS).

- The Bushkill, along with its tributaries including Red Kill, Little Red kill and Dry Brook are all non-impaired and classified as C (TS). Some portions of the Dry Kill are classified as AA (T).

- The Dry Brook is classified as C (TS) and AA (T) and includes Angus Hollow, Mine Hollow, Rider Hollow Stream, Todd Brook, Gill Gully, Haynes Hollow Brook, Turner Hollow Brook, Drury Hollow, Flatiron Brook and Shandaken Brook.

- Batavia Kill is classified as a B (TS) and its tributaries are all C, C (T) or C (TS).

- Along the East Branch, some lower reaches of the stream near Downsville, including the Pepacton Reservoir are classified as being threatened, however. Threatened status comes from issues related to road bank and stream bank erosion, septic system leachate, agricultural uses, and, in the Pepacton, metals (mercury).

Note on Water Quality Classifications

All waters of the state are provided a class and standard designation based on existing or expected best usage of each water or waterway segment:

The classification **AA** or **A** is assigned to waters used as a source of drinking water.

Classification **B** indicates a best usage for swimming and other contact recreation, but not for drinking water.

Classification **C** is for waters supporting fisheries and suitable for non-contact activities.

The lowest classification and standard is **D**.

Waters with classifications A, B, and C may also have a standard of (T), indicating that it may support a trout population, or (TS), indicating that it may support trout spawning (TS). Special requirements apply to sustain these waters that support these valuable and sensitive fisheries resources. Small ponds and lakes with a surface area of 10 acres or less, located within the course of a stream, are considered to be part of a stream and are subject to regulation under the stream protection category of Protection of Waters.

Pepacton Reservoir

The Catskill/Delaware System provides about 90% of New York City water supply; the other 10% is supplied by the Croton System. The Pepacton Reservoir, which is part of the Delaware system, is the largest reservoir (nearly 145 billion gallon capacity) of the New York City water supply reservoir system. The watershed is mostly forested with some agricultural land use and a few small villages and town centers. NYC DEP routinely monitors water quality in both the reservoir and tributary streams and reports generally high water quality. Elevated mercury levels in fish have caused the NYS DOH to issue a health advisory recommending that people limit consumption of fish taken from the Pepacton Reservoir. Under this advisory, people should eat no more than one meal per month of smallmouth bass over 15 inches. The likely source of the mercury is from the emissions of coal-fired power plants in the mid-western US, outside of the watershed, and falling on the watershed as atmospheric deposition.

The reservoir is considered a highly valued water resource due to its drinking water supply classification. The inclusion of this waterbody on the DEC/DOW Priority Waterbodies List as having threats to water quality is a reflection of the value of this resource, rather than any specifically identified threats to water quality.

NYC DEP, in partnership with Watershed communities, the State of New York, and environmental groups has developed and entered into a Watershed Agreement which sets forth programs and funding to address water quality issues. Programs to address and improve water quality in the Pepacton Watershed include agricultural BMPs, upgrading and construction of new municipal wastewater treatment plants (WWTPs), remediating failing and/or inadequate on-site septic systems (or connecting these systems to municipal WWTPs), and improved urban stormwater controls.

Esopus Creek

Overall, water quality in the Upper Esopus Creek is considered to be non- to slightly-impacted. The Shandaken Portal, which discharges turbid, cold water from the Schoharie Reservoir into the Upper Esopus Creek near Shandaken NY has had some water quality concerns, but water quality downstream of the Portal has not changed significantly over the years. Operation of the Portal is regulated by a NYS SPDES permit, with limits on both turbidity and temperature to help protect the quality of the Esopus Creek. Of major concern in the Esopus is the ongoing and significant erosion and sedimentation that occurs following high flow events.

According to DEC, water quality in the Upper Esopus Creek appears to mainly be affected by Birch Creek and enrichment from aging septic systems in that area. Birch Creek joins the Upper Esopus in Big Indian, NY and receives effluent from the NYCDEP Pine Hill (V) Sewage Treatment Plant and partial drainage from the Belleayre Ski Resort. A tributary to Birch Creek is also used as a water source for operations at the Belleayre Ski Resort. The organic and nutrient inputs into Birch Creek from Pine Hill have been an issue in the past, and have led to a 'slightly-impacted' status for that area, however, with the upgrade to tertiary treatment of all WWTPs on the NYC watershed, any impacts will diminish in the future. DEC has also indicated that water quality is assessed as slightly impacted below the hamlet of Phoenicia. Impacts are partially the result of runoff from the village, which does not have a public sewer system.

Ashokan Reservoir

The Ashokan Reservoir is also a part of the Catskill/Delaware System of New York City water supply. The Ashokan Reservoir receives water from the 250 square mile watershed of the Upper Esopus Creek and serves as a collecting reservoir, receiving water from the other reservoir - Schoharie Reservoir - in the Catskill system. In order to protect the New York City water supply, a comprehensive long-range watershed protection program is in place. These protections support the City's ability to receive a series of waivers from a federal requirement to filter water from surface water supplies like the Catskill/Delaware supply. The latest water quality and aquatic life monitoring indicates the following stream classifications for Ashokan Reservoir tributaries:

- The Ashokan Reservoir is included on the NYS 2008 Section 303(d) List of Impaired Waters. This requires the development of a strategy to attain water quality standards for silt/sediment. The reservoir was also included on Part 2b of the 2006 List as a Fish Consumption Water/Atmospheric Deposition (Acid Rain). Other issues relate to hydro modifications, acid rain,

silt and sedimentation, and metals (mercury).

- In Shandaken, the waters of this portion of the Esopus are considered Class C (TS). Tributaries to this stream segment, including Peck Hollow Brook, Fox Hollow Brook, Seneca Hollow Stream, Lost Clove Brook, Hatchery Hollow Brook, McKinley Hollow Brook, Elk Bush Kill, Maben Hollow Brook, Hanging Birds Nest Brook and Giant Ledge Stream, are Class B (T), B (TS), C, and C (TS).
- The Beaver Kill in the area of Mt. Tremper is not impaired. This segment includes the portion of the stream and all tributaries from the mouth to the City of Kingston water intake near Lake Hill, above which the stream is known as Mink Hollow. The waters of the stream are Class C (TS), with portions of it in the forest preserve. Tributaries, including Grog Kill, Silver Hollow Brook and Willow Brook, are B (T) and C, C (T), C (TS).
- Stony Clove is also not impaired. This segment includes the entire stream and all its tributaries and is Class B (TS). Tributaries include Ox Clove Brook, Warner Creek, Hollow Tree Brook, Lanes Hollow Brook, Rhine Hollow Brook, Fenwick Brook, Lanes Hollow Brook and Christine Brook, are Class B, B(T), C, C(T), C(TS), with portions of them flowing through the forest preserve.
- Birch Creek and its tributaries are not impaired. This entire stream is B (TS) and its tributaries include Ike Smith Hollow Brook, Giggle Hollow Brook, and Crystal Spring Brook, are Class B (T) and C, with portions in the forest preserve.

Flooding and Erosion

Flooding remains a problem along both the East Branch and the Esopus. Much of the region that has been built upon is located in valley areas where there is a high potential for significant flood impacts. This has been clearly evident throughout the region in past years and, especially, in 2011, with the devastation in these communities. Significant flood damage has substantially impacted Main Streets and business districts throughout the region.

Erosion remains a significant concern from an ecological, water quality, and recreational point of view. As described above, silt and sedimentation are the main cause of water quality impairment in the Esopus/Delaware region.

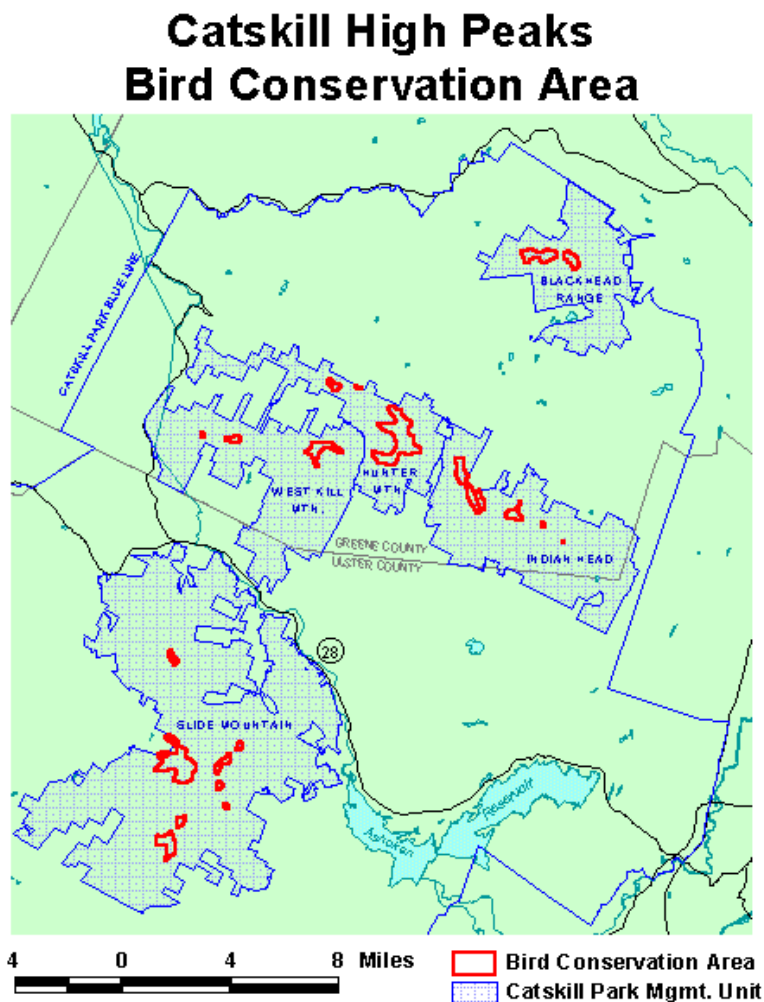
Scenic Resources and View Corridors

There is no region-wide, up-to-date scenic inventory or viewshed analysis. However, each community in the Esopus/Delaware region has identified scenic resources as significant and valued features of their communities. Route 28 is currently being nominated as a New York State Scenic Byway. Many local roads in the region have both close-up and distant scenic views of mountains, valleys, streams, forested slopes, and open areas. Open areas contribute greatly to the long-views of mountain slopes and peaks. In addition to these natural features, the quaint and historically significant hamlets and villages also contribute to the scenic resources of the region. Historic buildings, traditional main streets, unique architecture, and 'small-town character' predominate throughout the built areas of the region.

Significant Fish and Wildlife Habitats

Given the open space resources of the Esopus/Delaware region, there are many associated significant fish and wildlife habitats. Natural communities of beech, maple, hemlock, ash, oak, northern hardwoods, and conifer forests abound. Wetlands associated with streams and small tributaries provide other important habitats and increase the biodiversity found in the region. Streams that support trout and trout spawning are significant ecologically and economically, as they support recreation and tourism. Open areas in Roxbury, Andes, and Middletown, including active farm fields and old fields, are important to provide diversity in habitats for grassland and open-dwelling wildlife species.

In the Esopus/Delaware region, the Catskill High Peaks Bird Conservation Area (BCA) has been designated by DEC (see Recreation Map) as a bird conservation area. This designation is given to help safeguard and enhance bird populations and their habitats on State lands and waters. It is primarily located in the Town of Shandaken in the Slide Mountain Wilderness Area. This BCA includes Catskill high peaks over 3,500 feet in elevation, in particular those with dense subalpine coniferous forests. The purpose for it is to continue to maintain the wild character of the region, while facilitating recreational opportunities in a manner consistent with conservation of the distinctive assemblage of bird species nesting in the Catskill High Peaks, and to promote further research at the site, particularly on Bicknell's thrush. Bicknell's thrush prefers dense thickets of stunted or young growth of balsam fir. The BCA has a diversity of species in the montane red spruce-balsam fir forest.



Critical or rare habitats identified by the New York State Department of Environmental Conservation include:

- Beech-Maple Mesic forest found in Andes, Olive and Shandaken
- Chestnut Oak Forest in Olive and Shandaken

- Hemlock-Hardwood forest in Olive and Shandaken
- Ice Cave Talus Community in Olive
- Mountain Fir and Mountain Spruce-Fire forest in Olive and Shandaken
- Pitch Pine-Oak-Heath Rocky Summit in Olive
- Red Maple – Tamarack Peat Swamp in Olive
- Spruce Fir Rocky Summit in Olive and Shandaken
- Spruce-Northern Hardwood Forest in Shandaken

Other habitats are more common but nonetheless important to the ecology and environmental quality of the region. These areas include the riparian corridor found along streams, creeks, wetlands, shore lines, and wooded hillsides. Because so much of the region is wooded, the open areas that include active and abandoned farm fields also provide much needed edge and diversity to the area for wildlife species that need edges or non-wooded areas. Thus, agricultural areas should be considered to be an important wildlife habitat in the region.

The table below lists individual species considered to be rare, threatened or endangered that have been recorded in the region.

Rare, Threatened, or Endangered Species in the Esopus/Delaware Region			
Common Name	Location	Confirmation	Status
Arrowhead Spiketail	Olive	Recently Confirmed	
Bicknell's Thrush	Shandaken	Recently Confirmed	Special Concern
Bigleaf Yellow Avens	Shandaken	Historically Confirmed	
Downy Lettuce	Middletown	Historically Confirmed	Endangered
Hanging long beak moss	Olive	Recently Confirmed	
Hyssop-skullcap	Olive	Recently Confirmed	Endangered
Jacob's-ladder	Andes	Recently Confirmed	Rare
Jacob's-ladder	Middletown	Possible but not Confirmed	Rare
Jacob's-ladder	Roxbury	Historically Confirmed	Rare
Lake Emerald	Shandaken	Historically Confirmed	
Musk Root	Middletown	Recently Confirmed	Endangered
Northern Monkshood	Middletown	Recently Confirmed	Threatened
Northern Monkshood	Olive	Recently Confirmed	Threatened
Short-stalked shiny moss	Olive	Recently Confirmed	
Small Whorled Pogonia	Olive	Historically Confirmed	Endangered
Spatterdock Darner	Olive	Historically Confirmed	
Whorled Mountain-mint	Roxbury	Historically Confirmed	Threatened
Woodland Rush	Olive	Recently Confirmed	Endangered

Other Environmental Issues

There are three locations within the Esopus /Delaware region that have solid waste or hazardous waste facilities. There are likely others in Middletown and probably in Olive. Solid waste transfer stations exist

in both Roxbury and Andes. One State Superfund site is located along DuBois Road in the Town of Olive. There are several water discharge locations throughout the region associated with small public wastewater facilities or other water outlets. Steep slopes, which are found throughout the region, are a major environmental factor that limits development capacity. Other environmental issues relate to flooding and erosion/siltation as outlined in the stream management plans for the East Branch, and the Esopus.

5.2 Land Use



Spotlight on Land Uses

Conclusions

- Land use patterns in the Esopus/Delaware region have been influenced by a combination of geography, transportation routes, and land use regulations.
- The prevailing pattern of development consists of relatively dense village and hamlet development along the major riparian and transportation corridors (i.e. State Routes 28 and 30, the East Branch of the Delaware River and the Upper Esopus Creek). These compact centers are set in a matrix of larger, undeveloped, or sparsely developed, parcels.
- The region's villages and hamlets host the densest and most diverse development, and have the greatest number of non-residential uses.
- Outside these areas lies a combination of larger tracts, many of which are open to the public and owned by New York State or New York City, interspersed with smaller residential tracts.
- Agricultural uses are more prevalent along the East Branch corridor in Andes, Middletown, and Roxbury than along the Esopus Creek. Overall, crop and animal agricultural uses comprise less than 4% of the acreage in the study area. However, there are hundreds of acres of privately-owned forestlands in the region that could accommodate forestry activities for the wood products industry.
- The two most common land uses are low-density residential and wild, forested, and conservation lands, many of which are found within the Catskill Park. State-owned wild, forested, and conservation lands cover 26% of the Esopus/Delaware region. Vacant lands are also common and are interspersed throughout much of the less-developed areas outside villages and hamlets.
- The New York City watershed overlays the majority of the region. Fourteen percent of the entire land base in the Esopus/Delaware region is owned by or controlled through conservation easements held by New York City. About 16% of Andes, 12% of Middletown, 11% of Margaretville, 27% of Olive, 19% of Roxbury, and 4% of Shandaken is under New York City ownership or easement.
- Together, the 7 municipalities in the Esopus/Delaware region have instituted a range of land use controls and regulations. In addition, New York City and New York State have regulatory programs that influence land use across this area.

Existing Land Uses and Development Patterns

The following table illustrates the various land uses in the Esopus/Delaware region by town. Except in Shandaken, the predominant land use classification is residential, followed by Wild, Forested, Conservation Lands and Public Parks and vacant lands (undeveloped). In Shandaken, the largest land use classification is Wild, Forested, Conservation Lands and Public Parks. About 16% is classified as agriculture, with most taking place in Roxbury and Andes. Commercial, industrial, public service, and community service uses are a very small component of total land use in the region.

Land Uses in the Esopus/Delaware Region by Town			
Property Class by Town/Village	Number of Parcels	Acres in Each Class	Percent of Class in Town/Village
Andes	2,631	72,220.4	
Agricultural	59	5,326.0	7%
Commercial	34	94.5	0.1%
Community Services	27	71.5	0.1%
Industrial	1	2.8	0.004%
Public Services	28	4,654.1	6%
Recreation and Entertainment	13	1,043.7	1%
Residential	1,405	29,205.6	40%
Vacant Land in private ownership	941	19,634.5	27%
Wild, Forested, Conservation Lands and Public Parks	109	11,092.4	15%
Unknown	5	4.7	0.01%
Water	1	0.6	0.001%
ROW	8	1,089.9	2%
Middletown	4,663	62,670.2	
Fleischmanns	347	425.4	
Commercial	50	52.3	12%
Community Services	27	29.8	7%
Public Services	4	17.3	4%
Recreation and Entertainment	3	6.0	1%
Residential	193	143.5	34%
Vacant Land in private ownership	67	117.9	28%
Unknown	2	0.6	0.1%
ROW	1	58.0	14%
Margaretville	402	454.0	
Agricultural	1	0.7	0.1%
Commercial	68	40.4	9%
Community Services	21	53.5	12%
Industrial	1	5.3	1%
Public Services	6	44.6	10%
Recreation and Entertainment	2	8.5	2%
Residential	218	162.8	36%
Vacant Land in private ownership	74	72.6	16%
Unknown	1	0.1	0.02%
Water	9	14.0	3%

Land Uses in the Esopus/Delaware Region by Town			
Property Class by Town/Village	Number of Parcels	Acres in Each Class	Percent of Class in Town/Village
ROW	1	51.6	11%
Middletown Outside of Villages	3,914	61,790.9	
Agricultural	19	1,045.2	2%
Commercial	93	655.2	1%
Community Services	42	184.6	0.3%
Public Services	32	1,711.3	3%
Recreation and Entertainment	14	298.1	0.5%
Residential	2,401	26,334.9	43%
Vacant Land in private ownership	1,216	20,202.0	33%
Wild, Forested, Conservation Lands and Public Parks	71	9,813.8	16%
Unknown	15	193.5	0.3%
ROW	11	1,352.3	2%
Roxbury	3,462	56,137.7	
Agricultural	83	4,100.7	7%
Commercial	86	171.5	0.3%
Community Services	61	376.6	1%
Industrial	6	105.8	0.2%
Public Services	36	924.0	2%
Recreation and Entertainment	6	735.0	1%
Residential	1,930	22,322.0	40%
Vacant Land in private ownership	1,077	12,317.5	22%
Wild, Forested, Conservation Lands and Public Parks	169	14,114.6	25%
Water	3	3.7	0.01%
ROW	5	966.3	2%
Olive	3,304	42,065.7	
Agricultural	2	38.5	0.1%
Commercial	55	237.5	1%
Community Services	30	100.9	0.2%
Industrial	5	154.8	0.4%
Public Services	8	8,304.8	20%
Recreation and Entertainment	7	71.5	0.2%
Residential	2,274	12,974.1	31%
Vacant Land in private ownership	632	3,458.6	8%
Wild, Forested, Conservation Lands and Public Parks	243	15,242.5	36%
Unknown	35	904.0	2%
Water	1	2.2	0.01%
ROW	12	576.2	1%
Shandaken	3,870	79,810.1	
Commercial	133	671.8	1%
Community Services	63	819.7	1%
Industrial	5	8.3	0.01%
Public Services	9	26.8	0.03%
Recreation and Entertainment	24	996.1	1%
Residential	2,210	9,767.9	12%

Land Uses in the Esopus/Delaware Region by Town			
Property Class by Town/Village	Number of Parcels	Acres in Each Class	Percent of Class in Town/Village
Vacant Land in private ownership	942	5,851.5	7%
Wild, Forested, Conservation Lands and Public Parks	302	58,561.1	73%
Unknown	168	2,230.4	3%
Water	1	3.2	0.004%
ROW	13	873.3	1%
TOTAL – ALL COMMUNITIES	17,930	312,904.0	

Andes

Andes has few densely developed areas. There is one hamlet in the town, the hamlet of Andes (formerly the Village of Andes), which lies at the intersection of Route 28 and two county highways. It is mostly residential with several commercial uses, including specialty and niche shops, restaurants, motels, and office buildings. Residential parcels, specifically single-family parcels, make up the largest category of land uses, followed by forested lands, public service land (the Pepacton Reservoir), and agricultural lands. About one-third of Andes lies within Catskill Park. About 3% of Andes is under water and part of the Pepacton Reservoir.

Middletown

There are 10 densely developed areas in the Town, including the more densely built environments found in the villages of Fleischmanns and Margaretville, and the hamlet of Arkville. The primary land uses across most of Middletown are residential and privately held vacant land (74% of parcels). Forested lands and agricultural uses together make up over 20% of existing land use. The eastern portion of the Town, bounded by the Pepacton and Route 28, lies within Catskill Park. Water features in Middletown include part of the Pepacton Reservoir, the East Branch of the Delaware River, and several smaller tributaries.

Village of Fleischmanns

Several tributaries of the East Branch converge in the more densely-developed Village of Fleischmanns. Land use in the Village is predominated by single family residential, but also includes some two and multiple family dwellings, several commercial uses, several institutional land uses, a manufacturing parcel, mixed-use parcels (live-over-the-store buildings, found on Main Street), and a warehouse district along Depot Street. A high percentage of the village is developed, with few vacant, unconstrained developable parcels.

Village of Margaretville

Margaretville has been described as a regional commercial hub for this part of the Catskills. It lies at the intersection of two important transportation corridors, Route 28 and Route 30, and the East Branch and several tributaries flow through the village. The range of land uses includes residential, commercial, industrial, and public and community services. A designated agricultural district lies just outside the village, and there is one agricultural parcel located in Margaretville.

Roxbury

The East Branch of the Delaware River bisects the Town of Roxbury, where it originates from its headwaters along Route 30. The Town lies in two river basins: The Delaware River and the Mohawk River, to which the Schoharie Creek, partly situated in Roxbury, ultimately flows. The principal developed areas in Roxbury are the hamlets of Grand Gorge and Roxbury, and the Denver/Vega Valley area, although the latter does not offer the range of services or exhibit the density of development of either Roxbury or Grand Gorge. Development outside the two hamlets has occurred largely in the several valleys formed by the ridgelines (Catskill Mountains) that cross the Town. Residential land uses are found on over 40% of parcels in Roxbury, and the combination of residential, vacant, and forested lands constitute about 88% of all land uses in the Town. Agricultural uses are found on about 7% of parcels.

Olive

There are 12 hamlets in the Town of Olive. Aside from the Ashokan Reservoir, which covers about 10% of Olive's land area, and large tracts of forested lands in the southwest portion, residential use is found throughout much of the Town. Approximately 8,000 acres are publicly-owned Catskill Preserve lands, and the Town of Olive is entirely within Catskill Park. Although much existing development is concentrated along State Routes 28 and 28A, the Olivebridge area, with access to several county roads, also exhibits more development. Even in the hamlets, residential uses predominate. There are few agricultural uses found in Olive.

Shandaken

The Town of Shandaken is situated entirely within Catskill Park, and the developed areas in valleys reflect the difficulty of construction in the mountainous terrain of this part of the Catskills. The majority of Shandaken's 12 hamlets are found along the Route 28 corridor and the Esopus Creek. Many of these areas feature more diverse land uses and host uses that cater to the needs of local residents. The hamlets are also more compactly developed than the surrounding areas, and have a mix of older residential structures, tourist-oriented businesses and smaller pockets of resource-related industries. A substantial majority of Shandaken is publicly-owned forest and wild land. Indeed, according to the 2005 Comprehensive Plan, "approximately 94% of the Town is undeveloped, has significant development limitations, or is highly regulated." According to the Property Class Map, there is no agriculture taking place in Shandaken.

Public Lands, Preserved Lands, and Ownership Patterns

The largest share of public and preserved lands in the Esopus/Delaware region is maintained by New York State and New York City. The Catskill Park boundary itself, commonly referred to as the "blue line," passes through portions of Middletown (including portions of both villages) and Andes; Olive and Shandaken are fully contained within Catskill Park (See Base Map).

The table below details state ownership of lands within each community and the Esopus/Delaware region as a whole:

State Land Ownership in the Esopus/Delaware Region by Town		
Town	Acres of DEC Land	Percent of Town Area
Andes (All Categories)	11,038	15%
Forest Preserve	10,454	14%
State Forest	532	1%
Wildlife Management	52	0%
Middletown (All Forest Preserve)	7,092	11%
Roxbury (All State Forest)	1,926	3%
Olive (All Forest Preserve)	8,118	19%
Shandaken (All Forest Preserve)	53,069	66%
Total Forest Preserve, State Forest and Wildlife Management	81,242	26%

The New York City watershed, specifically the Delaware and Catskill watershed that form the West-of-Hudson drinking water system, overlays a majority of the Esopus/Delaware region as detailed below.

Land Area in the NYC Watershed, Esopus/Delaware Region By Town	
Town	Land Area Within Watershed
Andes	91%
Middletown	100%
Roxbury	100%
Olive	70%
Shandaken	100%

Source: 2010 LAP DEIS

Pursuant to its Land Acquisition Program, New York City is actively pursuing acquisition of land and conservation easements throughout the Delaware area of the watershed. Within the study area, the Esopus basin is currently not a high focus for City acquisition. The basin is mainly comprised of Olive, an area which is no longer the focus of the City's land acquisition activities, and Shandaken, where the City is restricted from pursuing land acquisition unless landowners contact them directly.

Throughout the watershed, many of the lands owned outright by the City are open to the public for a variety of recreational activities. Both the Ashokan and Pepacton Reservoirs are owned by the City, as are substantial buffer areas surrounding them. A portion of the Schoharie Reservoir Watershed, also part of the City watershed and City-owned (although beyond the Delaware and Esopus drainage basins which are the subject of this report), is found in the northeast corner of Roxbury. The table below details New York City owned or controlled lands as of March 1, 2013. "Fee-simple" refers to those lands owned outright by New York City; "CE" refers to lands where New York City holds a conservation easement that permanently prevents further development (and where public access is usually not allowed as it remains under control of private landowners).

NYC Owned or Controlled Lands in the Esopus/Delaware Region by Town		
Town/Village	Acres of DEP Land	Percent of Land Area
Andes total	11,206	16%
Fee-simple	7,981	11%
CE	3,224	4%
Fleischmanns total	1	0.3%
Fee-simple	1	0.3%
Margaretville total	51	11%
Fee-simple	51	11%
Middletown outside villages total	7,851	13%
Fee-simple	5,599	9%
CE	2,252	4%
Roxbury total	10,725	19%
Fee-simple	8,099	14%
CE	2,625	5%
Olive total	11,313	27%
Fee-simple	10,741	26%
CE	572	1%
Shandaken total	2,724	3%
Fee-simple	1,485	2%
CE	1,239	2%
Total	43,871	14%
Fee-simple	33,958	11%
CE	9,912	3%

Pursuant to an agreement with the City aimed at promoting economic development and growth, each watershed town has designated hamlet areas within which the City is prevented from purchasing land in order to allow for additional future growth and development. Each Town in the Esopus/Delaware region has delineated at least one such hamlet area.

Each town and village maintains a system of parks and public open spaces, many of which are found along the East Branch and Esopus Creek (see Recreation Map).

There is a significant second homeowner population in the Esopus/Delaware area. About 27% of all lands in Delaware County are in second homeownership and Ulster has about 8%. About 25% to 28% of all lands in Andes, Roxbury, and Middletown are owned by second homeowners. Olive and Shandaken have a much smaller percentage of land base in this ownership category most likely due to higher amounts of land in public ownership. The table below details that information:

Parcels and Acres Owned by Part-Time Residents in the Esopus/Delaware Region				
County/Town/Village	Number of Parcels	Second Homeowner Parcel Acres	Municipal Acres	Percent of Land Area
Delaware County	3,752	52,124	191,028	27%
Andes	850	20,394	72,220	28%
Middletown	1,633	17,596	62,670	28%
Fleischmanns	91	78	425	18%

Parcels and Acres Owned by Part-Time Residents in the Esopus/Delaware Region				
County/Town/Village	Number of Parcels	Second Homeowner Parcel Acres	Municipal Acres	Percent of Land Area
Margaretville	54	48	454	11%
Remainder	1,488	17,470	61,791	28%
Roxbury	1,269	14,133	56,138	25%
Ulster County	1,654	10,158	121,876	8%
Olive	614	4,777	42,066	11%
Shandaken	1,040	5,381	79,810	7%
Total	5,406	62,282	312,904	20%

Andes

Most public land in Andes is concentrated in the southeastern portion of the Town. Parts of the Forest Preserve are situated here, as are two DEC-managed wild forests and a campground. The Pepacton Reservoir is also in this part of the Town; owned by the City, it is buffered by additional City land holdings that are open variously for hiking, hunting and fishing. According to DEP, about 25% of the Town is classified as protected.³ Much of the remainder of Andes is made up of privately held, residential, and some agricultural, parcels.

There is a significant second home sector in Andes. The Second Homeowners map shows that these properties are evenly distributed across the Town. According to the 2003 comprehensive plan, 60% of residences in the Town are second homes, and an estimated 73% of parcels in Andes are owned by part-time residents.

Middletown

The southeastern portion of Middletown is within Catskill Park, and portions of State-owned Forest Preserve lands, including the Dry Brook Ridge Wild Forest, may be found there. A part of the Pepacton Reservoir, owned by the City, is fed by the East Branch. Most of the lands along the East Branch, as well as its tributaries to the east, are privately held. The DEP classifies 23% of Middletown as under some form of protection.

There is a substantial second home sector in Middletown. Largely located outside Catskill Park, these properties are found throughout the Town (see Second Homeowner map).

Village of Fleischmanns

There is one public park, Fleischmanns Park, located along the Bush Kill, in Fleischmanns. The remainder of the Village is privately held, and most of these parcels are built upon. These private holdings include the dry lakebed of Lake Switzerland, which was built for recreational purposes in the early 1900s but was drained after safety concerns regarding the impoundments.

Village of Margaretville

Most of Margaretville is privately owned, and there are no Forest Preserve lands located in the

³ Protected lands means lands owned by or under some form of conservation easement on which development is prohibited in perpetuity. This category includes lands and easements owned by the City and the State, as well as other entities.

Village. After flooding in 1996, DEP purchased over 20 parcels along the East Branch in Margaretville. Many of these parcels have been converted to public parks, although along the principal waterways, private ownership of residential and commercial parcels predominates. The agricultural district located in the eastern part of the Village also occupies a large tract of stream-side land. The Second Homeowners map shows that some properties are owned by non-residents.

Roxbury

There are several State-owned and managed forest lands in Roxbury, including Bearpen Mountain State Forest, Halcott Mountain Wild Forest, Plattekill State Forest, and Relay State Forest. City-owned land is distributed throughout the Town, and it includes a portion of the Schoharie Reservoir (found in the northeast corner of the Town). Varying degrees of public use are permitted on these parcels. Many City-owned parcels are found in the headwaters of the tributaries of both the East Branch and Schoharie Creek, and there are some public holdings near the headwaters of the East Branch itself. Roxbury Town Park, located in the hamlet of Roxbury, is bisected by the East Branch as it flows through the hamlet. There are many second homes in Roxbury (see Second Homeowner map) distributed across the Town.

Olive

Approximately 8,000 acres in Olive are part of the Catskill Preserve and are publicly owned. Public access to most City-owned lands, which are distributed throughout the Town, is generally open for passive recreational activities such as hunting, hiking and fishing. According to DEP, about 58% of Olive's land area is classified as protected. Land along the Esopus Creek is largely privately held; the Ashokan Reservoir is owned by the City. There are at least 3 Town-owned parks distributed throughout the Town. The Second Homeowner map shows that such parcels are found throughout Olive, particularly along the principal transportation corridors.

Shandaken

Large portions of Shandaken are publicly owned, and public lands comprise about 66% of the Town's land area. Most of this acreage is owned by the State, with relatively smaller City holdings. DEP classifies about 72% of Shandaken as protected. Belleayre Ski Center and Woodland Valley Campground are among the State land holdings. Most privately owned land in Shandaken is located in the valleys and along riparian corridors, especially the Esopus Creek. Most second homes are also found in these areas. There are several town parks in Shandaken, including Parish Field, Simpson Mini Park, Glenbrook Park, Big Indian Park, and Smith Park.



Agricultural and Forest Lands

According to the National Agricultural Statistics Service, 2007 data show that Delaware County has more than twice as many acres farmed than Ulster County. Farm operations in Delaware are also larger. Most agriculture in the Esopus/Delaware region is situated outside the Catskill Park, particularly in Andes, Middletown, and Roxbury. Agriculture has historically occupied an important place in the economy of many parts of Delaware County; there are very few agricultural uses taking place in either Olive or Shandaken. Farming practices range from small hobby farms to large-scale dairying and cattle-raising

activities.

Andes

There are nearly 3,000 acres of working farmland in the Town of Andes. Of that, approximately a third is devoted to haylage, and there are 11 full-time dairy farms with a total of 1,300 cattle. Additionally, there is an assortment of specialty and other small farming operations. According to the 2003 comprehensive plan, there were agricultural tax-exemptions on 36 parcels.

Middletown

According to assessment data presented in the 2010 draft comprehensive plan, there were 43 parcels receiving an agricultural assessment and having some form of agricultural use. This represents over 4,700 acres of working farmland. Agricultural Census data indicates that 80% of the farms included were 50 acres or larger, and that most had cropland (mostly haylage) and pasture/grazing land. Farm animals present were calves, beef cows, dairy cows, horses/ponies, and a small amount of sheep.

Roxbury

The most prevalent agricultural activities in Roxbury, both by land area and number of parcels, are crops (primarily haylage) and livestock. Most farms are between 50 and 1,000 acres in size. Smaller, specialty and hobby farms are less common.

Forestry

Forestry is another significant land use activity in the Catskills. The annual contribution of forest-based manufacturing and forest-based recreation and tourism in New York state is large— \$8.8 billion.⁴ Statewide statistics for forest-based manufacturing are show that it contributed \$6.9 billion in value to the New York economy in 2005. New York's forest-based manufacturing industry including forestry and logging provided employment for 57,202 people with a payroll of over \$2.1 billion. The NESFA report (for 2007) estimated that forest-based manufacturing across the state was valued at \$374 per acre. Forest-related recreation and tourism was valued at \$102 per acre.

The Catskill's forest products industry is as diverse as any other part of New York State, with businesses ranging from sawmills, to furniture, to artisans and logging and trucking contractors. With support from the Catskill WoodNet, a new Pure Catskills brand and marketing program for local wood products has been initiated to support sustainable forest management, job retention and watershed protection. Other organizations support and promote forestry uses in the region including the Catskill Forest Association, and the Watershed Agricultural Council. To date, there are 58 different wood products-oriented businesses that are taking part in Catskill WoodNet. In the Catskills, there are opportunities to use timber harvests not only for economic advantage, but to improve the health of the forest, and to lessen the potential for subdivision and parcelization of the region's woodland.

Agriculture and forestry are noted as providing economic opportunities. The East Branch Delaware River Stream Corridor Management Plan states that "as agriculture has dwindled across the watershed... Dairy farming and forestry... remain the predominant active land uses within the basin. The trees are still used for lumber, furniture, pallets, and pulp, and people are still tapping the sweet resource of the sugar maples" (p. 17). Further, the West of Hudson study in 1998/99 indicated that although forestry has created limited jobs in the region, it presents "significant opportunities with few environmental

⁴ North East State Foresters Association, The Economic Importance of Wood Flows from New York's Forests, 2007.

impacts.”

Existing Zoning and Other Relevant Local Development Controls

Together, the 7 municipalities in the Esopus/Delaware region have instituted a range of land use controls and regulations. In addition, other agencies (New York City and New York State Department of Environmental Conservation primarily) regulate land uses across this area. Local land use regulations include zoning, site plan review, subdivision regulations and historic district regulations. The Town of Roxbury does not have a zoning law. Where it exists, zoning typically includes regulation of specific uses and disallowance of others. This differs from City and State regulations, which pertain to the protection of the environment and do not regulate specific land uses.

State-owned public lands within the Catskill Forest Preserve are managed by the New York State Department of Environmental Conservation. In the City watershed area, land use is also regulated to some extent by the New York City Department of Environmental Protection, which controls certain land use activities and land disturbances affecting water quality. There are several agricultural districts in the Delaware County portion of the Esopus/Delaware region. Although a state-certified Agricultural District does not impose land use regulations directly, agricultural land uses are protected through provisions of the State Agriculture and Markets Law 25-aa.

The local land use controls maintained by the seven municipalities in the Esopus/Delaware region are listed in the table below. The majority of municipalities have written comprehensive plans and zoning, site plan review and subdivision regulations in place.

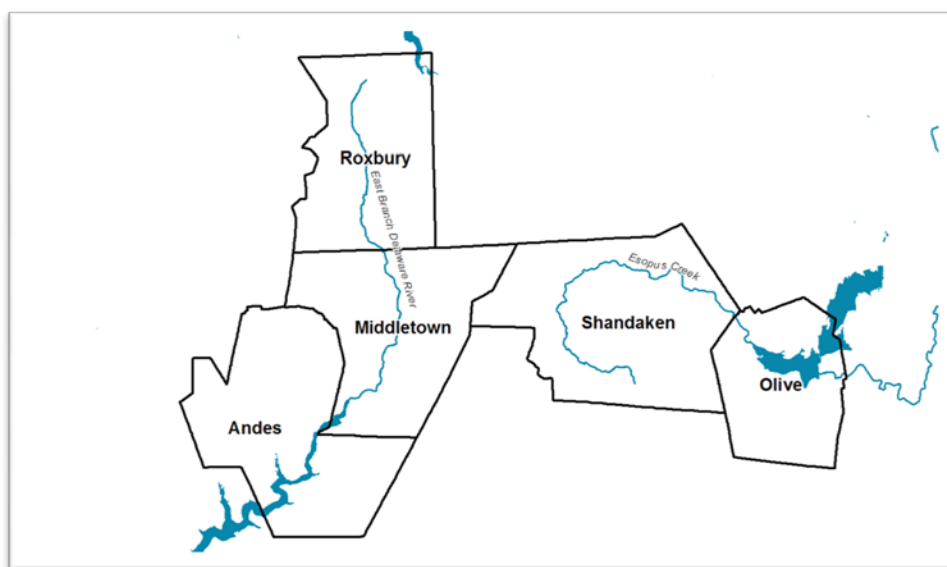
Local Land Use Controls in the Esopus/Delaware Region					
Municipality	Comprehensive Plan	Zoning	Site Plan Review	Subdivision Regulations	Historic Districts
Towns					
Andes	•	•	•	•	
Middletown	•	•	•	•	
Roxbury	•		•	•	•
Olive		•	•	•	
Shandaken	•	•	•	•	
Villages					
Fleischmanns	•	•			
Margaretville	•	•	•		

5.3 Waterfronts and Waterfront Access

Description of the Esopus and Delaware Waterfronts and Waterfront Land Uses

Esopus Creek has as its headwaters Winnisook Lake, which is on the west side of Slide Mountain, the highest peak in the Catskill Park. The Esopus flows for 65 miles circling around Panther Mountain, eventually draining into the Hudson River. Five miles of its length is part of the Ashokan Reservoir within the Town of Olive.

The Esopus valley was a trading route, providing access to the interior of the Catskills even before the first European settlers came. Tanning, logging, and charcoal industries used the valley to transport their goods out of the mountains via road and railroad. From Winnisook Lake to the Ashokan Reservoir, the Esopus rarely strays more than 1,000 feet from a road. Route 28 follows the Creek from the Ashokan Reservoir upstream to the hamlet of Big Indian, where it is then followed by Oliverea Road to its source at Winooski Lake.



The East Branch Delaware River flows for 75 miles from just south of the hamlet of Grand Gorge in Roxbury, Delaware County, to the New York-Pennsylvania Border, where it joins the West Branch Delaware River to form the Delaware River main stem. Similar to the Esopus and Route 28, the East Branch Delaware River is followed closely by Route 30 from Grand Gorge to the Pepacton Reservoir in Andes and beyond. Sixteen miles of the East Branch Delaware is part of the Pepacton Reservoir within the Towns of Middletown, Andes, and Colchester.

Between 1866 and 1872, the railway that would eventually become known as the Ulster and Delaware Railroad was built. This railroad connected the City of Kingston with the Town of Stamford, following both the Esopus Creek and East Branch Delaware, providing easy access to the interior of the Catskill Mountains for tourists. Two portions of the original line still remain active within the study area: an 11-mile stretch from Arkville to Roxbury, and a three-mile stretch from Phoenicia to Mount Tremper in the Town of Shandaken.

Existing and Competing Water Uses

NYC Water Supply

Pepacton Reservoir

The Pepacton Reservoir was formed by impounding over one-quarter of the length of the East Branch Delaware River. New York City purchased the valley in 1942. The dam was finished in 1954, and the flooding was completed in 1955. The Pepacton can hold 140.2 billion gallons of water, supplying about 25% of New York City's drinking water.

Ashokan Reservoir

The Ashokan Reservoir was the first of seven reservoirs to be built in the Catskill Mountains as a water supply for New York City. It covers approximately 13 square miles and about a 5-mile stretch of the Esopus Creek in the Town of Olive. The reservoir can hold 122.9 billion gallons of water, supplying about 40% of New York City's daily drinking water.

The flow of the Esopus is supplemented by the Shandaken Tunnel (the Portal), which connects to the Schoharie Reservoir 27 miles to the northwest. This 16 mile long aqueduct empties into the Esopus about 11 miles upstream of the Ashokan in the hamlet of Allaben in Shandaken.

The control of the additional flow provided by the Schoharie Reservoir into the Ashokan via the Esopus Creek offers some unique opportunities, conflicts, and controversies. These competing uses are further described in the sections below.

Trout Fishing

The Esopus and the East Branch Delaware are well known trout fishing streams attracting anglers from around the world. Both these and surrounding Catskill streams are known as the birthplace of American fly-fishing. The Esopus was the first Catskill stream to be successfully stocked with rainbow trout, which have now become indigenous. Brown trout are regularly stocked in both the Esopus Creek and the East Branch Delaware. The Esopus is often cited as one of the most productive trout streams in the northeast.

The high-quality fishery that attracts anglers relies upon cold water releases from the Shandaken Tunnel, but turbidity is a primary issue among this group. The SPEDES permit allows discharges to contribute to turbidity above what humans (i.e., anglers) perceive to be preferable for aesthetics, bathing, and safe wading. Also, efforts to remove navigational obstructions to canoeing, kayaking, and tubing, such as submerged large woody debris, can result in diminished fish habitat quality.



Canoeing and Kayaking

In the upper Esopus, the additional stream flow provided by the Shandaken Tunnel has turned this stretch of the creek into a valuable whitewater canoe and kayak recreational destination. Tubing has also become a very popular tourist attraction that supports local businesses.

Releases at the Shandaken Tunnel are regulated under New York State law. Water quantity is governed by Title 6, Part 670 of New York State code. The stated purpose includes both drinking water supply and recreational activities. With certain exceptions for construction and emergency operations, Part 670 establishes minimum flows of 160 million gallons per day (MGD). Part 670 also allows for up to four “recreational releases” per year between June and October. These releases must be requested via DEC and are subject to temperature conditions in the Schoharie Reservoir. They can be refused during water supply shortages.

Canoeing and kayaking require a level of water well above the minimum specified by Part 670. Therefore, recreational releases are highly important to this user group. According to an analysis in the Upper Esopus Stream Management Plan, 30 of the 56 requests for recreational releases between 1993 and 2006 resulted in “sub-optimal (below 800 cfs) flow for kayaking and canoeing.” Boating groups are also concerned that the long-term viability of these releases is threatened by new water quality regulations, which contain no specific recreational release provisions.

Tubing

According to the Upper Esopus Stream Management Plan, water levels sufficient for tubing are maintained for much of the year by requirements established by Part 670 without the need for extra releases.

Conflicts between adjacent property owners and tubers have occurred when the tubers sometimes stop on private lands during their trips. Both outfitters and the Town of Shandaken have attempted to provide restrooms and limit the potential for trash generation by tubers. Boaters tend to tolerate tubers, but anglers appear to have mixed feelings about them. Some cite tubing as having ruined fishing grounds while others have said that because tube traffic peaks between 11 am and 5pm—a period of high temperature and low fishing activity—there is less conflict.

A common need identified by the Stream Management Plan and other ongoing planning efforts is enhanced education of recreational users of this section of the Esopus, including the placement of information kiosks and perhaps the development of a mutually agreeable code of conduct.

Turbidity Control

Since the Shandaken Tunnel is considered a point source, water quality is governed by a SPEDES permit. This permit establishes temperature and turbidity limits for discharges. The Upper Esopus Stream Management Plan indicates that while the Shandaken Tunnel is not the dominant cause of turbidity in the Upper Esopus Creek, it is a cause that is most readily subject to human control.

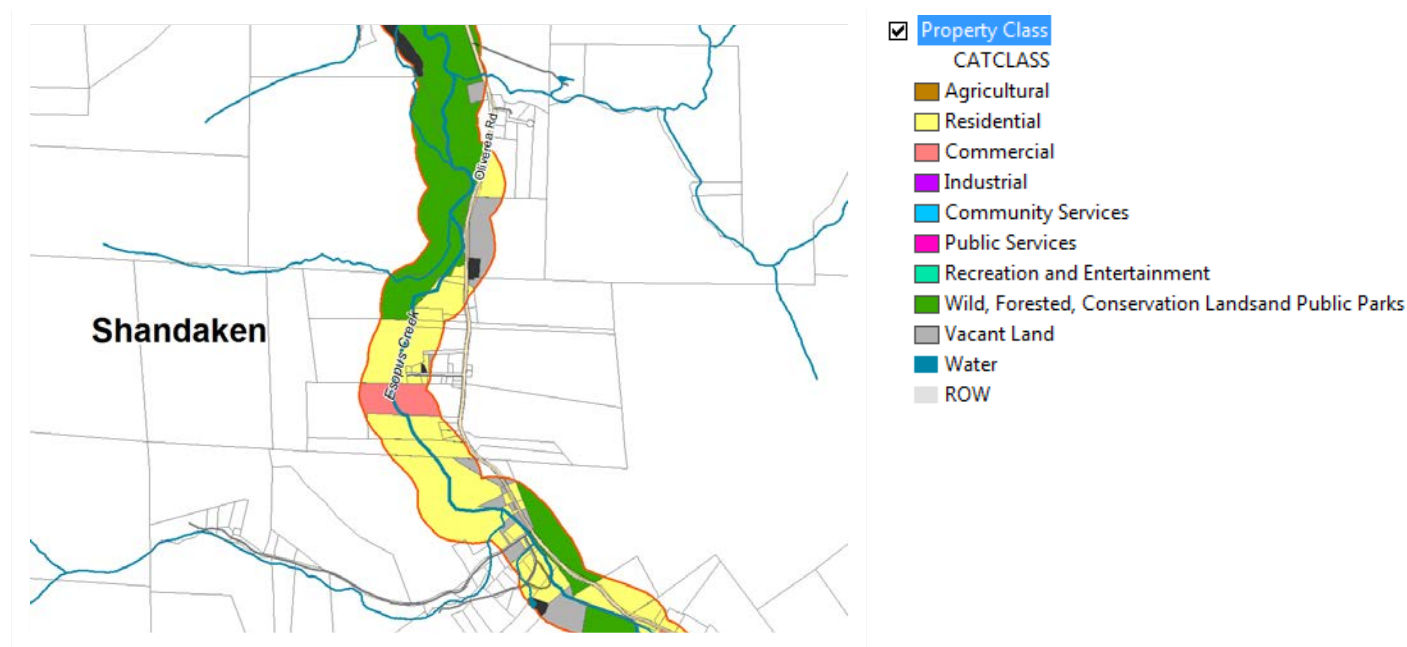
Recent controversy over the relationship between increases in turbidity in the Lower Esopus Creek and releases from the Ashokan Reservoir has resulted in a draft agreement between the NYS DEC and NYC

DEP. This agreement, pertaining mostly to sections of the creek below the reservoir, also includes funding for turbidity control projects in the upper Esopus Creek.

Land Uses Along the Waterways

Land uses along both waterways were analyzed in order to identify any commercial uses associated with the waters, existing public access points, and possible future access points.

The GIS data assembled for the project was used for this analysis. A 500 foot wide area along both sides of the waterways was extracted from the tax parcel data, and the areas for the various property classes were calculated.



The categories used in the following charts are explained here:

Land use category	Property classes included in the category
Developed – Residential	All residential land uses, including single family homes, multi-family homes, mobile homes, seasonal homes, apartments, and condominiums
Developed – Other	All other developed lands including commercial, industrial, recreational, community services, public services that do not involve water supply protection
Developed – Road	Public highway rights-of-way
Undeveloped – private	Agricultural, land, Vacant properties, and Wild/Forested/Conservation Lands that are privately owned
Undeveloped – public	Parks, Playgrounds, Wild/Forested/Conservation Lands that are publicly owned (mostly State Land), Public services that do involve water supply protection

Land use category	Property classes included in the category
Unknown	Some of the parcel data did not have any property class information included. Missing data was supplemented to the extent possible by using aerial photos. Remaining unknown property classes affected mostly the Route 28 Corridor and the Town of Olive

The percentage of each Land Use category is presented in the following two charts. The first chart presents the percentage of each land use category for each waterway, with the Esopus Creek divided into two sections, one being the Route 28 corridor, and the other being the stretch along Oliverea Road. This was done in order to help identify any differences in land use between these physically different stretches.

The second chart presents the same data, but is organized by town. Note that the areas of the waterways within the Ashokan and Pepacton Reservoirs were NOT included in any of these calculations.

Land Uses Within 500 Feet of Each Waterway			
Land Use Category	Esopus Creek, Route 28 Corridor, from above the Ashokan Reservoir to Big Indian	Oliverea Road, from Big Indian to Winnisook Lake	East Branch Delaware River, Above the Pepacton Reservoir
Developed - Residential	28%	33%	28%
Developed - Other	19%	8%	19%
Developed - Road	11%	4%	12%
Sub-Total Developed	58%	45%	59%
Undeveloped - Private	24%	21%	32%
Undeveloped - Public	13%	33%	9%
Sub-Total Undeveloped	37%	54%	41%
Unknown	5%	1%	0%

Land Uses Within 500 Feet of the Waterways By Town					
Land Use Category	Olive	Shandaken	Roxbury	Middletown	Andes
Developed - Residential	49%	29%	34%	16%	The entire stretch of the East Branch Delaware River in Andes is within the Pepacton Reservoir
Developed - Other	8%	15%	17%	17%	
Developed - Road	7%	9%	10%	11%	
Sub-Total Developed	64%	53%	61%	44%	
Undeveloped - Private	24%	23%	38%	18%	
Undeveloped - Public	0%	21%	1%	39%	
Sub-Total Undeveloped	24%	44%	39%	57%	
Unknown	12%	3%	0%	0%	

Looking at the first chart, it appears that residential development is fairly uniformly distributed along the waterways. However in the second chart, residential distribution among the towns is more concentrated in Olive and Roxbury than it is in Shandaken and Middletown. Non-residential development is much less concentrated along Oliverea Road than it is along both Route 28 and Route 30.

Undeveloped public land is highest along Oliverea Road, and lowest along the East Branch Delaware River. However, the highest level of overall undeveloped land is in the town of Middletown and lowest

in Olive. All of the undeveloped land in Olive is privately owned (not including lands surrounding the Ashokan Reservoir).

Some conclusions can be drawn from these charts and the accompanying maps. The area with the greatest amount of easy public access to the waterways is along Oliveria Road in Shandaken. The public lands along this stretch of the Esopus are largely state-owned forest lands, which do not require an access permit. Because of this easy access, the area is very popular with fishing and hiking enthusiasts. While the Route 28 stretch has fewer adjacent public lands, there are some well-established access points supporting the popular tubing, kayaking and fishing recreational activities.

The towns of Olive and Andes must rely solely on the highly regulated public lands surrounding the reservoirs for direct access to the waterways. The town of Middletown also must rely heavily on access to the East Branch Delaware via DEP owned lands surrounding the stretch of this river up-stream of the Pepacton Reservoir. The town of Roxbury has almost no public land along the waterway, and must rely solely on access via private lands. Public access is much more restricted along the East Branch Delaware than it is along the Esopus Creek.

Existing Public Access

East Branch Delaware Access

Officially, the East Branch Delaware Access Plan is called the Enhanced Recreational Opportunities & Public Access Plan for the Upper East Branch of the Delaware River. The plan is sponsored by the proposed Water Discovery Center, to be located in Middletown, but is being administered by the Central Catskills Chamber of Commerce. The plan's goal is to advance the water quality and economic development recommendations included in the East Branch Delaware River Stream Management Plan.

On the plan's website at <http://eastbranchaccess.com/about/>, the tasks outlined include, but are not limited to:

- Surveying and identifying current public access sites;
- Collecting data on signage, parking, and amenities;
- Mapping these locations;
- Identifying potential new access sites for a variety of uses;
- Documenting ownership of potential access points on private lands;
- Identifying issues and concerns of private landowners; and
- Drafting a Good Neighbor Policy for Public Access Use of Private Land.

The East Branch Access Plan has identified hundreds of existing and potential locations where the public can or may be able to interact in different ways with the waterway. These include trailheads, parking lots, kiosks, and boat launches. At least 60 of these identified access points are located directly adjacent to the East Branch Delaware.

Esopus Access

There is no official stand-alone access plan for the Esopus Creek similar to the East Branch program.

However, there was some analysis done for this project. The maps included in this plan show a number of fishing access points along the Esopus, as well a significant amount of state-owned land bordering the creek. Commercial enterprises that cater to tourists also offer opportunities to interact with the waterfront.

Access to DEP-Owned Watershed Properties

Although NYC DEP is primarily interested in managing the properties it owns for watershed protection, a significant portion of the City-owned properties are open to the public for recreational uses (see also Section 5.4). DEP issues a comprehensive Access Permit that allows hiking and fishing on designated lands in the watershed. Any one 16 years of age and older must apply for and carry a valid Access Permit in order to access Hiking Areas, Fishing Areas, Hunting Areas and Recreational Boating Areas. There are also Designated Use Areas and Public Access Areas. Anyone under 16 years of age may access City Property for recreational purposes without an Access Permit, but must be accompanied by a valid Access Permit holder aged 18 or older. More specific requirements for these access permits, and specific areas where access is allowed, can be found on the DEP website at http://www.nyc.gov/html/dep/html/recreation/recreation_rules.shtml.

Access to Reservoir Properties

The Ashokan and Pepacton reservoirs, their shorelines, and adjoining properties are open only for fishing, and in some cases, hunting. Fishing from a boat requires a DEP issued boat tag and requires inspection, steam cleaning, and storage of the boat at the reservoir. The same access permit is required for these uses on reservoir properties. Hiking is not allowed on reservoir properties.

5.4 Recreational, Cultural and Historic Resources



Spotlight on Recreational, Cultural and Historic Resources

Conclusions

- The Esopus/Delaware region is rich in recreational, cultural and historic resources.
- Some of the resources are specifically oriented to water-related activities (both water dependent and water enhanced); others are related to cultural, historic, and community resources; all are related to the built and natural environment that is unique to this part of New York State.
- Recreational activities in the region are often oriented to natural resources. Hiking, skiing, and fishing are among the predominant outdoor recreational activities. The thousands of acres of preserved public lands make the Esopus/Delaware region unique in its offerings for visitors and residents alike.
- Numerous cultural resources are found throughout the region and include museums, art galleries and studios, theaters, and special events such as the Festival of the Voice in Phoenicia and Belleayre Music Fest.
- The built environment includes many historic resources that capture the unique historic character of the central Catskills. There are many historically-significant sites and districts (such as the John Burroughs summer home in Roxbury and the Pakatakan Artists Colony in Middletown) and individual structures (such as barns, schools, and churches).

Recreational Resources

The communities that make up the Esopus/Delaware region have a broad range of recreational assets. Resources include a significant amount of public land owned by the State of New York in the Catskill Park. State-owned recreation areas in the region include the Dry Brook Ridge Wild Forest (Towns of Andes and Middletown); Delaware Wild Forest, Wolf Hollow Wildlife Management Area, and Big Pond/Little Pond State Park (Andes); Plattekill and Relay State Forests (Roxbury); Slide Mountain Wilderness (Olive and Shandaken); Sundown Wild Forest (Olive); and Big Indian Wilderness, Phoenicia-Mt. Tobias Wild Forest, and Shandaken Wild Forest (Shandaken). These areas offer numerous backcountry trails for hiking and snowshoeing, with probably the largest concentration in the Town of Shandaken.

Many trails in the Catskill Park were affected by Hurricane Irene, as trees were toppled, bridges were washed away, and damage to local roads made it impossible for hikers to reach trailhead parking lots. All of the trails closed in the aftermath of the storm, however, have since reopened.

The state-owned Belleayre Mountain Ski Area in Highmount is one of the most popular recreational facilities in the region, attracting nearly 175,000 visitors annually. Nearby, the Belleayre Mountain Pine Hill Lake Day Use Area serves as a venue for swimming, boating, fishing, hiking, and picnicking in season.

City-owned recreation areas are detailed in the table below. The Many of these properties allow public access for hiking, fishing, and/or hunting. In 2012, following the success of a three-year pilot program that allowed non-motorized recreational boating on the Cannonsville Reservoir in western Delaware County, the NYC DEP announced the opening of the Pepacton, Neversink, and Schoharie Reservoirs to rowboats, canoes, kayaks, sculls and small sailboats.

A key part of the initiative will be the selection and construction of new boat launch sites at each reservoir and the identification and certification of steam cleaning vendors in the vicinity of the reservoirs. The DEP also expects to open up most of the watershed land it acquires outright in the future, including a large amount of land in Delaware County, for recreational uses.

NYC-Owned Recreation Areas in the Esopus/Delaware Region			
Name	Town	Public Access Area?	Acres
Barkaboom	Andes	Yes	144
Beech Hill	Andes	Yes	239
Bryants Brook	Andes	Yes	93
Bussey Hollow	Andes	Yes	246
Canada Hollow	Andes	Yes	120
Dibble Road	Andes	Yes	104
Fall Clove Road	Andes	Yes	340
Flynn Brook	Andes	No	2,200
Meekers Hill	Andes	Yes	120
Murphy Hill	Andes	Yes	520
Palmer Hill	Andes	No	235
Pepacton Ledges	Andes	Yes	293
Rehor Road	Andes	Yes	190
Shaver Hollow	Andes	Yes	33
Shavertown Bridge	Andes	Yes	305
Tremper Kill	Andes	Yes	202
Weaver Hollow	Andes	Yes	619
Alpaca Ridge	Middletown	Yes	514
Arena	Middletown	Yes	360
Bragg Hollow Road	Middletown	Yes	32
Brook Road	Middletown	No	72
Brush Ridge	Middletown	Yes	229
Cole Hill	Middletown	Yes	241
Covesville	Middletown	No	56
Dunraven North	Middletown	No	202
Huckleberry Brook	Middletown	Yes	101
Johnny Cake Lane	Middletown	Yes	30
Kettle Hill	Middletown	Yes	491
Miller Road	Middletown	Yes	285
Morris Hill	Middletown	Yes	266
Red Kill	Middletown	No	83

NYC-Owned Recreation Areas in the Esopus/Delaware Region			
Name	Town	Public Access Area?	Acres
South Dunraven	Middletown	Yes	76
Sprague Road	Middletown	Yes	38
Swart Road	Middletown	Yes	161
Trow Bridge	Middletown	No	12
Twin Pond	Middletown	No	42
Boulder Hill	Roxbury	Yes	80
Buffalo Hollow	Roxbury	Yes	351
Delaware Headwaters	Roxbury	Yes	611
Duggan Hill	Roxbury	No	192
Hardscrabble Road	Roxbury	No	47
Hinkley	Roxbury	Yes	87
Irish Mountain	Roxbury	Yes	259
McGregor Mountain	Roxbury	Yes	295
New Kingston Mountain	Roxbury	Yes	282
Plattekill Mountain	Roxbury	Yes	716
Sally's Alley	Roxbury	Yes	586
Thompson Hollow	Roxbury	Yes	72
Van Aken Road	Roxbury	Yes	47
Van Aken Road North	Roxbury	No	23
Vega Mountain	Roxbury	Yes	60
West Schoharie	Roxbury	No	363
West Settlement	Roxbury	Yes	2,321
Acorn Hill	Olive	No	220
Ashokan North	Olive	No	1,442
Black Road	Olive	No	85
Bushkill	Olive	No	455
Bushkill Fishing	Olive	No	18
Oak Ridge	Olive	Yes	25
Sand Hill	Olive	No	451
South Hollow	Olive	Yes	79
South Mountain	Olive	Yes	351
Ticetonyck Mountain	Olive	Yes	838
Traver Hollow	Olive	Yes	142
Waldo Smith Day Use Area	Olive	Yes	57
Watson Hollow	Olive	Yes	23
West Shokan	Olive	No	117
Allaben	Shandaken	Yes	15
Big Indian	Shandaken	Yes	272
Birch Creek	Shandaken	Yes	261
Broadstreet Hollow	Shandaken	Yes	53
Chichester	Shandaken	Yes	102
Herdman Road	Shandaken	Yes	17
Lost Clove	Shandaken	Yes	162
Oliverea	Shandaken	Yes	80
Peck Hollow	Shandaken	Yes	75
Romer Mountain	Shandaken	Yes	16
Rose Mountain	Shandaken	No	213

NYC-Owned Recreation Areas in the Esopus/Delaware Region			
Name	Town	Public Access Area?	Acres
Shandaken	Shandaken	Yes	42
Sheridan Mountain	Shandaken	Yes	107
Woodland Valley	Shandaken	Yes	33

The region has several privately-owned venues for recreational activities such as golf, horseback riding, mountain biking, and skiing. There are at least three golf courses in Middletown and Roxbury, and Plattekill Mountain in Roxbury offers skiing/snow tubing in the winter and mountain biking in the summer. A handful of guide services take visitors on fishing and hiking adventures.

Other outdoor recreational opportunities in the Esopus/Delaware region include hiking, cross country and downhill skiing, snowmobiling, road and mountain biking, fishing, boating, tubing, swimming, hunting, and bird watching. The Catskill Scenic Trail, a 25-mile route that runs between Roxbury and Kortright in Delaware County, is used for hiking and mountain biking. There are several hiking trails available for individuals who are mobility impaired. Along the East Branch, there are eight access points for fishing in Roxbury, 24 in Middletown, and four in Andes that are part of the East Branch Access Program. There are nine public fishing access points in Shandaken and one in Olive.

Several special events that take place in the Esopus/Delaware region aim to connect people with the outdoors and draw attention to the region's resources for recreation. These events include Lark in the Park, an annual celebration of the Catskill Park that offers hikes and bike rides, natural history walks, paddling adventures, fishing, and other activities over a ten-day period in the fall; the Catskill Ride and Peak Bicycling Event in Margaretville; and, most recently, the first-ever Central Catskills Great Outdoor Experience Festival, a full weekend of recreational events and other activities in August.

In addition to the lands owned by New York State and New York City, individual communities have their own recreational facilities and programs. For example, Fleischmanns has a village-owned swimming pool and tennis courts, while Margaretville has several walking trails, a ball field, and a park. Roxbury's 11-acre Kirkside Park, behind Gould Memorial Church, offers access to the East Branch. In the hamlet of Arkville, a not-for-profit organization has been established by a local family to develop a recreational complex with an indoor pool.

Historic Resources

Five historic districts listed on the State and National Register of Historic Places are located within the Esopus/Delaware region. These include the Andes, Wagner Avenue, Pakatakan, New Kingston, and Roxbury historic districts. Thirty-one other listed historic resources are found in the area. There are 11 in Ulster County, and 20 in the Delaware County portion of the region.

Historic Resources in the Esopus/Delaware Region		
Listed Historic Resources	Location	Town
Andes Historic District	Andes	Andes
Jackson-Aitken Farm	Andes vicinity	Andes
Pakatakan Artists Colony Historic District	Arkville	Middletown
Delaware & Hudson Railroad Station	Arkville	Middletown
Congregation B'nai Israel Synagogue	Fleischmanns	Middletown

Historic Resources in the Esopus/Delaware Region		
Listed Historic Resources	Location	Town
Wagner Avenue Historic District	Fleischmanns	Middletown
Skene Memorial Library	Fleischmanns	Middletown
Kelly Round Barn	Halcottsville	Middletown
Old School Baptist Church of Halcottsville	Halcottsville	Middletown
Hubbell Family Farm and Kelly's Corners Cemetery	Kelly's Corners	Middletown
First Presbyterian Church of Margaretville	Margaretville	Middletown
Galli-Curci Theatre	Margaretville	Middletown
District 10 School	Margaretville vicinity	Middletown
Van Benschoten Residence and Guest House	Margaretville vicinity	Middletown
New Kingston Historic District	New Kingston	Middletown
New Kingston Presbyterian Church	New Kingston	Middletown
Thomson Family Farm	New Kingston vicinity	Middletown
Amelita Galli-Curci Estate	Middletown/Shandaken	Middletown/Shandaken
Isaac Hardenbergh House	Prattsville vicinity	Roxbury
Roxbury Main Street Historic District	Roxbury	Roxbury
John Burroughs Homestead and Memorial Forest	Roxbury	Roxbury
Second Old School Baptist Church of Roxbury	Roxbury	Roxbury
Ulster and Delaware Railroad Depot and Mill Complex	Roxbury	Roxbury
Walter Stratton House	Roxbury vicinity	Roxbury
First Old School Baptist Church of Roxbury & Vega Cemetery	Vega	Roxbury
Emile Brunel Studio and Sculpture Garden	Boiceville	Olive
Ashokan-Turnwood Covered Bridge	Olivebridge vicinity	Olive
Olive and Hurley Old School Baptist Church	Shokan	Olive
Camp Wapanachki (now Zen Mountain Monastery)	Mount Tremper	Shandaken
Phoenicia Railroad Station (now Empire State Railway Museum)	Phoenicia	Shandaken
District School No. 14	Pine Hill	Shandaken
Elm Street Stone Arch Bridge	Pine Hill	Shandaken
Mill Street Stone Arch Bridge	Pine Hill	Shandaken
Morton Memorial Library	Pine Hill	Shandaken
Ulster House Hotel	Pine Hill	Shandaken
Mount Tremper Fire Observation Tower	Shandaken vicinity	Shandaken

There are also properties of local significance that do not meet the National Register requirements. While these properties are not listed on the National Register, they are acknowledged as important to the Shandaken community. With the exception of the Fire Tower in Shandaken, which is owned by New York State, the previous list is limited to historical places outside of state property. There are other sites of historical significance to the community on state grounds, including:

- Shandaken Tunnel, which transports water from the Schoharie Reservoir in Schoharie County to the Esopus Creek in Ulster County, was constructed to allow the New York City Board of Water Supply to connect the Schoharie watershed to the Ashokan watershed. The tunnel excavation was completed February 13, 1923.
- Rochester Estate ruins, located in the Shandaken Wild Forest Preserve, was originally named after William Rochester, a retired Colonel who moved to the area and began to purchase small

family farms in an attempt to create a large estate. Stone pillars still exist at various locations along the road and are the remnants of the gated entrances to the Rochester Estate.

Cultural Resources

The Esopus/Delaware region also has many cultural resources, including museums, art galleries, and theaters. Two museums, the Roxbury Railroad Depot Museum in Roxbury and the Empire State Railway Museum in Shandaken, focus on the region's railroad heritage. Other museums promote community history. These include the Town of Shandaken Historical Museum in the hamlet of Pine Hill, the Greater Fleischmanns Museum of Memories, located behind the historic Skene Memorial Library in the Village of Fleischmanns, and the Hunting Tavern Museum, owned by the Andes Society for History & Culture, in the Town of Andes.



Art exhibitions, performances, and arts education are available at multiple locations within the region. The Roxbury Arts Group, a non-profit organization, serves Delaware County by providing a variety of arts, entertainment and educational programming. The organization has five venues in the Catskills, two of which are located in Roxbury. The arts community in the region is also served by the Catskill Mountain Artisans Guild. This organization has a cooperative gallery on Main Street in Margaretville. Other art galleries and studios can be found throughout the Esopus/Delaware region. The Town of Shandaken has an annual art studio tour that covers the hamlets of Shandaken, Pine Hill, and Phoenicia and takes place in July.

5.5 Infrastructure



Spotlight on Infrastructure

Conclusions

- The highway system consists of Route 30 (north/south route), Route 28 (east/west route), Route 23 (another east/west route) and county and local town roads. State Routes 28 and 30 allow for good access from all directions and from urban areas downstate.
- Most of the denser built environment is located along Routes 28 and 30. These routes are coterminous with the Esopus Creek and East Branch Delaware River.
- Pedestrian access is mainly internal to the region. There are few connections aside from on-road bike paths that connect the region to other locations. Rail does exist as a tourist attraction in the area, but there is no longer passenger rail access to areas outside the region.
- A variety of bike routes exist including on-road, State-designated bicycling routes along State highways, a gravel rail-trail, and at least one commercial mountain biking operation. Other pedestrian facilities (sidewalks) can be found in hamlet and village areas only. More remote locations have miles of hiking, snowmobile, and horseback riding trails. With the exception of the Long Path, most trails are not connected to locations outside of the Catskill region.
- Water and sewer infrastructure is in place in some of the hamlets and both of the incorporated villages. Environmental and regulatory factors, among others, limit capacity for large extensions of these facilities. Most residences elsewhere in the region are served by private well water and septic systems.

Transportation Routes, Including Bicycle and Pedestrian Facilities

Roads

Vehicular access to the Esopus/Delaware region is provided by State Routes 28 and 30. In addition, smaller portions of several other state roads cross the area; by mileage, however, village, town, and county roads make up most of the area's road network.

Route 28 connects the region to the New York State Thruway and is the principal east-west corridor through the area. It provides a high level of service to the travelling public. As a regionally-significant trade corridor (or Primary Trade Corridor), it is the backbone of much commercial, tourist, and commuting activity in the Esopus/Delaware region. A Scenic Byway has been proposed along Route 28 from Hurley to Andes.

Route 28 also hosts most of the denser village and hamlet developments, and it provides access to many recreational uses, particularly in the Upper Esopus Creek watershed. It follows the northern portion of the Ashokan Reservoir in the Town of Olive, and briefly follows the East Branch in Middletown before heading west into the Town of Andes. Intercity bus service, which links the area with Kingston and Oneonta, is provided along Route 28 as well as Route 30. Ulster County also operates a rural responsive bus along Route 28.



Route 30 is the primary north-south corridor in the Esopus/Delaware region, generally following the East Branch of the Delaware River. It passes through the hamlets of Grand Gorge and Roxbury, other portions of the Town of Roxbury, and intersects Route 28 in Margaretville, where it joins Route 28 for two miles. It then heads south along the shore of the Pepacton Reservoir, which it crosses before leaving the Town of Andes. Route 30 is less travelled than Route 28.

Route 23, another important State route in the Esopus/Delaware region, passes through the northern portion of the Town of Roxbury, where it intersects Route 30 in Grand Gorge. A busy east-west route in the Catskill Region, it, like Route 28, also connects the Esopus/Delaware region to Oneonta.

Rail

The former rail bed of the Ulster and Delaware Railroad cuts across the region and generally follows the Route 28 and Route 30 corridors. Although passenger rail service is not offered, some segments remain in use as a scenic railroad. The line lacks connectivity between Ulster and Delaware Counties. There are currently two operators, both of which provide seasonal service.

In Ulster County, the 40-mile former railway is owned in part by New York City and in part by Ulster County who leases it to the Catskill Mountain Railroad (CMRR). The CMRR operates a 12-mile, 90-minute round trip excursion, called the Esopus Scenic Train, between Phoenicia and Boiceville. It is an all-volunteer operation.

In Delaware County, the Delaware and Ulster Railroad (DURR) is operated by the Catskill Revitalization Corporation, a non-profit which also owns and maintains the Catskill Scenic Trail. Starting in Arkville and ending in Roxbury, the excursion aboard the DURR takes almost 2 hours, round-trip, and travels along the East Branch of the Delaware River. It is operated seasonally.

Bicycle Routes

There are a variety of bike routes in the Esopus/Delaware region. They range from multi-use trails to on-road, State-designated bicycling routes. In Delaware County, the Catskill Scenic Trail is a multi-use 26-mile gravel trail occupying the former rail bed of the Ulster and Delaware Railroad between Grand Gorge, in the Town of Roxbury, and Bloomville, in the Town of Kortright.

In Ulster County, there are several State- and county-designated cycling routes, all of which make use of existing roadways. State Bicycle Route 28 is an on-road facility used as wayfinding for experienced cyclists. Improvements aimed at cyclists have been made — wider shoulders, for example. It traverses the Towns of Olive and Shandaken and terminates at the Delaware and Ulster county line. This corridor has also been the subject of several studies aimed at increasing bicycle and pedestrian uses, especially along the existing rail bed.

Portions of State Routes 28A and 212 are also State-designated cycling routes. Ulster County has also created several similar on-road bike routes, including County Route 42 in the Town of Olive and County Route 47 in the Town of Shandaken. These are signed routes, and bicycling-related improvements are prioritized, where possible.

Pedestrian

Pedestrian facilities are primarily found in the hamlet and village areas, where sidewalk networks are densest. Margaretville, Fleischmanns, Roxbury, part of Arkville and Andes have sidewalks. Boiceville, Shokan and part of Arkville do not. The villages and hamlets are generally walkable, with sidewalks and slower traffic contributing to pedestrian comfort, although sidewalk networks vary in terms of their serviceability and their density. And given the fact that several regional arterial highways (i.e. Routes 28 and 30) pass through many of the hamlet and village areas, pedestrian access and mobility may be restricted due to their presence.

There is an extensive system of hiking trails in the Catskill Park. Several of the region's highest peaks are found in the Esopus/Delaware region and there are several trails that provide access to them. Many of these trailheads have good access to adjacent roadways, but signage is largely absent from Route 28, from which most trails are accessed. The Long Path, a 326-mile trail between the George Washington Bridge, in New Jersey, and John Boyd Thatcher State Park, in Albany County, New York, passes through Phoenicia, crossing Route 28.

Additionally, there are a number of hiking and other foot trails found throughout the Esopus/Delaware region (see Recreation Map). The Catskill Scenic Trail, found in the northern portion of the Town of Roxbury, accommodates several groups of users, including pedestrians. Many of the City-owned parcels have public access, but no real developed trail systems. Access to these varies.

Parking Facilities

Parking facilities in the Esopus/Delaware region are found both in the areas of concentrated development — the villages and hamlets — and distributed widely in the more sparsely settled areas. In the villages, parking tends to be available along roadways in the downtown areas, although there are several public parking lots. There may also be seasonal parking shortages due to the influx of visitors and second homeowners. Parking at trailheads, at rest areas along State roads, and at other points of access to public lands generally provide vehicular access to these recreational and scenic areas, though the number of spaces may be limited.

Andes

According to the Andes Comprehensive Plan, parking in the hamlet of Andes is “limited.” Snow in the winter months, in particular, further exacerbates the limited availability of public parking facilities in the

Town.

Middletown

Parking outside the villages in the Town of Middletown is limited to trailheads and other points of access to public lands.

Village of Fleischmanns

The village operates one parking lot, a public lot on the south side of Main Street. The 2009 plan for Fleischmanns Park will also result, if constructed, in the creation of 14 parking spaces in the park, which is located along the Bush Kill. According to the comprehensive plan, although the now-underutilized downtown area currently makes for ample on- and off-street parking, renewed investment in this area may make parking less available.

Village of Margaretville

The 2008 Comprehensive Plan identified parking as a perennial issue in Margaretville. The Village operates one lot near Bridge Street, and there are more spaces available on public roadways. In total, there were 159 public parking spaces available for customers of the businesses located on Main Street. According to the plan, there is a lack of lots located on and close to Main Street. Since the plan was adopted a new lot on the west side of Bridge Street has been created.

Roxbury

Public parking is available along roadways in the hamlets of Grand Gorge and Roxbury. There are limited parking facilities outside these areas.

Olive

Public parking facilities are available along State Routes 28 and 28A along the Ashokan Reservoir. These lots provide access to City, State, and Town of Olive lands.

Shandaken

According to Shandaken's comprehensive plan, parking is "a concern in the hamlets." The Town's zoning code incorporates provisions for the construction of parking, and parking has been identified as an important infrastructure component of hamlet revitalization. Parking facilities, both paved and stoned, are also found along the Route 28 corridor at points of access to City, State, and Town lands.

Public Utilities and Infrastructure

In general, water and sewer infrastructure is found only in a selection of the more densely developed hamlet and village areas in the five Esopus/Delaware region towns. Several municipalities have source water protection plans, and several water distribution systems are supplied by a combination of springs and wells. Some properties, such as mobile home parks, are serviced by private systems with higher capacity. Electric supply is available through either New York State Electric and Gas (NYSEG) or Central Hudson Gas and Electric (CHGE).

Solid waste is handled differently in Delaware and Ulster Counties. Delaware County operates the Solid Waste Center and Compost Facility, which receives waste from towns in the County. In Ulster County, an act of the State legislature authorized the creation of the Ulster County Resource Recovery Agency (UCRRA), a public benefit corporation to handle solid waste disposal. The UCRRA operates three transfer

facilities primarily for commercial waste haulers.

Water Supply

In the Town of Shandaken, the hamlets of Pine Hill, Phoenicia, and parts of Chichester have public water distribution systems. In the Town of Andes, the hamlet of Andes has a public distribution system. It serves roughly 300 customers and the service area is mostly coterminous with the former village boundaries. In the Town of Middletown, water supply is provided in the Villages of Margaretville and Fleischmanns, and in the hamlets of Halcottsville and Arkville. In Fleischmanns, the system consists of wells and springs, located both inside and outside the village boundaries, and capacity is maintained by a reservoir located near Belleayre Mountain.

In the Town of Roxbury, two public water distribution systems serve the hamlets of Grand Gorge and Roxbury, their service area boundaries roughly coterminous with the designated hamlet areas. After recent upgrades, these two systems are now supplied by the same source, a pair of wells located in Roxbury. A third system in Roxbury exists to service the Roxbury Run Village development. Outside of the villages and hamlets in the Esopus/Delaware region, water supply is generally obtained through private wells.

Sewage Disposal

The table below details the sewage treatment facilities located in several hamlets and the two villages in the Esopus/Delaware region. In general, these areas provide the density of settlement sufficient to support the investments needed to build these systems. Outside these service areas, sewage treatment is provided mostly by private septic systems.

Sewage Treatment Facilities in the Esopus/Delaware Region	
Facility	Municipality
Denver Sewer Corporation WWTP	Roxbury
Village of Fleischmanns WWTF	Fleischmanns
Grand Gorge WWTP (NYCDEP)	Roxbury
Margaretville Sewer Treatment Plant (NYCDEP)	Margaretville
Andes WWTP	Andes
Pine Hill WWTP	Shandaken
Chichester Sewage Disposal Plant	Shandaken
Boiceville WWTP	Olive

In view of the importance of water quality in the City's watershed, the City has provided funding for WWTP upgrades, new wastewater treatment facilities, septic repairs and construction of sewer connections to City-owned wastewater facilities. It also conducts inspections and monitoring of those facilities situated within the City's watershed as well. The City also regulates the construction of new wastewater facilities, including septic systems. Four treatment facilities listed in the above table, the Grand Gorge, Margaretville, Pine Hill and Chichester wastewater treatment facilities, are operated entirely at the City's expense.

Until recently, the Catskill Watershed Corporation was exploring options for a wastewater treatment system in Phoenicia under a 2010 agreement with the Town of Shandaken. The CWC and its consultant, Lamont Engineers, were charged with reviewing all previous wastewater proposals and recommending a plan for the town's consideration. Sewer issues in Phoenicia had already forced one local business to relocate to Boiceville because it could not expand its septic system. A design was unveiled by Lamont Engineers in October 2011. However, the Town failed to act on a resolution that would have set a public hearing on the sewer system. As such, the contracts to construct a sewer system using funding from New York City have not been implemented.

Pursuant to the 1997 New York City Watershed Memorandum of Agreement, and the EPA's Filtration Avoidance Determination, programs have been established for select monitoring, maintenance, replacement, and rehabilitation of existing septic systems, as well as the planning, design, and construction of cluster systems serving two or more residences or small businesses.

Electric Supply

The Town of Olive is serviced by Central Hudson Gas and Electric. The remaining portions of the Esopus/Delaware region are serviced by New York State Electric and Gas.

Solid Waste Disposal

Solid waste disposal in the Esopus/Delaware region is provided for by a combination of private haulers and public transfer stations. As above-mentioned, waste in the Esopus/Delaware region is eventually transported to county-owned facilities to be trucked to landfills. The Towns of Olive, Andes, Middletown, and Roxbury each maintain transfer stations for use by residents. The hamlet of Andes, the Village of Margaretville, and the Town of Shandaken are serviced by private trash haulers.

Telecommunications

The need for modern telecommunications services, including cell phone service and high-speed Internet access, has been cited in recent comprehensive plans prepared for the Towns of Middletown, Olive, and Shandaken and the Village of Fleischmanns. Although some areas of the Esopus/Delaware region have seen improvement over the last several years, significant gaps in coverage remain, particularly in the Town of Andes, Middletown (outside the two villages), and Roxbury.

Information on broadband availability by municipality is maintained by the NYS Broadband Program Office, which provided the data as supporting material for Governor Cuomo's Connect NY Grant Program. The data in the following table indicate the number and percentage of households served.

Level of Broadband Availability in the Esopus/Delaware Region		
Municipality	Households Served	% of Households Served
Town of Andes	330	23%
Town of Middletown	2,500	77%
Village of Fleischmanns	270	93%
Village of Margaretville	340	95%
Town of Roxbury	1,200	55%
Town of Olive	2,400	96%
Town of Shandaken	2,500	90%

Note: Numbers, percentages, and summed totals depicting broadband availability are rounded estimates adjusted to compensate for the prescribed data reporting methodology which assumes ubiquitous broadband availability in every reported census block. Broadband availability is defined as ≥ 6 mbps download, ≥ 1.5 mbps upload.

5.6 Demographic Overview



Spotlight on Demographic Character

Conclusions

- The total year-round population of the Esopus/Delaware region is approximately 15,000, reflecting a decline of 4.3% since 2000. All five towns had a decrease in population between 2000 and 2010, although Roxbury lost only a few people.
- Within the region, the Town of Andes is the smallest with respect to population, and also the oldest, with a median age of 54.4 years. In comparison, the median age of New York State as a whole is 38.0 years.
- More than one in five residents of the Esopus/Delaware region is age 65 and older, with an even greater prevalence of senior citizens in the Towns of Andes and Middletown. The number of older residents combined with a long-term decline in overall population has a variety of potential implications for the region, from an increased demand for medical services to a decline in income levels, labor resources, and the critical mass required to support certain kinds of businesses.
- Data from the Census Bureau and county property assessment records indicate that the size of the population in the region increases by up to 9,300 when the owner-occupants of seasonal homes are taken into consideration. This figure does not include “transient” visitors: guests of local residents, campers, or individuals staying at one of the hotels, motels, and inns.
- Although the region has a median household income of \$44,476, approximately 25% of households have income levels below \$25,000 per year. In Shandaken, one-third of all households earn less than \$25,000 per year, making it difficult for many residents to afford a place to live.

Demographic Overview

According to the 2010 Census, the total population of the region is 15,057. This reflects a decline of 4.3% or a net loss of 673 residents since 2000. Of the five towns, Middletown experienced the highest rate of decline, while Roxbury’s population changed only marginally.

The Census Bureau defines a household as all persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more persons living together, or any other group of individuals who share living arrangements outside of an institutional setting. There are more than 6,900 households that reside year-round within the study area, with an average size of 2.15 persons.

Demographic Characteristics, Esopus/Delaware Region						
	Town of Andes	Town of Middletown	Town of Roxbury	Town of Olive	Town of Shandaken	TOTAL
Population						
2000 Census	1,356	4,051	2,509	4,579	3,235	15,730
2010 Census	1,301	3,750	2,502	4,419	3,085	15,057
% Chg., 2000-10	-4.1%	-7.4%	-0.3%	-3.5%	-4.6%	-4.3%
Households						
2000 Census	604	1,672	1,078	1,869	1,463	6,686
2010 Census	632	1,705	1,144	1,960	1,505	6,946
% Chg., 2000-10	4.6%	2.0%	6.1%	4.9%	2.9%	3.9%
Average Household Size						
2000 Census	2.25	2.29	2.31	2.43	2.17	2.30
2010 Census	2.06	2.15	2.19	2.25	2.02	2.15
% Chg., 2000-10	-8.4%	-6.1%	-5.2%	-7.4%	-6.9%	-6.5%
Median Age						
2000 Census	47.8	46.0	44.7	42.2	45.0	44.5
2010 Census	54.4	50.4	49.3	48.9	50.2	NA
% Chg., 2000-10	13.8%	9.6%	10.3%	15.9%	11.6%	NA
Population by Age, 2010						
Under 20	16.5%	19.5%	21.1%	20.6%	17.9%	19.5%
20 - 24	2.9%	4.3%	3.9%	4.1%	4.0%	4.0%
25 - 34	7.1%	7.3%	8.2%	7.2%	7.9%	7.5%
35 - 44	9.5%	11.0%	10.6%	11.5%	11.8%	11.1%
45 - 54	15.0%	15.9%	15.3%	18.5%	18.1%	16.9%
55 - 64	19.7%	17.2%	18.5%	20.0%	20.6%	19.1%
65 and over	29.3%	24.7%	22.3%	18.1%	19.7%	21.8%

Source: U.S. Census Bureau, ESRI Business Analyst Online, and E.M. Pemrick and Company.

Data on the distribution of households by type were recently released from the 2010 Census. According to the Census figures, 45.3% of the households in the region were married-couple families, 12.9% were other family households and 41.8% were non-family households, predominantly individuals living alone. Of the family households, 37% had related children under age 18 at home.

As this suggests, residents of the Esopus/Delaware region, as in most of the Catskills, tend to be older in comparison to New York State as a whole. Among the five towns, the median age ranges from 48.9 in Olive to 54.4 in Andes. It is 45.4 in Delaware County and 42.0 in Ulster County. In contrast, New York State's median age is 38.0 years.

These trends, if they continue, are likely to have a variety of implications for the region: for example, the aging of the population could contribute to an increased demand for health care services which may not be available, forcing older residents to move elsewhere, and income levels could be affected as the region loses its share of residents who are at the apex of their careers and earnings potential. Similarly, the loss of population makes it difficult to attract new businesses and provide the necessary labor to operate existing businesses as well.

Seasonal Population

Data from the Census Bureau and county property assessment records indicate that the size of the population in the region increases by several thousand when the owner-occupants of seasonal homes are taken into consideration. In 2000, the Census classified 3,909 housing units in the five towns as vacant for seasonal, recreational, or occasional use. Analysts often use this category to estimate the number of second homes in a given area. Using the average household size for the year-round population, we calculated an estimated seasonal population of nearly 9,000 in the Esopus/Delaware region. These numbers do not include “transient” visitors: guests of local residents, campers, or individuals staying at one of the hotels, motels, and inns.

Seasonal and Vacant Units, Esopus/Delaware Region						
	Town of Andes	Town of Middletown	Town of Roxbury	Town of Olive	Town of Shandaken	TOTAL
2000 Census						
Seasonal Housing Units	659	1,136	828	356	930	3,909
Total Housing Units	1,326	3,013	2,026	2,306	2,668	11,339
% Seasonal Housing Units	49.7%	37.7%	40.9%	15.4%	34.9%	34.5%
Average Household Size	2.25	2.29	2.31	2.43	2.17	2.30
Est. Seasonal Population	1,483	2,601	1,913	865	2,018	8,991
2010 Census						
Seasonal Housing Units	765	1,294	933	357	980	4,329
Total Housing Units	1,459	3,229	2,191	2,498	2,776	12,153
% Seasonal Housing Units	52.4%	40.1%	42.6%	14.3%	35.3%	35.6%
Average Household Size	2.06	2.15	2.19	2.25	2.02	2.15
Est. Seasonal Population	1,576	2,782	2,043	803	1,980	9,307

Source: U.S. Census Bureau and E.M. Pemrick and Company.

Recently-released figures from the 2010 Census indicate that the number of housing units classified as vacant for seasonal, recreational, or occasional use in the Esopus/Delaware region increased over the last decade to 4,329. Most of the increase was in the three Delaware County towns. Second homes now comprise more than half of the housing stock in the Town of Andes. Based on the methodology used in conjunction with the 2000 Census data, we estimate that the region has a seasonal or part-time population of approximately 9,300.⁵

Income Levels

Household income is a good indicator of both personal wealth and purchasing power. The median household income level in the region is \$44,476, meaning that half the resident households have incomes *below* this figure and half have incomes *above* it. Of the five towns, Olive has the highest median income, at \$57,220, while Shandaken has the lowest (\$36,848). According to its 2005 Comprehensive Plan, Shandaken is the poorest town in Ulster County, and there has been “a growing disconnect between the cost of housing and the ability of local wage earners to afford a place to live.”⁶

⁵ More information on part-time residents is provided in the discussion of the Second Homeowner Survey in Section 5.9. For an alternative analysis of the region’s second homeowner population, see Appendix B.

⁶ Comprehensive Plan for the Town of Shandaken, NY, 2005, page II-1.

Income Characteristics, Esopus/Delaware Region						
	Town of Andes	Town of Middletown	Town of Roxbury	Town of Olive	Town of Shandaken	TOTAL
Median Household Income						
2000 Census	\$35,064	\$31,534	\$32,864	\$45,361	\$31,850	\$35,455
2010 estimates	\$37,780	\$39,117	\$39,775	\$57,220	\$36,848	\$44,476
% Change, 2000-2010	7.7%	24.0%	21.0%	26.1%	15.7%	25.4%
Household by Income, 2010						
Less than \$15,000	13.2%	15.4%	12.2%	8.2%	16.8%	12.8%
\$15,000 - \$24,999	15.0%	12.9%	14.6%	7.2%	16.4%	12.5%
\$25,000 - \$34,999	14.5%	15.7%	16.0%	10.5%	14.9%	14.0%
\$35,000 - \$49,999	21.7%	17.4%	14.2%	15.2%	15.8%	16.3%
\$50,000 - \$74,999	19.2%	20.8%	18.2%	29.7%	17.8%	22.2%
\$75,000 - \$99,999	6.0%	8.1%	10.7%	15.3%	6.6%	10.1%
\$100,000-\$149,999	7.8%	7.1%	12.3%	9.5%	7.7%	8.8%
\$150,000 or more	2.6%	2.6%	1.8%	4.4%	4.0%	3.3%

Source: U.S. Census Bureau, ESRI Business Analyst Online, and E.M. Pemrick and Company.

Approximately 25% of all households in the region have annual household incomes below \$25,000. About 56% have incomes of under \$50,000. In contrast, 12.1% have incomes of \$100,000 or more. Notably, the Town of Roxbury has the highest proportion of households with incomes exceeding \$100,000 per year (14.1%).

The aggregate income of residents in the region is estimated at \$418.9 million. This figure includes wage and salary earnings, interest, dividends, net rents, pensions, SSI and welfare payments, child support and alimony received by residents. Based on ESRI forecasts, the aggregate income is projected to increase to \$486.3 million by 2016.

Despite substantial household income growth, poverty remains pervasive in the region and throughout the Catskills. Comparable data are not yet available for 2010, but data from the U.S Department of Housing & Urban Development indicate that in 2000, 43.6% of all residents in the region were low- and moderate-income, living in households earning 80% or less of the respective county median income. The low- and moderate-income rates were lowest in Andes (40.2%) and highest in Shandaken (52.9%), with a high rate in the Village of Fleischmanns (54.7%) as well.

5.7 Economic/Market Analysis



Spotlight on the Economy

Conclusions

- The economy of the two counties in which the Esopus/Delaware region is located is comprised mainly of small businesses with fewer than ten employees. There are also a sizable number of businesses that have no paid employees, but are subject to federal income taxes. This limits opportunities for employment in the region.
- The public sector, including municipal and county government and local school districts, accounts for more than 25% of the employment in Delaware County. Major industry sectors in the County include manufacturing and health care, represented in the region by Mountainside Farms, a milk processing facility, and Margaretville Memorial Hospital. Retail, located primarily in small village centers, is also a key industry in Delaware County.
- Ulster County is not only significantly larger than Delaware County; its economy is also much more diverse. Major industry sectors include retail trade, health care, and hospitality and food services. A recent economic development strategic plan has identified the arts and creative industries, travel and tourism, agriculture, and “green” and renewable energy technologies as economic drivers for the overall Ulster County economy.
- Estimates from ESRI, a leading provider of market data, indicate that the Esopus/Delaware region has nearly 900 business establishments. The majority of these businesses are engaged in retail trade, leisure and hospitality, and construction.
- More than 85% of residents in the Esopus/Delaware region have at least a high school diploma, while 26% have a bachelor’s degree or higher. There are notable differences within the region, however, with higher levels of educational attainment in Olive and Shandaken than in Andes, Middletown, and Roxbury.
- The Esopus/Delaware region has a total market potential (demand) estimated at \$175.2 million. This figure does not include spending by seasonal residents or transient visitors, however, which may be as much as \$34 million per year.
- Retail establishments in the region generate an estimated \$65.9 million in annual sales. Total sales and average sales per establishment tend to be highest for such businesses as gas stations, grocery stores, restaurants, and general merchandise stores. Although the region has many specialty retailers that serve both residents and visitors, the data suggest that they are underperforming relative to the expected demand.

- Tourism assets in the region include retail stores, lodging, public recreation areas, and restaurants. There are numerous opportunities for outdoor recreation. Many of the region's historic, cultural, and natural resource-based assets, however, do not have much of an online presence beyond the websites of chambers of commerce and tourism bureaus.
- As noted in the recent *Delaware County Gateway Community Tourism Assessment*, the region's public lands, waterways, mountains, and other natural resources are underutilized, in spite of the wide range of opportunities they offer for outdoor recreation. There is a need to expand product development and packaging (e.g., through guided tours or group activities), provide directional and interpretive signage, and develop marketing materials, including maps, to effectively capitalize on these opportunities and bring more tourism dollars into the region.
- Over the last few decades, travel and tourism have been irrevocably changed by the Internet era and advances in technology. With the advent of Web 2.0, many travelers visit websites like TripAdvisor for online reviews – “trusted advice from real travelers” – or use social media for tips on places to go. They also rely on smart phones, downloading “apps” for their mobile devices to learn about destinations, book accommodations, or even locate restaurants while they are on the road. This makes it imperative for the Esopus/Delaware region, and the Catskills overall, to increase its online presence through multiple channels.
- This section examines the local economy, by both county and by municipality. It also provides a brief analysis of the retail market, an examination of the distribution of businesses by industry and a discussion of tourism as an economic sector and perceptions of the region as a travel destination.
- It should be noted that the economic and market analysis was prepared prior to Tropical Storm Irene. However, as the Federal Emergency Management Agency (FEMA) has observed: “Disasters do not completely change pre-disaster economic conditions; instead they simply magnify trends or conditions in place before the disaster struck.”

Regional Economic Context

The *West of Hudson Economic Study* prepared for the Catskill Watershed Corporation described the economy of the Catskill Watershed in 1998 as “diversified but small in scale”: “The one common element of the Watershed employment base is that it is primarily comprised of small businesses with few employees and government agencies serving local and regional needs.”⁷ In many respects, this statement accurately portrays the employment base within the region today.

The economy of Delaware County, in which the Towns of Andes, Middletown, and Roxbury are located, is comprised of approximately 16,000 jobs, 70% of which are in the private sector. According to the NYS Department of Labor, government accounts for a significant share of the employment, with 4,633 jobs.

⁷ *West of Hudson Economic Development Study for the Catskills Watershed Corporation, Final Economic Study for the Catskill Fund for the Future, 1998*, p. 10. The area defined as the Catskill Watershed includes portions of five counties.

Major public employers include County government, SUNY Delhi, and local school districts.

Manufacturing represents less than one-quarter of the County's employment, with 3,445 jobs. Manufacturers in Delaware County produce a diverse array of goods, including dairy products, wood products, paper, pharmaceuticals, fabricated metal products, machinery, electronic products, and furniture. Most of the manufacturing activity is concentrated in the Village of Sidney; however, there is a milk processing facility, Mountainside Farms, in the Town of Roxbury.

Health care and social assistance accounts for 13% or 1,955 jobs. More than half of these positions are based at nursing and residential care facilities and hospitals, including Margaretville Memorial Hospital, one of the largest employers in the Esopus/Delaware region.

Other key industries in Delaware County include retail trade (1,633 jobs, or 11% of total employment), and hospitality and food services (977, or 6%). According to the *Delaware County Factbook*, the County's retail sector "lacks a strategic central city or similar single focus. Rather, the retail economy is based upon a number of smaller village centers... each of which have a limited degree of diversity in the products they offer. It is not uncommon for certain types of retail uses to be entirely absent from some of these smaller centers."⁸



Small businesses represent the majority of employers in Delaware County. According to *County Business Patterns*, 80% of all establishments in the County have fewer than ten employees, and 62% have fewer than five employees.

Delaware County also has a sizable number of non-employers. A non-employer business is defined as one that has no paid employees, has annual business receipts of \$1,000 or more (or at least \$1 for construction companies), and is subject to federal income taxes. Most non-employers are self-employed individuals operating unincorporated businesses that may or may not be the owner's principal source of income. Nationally, non-employers account for a majority of all business establishments, but average less than 4% of all sales or receipts. Non-employer statistics from the Census Bureau show that Delaware County had 3,469 such businesses in 2010, the most recent year for which data are available, with \$122.6 million in annual income, or an average of \$35,346 per year.

Ulster County, in which the Towns of Olive and Shandaken are located, is not only significantly larger than Delaware County; its economy is also much more diverse. Three-quarters of the 58,000 jobs in Ulster County are in the private sector. According to the NYS Department of Labor, health care and social assistance and retail trade comprise the largest share of total employment, not including government, with 8,847 and 8,802 jobs, respectively. Hospitality and food services represents 10%, with roughly 6,000 jobs, while manufacturing accounts for 6% or 3,667 jobs. Most of the County's large employers are located in Kingston, Highland, New Paltz, and Ellenville.

⁸ Southern Tier East Regional Planning Development Board, *Delaware County Factbook* - 2007, page 61.

County Employment by Industry				
Description	Delaware County		Ulster County	
	Employment	Percentage	Employment	Percentage
Agriculture, Forestry, Fishing & Hunting	120	0.8%	943	1.6%
Mining	109	0.7%	95	0.2%
Construction	446	2.9%	1,982	3.4%
Manufacturing	3,445	22.1%	3,667	6.3%
Wholesale Trade	279	1.8%	1,317	2.3%
Retail Trade	1,633	10.5%	8,802	15.1%
Transportation and Warehousing	219	1.4%	1,488	2.6%
Information	238	1.5%	913	1.6%
Finance and Insurance	422	2.7%	1,705	2.9%
Real Estate and Rental and Leasing	78	0.5%	714	1.2%
Professional and Technical Services	166	1.1%	1,470	2.5%
Management of Companies and Enterprises	24	0.2%	227	0.4%
Administrative and Waste Services	66	0.5%	2,096	3.6%
Health Care and Social Assistance	1,955	12.6%	8,847	15.2%
Arts, Entertainment, and Recreation	110	0.7%	771	1.3%
Accommodation and Food Services	977	6.3%	5,923	10.2%
Personal and Repair Services	503	3.2%	1,947	3.3%
Government	4,633	29.8%	14,093	24.2%
Total, All Industries	15,564	100.0%	58,171	100.0%

Source: NYS Department of Labor, Quarterly Census of Employment & Wages; 2010 annual averages.

Ulster Tomorrow, an economic development strategic plan prepared in 2007, identifies four key industries in Ulster County that “operate as economic drivers for the rest of the economy as a whole”:

- The arts and creative industries
- Travel and tourism
- Agriculture
- “Green” and renewable energy technologies

Part of the strategic planning process involved an analysis of the resources in place to support economic development, business growth, and job creation in Ulster County. The plan identifies the County’s strengths as an available work force with a solid work ethic, access to quality K-12 educational resources, excellent environmental quality and access to four-season recreation opportunities, and a strong quality of life. Major obstacles to economic development in Ulster County include the lack of affordable workforce housing, the availability of skilled labor, access to higher education, and the economic development service delivery system.⁹

Ulster County has a high percentage of small- and mid-sized businesses. According to *County Business Patterns*, 81% of the business establishments in the County have fewer than ten employees, and 98% have less than 100 employees.

Like Delaware County, Ulster County has a large number of non-employers – nearly 16,000, in fact. In

⁹ *Ulster Tomorrow: A Sustainable Economic Development Plan for Ulster County*, 2007.

2010, these businesses brought in \$602.2 million in annual income, or an average of \$38,654 per year.

Business Mix

The table below presents the distribution of businesses by industry in the Esopus/Delaware region based on estimates from ESRI Business Analyst Online.¹⁰ According to the information available, the region has a total of 890 business establishments, with 516 in Andes, Middletown, and Roxbury and 374 in Olive and Shandaken. Retail trade and leisure and hospitality (which includes arts, entertainment and recreation, accommodation, and food services and drinking places) comprise nearly one-third of the businesses in the region overall. Construction (e.g., contractors, carpenters, bricklayers, plumbers, electricians) also accounts for a large proportion of local businesses.

Business Mix by Industry, Esopus/Delaware Region						
Description	Andes, Middletown, and Roxbury		Olive and Shandaken		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
Agriculture, Forestry and Mining	11	2.1%	2	0.5%	13	1.5%
Construction	63	12.2%	36	9.6%	99	11.1%
Manufacturing	9	1.7%	15	4.0%	24	2.7%
Wholesale Trade	16	3.1%	9	2.4%	25	2.8%
Retail Trade	94	18.2%	65	17.4%	159	17.9%
Transportation and Warehousing	14	2.7%	17	4.5%	31	3.5%
Information	18	3.5%	8	2.1%	26	2.9%
Finance and Insurance	18	3.5%	8	2.1%	26	2.9%
Real Estate / Rental and Leasing	32	6.2%	16	4.3%	48	5.4%
Professional/Scientific Services	34	6.6%	27	7.2%	61	6.9%
Administrative & Waste Mgmt Services	14	2.7%	18	4.8%	32	3.6%
Educational Services	15	2.9%	8	2.1%	23	2.6%
Health Care and Social Assistance	16	3.1%	12	3.2%	28	3.1%
Arts, Entertainment, and Recreation	15	2.9%	10	2.7%	25	2.8%
Accommodation and Food Services	54	10.5%	67	17.9%	121	13.6%
Accommodation	24	4.7%	37	9.9%	61	6.9%
Food Services	30	5.8%	30	8.0%	60	6.7%
Personal and Repair Services	75	14.5%	42	11.2%	117	13.1%
All Other Private Sector Establishments	18	3.5%	14	3.7%	32	3.6%
Total Businesses	516	100.0%	374	100.0%	890	100.0%

Source: ESRI Business Analyst Online and E.M. Pemrick and Company.

¹⁰ ESRI develops these estimates annually using information from infoUSA. InfoUSA tracks businesses using a variety of sources, including telephone directories, court data, public information available from the state, annual reports, newspapers, Security Exchange Commission filings, business registrations, etc. As a result, sole proprietorships and partnerships (i.e., nonemployers) may be included. Also, if a local business is headquartered elsewhere, or is a franchise, it may be counted in the “headquarters” community, rather than in the community in which the operation or franchise is located.

Resident Commutation and Employment

As noted in the discussion of the county economic context, the vast majority of the businesses located in the Esopus/Delaware region are small. This limits opportunities for employment in the region. According to OnTheMap, an online tool produced by the U.S. Census Bureau in cooperation with state labor departments, nearly 20% of employed residents work elsewhere in Ulster County (i.e., outside Olive and Shandaken), while 15% commute to jobs in the New York-Northern New Jersey-Long Island metropolitan area, 8% to the Poughkeepsie/Newburgh area (Dutchess and Orange Counties), 7% to the Capital Region, and about 10% to other upstate New York MSAs, from Binghamton to Buffalo.

Data from the Census Bureau's OnTheMap application indicate that approximately one-third of the primary jobs held by residents – whether the jobs are based within or outside of the Esopus/Delaware region – are in the public sector. Private industries in which large numbers of residents are employed include health care and social services and retail trade.

Primary Jobs* Held by Residents 16+ by Industry, Esopus/Delaware Region						
	Andes, Middletown, and Roxbury		Olive and Shandaken		TOTAL	
	Number	Percent	Number	Percent	Number	Percent
Agriculture, Forestry and Mining	11	0.5%	12	0.5%	23	0.5%
Construction	109	5.0%	100	4.0%	209	4.5%
Manufacturing	129	5.9%	167	6.7%	296	6.3%
Wholesale Trade	41	1.9%	101	4.0%	142	3.0%
Retail Trade	224	10.3%	324	12.9%	548	11.7%
Transportation and Warehousing	57	2.6%	66	2.6%	123	2.6%
Information	46	2.1%	63	2.5%	109	2.3%
Finance and Insurance	79	3.6%	59	2.3%	138	2.9%
Real Estate / Rental and Leasing	22	1.0%	34	1.4%	56	1.2%
Professional/Scientific Services	49	2.2%	104	4.1%	153	3.3%
Administrative & Waste Mgmt Services	37	1.7%	85	3.4%	122	2.6%
Educational Services	39	1.8%	51	2.0%	90	1.9%
Health Care and Social Assistance	356	16.3%	309	12.3%	665	14.2%
Arts, Recreation, and Entertainment	44	2.0%	42	1.7%	86	1.8%
Accommodation and Food Services	191	8.8%	237	9.4%	428	9.1%
All Other Private Sector Industries	80	3.7%	127	5.1%	207	4.4%
Total Government (incl. education)	668	30.6%	630	25.1%	1,298	27.7%
TOTAL	2,182	100.0%	2,511	100.0%	4,693	100.0%

Source: U.S. Census Bureau, OnTheMap Data (2010), Longitudinal-Employer Household Dynamics Program and E.M. Pemrick and Company.

* A primary job is the highest paying job covered under the unemployment system for an individual worker for the year.

The large number of non-employers in Delaware and Ulster Counties, as described in the Regional Economic Context section, suggests that there is a high rate of *self*-employment in the Esopus/Delaware region. Non-employer statistics are not available at the community level. However, the American Community Survey asks participants to indicate the amount of income received in the last 12 months by source, including any self-employment income “from [your] own nonfarm businesses or farm

businesses... proprietorships and partnerships.” Based on 2010 estimates from the ACS, 27% of households in Andes had income from self-employment, the highest of the five towns in the region. The percentage of households with self-employment income was 18% in Middletown, 20% in Roxbury, 22% in Olive, and 23% in Shandaken, compared to 17% in Delaware County and 15% in Ulster County.

It is important to note that the ACS data on self-employment income do not necessarily identify “entrepreneurs.” Some individuals with income from self-employment are merely pursuing extra income while maintaining full- or part-time jobs, as in the example of a teacher who makes crafts or a technician who does landscaping on the weekends. For others, self-employment serves as the main source of income.

Levels of educational attainment among adults age 25 and over in Esopus/Delaware region are generally moderate; 85.2% of residents have at least a high school diploma, while 26.2% have a bachelor’s degree or higher. There are notable differences, however, between residents of Andes, Middletown, and Roxbury and residents of Olive and Shandaken: only 18.3% of adults in the three Delaware County communities, versus 33.6% of those in the two Ulster County communities, have a bachelor’s or graduate degree. Demographic data suggests that many of the “best and brightest” young people from Andes, Middletown, and Roxbury may be leaving the region in search of suitable employment opportunities elsewhere.

Market Analysis

This section reviews demographic characteristics, consumer spending patterns, and retail sales estimates that could be used in conjunction with surveys and other sources of information to identify potential business development opportunities for the region.

The Esopus/Delaware region has a combined 2010 population of 15,057, split evenly between the Towns of Andes, Middletown, and Roxbury in Delaware County and the Towns of Olive and Shandaken in Ulster County. The median age for the region is 48.3 years and is projected to reach 49.9 by 2015.

There are significant disparities between the three Delaware County towns on the one hand and the two Ulster County towns on the other, particularly with respect to age and income. The combined population of Andes, Middletown, and Roxbury is considerably older, for example, and the number of full-time residents is declining. In addition, the median income of the households in these communities is about 20% less than that of households residing in Olive and Shandaken. However, these figures do not include the substantial number of second homeowners in the Esopus/Delaware region who tend to have higher than average income levels. There may be a need to supplement the purchasing power of full-time residents by targeting other potential markets and attracting shoppers from outside the region to support local businesses.

Key Market Characteristics, Esopus/Delaware Region			
	Andes, Middletown, and Roxbury	Olive and Shandaken	TOTAL
Population			
2010 Census	7,553	7,504	15,057
2015 Projection (ESRI)	7,190	8,111	15,301
% Change, 2010-2015	-4.8%	8.1%	1.6%
Households			
2010 Census	3,193	3,501	6,694
2015 Projection (ESRI)	3,094	3,523	6,617
% Change, 2010-2015	-3.1%	0.6%	-1.2%
Median Age			
2010 Estimate*	50.3	46.9	48.3
2015 Projection (ESRI)	52.4	48.1	49.9
% Change, 2010-2015	4.2%	2.6%	3.3%
Median Household Income			
2010 Estimate	\$38,949	\$48,827	\$44,476
2015 Projection (ESRI)	\$45,061	\$57,763	\$52,754
% Change, 2010-2015	15.7%	18.3%	18.6%
Household by Income, 2010			
Less than \$15,000	14.0%	11.9%	12.8%
\$15,000 - \$24,999	13.8%	11.3%	12.5%
\$25,000 - \$34,999	15.6%	12.5%	14.0%
\$35,000 - \$49,999	17.1%	15.5%	16.3%
\$50,000 - \$74,999	19.7%	24.5%	22.2%
\$75,000 - \$99,999	8.5%	11.5%	10.1%
\$100,000-\$149,999	8.9%	8.7%	8.8%
\$150,000 or more	2.4%	4.3%	3.3%

Source: U.S. Census Bureau, ESRI Business Analyst Online, and E.M. Pemrick and Company.

* ESRI estimates were used because median age is not available for multiple towns.

Consumer Spending

To evaluate demand (or market potential) in the region, estimates of consumer spending by resident households were obtained from ESRI. ESRI develops these estimates by correlating demographic characteristics and associated spending patterns from the national Consumer Expenditure Survey, which is conducted annually by the federal Bureau of Labor Statistics, with local demographics. Excluded from the analysis below are expenditures on home mortgage payments, utilities and fuel, financial investments, vehicle loans, child care, insurance, and trip expenses (e.g., lodging, airfare).

Based on the ESRI data, the typical household in the Esopus/Delaware region spends approximately \$25,000 per year on retail goods and services. Transportation, food and beverage, and health and personal items comprise about two-thirds of this total.

In general, households in the region spend less than the national average; the Spending Potential Index for most goods and services is below 100. There are a few categories, however, where residents spend

slightly *more* than the national average, including apparel products and services (e.g., alterations, sewing supplies), pets, prescription and nonprescription drugs, major appliances, and lawn and garden.

Selected Retail Goods and Services Expenditures, Esopus/Delaware Region				
Product	Total Annual Spending	% Share	Avg. Spending Per Household	Spending Potential Index*
Apparel & Services	\$9,274,326	5.3%	\$1,323	57
Women's	\$2,868,813	1.6%	\$409	51
Men's	\$1,708,732	1.0%	\$244	55
Children's	\$1,640,320	0.9%	\$234	60
Footwear	\$1,184,029	0.7%	\$169	42
Watches and Jewelry	\$1,112,680	0.6%	\$159	84
Apparel Products and Services	\$759,752	0.4%	\$108	119
Computers	\$1,272,282	0.7%	\$181	85
Computers and Hardware for Home Use	\$1,108,707	0.6%	\$158	85
Software and Accessories for Home Use	\$163,575	0.1%	\$23	85
Entertainment & Recreation	\$21,091,831	12.0%	\$3,010	96
TV, Video and Audio Equipment	\$7,396,044	4.2%	\$1,055	88
Fees and Admissions	\$3,208,055	1.8%	\$458	76
Pets	\$3,756,563	2.1%	\$536	129
Recreational Vehicles and Fees	\$3,161,549	1.8%	\$451	144
Reading	\$982,760	0.6%	\$140	93
Sports/Recreation/Exercise Equipment	\$984,745	0.6%	\$141	80
Toys and Games	\$869,979	0.5%	\$124	88
Photo Equipment and Supplies	\$618,499	0.4%	\$88	88
Food	\$46,599,442	26.6%	\$6,649	89
Food At Home	\$28,079,926	16.0%	\$4,007	92
Food Away from Home	\$18,519,516	10.6%	\$2,643	85
Beverages	\$5,774,928	3.3%	\$824	84
Alcoholic Beverages	\$3,041,173	1.7%	\$434	78
Nonalcoholic Beverages At Home	\$2,733,755	1.6%	\$390	92
Health, Household, & Personal Items	\$12,240,076	7.0%	\$1,746	101
Housekeeping Supplies	\$4,493,314	2.6%	\$641	94
Prescription Drugs	\$4,031,795	2.3%	\$575	119
Personal Care Products	\$2,417,674	1.4%	\$345	89
Nonprescription Drugs	\$797,177	0.5%	\$114	114
Eyeglasses and Contact Lenses	\$500,116	0.3%	\$71	96
Home Maintenance & Remodeling	\$14,332,533	8.2%	\$2,046	90
Maintenance and Remodeling Services	\$11,532,270	6.6%	\$1,646	86
Maintenance and Remodeling Materials	\$2,800,263	1.6%	\$400	111
Household Furnishings and Equipment	\$10,738,271	6.1%	\$1,545	92
Furniture	\$3,422,640	2.0%	\$488	84
Major Appliances	\$2,188,314	1.2%	\$312	106
Household Textiles	\$836,844	0.5%	\$119	93

Selected Retail Goods and Services Expenditures, Esopus/Delaware Region				
Product	Total Annual Spending	% Share	Avg. Spending Per Household	Spending Potential Index*
Floor Coverings	\$423,256	0.2%	\$60	83
Housewares	\$472,540	0.3%	\$81	67
Small Appliances	\$214,581	0.1%	\$31	96
Telephones and Accessories	\$167,007	0.1%	\$24	58
Luggage	\$54,796	0.0%	\$8	87
Lawn and Garden	\$2,958,293	1.7%	\$422	104
Transportation	\$53,905,387	30.8%	\$7,692	97
Vehicle Purchases (Net Outlay)	\$28,882,050	16.5%	\$4,121	97
Gasoline and Motor Oil	\$19,054,775	10.9%	\$2,719	98
Vehicle Maintenance and Repairs	\$5,968,562	3.4%	\$852	93
Total, Selected Expenditures	\$175,229,076	100.0%	\$25,016	90

Source: ESRI Business Analyst Online and E.M. Pemrick and Company.

* The Spending Potential Index represents the amount spent by an average household relative to the national average (=100).

It is estimated that the region as a whole has a total market potential of \$175.2 million. Because population growth within the Esopus/Delaware region is projected to minimal, resident market demand is unlikely to change substantially in the next few years.

It is important to note, however, that these figures *do not* include spending by part-time/seasonal residents or transient visitors. Based on the responses to the Second Homeowner Survey, part-time residents contribute an estimated \$22.0 million to \$33.9 million to the local economy every year through the purchase of retail goods and services, adding to the region's market potential. Similarly, demand could be further generated by attracting more tourists and encouraging overnight stays.

Retail Sales

The retail sector in the Esopus/Delaware region includes an estimated 114 retail stores and restaurants in the Towns of Andes, Middletown, and Roxbury and 93 in the Towns of Olive and Shandaken. According to ESRI, these establishments generate an estimated \$65.9 million in annual sales.

In the three Delaware County communities, the store types with the highest level of sales are gas stations, full-service or sit-down restaurants, general merchandise stores, and building materials and supplies dealers. In the two Ulster County towns, the majority of the retail sales are generated by gas stations, grocery stores, and full-service restaurants.

Of interest is the fact that the region has numerous specialty retailers that serve year-round and seasonal residents as well as visitors, but their average annual sales are relatively low. The data suggest that many of the existing retail stores within the region, with the exception of restaurants, are underperforming relative to the expected demand.

Retail Sales Profile, Esopus/Delaware Region						
Store Type	Andes, Middletown, and Roxbury			Olive and Shandaken		
	Store Count	Estimated Retail Sales	Sales Distribution	Store Count	Estimated Retail Sales	Sales Distribution
Food Services & Drinking Places	25	\$2,756,964	11.1%	30	\$7,777,527	19.0%
Full-Service Restaurants	20	\$2,064,427	8.3%	24	\$6,219,964	15.2%
Limited-Service Eating Places	4	\$550,455	2.2%	5	\$1,418,839	3.5%
Drinking Places	1	\$142,082	0.6%	1	\$138,724	0.3%
Convenience Retail	20	\$4,374,282	17.6%	16	\$13,337,767	32.5%
Building Materials & Supplies Dealers	4	\$1,363,202	5.5%	5	\$436,560	1.1%
Grocery Stores	3	\$1,224,179	4.9%	5	\$11,275,815	27.5%
Health & Personal Care Stores	3	\$1,155,374	4.6%	4	\$1,462,852	3.6%
Specialty Food Stores	9	\$553,169	2.2%	1	\$131,599	0.3%
Lawn and Garden Equipment Stores	1	\$78,358	0.3%	1	\$30,941	0.1%
Automotive-Related Retail	14	\$12,925,452	52.0%	7	\$13,560,682	33.1%
Gasoline Stations	8	\$11,969,570	48.1%	5	\$13,064,617	31.9%
Automotive Dealers	4	\$816,918	3.3%	1	\$291,994	0.7%
Auto Parts, Accessories and Tire Stores	2	\$138,964	0.6%	1	\$204,071	0.5%
Shoppers' Goods Retail	55	\$4,803,309	19.3%	40	\$6,322,570	15.4%
General Merchandise	5	\$1,857,677	7.5%	2	\$1,524,786	3.7%
Miscellaneous Store Retailers	14	\$672,385	2.7%	13	\$1,227,941	3.0%
Furniture & Home Furnishings Stores	7	\$453,352	1.8%	3	\$1,066,432	2.6%
Used Merchandise Stores	10	\$437,345	1.8%	9	\$319,566	0.8%
Clothing, Shoes, and Accessories Stores	6	\$479,835	1.9%	3	\$749,976	1.8%
Beer, Wine, & Liquor Stores	2	\$369,104	1.5%	3	\$1,180,806	2.9%
Sporting Goods/Hobby/Musical Instruments Stores	8	\$344,298	1.4%	7	\$253,063	0.6%
Electronics & Appliance Stores	3	\$189,313	0.8%	0	\$0	0.0%
Total Retail Sales	114	\$24,860,007	100.0%	93	\$40,998,546	100.0%

Source: ESRI, infoUSA, and E.M. Pemrick and Company. 2010 data; update not yet available.

Tourism Metrics

According to a report by Tourism Economics, a consulting firm commissioned to quantify the economic impact of tourism for the state and each of its counties, visitors to the Catskills region (defined as Delaware, Greene, Sullivan, and Ulster Counties) spent more than \$997 million in 2010, a 5.4% increase over the previous year. Of this total, \$343.4 million (34%) was spent on lodging, \$260.9 million (26%) on expenses related to second homes, \$171.1 million (17%) on retail purchases and gasoline, and \$152.5 million (15%) on food and beverage at restaurants. The remainder went towards transportation and recreation.

Tourism in Delaware County generated \$82.5 million in visitor spending, fully two-thirds of it related to ownership of second homes. This proportion is significant higher than in the Catskills overall. The *Delaware County, NY Gateway Community Tourism Assessment* identifies real estate sales as “the biggest economic driver in the region,” adding that “any strategy to revitalize the tourism economy must

fully incorporate... part-time residents.”¹¹ In Ulster County, tourism activity generated \$431.0 million, 60% of it spent on lodging and dining; expenses related to second homes comprised less than 10% of traveler spending.

Citing a report prepared by Hall and Partners in 2007 for the I Love NY program, the Gateway Tourism Assessment provides the following profile of visitors to the Catskills:

- Most likely live in New York City
- Are likely to be married or living with a partner
- Have an annual household income over \$75,000
- Are between ages 25 and 49
- 49% spend longer than a weekend, but less than a week in the Catskills

Asked to indicate the primary reasons they decided to visit the Catskills, travelers indicated that it provided an opportunity to spend quality time with family or reconnect with a significant other; they perceived it as great place to unwind; it was an easy and convenient travel location; and it offered the chance to connect with nature.¹²

Tourism Asset Inventory

The inventory below includes a broad range of tourism-related assets within the Esopus/Delaware communities. It should be noted that *the compilation was not designed to be exhaustive*, but rather to provide a reasonably accurate count of the tourism resources in the region without regard to seasons or hours of operation, marketability, or other qualitative characteristics. The majority of the information was obtained through online research, visitor guides, and community planning documents. It is assumed that the assets identified through this inventory are the ones that the typical visitor will be able to find online with the help of search engines or in promotional materials distributed by County tourism departments, chambers of commerce, and individual venues.



Based on the inventory, the assets that appear to be most prevalent in the region are retail stores, including antiques dealers; lodging¹³; public recreation areas, whether owned by New York City or the State of New York; and restaurants. With respect to various recreational activities, most towns offer multiple opportunities for hiking and fishing. There are also numerous venues for the visual and performing arts, and historic sites, structures, and districts. As noted in previous studies, however, the region lacks a single “anchor” attraction to draw large numbers of people: existing museums are small, the scenic railways operate on a limited schedule, and two proposed attractions – the Catskill Interpretive Center in the Town of Shandaken and the Water

¹¹ National Trust for Historic Preservation, Heritage Tourism Program and the Conservation Fund, Conservation Leadership Network. *Delaware County, NY Gateway Community Tourism Assessment*, September 2008, p. 22.

¹² *Delaware County, NY Gateway Community Tourism Assessment*, p. 8.

¹³ The inventory did not catalog the number of rooms or type of facility or whether the accommodations are available year-round.

Discovery Center in the Town of Middletown – have not yet broken ground (although an interpretive kiosk was erected in Mount Tremper). The Catskill Mountains themselves are the main attraction, but the general public needs more than just a scenic view to appreciate the experience.

Tourism Asset Inventory by Type and Municipality, Esopus/Delaware Region						
	Town of Andes	Town of Middletown	Town of Roxbury	Town of Olive	Town of Shandaken	TOTAL
The Arts*	3	7	2	1	9	22
Attractions	0	2	0	1	2	5
Campgrounds	1	0	1	0	4	6
Farms/Farmers Markets	1	5	2	0	4	12
Historic Sites and Districts	3	15	9	3	8	38
Lodging**	3	22	9	3	28	65
Museums	1	1	1	0	2	5
Recreation (selected activities)						
Birding	1	0	0	3	2	6
Bowling	0	1	0	0	0	1
Fishing access sites	6	38	8	0	4	56
Golfing	0	2	1	0	0	3
Hiking (trails)	1	1	1	1	21	25
Horseback riding	0	0	1	0	0	1
Mountain biking	0	0	2	0	0	2
Skiing	0	0	1	0	1	2
Snow tubing	0	0	1	0	0	1
Swimming	1	1	0	0	1	3
Recreation Areas (NYC-Owned)	12	13	8	9	13	55
Recreation Areas (State-Owned)	3	1	2	2	4	12
Restaurants	7	9	10	9	14	49
Retail Stores/Antiques	19	40	12	10	17	98
Special Events (annual)	0	6	1	0	3	11***
* The Arts: includes art galleries, studios, and theaters ** Lodging: includes hotels, motels, inns, cottages/cabins, and B&Bs *** Includes one event, Lark in the Park, that takes place in multiple communities Note: Assets may be counted in more than one category.						

Of the assets in the five towns, the majority are located either in the Town of Middletown, which includes the Villages of Margaretville and Fleischmanns, or in the Town of Shandaken. Conversely, the Town of Olive, the largest town in terms of population in the Esopus/Delaware region, has the fewest resources for tourism.

Tourism Online Marketing Audit

How is the Esopus/Delaware region perceived as a destination? In an effort to answer this question, the consultant team performed an informal marketing audit that looked at the online presence of tourism operators and other businesses in the region from the perspective of a potential visitor, based on websites including TripAdvisor.com and Escapemaker.com. These websites, along with booking sites like Expedia and Travelocity, often serve as an initial point of entry for travel planning.

Many visitors call or go to the websites of chambers of commerce and visitor bureaus, which continue to play a critical role in tourism marketing. However, with the advent of Web 2.0, external perceptions are increasingly shaped by online destination guides, user-generated content, and social media.

In its online introduction to the Catskill Mountains, travel website Frommers.com provides a perspective of the region that acknowledges the past while looking hopefully towards a more dynamic future:

Mention “the Catskills” and most Americans of a certain age still conjure either nostalgic or dreaded notions of resort vacations from another era... [but the region] is being transformed into a different kind of Catskills, open to younger and new types of visitors and residents, and new forms of leisure activities. The new Catskill Mountain region not only has conspicuously renamed itself, but also has set about recapturing its essence, the great outdoors, while holding onto an easygoing, rural lifestyle... [T]his is no longer your granddad's Catskills.¹⁴

Frommers.com highlights trout-fishing on the Pepacton Reservoir, the Shephard Hills Golf Course in Roxbury, skiing at Belleayre Mountain or Plattekill Mountain, hiking the Catskill Scenic Trail, and “12 peaks above 3,000 feet” within 15 miles of Margaretville among the locations for active pursuits in Delaware County. Frommers also identifies Plattekill Mountain as “one of the top-five mountain-biking destinations in North America.”¹⁵

In the section on Delaware County attractions, Frommers.com focuses primarily on Roxbury (“a graceful burg... [whose] Main Street is lined with impressive Tudor and Victorian homes”), Margaretville (“one of the most commercially developed of the small rural towns in Delaware County, with a cute Main Street”), and Andes (“a historic village... [that] has attracted an active community of artists”). Notable attractions include the Gould Memorial Church, Kirkside Park, and the John Burroughs Homestead in Roxbury, the Delaware & Ulster Railroad in Arkville, and the Hunting Tavern Museum in Andes.¹⁶ The rural county is “not exactly a shopper’s Mecca,” but Frommers does recommend Pakatakan Farmer’s Market.¹⁷

Frommers descriptions of Ulster County as a destination are dominated by Woodstock, New Paltz, and Saugerties, but Phoenicia is cited as “an example of the revived Catskills,” with a handful of home-furnishing and gift shops, and the Emerson Place complex in Mount Tremper is noted.¹⁸

TripAdvisor.com bills itself as “the world’s largest travel site,” offering “trusted advice from real travelers and a wide variety of travel choices and planning features.” The following tables summarize information posted on TripAdvisor about the communities in the Esopus/Delaware region:¹⁹

¹⁴ Accessed at <http://www.frommers.com/destinations/catskillmountains/3446010001.html#ixzz1QyVF8oo0>

¹⁵ Delaware County Active Pursuits: <http://www.frommers.com/destinations/delawarecounty/3449010020.html>

¹⁶ Delaware County Attractions: <http://www.frommers.com/destinations/delawarecounty/3449010029.html>

¹⁷ Delaware County Shopping: <http://www.frommers.com/destinations/delawarecounty/3449010031.html>

¹⁸ Ulster County destination pages: <http://www.frommers.com/destinations/ulstercounty>

¹⁹ As of October 10, 2012.

Esopus/Delaware Region Communities on TripAdvisor		
Community	Lodging & Restaurants (with number of reviews)	Things To Do (with number of reviews)
Andes	Andes Hotel (9) Andes Hotel - restaurant (14) Buttercup (1)	Ski Bobcat (0) [closed]
Margaretville & Arkville	Margaretville Mountain Inn (60) Hanah Mountain Resort & Country Club (48) Margaretville Motel (17) Summerfields (12) Inn Between Steak and Seafood (9)	Discoveries - antiques (1)
Fleischmanns	Breezy Hill Inn (42) River Run Bed & Breakfast (40) Northland Motel (8) Delaware Court Motel (2) No restaurants listed	None listed
Roxbury, Halcottsville, & Grand Gorge	The Roxbury Motel, Contemporary Catskill Lodging (310) [Note: The Roxbury is the recipient of two TripAdvisor Travelers' Choice Awards for Best Service and Best Hidden Gem] Stone Tavern Farm (14) Scudder Hill House (10) Susan's Pleasant Pheasant Farm (9) Colonial Motel (7) Roxbury Village Inn (5) Creekside Café (1)	Ski Plattekill Mountain (8) Stone Tavern Farm - horseback riding (3) Antiques at Rick's Barn (1) Roxbury Arts Group (1)
Olive, Boiceville, Shokan, & West Shokan	Ashokan Dreams Bed and Breakfast (27) Onteora, the Mountain House (9) The Trail Motel (4) [closed] Winchell's Pizza (7) Pineview Bakery & Coffee Shop (4) Olive's Country Store & Cafe (2) Boiceville Inn (1) Bread Alone Bakery (1) Ming Moon Chinese (1) Reservoir Delicatessen & Dairy (1)	Catskill Mountain Railroad (10)

Esopus/Delaware Region Communities on TripAdvisor		
Community	Lodging & Restaurants (with number of reviews)	Things To Do (with number of reviews)
Shandaken, Big Indian, Pine Hill, Phoenicia, & Mount Tremper	Emerson Resort & Spa (177) Kate's Lazy Meadow Motel (101) Copperhood Inn & Spa (76) Four Corners Country Inn (79) Full Moon Resort (75) Phoenicia Lodge (66) Birchcreek Retreat (55) Starlite Motel (44) Phoenicia Belle (27) Alpine Osteria B&B Inn (24) Pine Hill Arms Hotel & Restaurant (18) Alpine Inn (18) Cold Spring Lodge (16) Slide Mountain Forest House (15) Catskill Seasons Inn (14) Gateway Lodge (12) Catskill Rose Lodging & Dining (10) The Graham & Co. (10) The Shandaken Inn (6) Colonial Inn (5) Weyside Inn (4) Peekamoose Restaurant (136) Sweet Sue's Restaurant (66) Brio's Pizzeria & Restaurant (39) La Duchesse Anne- restaurant (20) Ricciardella's Restaurant (10) Catamount Restaurant (9) Mama's Boy (9) Phoenicia Diner (7) Sportsman's Alamo Cantina Tex-Mex Bar and Grill (6) Amy's Take Away (5) Tiso's Restaurant (5)	Belleayre Mountain Ski Center (34) The KaleidOscraper (12) Chichester Yoga (6) Empire State Railway Museum (4) The Town Tinker Tube Rental (2)

Only two communities are described in the traveler articles on TripAdvisor. Andes is described as “surprisingly lively for so small a community. Farmers and weekenders shop along the cheerful Main Street. Among the fun antique and housewares shops are Paisley's, Brooke's Variety (penny candy makes this one especially popular with the kids), Tay Home and Mercantile. The Andes Hotel offers good food and inexpensive rooms. The bus from NYC (about four hours) stops right in the middle of town.”

Fleischmanns is described in a historical context, as a community that “had its heyday at the turn of the last century”: “This truly was the Hamptons of the early 1900s. Most homes were built in a grand Victorian style, and most homes were not primary residences, but vacation spots. City dwellers would take the train up (out of commission since the 1950s) and summer here. [But] those days are long over for Fleischmanns and the Catskills. Travel trends changed... The area became depressed.” Perhaps

more hopefully, the article goes on to say that “the area has seen a bit of a revival, but it still has a long way to go. With a new sewer system (courtesy of NYC), Fleischmanns' vacant storefronts are ripe for investors and new development. If you're looking for lots of retail and restaurant options within walking distance, Fleischmanns is not for you. If you're looking for a quaint village with amazing architecture, a beautiful park, tennis courts, and outdoor pool surrounded by the mountains and within a few minutes drive of a myriad of dining options and outdoor activities... then Fleischmanns is a great place to visit.” Neither of these articles has been updated since 2007.

Notably, there is little or no mention of the historic, cultural, and natural resource-based assets in the region on TripAdvisor: e.g., opportunities for outdoor recreation in the Catskills, historic districts, John Burroughs State Historic Site, recreation in the Catskill Forest Preserve and on New York City-owned lands and reservoirs, the arts, etc. that lend themselves to unique experiences for visitors. Overall, the communities in the Esopus/Delaware region do not have much of a presence on TripAdvisor.

Both TripAdvisor and Yelp.com, a website established in 2004 to help people find local businesses, now offer iPhone and smart phone applications that give travelers an easy way to locate restaurants and places to stay while they are on the road. A recent TripAdvisor survey confirms that many travelers today rely on smart phones and other mobile devices to learn about destinations, research attractions, and book accommodations – tasks they used to perform only on their computers – and are downloading applications to enrich their travel experiences.²⁰

Regional Brand Awareness

A recent survey conducted by Cornell University School of Hotel Administration for the I Love New York program found that potential visitors to New York State are far more familiar with tourism *regions* (e.g., the Adirondacks, Hudson Valley, the Finger Lakes) than with individual counties. This suggests that marketing the Catskills collectively, under a single brand “umbrella,” is likely to be more effective than marketing individual towns, villages, and even counties. There is also a need to expand awareness of the Catskills as a destination and update its image to increase visitation and enhance opportunities for regional revitalization.

Yelp.com lists more than 700 businesses in the Esopus/Delaware region, although this includes not only private establishments but also various government entities (e.g., the local post office), chambers of commerce, and other organizations. Approximately 10% of the businesses, mostly in Phoenicia and Margaretville, have been reviewed. Yelp allows businesses to log on to the site, post information, announce special offers, and even review the performance of their business page on Yelp, but it is not clear how many businesses in the region have taken advantage of this opportunity.

Escapemaker.com is a website targeted primarily to NYC residents that provides information on weekend getaway destinations in the northeastern U.S. Margaretville and Phoenicia are two of the profiled destinations on the site.

Margaretville is described as a “wonderfully charming place to spend a weekend”: “Margaretville's Main Street provides an array of diversions after a day of outdoor fun. The ‘Biggest Little Town in the Catskills,’ Margaretville is located just off Route 28... While the town itself can be explored on foot in a day, to appreciate all that Margaretville and the region have to offer fully, you'll have to plan a trip each season for winter skiing, warm-weather biking and hiking, or fall foliage viewing.” In terms of things to

²⁰ See “‘Smartphone adoption around the world is skyrocketing’: TripAdvisor,” posted at <http://www.m-travel.com/news/2011/05/smartphone-adoption-around-the-world-is-skyrocketing-tripadvisor.html>

do, the website mentions antiques, art galleries, bowling, golf, the Delaware & Ulster Rail Ride, and skiing, hiking, and biking at Belleayre Mountain.

The Phoenicia profile is in the process of being updated, according to Escapemaker, but the Ulster County community is presented as “a relatively unknown town in the Catskills small enough to feel like you're right in the middle of nature, but big enough to have exactly what you need in the way of rest and relaxation.”

Tourism operators, retailers, and business organizations in the Esopus/Delaware region are beginning to recognize the value of Facebook as a marketing tool. A Facebook page not only provides an online presence, it also allows businesses to interact and engage with their “fans.” A recent search showed that a number of local businesses with active Facebook pages – e.g., Plattekill Mountain, Kate’s Lazy Meadow Motel, and Peekamoose Restaurant – each have several thousand fans, while the Roxbury, “Contemporary Catskill Lodging,” has nearly 5,000.



Gateway Tourism Assessment

In 2008, as part of an initiative to assist communities in natural and cultural heritage tourism development, the Appalachian Regional Commission and the National Endowment for the Arts retained the National Trust for Historic Preservation’s Heritage Tourism Program and the Conservation Fund to prepare a tourism assessment of five “gateway” communities in Delaware County that border the Catskill Park: the Towns of Andes and Roxbury, the Villages of Fleischmanns and Middletown, and the hamlet of Arkville. An on-site assessment visit by the consultant team focused on arts and culture, nature-based recreation, heritage sites and experiences, and the current tourism infrastructure.

Several findings of the Delaware County, NY Gateway Community Tourism Assessment are worth highlighting:

- “There is widespread agreement that the natural resources of the [Catskill] park are underutilized by the traveling public, and that the intermingling of public and private lands creates a critical need for both directional signage and interpretive guidance... maps and brochures are needed to guide the full range of outdoor recreation” (p. 20)
- A discussion of arts and culture in the gateway communities notes that many of the art galleries and antique shops are open only on weekends, seasonally, or by appointment, although the Roxbury Arts Group, identified as “a major force for the arts in Delaware County,” has events scheduled throughout the year. Historic movie theaters in the region are “not currently functioning” (p. 21)
- The report concludes that “the tourism economy... in the Western Catskills is not functioning well simply because travelers and weekenders do not have enough places to spend their money. None of the five communities is currently capturing their full potential of tourism profits

because the region collectively lacks basic elements of the tourism infrastructure, and travelers find businesses open only during a fraction of each week” (p. 22)

Among the consultant team’s recommendations with respect to business development are to expand product development and package local assets to capitalize on the recreational opportunities offered by the natural resources in the area; educate local business owners on the benefits of cross-marketing and cluster tourism; expand existing tourism business offerings; and “build reference tools” for merchants to communicate with travelers.

5.8 Regional Business Survey Results



Spotlight on the Business Survey

Conclusions

- Based on the survey results, most businesses in the Esopus/Delaware region are sole proprietorships or small companies that do not provide large numbers of jobs. While this is not unusual for a rural area, the question is whether these businesses have *chosen* to remain small or whether some of them have the potential for growth given the right conditions and resources.
- The economic downturn of the last few years hurt many area businesses, but some of them were able to weather the storm by pursuing niche opportunities, selling specialized products or services, or diversifying their markets.
- Business owners are frustrated by what they see as a lack of leadership and support, turf battles, and reduced levels of funding for tourism marketing. While they credit the efforts of various organizations in addressing specific issues, they also perceive a lack of coordination and collaboration that stymies the region's progress.
- There appears to be a need to better publicize the resources available to businesses in the region and offer training on social media marketing and other topics to help businesses improve their chances of success.
- Many survey respondents called for a more cohesive and up-to-date marketing effort to attract visitors to the Catskills and direct them to suitable activities, attractions, and events. The business owners offered a number of insightful comments and suggestions worth pursuing further as part of this project.

Methodology

In spring 2011, the consultant team developed an online business survey to assist in the preparation of the regional economic revitalization strategy. The survey was designed to gather information from entrepreneurs about their businesses and solicit input about the local business climate and potential economic opportunities.

Concurrently, the consultant team compiled the names and addresses (and, where available, e-mail addresses) of approximately 575 businesses in the Esopus/Delaware region communities. This information was compiled from a range of websites, including those of:

- Town of Andes
- Town of Olive

- Town of Roxbury
- Central Catskills Commerce of Commerce
- Delaware County Chamber of Commerce
- Belleayre Lodging & Tourism Association
- Ulster County Chamber of Commerce
- Delaware County Economic Development
- Ulster County Tourism
- Catskill Mountain Club
- Pure Catskills
- Pine Hill, In New York's Catskill Mountains
- Visit New York's Catskills Mountains, Official Tourism Site of the Catskill Region

In late March 2011, the MARK Project mailed an introductory letter to the businesses on the mailing list, explaining the Esopus/Delaware Economic Revitalization Strategy and inviting them to participate in the online survey. As an incentive for their participation, all respondents would be entered into a random drawing to win tickets for two for "Twilight on the Rails," with refreshments and entertainment aboard the Delaware & Ulster Railroad. A link to the survey was posted on the website of the MARK Project and e-mailed to businesses with e-mail addresses a few weeks after the letter was sent; in addition, the Central Catskills Chamber of Commerce notified its members about the business survey via an e-newsletter.

Due to the nature of the questions, the survey was targeted to the "person who makes the primary decisions for the business (e.g., owner, principal, executive director) based on his or her experience in the Esopus/Delaware region."

Respondent Characteristics

A total of 86 business owners completed the survey, a rate of response of approximately 15%.²¹ The largest proportion, 41.9%, came from businesses located in Margaretville/Arkville; businesses located in the Town of Roxbury, including the hamlets of Halcottsville and Grand Gorge, comprised 14% of those responding to the survey.

About 62% of the respondents indicated that they started their businesses, as opposed to purchasing or inheriting an existing establishment. Businesses were asked what year the business was established: the average was 1983 and the median was 1990. Fewer than 10% of the businesses represented among the respondents were established before World War II, including two banks and an inn that began operating in the nineteenth century.

Businesses of all types participated in the survey. Taken together, lodging establishments, restaurants, and retail stores accounted for 40% of the respondents. This is not surprising given the prevalence of these types of businesses within the region. There were relatively few responses received from farmers, manufacturers, or wholesale/distribution companies. Other industries, such as construction and business and professional services, appear to be underrepresented among the survey respondents.

²¹ Some of the mailings were returned by the postal service as undeliverable. It is believed that about 500 letters were delivered, which means that the rate of response is closer to 17%.

Based on the survey results, most of the businesses in the Esopus/Delaware region provide a limited number of employment opportunities. Nearly 85% of the responses came from sole proprietorships or microenterprise establishments, defined as businesses that have fewer than five employees year-round. Only 4.3% indicated that they have 20 or more full-time employees. Many businesses hire seasonal help, however: 40.5% of the respondents said that they have seasonal employees during the summer months to supplement year-round paid staff, with 5.4% hiring at least 10 people, while 17% hire seasonal workers during the winter.

Markets and Revenue Trends

Asked to characterize the market(s) served by their business, some respondents appear to have interpreted the question to be *evaluative* (i.e., akin to asking how your business is doing) rather than *factual*. The question was designed to identify the geographic, demographic, and/or other characteristics of the “population” to which the business sells its products or services.

Of the business owners who provided a written response to this question, roughly 30% cited second homeowners, 25% mentioned local/year-round populations, 20% cited tourists/visitors, and 15% cited northeastern, national, and even global markets. These figures do not add up to 100% because most businesses indicated that they serve *multiple* target markets, with some combination of these and other populations noted. A handful of respondents said that they provide services to other *businesses* rather than (or in addition to) individuals.

Based on the responses to question #9, on average, 36% of annual business revenues are derived from tourists/visitors from outside the region; 32% from year-round residents; and 32% from seasonal or part-time residents. That leaves about 37% of the revenues earned by the respondents coming from other markets, such as other businesses.

Nearly three-quarters of the business owners responding to the survey said that they belong to a chamber of commerce within the region. Asked to describe the methods or media used to market themselves, respondents provided a variety of responses; the majority of business owners market their goods and services in multiple ways, with advertising in local/regional newspapers and magazines, the Internet/web sites, and “word of mouth” among the most common. Some businesses advertise on radio, produce brochures and flyers, conduct direct mail advertising, or purchase listings in the local Yellow Pages. Although it is difficult to draw conclusions based on the responses provided, word of mouth and print advertising have been the most effective marketing tools, according to participants.

Only three or four respondents said that they use social media, with one stating that while Facebook is “probably effective to a self-contained market, we need to be more skilled and consistent at using it.” The apparently limited use of social media suggests a need for training to teach business owners how to utilize online social networking sites like Facebook and Twitter for online marketing.

Business Health

We asked business owners about the trends they have experienced over the last two years in terms of such variables as sales/revenues, demand, and year-round employment. Although the national recession officially ended in June 2009, the last two years have been marked by continuing high

unemployment, reduced consumer and business spending levels, and a significant downturn in the housing market. With respect to both sales and overall demand for their products or services, the survey responses were all over the map; while one-third indicated that their revenues had decreased significantly, 21% said that they had *increased* significantly. For most, employment stayed the same.

Asked to elaborate, the majority of business owners who had experienced a decline in sales/revenues attributed it to the economy and the downturn in the real estate market. Respondents whose businesses experienced an *increase* in sales over the last two years cited competitive advantages (e.g., unique products offered, low prices), strong demand in their particular industry (like solar energy), and increased consumer awareness of their products and services.

Doing Business in the Region

The survey asked business owners to describe the main advantages and disadvantages of doing business in the region.

The advantages listed most frequently were:

- **Natural environment and beauty of surroundings** – “A spectacularly beautiful region,” “A unique area with a lot of natural beauty and resources,” “Beautiful surroundings and lower stress than urban areas,” “Even on crummy days, it's beautiful.”
- **Clientele/customers** – “Customer loyalty and strong community support,” “Know most of our clients,” “Clientele are kind and appreciative,” “More personal relationship with customers.”
- **Location** – “Well-placed between NYC and Albany,” “Proximity to ski centers,” “Proximity to NYC.”
- **Relaxed pace** – “The relaxed and less frenetic mode of living in this environment,” “Peace of mind,” “Incredibly beautiful and peaceful area.”
- **None** – “No business advantages - only lifestyle advantages,” “None. We moved here for personal/lifestyle reasons,” “There is no advantage. No people with money, only SSD and section 8's.”

The challenges involved in doing business in the region included:

- **Small population** – “Dearth of available clients,” “Fewer customers per square mile,” “I have to travel outside of the area to find clients,” “Small population, little disposable income for many residents.”
- **Seasonal economy** – “Dramatic fluctuations in this seasonal tourism business makes it difficult to keep full staffs during slower periods,” “The dramatic month to month and seasonal revenue changes,” “Trying to financially make it through the winter when all expenses are up & revenues are greatly reduced.”
- **Lack of leadership** – “Development seems to be hampered by a culture that cannot accept change,” “Local politics,” “Lack of cohesion in bringing about a renaissance to the area,” “Lack of coordination between business/chamber groups; apathy.”
- **Limited investment** – “No tourism promotion by state or counties. I Love NY commercials are gone. Losing all our restaurants and businesses. People leaving in droves,” “Lack of new business investment,” “Not enough knowledge of the area and its benefits. We need more marketing of the region and all it has to offer.”

- **Isolation and distance** – “Being away from clients/other connections in advertising and writing,” “Lack of relationship with other business owners,” “Too far of a distance to get anywhere,” “You have to be willing to drive a lot.”

One business owner cited “making money” as a major challenge, echoing the views of many year-round residents who work multiple jobs to support themselves. Despite the beauty and relaxed pace of the Catskills region, “It takes a lot of time and effort to make a living [here]. I am working 7 days a week to do so.”

Asked to indicate their satisfaction with various characteristics related to running a business in the region, business owners gave the highest accolades to the *quality of life*: nearly 53% of respondents indicated that they are *very* satisfied and 29.2% are satisfied with the quality of life. Business owners are also generally satisfied with high-speed Internet service (66.7% “very satisfied” or “satisfied”), the cost of living (65.3%), and business costs (63.4%).

On the other hand, nearly four out of five business owners participating in the survey are *not* satisfied with cell phone coverage, while 56.3% are not happy with the responsiveness of local government to business needs. Labor availability is an issue for about half the respondents. In terms of the permitting and development review process and access to capital, 20% or more of business owners are not sure how they feel, possibly because they have not been involved in constructing a building or have sought financing.

Business owners were asked what resources they use when they have issues or problems, and whether this support has been helpful. The responses indicate that while many businesses have sought help from County economic development agencies, chambers of commerce, local and state representatives, SCORE, and the MARK Project, others have relied on other businesses or paid service providers (e.g., accountants) for advice and assistance.

Notably, more than a third of the business owners said that they turned to family members and friends or tried to work out issues alone, either because they were not aware of the resources available or did not trust certain organizations:

- “We have nowhere to turn”
- “No help experienced when issues come up. I almost have an impression that they are waiting for failure especially now in hard economic times”
- “I have not found any organization that is not in it for their own self interest and have learned to figure things out on my own”
- “Banks and government agencies are of no help at all. CWC [Catskill Watershed Corporation] and MARK are political”

Funding challenges have also impacted the availability of support. Wrote one business owner, “Tourism representatives try to help, but they are useless as all their budgets have been slashed.”

Given the diversity of resources and the fact that so many business owners still feel isolated, it is difficult to evaluate the effectiveness of services delivered. Most respondents were satisfied with the support they received, however, whether it came from a family member willing to provide advice or an organization assisting with a business plan.

Following up on the issue of responsiveness of local government, business owners were asked what municipal leaders, economic development officials, and community organizations are doing to help them succeed. And, they were asked what more, if anything, they *could* be doing. About 15% of the written responses were blatantly negative: e.g., “NOTHING - just adding cost to doing business,” “Municipal leaders are doing nothing and are in fact harming the business climate by their constant attacks on NYC.” Other business owners, while critical of municipal leaders, offered specific suggestions:

- “There's definitely been some movement over the past year... but in my opinion, municipal leaders are not doing enough to promote tourism”
- “Need greater municipal support for economic development initiatives”
- “[They should be] streamlining [the] permitting process, welcoming new businesses”

Survey respondents also commented on the lack of collaboration and the need to market the region as a whole:

- “It doesn't feel like they're doing anything. There is just a general lack of working together - very territorial”
- “Put more marketing \$\$ into the region and let downstaters know what we have to offer”
- “Collaborate more effectively”
- “[They should be] working together to better market this region as a destination”
- “If we could have some sort of central information bank of all of the events happening and all of the resources in the region, it would be helpful”

Business owners praised a number of agencies and organizations for their efforts in promoting the area and providing business advice and encouragement, adding, however, that more remains to be done:

- “Community and arts organization seems to be working hard to try to produce events and culture that make life in the region more appealing and attract tourism. But we need more help all the time to help those who are maintaining buildings that are on Main Streets, to work to maintain roads, signage, lighting, parking, etc. that make towns attractive to tourists”
- “Besides the MARK Project, these organizations seem invisible. They seem to have their focus on abstracts, not on the real time pulse of what is happening in our communities and how to help Main Street businesses”

Ulster County's Main Street Toolbox was commended for being helpful to businesses in Olive and Shandaken, but no such program exists in Delaware County. Several business owners complained that Delaware County does not do enough for local businesses.

Opportunities for the Future

Asked to identify opportunities for strengthening the region's economy, respondents provided diverse feedback, with responses ranging from types of businesses needed to marketing to actions that should be taken by local government. Examples by category are provided below:

- **Types of businesses** – “We need restaurants which complement retail and provide essential

services for residents,” “We desperately need good, modern restaurants that serve healthy food at a reasonable cost. And a bagel bakery!” “Affordable (not luxury) lodging is needed,” “We need to expand our lodging and resort capability in size and also make it year round,” “...whatever it is that younger people look for in a community,” “Almost all businesses are needed. However, demographics make their chance of success highly improbable.”

- **Renewed tourism focus** – “A transition to a tourism based economy... has been in place for quite a while. Why from my perspective does it seem as if the Poconos have more cache than the Catskills?” “Expanded focus on promoting tourism. Desperately need lodging facilities,” “Promoting the environment, open NYC reservoirs to recreational boating, encourage local agriculture and forestry, continue efforts to bring outside activities to us - e.g., triathlon, bike races, footraces, kayak, canoe events, orienteering, hiking”
- **Marketing** – “We need a more cohesive brand-identity of the Catskills. Even the name Catskills, to many travelers, is more associated with an abandoned period of time. Like the forgotten stepchild of the Hudson Valley Region,” “...online marketing would be helpful,” “Marketing our wares to a wider audience,” “We certainly could use a comprehensive business guide and a map of the area.”
- **Government actions** – “TAX INCENTIVES for new businesses and investment in the area, especially for new village businesses,” “Attract new businesses, hold hands through permitting and locating processes and be competitive with start-up grants and tax incentives,” “Existing zoning ordinances need to be applied consistently,” “[Contribute] some money for storefront improvements that encourage business development,” “Signage for Roxbury businesses at the Arkville cutoff and not being harassed by local officials for putting up signs.”

Other opportunities identified by the survey respondents included the proposed Belleayre Resort, improved cell phone coverage, transportation for visitors to travel between towns and attractions, and efforts to support local food systems, including processing facilities to allow farmers to access NYC markets.

Owners of businesses that specifically cater to tourists were also asked about the activities, attractions, and events that are most popular among visitors, and suggestions for additional attractions or amenities that could be offered to improve their experience and encourage them to return. Many respondents identified various outdoor recreational activities – e.g., hiking, biking, skiing, and fishing – as important to travelers, but noted that people still ask about things to do. Visitors often do not know where to look for information:

- “Biggest question I get: How do we get to the trails? Try[ing] to find a book or website that has good trail descriptions and maps is easy. Try[ing] to find a website that has good driving directions TO the trails...Good luck!!!”
- “Many tourists drive past the [Ashokan] reservoir and miss the beautiful view, unaware”

A number of comments were made regarding the need for maps and guides to activities, including regional guides “to get towns to market together to direct people to travel from town to town and plan longer vacations.” “[We need] maps of trails, information about hotels, scenic overlooks, pubs, cafes and cool historic sites.”

Several survey participants suggested simple improvements to make communities more tourist-friendly:

- “How about cell phones that work? A decent clean place to go to the bathroom and a place to park in the hamlets?”
- “Public rest rooms in Phoenicia”

Cell phone coverage is an issue not only for the business owners themselves, but also for their customers. As one person commented, “People are a little freaked by their cell phones not working.” Better cell service in the area would make metropolitan travelers more comfortable during their stay.

Other needs identified by the survey respondents included more activities and events for families with children:

- “Most B&B's complain that they have to tell guests what is available to do around here during off-seasons. Tourists, especially ones with young families/children, need to have entertainment destinations or events as a reason to travel”
- “Expanded activities for children and families such as animal farm visits, pony or llama rides, guided nature tours, miniature golf, promotion of hiking trails and outdoor ecology tours for the whole family”
- “Create a water park at Belleayre Mountain and start mountain bike rentals for the mountain. Create a mini boat race down the Esopus Creek for children. Sponsor a fishing derby for children”
- “Focus on kids and the parents will follow”

Provided with list of potential approaches to the future of the region, participants were asked to designate each item as very important, important, or not important. *All* of the business owners who responded to this question identified independent, locally-owned businesses as either very important (84.3%) or important (15.7%). Other items perceived by the majority of respondents as very important included encouraging residents to shop locally (80.0% “very important”), tourism (78.6%), and upkeep of commercial property (75.7%). There was less consensus on the importance of national chains and franchises; encouraging non-retail businesses to locate in the area; small, home-based businesses; and the recruitment of more year-round residents.

Future Plans

Asked about their plans for their business over the next 12-24 months, nearly one-third of respondents reported that it is very likely that they will expand their marketing and promotional efforts, while 30.4% said they are very likely to network/collaborate with other business owners. Exploring new markets (29.0% “very likely”) and purchasing new or replacing existing equipment (27.9%) are other activities that business owners are seriously considering over the next two years. In contrast, very few indicated a likelihood of relocating, either inside or outside the region, or closing the business, which is certainly good news for the communities in which they are located.

All tabulated survey results, including responses to open-ended questions, are provided in Appendix C.

5.9 Second Homeowner Survey Results



Spotlight on the Second Homeowner Survey

Conclusions

- The majority of second homeowners in the Esopus/Delaware region reside in New York or New Jersey, are between the ages of 45 and 64, have at least a bachelor's degree, and are employed full-time or self-employed. Most have a household income averaging \$100,000 or more per year.
- The region's scenic beauty, natural environment, and mountains and waterways play a major role in influencing people to purchase a second home within the Esopus/Delaware region. Most second homeowners have owned their residence/property for more than ten years.
- A significant proportion of second homeowners maintain their home for their own personal use and/or for use by family members and friends. Although they spend more time there during the summer, they are also present for an average of 2-3 weeks during each of the other seasons as well. One in five spends 120 days or more throughout the year at their second home, and despite the widely-used term "weekender," they generally visit *both* weekdays and weekends.
- Second homeowners tend to shop locally for groceries, alcoholic beverages, plants and garden supplies, and hardware. They dine out at local restaurants; hire local contractors for construction work, home improvements, snow plowing, and lawn care; purchase locally-grown produce at farmers markets and farm stands; and buy other necessities, such as gasoline, firewood, home heating oil, and telecommunications services from local vendors. The purchase of retail goods and services by the owners of second homes in the Esopus/Delaware region contributes an estimated \$22.0 to \$33.9 million annually to the local economy.
- Many second homeowners indicated that they come to the Catskills to relax, spend time with family and friends, read, and perhaps go for a hike – not to shop. Their focus on activities that mostly take place at their residence impacts efforts to encourage second homeowners to spend more at local businesses. However, there may be opportunities to connect part-time residents and their guests with interesting places and things to do and increase their interaction with the community.
- Second homeowners would like to see better restaurants and a greater variety of eating places; a better selection of food products, including organic goods; a movie theater and other venues for arts and entertainment; a hardware store open longer hours; and additional recreational amenities. They would also like to find local contractors who are responsible, affordable, and more responsive to their needs.

- When asked for their ideas on strengthening the region's economy and revitalizing Esopus/Delaware region communities, second homeowners offered a variety of thoughtful responses in the areas of small business development, code enforcement and beautification, financial incentives, improvements to Internet and cell phone service, marketing, and recreational tourism.
- Although part-time residents often do not have the time to get directly involved in local issues and activities, they emphasize that they would like be kept more informed by municipal leaders and community organizations. They provided numerous suggestions on how this could be achieved at a relatively low cost. Some second homeowners resent being treated as "outsiders" and feel that they value the community just as much as full-time residents.

Methodology

Recognizing the important – but largely un-quantified – role that part-time residents, or second homeowners, have in the region's economy, the consultant team developed a survey of second homeowners to assist in the preparation of the regional economic revitalization strategy. The survey was designed to compile demographic information and solicit feedback about the property use patterns, spending behaviors, and interests of part-time residents, and opportunities for local communities to create stronger and more productive relationships with this population.

Second homeowners were identified using property assessment data for the towns and villages in the Esopus/Delaware region. Based on the assumption that the owners of residential properties with out-of-town mailing addresses²² were likely to be second homeowners, approximately 4,400 households were identified.

In April 2011, the MARK Project mailed a letter to the identified property owners, explaining the Esopus/Delaware Economic Revitalization Strategy and inviting them to participate in the online survey. Due to technical issues believed to be related to browser compatibility problems, a PDF version of the survey form was also made available; completed forms were returned directly to the consultant team via e-mail. The majority of the responses, however, were made online.

The tabulated survey results, including responses to open-ended questions, are provided in Appendix D.

Demographic Characteristics of Second Homeowners

A total of 345 people completed the survey, a rate of response of approximately 8%. It should be noted that the response fell just short of statistical significance; a mailing of 4,300 would need a sample size of 353 for a 95% confidence interval and 5% margin of error. Responses were received from second homeowners in all of the Esopus/Delaware region communities, with the largest share (21.1%) from owners of homes in the Town of Middletown outside the Villages of Margaretville and Fleischmanns.

²² This was defined by zip code: property owners whose mailing address included a zip code from within the Esopus/Delaware were excluded.

With respect to their primary residence, the vast majority of second homeowners within the region are from New York (73.8%) and New Jersey (16.1%). Second homeowners responding to the survey represent 15 states, however, and come from as far away as Florida and California.

More than 56% of the respondents are couples with no children at home: in particular, 18.7% are couples without any children, while 37.8% are empty nesters whose children no longer live at home. Approximately one-third of the second homeowners are singles or couples with children. The remaining respondents (about 11%) are singles without children or empty nesters. Based on the survey results, the second homeowners within the region average 3.1 persons per household.

Research has indicated that second home purchases in the U.S. are primarily driven by householders (heads of household) aged 45 to 64, peak earning years for most individuals. Consistent with these findings, 62.8% of the second homeowners responding to the survey are between the ages of 45 and 64, while 28.7% are age 65 and older. There were few respondents under age 45.

Studies have also demonstrated that second homeowners have higher than average levels of educational attainment and income. In Sullivan County 64% of second homeowners responding to a 2007 survey reported that they had a bachelor's degree or higher and 56.6% earned \$100,000 or more in annual income.

Similarly, 80.7% of the second homeowners responding to our survey have at least a bachelor's degree (three times the rate among full-time residents), including nearly 49% who have a graduate or professional degree. Two-thirds of the respondents have full-time jobs or are self-employed. About 30% are retired.

In terms of income, 67.8% of the second homeowners (compared with an estimated 12% of full-time residents) in the region earn \$100,000 or more in annual income. However, the largest proportion, 26.4%, has an annual household income of \$50,000 to \$99,999, while 25.3% earn \$100,000 to \$149,999 per year.

Occupancy and Use Patterns

Asked to rate the factors that influenced their decision to live in or purchase a second home within the region, the highest average rating was given to scenic beauty (1.15, where 1 = "Very Important" and 4 = "Not Important"), followed by the natural environment (1.20), mountains and waterways (1.33), and the fact that they liked the particular house and property they purchased (1.43). Few respondents referenced growing up in (or visiting) the area or inheriting the property as important factors. This is in contrast to the previously-referenced Sullivan County survey, which found that many second homeowners "have a connection with Sullivan County from vacationing in the area as children with family or attending a summer camp."

Most second homeowners in the region have a fairly long tenure: 41.4% of the survey respondents have owned their residence/property for more than 20 years, and 18.5% for 11-19 years. Only a small proportion of second homeowners use their residence/property as a source of rental income. The majority (54.6%) maintains their home for their own personal use and allows family members and friends to use it, while 46.0% have the home *only* for their personal use.

Survey data indicate that second home occupancy within the region typically extends throughout the year, in contrast to the traditional concept of a “weekend” or “summer” home. The majority of respondents come to the region for at least two weeks each year. More than 25% use their properties between 30 and 59 days during the year, while 23.4% use their home between 60 and 89 days during the year. Fully 20% spend 120 days or more throughout the year at their second home. This is generally *both* weekdays and weekends, depending on the season; in fact, despite the widely-used term “weekender,” only 20.8% of the respondents said that they visit exclusively on weekends.

Not surprisingly, people spend more time at their second home during the summer, averaging 42.5 days in June, July, and August. However, the typical second homeowner is present for an average of 2-3 weeks in each of the other seasons as well. Interestingly, the Sullivan County survey found that second homeowners spent most of their time at their property during the summer and fall, with few visiting their home during the winter months.

Regarding the *future* use of their second homes, most respondents indicated their intention to maintain their current level of use (50.2%), increase their personal use (43.7%), and/or increase use by family and friends (26.9%). Nearly 42% intend to pass the property on to their children. These results are very encouraging and suggest a continuing commitment to the region. Approximately 22% of second homeowners said that they plan to make their second home a permanent residence when they retire.

Consumer Behavior

A significant portion of the survey focused on where second homeowners shop, what goods and services they purchase locally, what deters them from making *more* local purchases, and what types of businesses and services are needed in the Esopus/Delaware region.

Based on the survey responses, a significant proportion of second homeowners (81.6%) dine out at local restaurants, while 78.0% shop locally for groceries. To a lesser extent, respondents also shop locally for alcoholic beverages (63.1%), plants and garden supplies (60.3%), and hardware and building supplies (59.4%). Far fewer second homeowners buy clothing and shoes, books, sporting equipment, household furnishings, or appliances locally.

The survey data suggest that there may be opportunities to increase local sales of certain goods, including hardware, garden supplies, household furnishings, sporting equipment, and gifts and souvenirs. These are items that second homeowners tend to purchase within the region, rather than near their primary residence or online.

Many of the survey respondents contract locally for services, including plumbing, electrical work, carpentry, etc. (83.2%), snow plowing (69.7%), and lawn care/landscaping (60.9%). Smaller but nevertheless considerable numbers hire locally for housekeeping and cleaning (25.5%) and home security (17.5%).

Asked to describe *other* goods and services that they purchase locally, about a quarter of the respondents listed various construction, home improvement, and repair services. Roughly 15% noted that they purchase locally-grown fruits and vegetables and other food products (e.g., maple syrup, eggs) at farmers markets and farm stands. They also reported that they buy gasoline, firewood, propane, kerosene, or heating oil locally. Other local goods and services cited included antiques, entertainment (e.g., movie rentals, theater tickets), and telecommunications services (cable, Internet, phone).

On average, respondents estimate that 52% of their household spending is made locally while they are at their second home; 25% is made regionally and 32% is made outside the region. When respondents were asked to estimate how much they spend locally on an annual basis, the average was \$7,712, with a median of \$5,000. Whether these estimates are accurate cannot be ascertained. Nevertheless, if these figures are applied to the estimated 4,400 households with second homes in the Esopus/Delaware region, second homeowners contribute *between \$22.0 and \$33.9 million* to the local economy every year through the purchase of retail goods and services.

In an effort to better understand the consumer behaviors of second homeowners in the region, we asked survey participants to identify what deters them from purchasing more goods and services locally when they are at their second home. Major factors included not enough choice of stores (selected by 55.0% of the respondents), a limited selection of goods (45.7%), and items not consistently available (44.7%). Approximately 36% said that there are not enough high-quality restaurants, an issue that came up in other parts of the survey as well.

Notably, nearly half of the second homeowners indicated that they prefer other activities rather than shopping when they are here. Several respondents added:

- “I like to shop here when we aren’t skiing, swimming or playing golf... shopping time is limited!”
- “We come up to relax, not to go shopping!”
- “We don’t like to leave the mountain, it is a getaway for us”
- “Distance and time constraints. Want time to enjoy, not shop”

For these individuals and their families, shopping is clearly not a priority, raising the question of how Esopus/Delaware region communities can capitalize on this important and growing segment of the population.

Leisure Interests

Survey participants were asked what types of leisure and recreational activities they and/or their guests enjoy while at their second home. On a scale of 1 to 4 where 1 = Very Important and 4 = Not Important, the activities identified as most important were:

1. Spending time with family (1.55)
2. Entertaining visiting friends/family (1.68)
3. Walking/hiking (1.74)
4. Cooking (1.88)
5. Reading (1.95)
6. Working around the house (2.02)
7. Socializing with local friends (2.06)
8. Exploring the region on day trips (2.07)
9. Dining out (2.27)
10. Attending community events (2.44)

Of interest is the fact that many respondents indicated a preference for “internally-focused” activities – i.e., activities that take place at their residence/property or at the homes of family members and friends.

Walking/hiking is the highest ranked “external” activity, although this form of recreation can take place in one’s neighborhood or on a public trail. Exploring the region, dining out, and attending community events, on the other hand, provide opportunities for second homeowners to discover interesting places and things to do, spend money at local businesses, and interact with full-time residents.

Additional Amenities, Goods and Services

Following up on the question about leisure and recreation, we asked survey respondents about the amenities, goods, and services they would use or patronize locally if they were available or improved. The amenities listed most frequently were:

- **Better (and greater variety of) restaurants** – “Brew pub. Sushi or other seafood restaurant. Thai, Vietnamese or Indonesian restaurant,” “Fine dining in Margaretville-Roxbury area,” “Good restaurants,” “Better restaurants in the Pine Hill area (Peekamoose is an exception),” “Restaurants with good food at fair prices,” “More restaurants.”
- **Better grocery stores and food selection** – “Freshtown is an improvement over previous offerings but still quite expensive and of varying quality,” “Better groceries, organic food,” “High quality, well stocked organic/health food store, i.e., GOOD FOOD in Delhi” “I used to have Market Basket prepare groceries, cooked food for me and [I would] pick it up on my way past the store, day or night, as I drove in exhausted from Brooklyn... no service like that now.”
- **A movie theater**, and additional cultural activities (e.g., lectures, theater performances, concerts).
- **A hardware store** with extended hours and days of operation, including Sundays.
- **Responsive contractors** – “I’m painting my house myself because it’s more work to go through the process of finding, negotiating with, and following up with a contractor. It seems that deer hunting, fishing, golf or just relaxing are more important than earning a living sometimes,” “Trustworthy handymen,” “It’s cheaper to bring a painter to paint the house from Queens...”
- **Recreational amenities and services** – “Classes/walks on native flora & fauna,” “Better bike lanes on Route 28 and local roads,” “Bicycling/hiking club,” “Nature walks... farm tours,” “Guided hikes, more hiking information, where trailheads are, etc.” “Guided tours and/or guided hikes of the region,” “Yoga classes,” “Pilates classes,” “Swimming pool (esp. for real training, not just recreation)”

Opportunities for Revitalization

Second homeowners participating in the survey identified a broad array of opportunities and actions that could be taken to strengthen the region’s economy and revitalize communities in the Esopus/Delaware region. Examples by category are provided below:

- **Small business development** – “Provide basic ‘how to’ business training for people considering starting a new business,” “Encourage people to open high end food stores and restaurants in depressed villages like Fleischmanns, Pine Hill, and Margaretville to increase traffic,”

“Entrepreneurial training/consulting that helps business owners build realistic and appealing businesses,” “Support small locally owned businesses and create conditions where they can flourish.”

- **Code enforcement and beautification** – “Clean up the downtown areas. Demolish or refurbish older buildings, especially in Fleischmanns,” “General revitalization of main streets,” “[Phoenicia] sorely needs a facelift to restore its image,” “Our area could be spruced up. Much of it has a down-at-the-heels look that is not inviting.”
- **Financial incentives** – “Lower taxes (both income taxes on businesses and also property taxes),” “Give tax incentives to encourage the establishment and growth of local businesses,” “Take advantage of vacant commercial real estate and offer financial incentives for NYC entrepreneurs or business owners to set up business in our area.”
- **Improvements to Internet and cell phone service** – “Increased cell service. Increased Internet availability,” “Build cell phone towers, provide broadband Internet access,” “High speed communications infrastructure. [The] whole family would spend more time (and money) in area if we had access to good Internet for work-at-home or entertainment. Essential for attracting next generation residents.”
- **Marketing** – “Better advertisement of events (have difficulty locating listings of things to do),” “Do more advertising of the area in NJ and NYC. There is a stigma that the area is rundown and doesn’t offer any recreational activities,” “The area has to be promoted by advertising its proximity to New York City and Albany and the attractions and activities available,” “More advertising... about day and overnight trips to see the natural beauty of the Catskills.”
- **Recreational tourism** – “Because of the watershed, this region will never be overdeveloped... Economic opportunities to exploit natural wonder abound (e.g., coordinated eco-tourism activities),” “Expand swimming opportunities in the Margaretville/Arkville area,” “Hiking is NOT played up enough at all. There should be weekend hikes on a regular basis that are advertised on websites, etc... People could plan to get up on Friday night, and know that they can start their morning with a hike,” “Turn the railroad into a bike path so folks can ride from town to town without being on Route 28,” “Take more advantage of the Pepacton Reservoir’s resources, more boating and hiking access.”

About 15% of the respondents advocated for the proposed Belleayre Resort: “I think the local community should get behind and support the revitalization of the mountain, as it will create jobs and bring more people who will spend \$\$,” “The Dean Gitter project MUST be fast-tracked... the area is deteriorating,” “Belleayre Resort has to go through or else the towns are going down the drain.” The survey did not ask specifically about this project, however, and by no means does this indicate a consensus among second homeowners. In fact, one second homeowner wanted to make it clear, for the record, that he and his family do *not* support the proposed resort.

Communications and Outreach

We asked second homeowners what sources of information they use to learn about community issues, places to shop, and special events in the Esopus/Delaware region. The *Catskill Mountain News*, to which many part-time and full-time residents subscribe, was cited by 72.8% of the second homeowners participating in the survey, followed by word of mouth (62.5%). Regional magazines, at 32.6%, were distant third. Other sources used by the respondents include postings in public buildings, town and village websites, and local TV stations.

While many second homeowners simply do not have the time to get involved, they nevertheless want to be kept informed about local issues and activities, offering numerous suggestions on how this could be achieved:

- “Make local government doings more accessible, communicate agendas [and] visions through communications vehicles that second homeowners can access without being here during the week”
- “Set up an e-mail list, and without sending things to the point of spam, keep people informed. It doesn’t have to be shiny and polished”
- “I would like to see newsletters mailed to second homeowners”
- “Local towns and villages need to ensure that this portion of their community is heard... i.e., use of Internet posting of town board meeting minutes, outreach to this community segment via a special town wiki webpage section for second homeowners, second homeowner website focused on the exchange of ideas...”
- “I would like more information as to what is happening in my community on important issues that may impact me as a second homeowner. If there was a community website that gave up-to-date alerts as to what’s happening, that would be great... There has been many a time I wish I had been there a week earlier or later and missed something I would be interested in”
- “Some kind of electronic town bulletin board for the area, with an emphasis on bringing full-time and seasonal residents together, could be helpful, because we simply can’t be there as much as we’d like”

Several respondents called for town meetings to be held on weekends so they could attend. One survey participant also pointed out that second homeowners might be able to participate in meetings via WebEx, GoToMeeting.com, or another Internet-based conferencing service.

Many second homeowners used the survey to vent their frustrations over high property tax rates, not having a voice in local government, and being treated as outsiders by the community:

- “I believe that second homeowners are not considered residents and often carry the burden of higher taxes for their properties and are often left out of the discussion”
- “I would like to be able to vote on local issues, school and general tax budgets and political positions like every other taxpayer in the area”
- “Many of the workmen we deal with treat us like absent millionaires or disinterested parties. We are not rich – [we have] a small property that my parents bought 50 years ago... Often, we are left with unfinished important work because the guys think we won’t be around or care”
- “Stop considering us outsiders. I respect lifelong residents, spend money, pay taxes, and love the

area as much if not more than so-called locals”

- “There seems to be an almost angry attitude towards out-of-towners by locals. Not sure what the issue is but have had a couple of bad experiences”

Despite these concerns, a number of second homeowners told us that they appreciated the effort to have their opinions included through this survey. For example:

- “This outreach is a start – it is the first time since we first bought our house in Roxbury in 1987 that anyone has asked what we think, as second homeowners”
- “I think local governments should make a greater effort to bring second homeowners and ‘first homeowners’ together to work towards compatible visions for both”

5.10 Results of Public Meetings

In addition to the business and second homeowner surveys described in previous chapters, it was vital to include the general public and the many agencies and organizations interested in community revitalization. Further public input was solicited to help prioritize the identified strategies so that a doable “action” list could be included in this Plan. Other constituencies from which input was needed were identified to help ensure that the range of community interests is represented. These were:

- Full-time residents
- Municipal leaders and agencies
- Leaders of community organizations
- Agricultural businesses

In order to reach as many constituencies as possible, a variety of methods was used. For all public input efforts, the approach was to hear from individuals and small local groups in the context of their own community but to convey that larger regional underpinning. To that end, the following methods for public input were implemented:

1. Social Media and websites were started.
2. Small group meetings were held in each of the seven communities (see notes in Appendix A). All municipal officials, community organizations, and other interested local groups and businesses were invited to attend.
3. Agriculture and agricultural economic development was discussed in meetings with the Watershed Agricultural Council and Catskill Watershed Corporation.
4. An Economic Revitalization Conference was held in October 2012. This was a one-day meeting where representatives from local and county governments, and organizations such as the DEP, DEC, County planning and economic development agencies, FEMA, Catskill Watershed Corporation, Western Catskills Revitalization, chambers of commerce, regional tourism and economic development agencies participated (See Appendix A for a list of participants and meeting notes).
5. One large group meetings was held to present the draft strategy to the general public, local officials, and other stakeholders. This meeting was open to the public and designed to present the entire draft plan and specifically the prioritized actions and gain feedback on it from a larger audience. At the same time, the draft plan was placed on the websites and additional input received.

SECTION 6 - Common Threads: Revitalization Vision and Goals

As noted in Section 3, approaches to economic development and community revitalization in the Esopus/Delaware region have been articulated in many previous studies, comprehensive plans and strategic plans. A thorough review and compilation of these past efforts shows many similarities as to issues, direction and need. These “common threads” fall into one or more of the following topics:

- Business Development
- Main Street / Hamlet Revitalization
- Small Town Character
- Reliable, High-Quality Infrastructure
- Sustainable Agriculture
- Tourism Related to Cultural, Historical, and Recreational Resources
- Unspoiled Environment
- Strong Regional Partnerships

A great deal of economic development planning has been done in the region. Past efforts articulate the direction and objectives supported by the region’s communities. This Plan is designed as a revitalization strategy that builds on that past work. The following common threads related to the type of actions needed and general objectives for community revitalization have been re-validated by new public participation. What has been lacking in the past is difficulty in implementing many of the visions, goals and strategies outlined. This Plan attempts to consolidate past efforts, further define needed direction, and prioritize specific strategies that are fundable and actionable today.

The vision and goals for community revitalization resulting from a study of the region’s common threads are articulated below.

Business Development

Focus

Revitalize the business community, with emphasis on local ownership, entrepreneurship, environmental sustainability, cottage industries and locally-made products, and businesses that are oriented to outdoor recreation and tourism.

Objectives

1. Expand the quantity and quality of employment opportunities for residents.
2. Support entrepreneurship and small business growth as significant drivers of the regional economy.
3. Recruit businesses that meet essential retail and service needs, support tourism, and offer year-round employment opportunities.
4. Support business operations that are consistent with the rural, small town character of the region and that do not negatively impact natural resources.
5. Support the creation and expansion of businesses that incorporate sustainable business practices and utilize green techniques or best management practices.
6. Promote business development, retention, and expansion through access to financial and

technical support and other resources.

7. Develop additional lodging facilities for visitors, including more bed-and-breakfasts.

Main Street/Hamlet Revitalization

Focus

Revitalize traditional Main Streets, hamlets, and downtown areas, making them into attractive, thriving commercial, social, and cultural centers that offer a variety of opportunities for shopping, dining, lodging, and entertainment.

Objectives

1. Maintain economically viable and vibrant Main Streets that cater to a broad variety of consumer markets.
2. Designate hamlets as hubs for concentrated development, with a recognizable brand identity for each (e.g., Phoenicia – tubing).
3. Develop directional and interpretive signage to direct visitors and highlight points of interest.
4. Encourage businesses that are compatible with and enhance Main Street’s existing character.

Small Town Character

Focus

Retain small town ambiance and rural charm, with careful management of development and redevelopment to protect the region’s integrity and character and preserve historic resources. Promote a sense of community spirit and pride fostered in part by excellent schools, high-quality housing, and participation by both year-round and seasonal residents in local initiatives.

Objectives

1. Enhance the historic character of Main Streets to encourage economic development and improve their overall appearance and identity.
2. Protect and preserve historic and cultural resources to the extent possible.
3. Encourage the development of pedestrian-friendly hamlets with sidewalks, safe road crossings, and other visually attractive traffic-calming measures, particularly along Route 28.
4. Promote programs and policies that orient most commercial activity to existing hamlets and villages where infrastructure can support growth, while protecting the character of rural areas.
5. Encourage the development of a wide range of housing options to meet the varied needs of residents with respect to age, income level, tenure, and affordability, while improving the condition of the existing housing stock.

Reliable, High-Quality Infrastructure

Focus

Provide for modern telecommunications services (cell phone service and high-speed Internet access) throughout the region; well-maintained roads with safe bicycle and pedestrian access; and public water and sewer service to support growth and development in villages and hamlets.

Objectives

1. Improve telecommunications services to provide more widespread cell phone coverage and high-speed internet access throughout the region.
2. Expand alternatives for public transportation to, from, and within the region.
3. Improve bicycle and pedestrian access between hubs and central assets.
4. Maintain and improve public water and sewer service systems.

Sustainable Agriculture

Focus

Support small-scale, specialty farming, forestry and expansion of agricultural economic development efforts to attract new farmers and a diversity of farm operations; promote local food and forestry products.

Objectives

1. Promote agri-tourism and value-added activities that can expand small scale and niche farming.
2. Increase the number of agricultural entrepreneurs to encourage the development of new farms and revitalization of existing types of production agriculture and to increase locally grown food.
3. Work regionally to promote small niche and specialty farms, agri-tourism, forestry and wood products, and value-added products.
4. Maintain open lands so they are available for agricultural crops and pastures.
5. Promote sustainable forestry.
6. Create new markets for local agricultural products in New York City and other nearby urban areas.

Tourism Related to Cultural, Historical, and Recreational Resources

Focus

Promote and enhance the region as a four-season destination based on the arts, culture, and history; opportunities for outdoor recreation; and waterfront access.

Objectives

1. Encourage coordination and collaboration by government, non-profit organizations, and businesses in tourism planning, development, and marketing.
2. Utilize the Internet more effectively to increase awareness of cultural and recreational opportunities and provide up-to-date information to both visitors and residents.
3. Improve public access to streams, reservoirs, and surrounding watershed lands and promote them as recreational destinations.
4. Enhance the economic impact of tourism by promoting the region as a four-season destination and increasing overnight stays.
5. Promote and develop four-season tourism based on extensive natural, historic and cultural resources.
6. Enhance trails and pathways as important recreational resources and as a tool for economic development.
7. Create and market activity packages and self-guided tours that link natural, recreational, and historic resources with Main Street areas to promote visitation and exploration.

8. Support private and not-for-profit sector efforts to establish arts and cultural anchors and produce special events related to the arts.

Unspoiled Natural Environment

Focus

Preserve the natural resources (including but not limited to forests, streams, wetlands, wildlife habitat, riparian buffer areas, etc.), open spaces, and scenic views important to the region's identity and to its value as a destination for tourism and recreation.

Objectives

1. Prevent fragmentation of forested areas by unplanned development.
2. Ensure that new development outside of hamlet and village areas includes open space, open space links, and provisions to protect the environment.
3. Ensure that local comprehensive plans and land use regulations promote stream stewardship, as outlined in the various Stream Management Plans already adopted.
4. Plan for protection of critical natural resources important to all of the communities and our economy.
5. Promote regional open space planning.
6. Identify and enhance protection of scenic views.

Strong Regional Partnerships

Focus

Develop a high level of collaboration and communication between communities, organizations, businesses, and residents within the region.

Objectives

1. Strengthen regional partnerships.
2. Embrace the concept of regional tourism cooperation: promote the Catskills region with one consistent message and identity.
3. Identify common ground with neighboring communities on the Routes 28 and 30 corridors and discuss collaborating on regional projects, such as tourism development.
4. Increase the level of collaboration among tourism businesses and other regional attractions/businesses.
5. Improve communications between year-round and part-time residents.

SECTION 7 - Recommended Actions and Projects

The ultimate goal of this Plan is to provide the communities, agencies and organizations within the Esopus/Delaware region with a clear set of actions and projects that need to be undertaken in order to propel economic revitalization. This Plan has been developed to build upon past efforts and not to 'reinvent the wheel'. While there are many common needs, issues and many relevant strategies developed in the past, not all have been implemented.

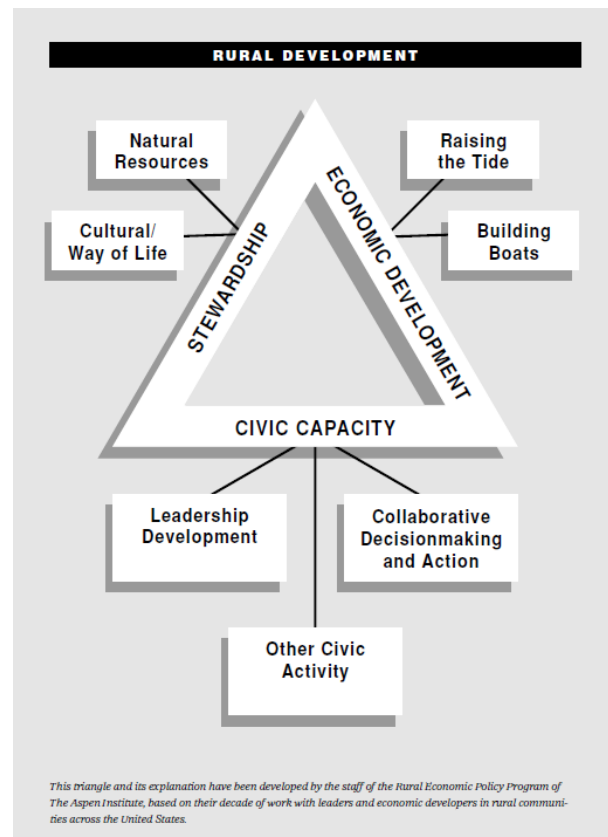
This section, along with Section 8, is designed to provide a description of recommended strategies, a prioritized list of actions, programs, policies, and projects that are critical to revitalization efforts, and steps that can be taken to begin implementation of those actions.

7.1 Recommended Actions and Projects

Building Community Capacity, Communication, and Collaboration

Successful communities have the capacity to build on community strengths, address problems, and take advantage of opportunities. This Plan identifies the Esopus/Delaware region's resources, strengths, weaknesses and opportunities. Yet, there needs to be community capacity to do something about them. In order to be successful in all senses of the word, communities need to address more than economic development needs. They need to also address stewardship and civic capacity. There is an advantage to addressing these three areas at the same time. Residents and businesses in the Esopus/Delaware region have shown, through the public input received for this plan, and the many previous planning efforts, that stewardship of our environmental resources and promoting economic development are important. It is recommended that equal attention be given to building the capacity of the area as well.

The Aspen Institute has developed this graphic to illustrate the various aspects of community capacity that should be addressed.²³



²³ From the Aspen Institute Rural Economic Policy Program, "Measuring Community Capacity Building. Tools for Practice." Version 3-96.

The purpose of community capacity building is to help people work together, make well-considered and collaborative decisions, develop a vision and strategy for the future, and act over time to make these real—all while tapping and building the individual skills and abilities of an ever-increasing quantity and diversity of participants and organizations within the community.²⁴

Community capacity building efforts include a wide range of activities, from formal leadership development efforts, to community-wide strategic planning, to a wide variety of less formal activities that build trust and camaraderie among citizens—like church socials, girl and boy scouts, volunteer community clean-ups, or regular chamber of commerce breakfasts. Building trust and camaraderie between full-time residents and second homeowners is especially important to strengthen these relationships.

Community capacity building forms the base of the Rural Development Triangle because the better a community's capacity, the better the decisions a community makes about its economic development or stewardship choices—and the better the community is at turning those decisions into effective action.

Economic revitalization can't rely solely on recruiting new businesses to the region. The region also has to grow entrepreneurs from within the community and base business development on the existing core competencies of residents and firms,, taking advantage of and strengthening what the region is already good at. Another needed aspect is to focus on finding and pursuing market opportunities.

Building capacity requires commitment, resources, and skills. These have been defined by the Aspen Institute as following:

- “*Commitment* refers to the communitywide will to act, based on a shared awareness of problems,

²⁴ Excerpted from the Aspen Institute Rural Economic Policy Program, “Measuring Community Capacity Building. Tools for Practice.” Version 3-96.

Case Study: Village of Sharon Springs, NY

The Village of Sharon Springs offers a prime example of how important it is for communities to take advantage not only of their inherent strengths, but of the networks and connections of second homeowners. The Village had a long history as a tourist hub due to the spa waters found there. Changes in tourism patterns by the mid-1900s caused the Village to drift into an almost forgotten and rundown state by the late 1980s. Since then, however, Sharon Springs has enjoyed a tremendous resurgence. Much of this has been attributed to a stabilization of the remaining historic structures, and an infusion of ambitious buyers from outside the area looking for an affordable community to start a business or to transition to a rural lifestyle. Started by just a few entrepreneurs, the resurgence has benefited from their networks and connections. Subsequent revitalization has led to the Village's ability to capture a new and vital heritage tourism market.

The success of these business owners has led to articles about the Village in the *New York Times*. Sharon Springs been featured on The Food Network, Rachael Ray, and Charles Kuralt's On the Road series. The Village has also been the backdrop for two feature films, and the location for the reality television series The Fabulous Beekman Boys (Planet Green). Sharon Springs' success can be attributed to a combination of location, ambitious entrepreneurs, and marketing of the area through personal networking. This example is very relevant to the Esopus/Delaware communities, which have many of the same features, attributes, and opportunities.

opportunities and workable solutions. It refers also to heightened support in key sectors of the community to address opportunities, solve problems and strengthen community responses.

- *Resources* refer to financial, natural and human assets and the means to deploy them intelligently and fairly. It also includes having the information or guidelines that will ensure the best use of these resources.
- *Skills* include all the talents and expertise of individuals and organizations that can be marshaled to address problems, seize opportunities, and to add strength to existing and emerging institutions.”

In order to build capacity, there also needs to be a commitment to improving communication and collaboration. Improved communication is needed between individuals, agencies, organizations, and municipalities. Collaboration is needed because it is very hard for individual communities to attract businesses or do business retention activities solely through volunteers or at the local level. There are many actions that lend themselves to a regional approach with staff.

To increase capacity and effectiveness, it is recommended that additional efforts be made to increase organizational capacity. The current structure which includes municipalities and multiple agencies and organizations can be improved. Discussions among stakeholders and municipalities should occur to identify what kind of organizational structure there should be. These groups should evaluate the viability of creating a single economic development agency covering the entire Catskills region that pools resources, staff, and marketing budgets into a more powerful regional entity.

Other actions relating to capacity, communication and collaboration include organization, training, and addressing staffing needs. A public-private partnership to coordinate the implementation of this plan is recommended. Further recommendations include: an economic development advisory team, consisting of local government officials, business leaders and residents that would work to spearhead business recruitment and retention efforts and attract investment into the region; continued pursuit of regional partnerships, like the Central Catskills Cooperative; and addressing issues that transcend town boundaries.

Training and support is needed to promote community-building activities that bring full-time and part-time residents together. Consider providing training to towns and villages. This training should be focused on land use issues that preserve historic, architectural, and cultural features during subdivision, site plan, and/or special use permit reviews, and on ways to focus new business development and growth in villages and hamlets.

Telecommunications Infrastructure

Reliable, high-quality telecommunications infrastructure that provides access to broadband and cell phone service is a major priority for the Esopus/Delaware region. Telecommunications are to the twenty-first century economy what electrification was to the twentieth century. Today, as before, consumers in sparsely-populated rural communities are often underserved or un-served; rural residents and businesses face considerable obstacles in gaining access to affordable, robust broadband service and cell phone coverage. As stated on the State’s Universal Broadband website (<http://www.nysbroadband.ny.gov>): “Better broadband means greater opportunities for New Yorkers.

By leveraging today's Internet, citizens have greater opportunities to connect to educational and workforce development training resources; communities can foster more economic development; [and] businesses can access new markets and create more jobs... But, residents cannot fully participate in the digital economy without access to affordable broadband and the ability to use it."

According to the NYS Broadband Program Office's *2011-12 Annual Report*, an estimated 15% of all residents in Delaware County – which has the fifth lowest population density in the state – have no wireline or fixed wireless broadband. The New York State Broadband Map indicates that there are significant gaps in both broadband and cell phone coverage within the Esopus/Delaware region, particularly in the Town of Andes, Middletown (outside the two villages), and Roxbury. These gaps occur not only in remote areas of the State Forest Preserve, but also in hamlets and along well-traveled roadways like State Routes 28 and 30.

The lack of universal broadband access in the region directly impacts efforts to stimulate economic development and community revitalization. Real estate agents report that potential buyers will not even consider a property unless Internet access is available. Entrepreneurs who would otherwise be drawn to the Catskills for its natural environment and outdoor recreational opportunities are stymied by their inability to conduct business online or use their cell phones. It is also detrimental for part-time residents and visitors, who might be induced to stay in the area longer if only they could "stay connected." Broadband is no longer just an amenity; it has become essential for business development and attraction.

New York State leaders have recognized the need to provide universal broadband access. Through the regional economic development councils, the state has awarded millions of dollars in funding to facilitate the expansion of broadband into rural, remote, and underserved areas. Investments in broadband deployment were also made by the federal government through the American Recovery and Reinvestment Act (ARRA). It is imperative for municipal leaders, residents, businesses, and community organizations to continue to advocate for sustained improvement in telecommunications infrastructure and service in the Esopus/Delaware region.

In 2012, the Margaretville Telephone Company/MTC Cable, working in conjunction with the MARK Project, Western Catskills Revitalization Council, and Catskill Watershed Corporation, submitted a funding application to New York State for a broadband expansion project that would extend fiber optic cable to serve customers in the Towns of Middletown and Roxbury, among others (see Existing Initiatives in Appendix F). This initiative, which recently received funding through New York State's Connect NY Broadband Grant Program, is expected to go a long way toward addressing telecom needs in Middletown and Roxbury. MTC is also pursuing leases on additional cell towers to bring cell phone service to un-served areas of Margaretville, Grand Gorge, Roxbury, and Andes.

Until broadband access is available throughout the region, one possible option would be to establish free Wi-Fi connections in specific locations, such as cafes and community centers in villages and hamlets. A free Wi-Fi hotspot can easily be created by an individual business using a router and an existing Internet connection. Another alternative is to create a wireless community network. Considerable technical expertise is required to undertake such an endeavor, however. Detailed information on developing a wireless community network is available from the Center for Neighborhood Technology at <http://www.cnt.org/repository/WCN-AllReports.pdf>. In either case, the locations of Wi-Fi hotspots should be publicized in media targeted to residents, entrepreneurs, and visitors.

Project partners in improving telecommunications infrastructure and service in the region should include broadband and cell phone service providers (e.g., MTC, Verizon Wireless), the NYS Broadband Program Office, and the Southern Tier and Mid-Hudson Regional Economic Development Councils, and local municipalities. Because strong community support is critical for success, it is important for funding applicants to work closely with community-based organizations and to educate and build awareness of the benefits of proposed telecommunications improvement projects among local residents and business owners.

Marketing and Promotion

The need for more effective, up-to-date marketing of the Esopus/Delaware region – and indeed, for the Catskills as a whole – came up throughout the planning process. While marketing and promotion should be not be conducted without also addressing other issues, there is consensus that the region must do a better job of presenting what it has to offer to consumers, visitors, entrepreneurs, and investors.

Among the recommendations for marketing the region to travelers are to develop and implement a regional marketing plan that promotes the region’s natural, historic, and recreational resources and encourages year-round visitation. Such a plan would include strategies for advertising, public relations, websites and social media, cooperative marketing, and creating a brand identity; in addition, it would identify specific target markets, looking at ways to engage both current and prospective visitors.

As a recent Cornell University study indicates, potential visitors to New York State are much more familiar with regions (e.g., the Adirondacks, the Catskills, and the Finger Lakes) than with individual counties. Yet tourism marketing in the Esopus/Delaware region is conducted mainly at the county level, driven by state tourism promotion funds distributed to designated county agencies. A regional approach, however, has the potential to be more much effective, especially with updated branding to replace old, inaccurate images of the Catskills.

The marketing of the region should also encompass the creation of various tools to make it easier for visitors to learn about area attractions, locate amenities, and plan activities, whether they are at home or on the road. These tools include coordinated special events calendars used by multiple organizations that can be viewed online; online itineraries for travelers with specific interests, such as nature, history, or the arts; user-friendly GIS maps that can be customized and printed; mobile “apps” that allow travelers to book accommodations or locate restaurants in the Catskills; and centrally located kiosks with maps and other information. Several organizations in the Esopus/Delaware region have created their own tools; for example, the NY-NJ Trail Conference has published Catskill Park trail maps online for use on smart phones and tablets, and the Central Catskills Chamber of Commerce has developed a mobile app that covers its service area. These efforts, however, should be standardized and shared to eliminate duplication of effort and cover larger territories, making them more useful for visitors.



Another aspect of marketing the region is reaching out to businesses, investors, and entrepreneurs to increase *their* awareness of business assistance programs, activities and events, and other news about the region. This is not to replace the role of community newspapers, but rather to enhance information-sharing. Residents and business owners should also serve as ambassadors in their communities and be able to direct travelers to ATMs, trailheads, fishing spots, or restaurants.

Project partners in marketing should include the New York State Department of State, existing chambers of commerce, tourism promotion agencies, and economic development organizations and tourism-related businesses.

Business Development and Recruitment

Businesses in the Esopus/Delaware region face a number of inherent challenges. For example, the seasonal nature of the local economy can make it difficult to sustain a year-round business. Stores and restaurants that rely on summer tourism must make most of their income during a relatively short period of time. The continued decline in the region's year round population inhibits the ability of some companies to find qualified labor. Another challenge for businesses is the lack of modern, high-quality infrastructure; parts of the region do not have reliable broadband and cell phone service.

Nevertheless, the future of the region depends on businesses to create jobs and economic growth. As noted elsewhere in this plan, the tourism industry is not performing up to its full potential. Some communities lack basic elements of the tourism infrastructure, such as lodging, restaurants, and shopping, while others have the elements in place, but the facilities are outdated and underutilized. Residents and businesses agree that there is a need to expand both the number and the diversity of local businesses, whether those establishments cater to visitors, part-time residents, or the general public.

A critical element of any economic development effort is creating and maintaining a supportive business environment and providing the resources that businesses need to succeed and grow. This requires an approach that is responsive and customer-focused. Participants in the business survey indicated that they would like more municipal support – not so much in terms of financial incentives, but in terms of being made to feel welcome.

Currently, there is no formal business retention and expansion (BR&E) program in the Esopus/Delaware region. As noted earlier, the region is split between two regional economic development councils; it is also divided by county lines. Planning and economic development agencies in each county offer different financial assistance programs, and they are sometimes perceived (rightly or wrongly) as being primarily focused on helping larger companies. Given the issues unique to the Catskills, there may be a need for a BR&E program for the small businesses present in the region.

The advantages of a BR&E program include the ability to identify individual business needs and offer financial and/or technical assistance. With regular visitation, it is less likely that a company will suddenly cease operations and disappear; the idea is that the BR&E team can help the business address major challenges *before* this happens.

Another advantage is that it provides a mechanism for coordinating assistance from multiple sources. As the survey results indicated, many business owners in the region are not fully aware of the resources

available. Access often depends on “who you know”: Business A, in Arkville, might contact the MARK Project because they are located in the community, while Business B, in Margaretville, will go to the Catskill Watershed Corporation. The average business owner may not be able to determine what resources are most appropriate and which can be leveraged most effectively.

Other tools that are needed to support business development in the region include an inventory of vacant and underutilized buildings and businesses for sale; a matching grant program to leverage private investment in renovating older lodging properties; and ongoing technical assistance to educate local business owners on social media marketing and other topics.



This plan also recommends establishing an organization or designating a staff position to undertake a business recruitment initiative. Several plans from the past ten to twenty years have cited a desire to actively recruit entrepreneurs and investors to the Catskills, but such an effort has never been formally implemented. The initiative would involve marketing and outreach, and visitor surveys to more thoroughly research the types of additional businesses, activities, and amenities needed in the region.

Project partners in business development and recruitment are many. They include funding agencies (e.g., Empire State Development Corporation, NYS Division of Housing and Community Renewal) and local and regional stakeholders: county departments of planning and economic development, Delaware County Industrial Development Agency and Ulster County Development Corporation, the Southern Tier and Mid-Hudson Regional Economic Development Councils (REDCs), Catskill Watershed Corporation, Watershed Agricultural Council (for farms and agri-businesses), the MARK Project, and local municipalities. It is strongly recommended that stakeholders coordinate their efforts to the extent possible, whether through informal communications, mutually beneficial partnerships, or the organization of an economic development “team” to spearhead business development and attract investment into the region.

Recreational Enhancements and Trails

The Esopus/Delaware region is rich in natural and recreational assets. The region has more than 80,000 acres of state lands, much of it classified as wild forest. It also contains approximately 40,500 acres of land owned or controlled by New York City. Many of these areas are accessible to the public for a multitude of recreational uses including hiking, backpacking, bicycling, bird watching, fishing and hunting, boating, paddling, tubing, and swimming, not to mention snow sports like skiing, snowshoeing, and snowmobiling. There is a need to promote and enhance these assets, however, for the enjoyment of both visitors and residents.

Numerous studies show that trails boost tourism by attracting visitors, extending their length of stay, and adding to the constellation of attractions in an area.
- Parks & Trails New York

Despite the persistent myth that hikers don’t spend money in the places they visit, numerous studies have demonstrated the economic impact of outdoor recreation, particularly recreation on public lands. A 2008 study by the U.S. Department of the Interior, for example, found that recreational visits to lands

managed by the agency resulted in more than 316,000 jobs and nearly \$25 billion in economic impacts to adjacent communities.²⁵ Nationally, according to the Outdoor Industry Association, outdoor recreation participants spend a total of \$646 billion annually, 81% of it on travel-related expenses. This spending directly supports 6.1 million jobs and \$80 billion in federal, state, and local tax revenue.

A recently-released study commissioned by the Catskill Center for Conservation and Development, Catskill Mountainkeeper, and Catskill Heritage Alliance estimated the impact of outdoor recreational activities on the Central Catskills for the first time. The study reported: “Outdoor recreational activities that rely on public and protected lands attracted a total of 1,717,927 visitors. These visitors had an estimated economic impact on the region’s economy of \$46,207,000 and supported 980 jobs.” These findings confirm the importance of outdoor recreation to the Esopus/Delaware region and confirm the value of enhancing and expanding recreational opportunities.

A significant effort should be made to improve the region’s underutilized trail network and create connections linking trailheads with hamlets and villages so that local communities can directly benefit. Part of capitalizing on the presence of the trail system involves making it easier for users to locate retail stores and services; conversely, visitors staying in one of the hamlets need effective signage and directions to be able to find trailheads. Additional trail connections should be considered to create opportunities for longer or more varied outings and enhance the region’s appeal among experienced hikers and cyclists.

Several communities in the region, including the Town of Andes, are already pursuing trails and pathways and should be encouraged to continue. Because they are vastly different from the backcountry trails found in the Catskill Forest Preserve, these walking paths are likely to appeal to a different type of user. Riverwalks and pathways within communities can be a pleasant and low-stress form of recreation for older visitors or families with young children. Interpretive signage might further enhance the user experience.

There are many water-related recreational opportunities in the region. The region can benefit economically from more access to all its waterways. In 2012, the Pepacton Reservoir was opened to additional recreational boating, and other NYC DEP watershed lands may be opened for public use in the future. The Soil and Water Conservation District and the Chamber of Commerce are identifying additional locations where access to the Esopus and Delaware creeks are feasible. Municipal leaders and community organizations should continue to work with the DEC and DEP to advocate for additional recreational access and the establishment of amenities such as trails, restrooms, signage, and other facilities in the region’s waterways.



²⁵ U.S. Department of the Interior, *Economic Impact of The Department Of The Interior's Programs And Activities - Preliminary Report*, December 15, 2009. http://www.doi.gov/news/pressreleases/upload/DOI_Economic-Impacts-Report.pdf

Other priorities for recreation include completing the proposed Catskill Interpretive Center in Mount Tremper, producing a signature annual event that promotes “the outdoor experience” in the Esopus/Delaware region, and continuing to pursue a number of community recreational projects currently in development, such as the Arkville Community Swimming Pool.

Project partners in enhancing recreational opportunities and trails in the Esopus/Delaware region include the NYS Department of State, the NYS Department of Environmental Conservation; NYC Department of Environmental Protection; NYS Department of State; Catskill Revitalization Corporation, which owns and maintains the Catskill Scenic Trail; NY/NJ Trail Conference; and local municipalities. Technical assistance in trail development is also available from the Rivers, Trails, and Conservation Assistance (RTCA) program of the National Park Service.

Signage Improvements

Two types of signs need attention in the region: those that advertise landmarks, natural features, or points-of-interest such as fishing access sites, and those that advertise specific businesses. Signs perform a major role in the success of retailers and local economies in their capacity as identification, advertising, and wayfinding devices. For businesses, signage is often the most important means of communicating with potential customers. Signage can create a sense of place and economic identity and can play an important role in tying together the Esopus/Delaware region via the Route 30 and Route 28 corridor.

Research from around the United States supports the conclusion that improvements in signage design and appearance have a positive effect on both sales and in building a sense of place. It is recommended that a unified sign program be developed for the Esopus/Delaware region, especially oriented to improving signage identifying points of interest, landmarks, trailheads, recreational access sites or other similar features. There needs to be a coordinated system using signs to direct travelers to both businesses, especially on main streets, and other points of interest.



This program could also include guidelines for business signage that offers a common sense approach that recognizes the consumer's need for information, the business's need to identify itself and to advertise its goods and services, and the community's demand for aesthetically pleasing commercial areas that enhance, or at least do not detract from, the desired character of the community. The program should also include plans for gateway and welcome signs, interpretive signs where appropriate, and directional signs. All should be of scale and design that reflects community character, and/or use themes and logos. It is recommended that a comprehensive signage program be developed. Such a project could include the following steps, in order:

- a. Develop an inventory of landmarks, buildings, features, points-of-interest, and locations that have or need a sign, and areas where directional signs would improve visitor experiences. These should be mapped and identified as to the type of sign needed. This map should be distributed to each town and village and to businesses, and other stakeholders.
- b. Develop model designs, themes, and sizes for point-of-interest, directional, gateway and welcome signs, and interpretive signs. There should be some aspect of design that would unify all signs throughout the region, and at the same time allow signs to capture the character of each community to celebrate unique qualities. Suggestions could also be made for business signs that could be implemented, over time by business owners. The sign plan should also include cost estimates and a description of any permitting process that would need to be taken to place those signs. Assistance of a landscape architect would be very valuable to help not only with the design, but also with engaging the public in development of sign models. The map and model designs could be submitted to municipalities and organizations to finalize, place and construct.
- c. Develop a model set of sign design guidelines oriented for use by local businesses and/or be incorporated into local site plan review standards, if desired by the community. This could include a series of design elements that would benefit businesses and the aesthetic character of the region. Some of the communities in the Esopus/Delaware region may benefit from having sign design standards within their zoning laws as well. Where sign codes are concerned, the goal should be to give businesses the opportunity to have maximum success at their location by permitting signs to be placed where they will be seen by their intended audience while still respecting the aesthetic standards of the community.

Project partners for these actions could include the New York State Department of State, municipalities, business owners, and agencies associated with specific points-of-interest. In order to make this set of actions a reality, there would need to be organization for the effort, funding, and interest on the part of businesses, communities and agencies to participate in this effort. Any sign program should have a strong outreach component to include all parties along with the general public in order to build consensus. In general, barriers to implementation include difficulties in funding; lack of interest on the part of businesses, municipalities, agencies or organizations; difficulty in organizing the effort among all parties; local laws or agency rules that may prevent placement of signs in right-of-ways or other locations; or resistance on the part of businesses to re-think their signs.

Streetscape Design, Pedestrian Opportunities and Visual Improvements

A common desire among residents and businesses throughout the Esopus/Delaware region is to protect what is special about the places in which they live and work. A central facet of what makes the region special is the human-scale of the hamlets and villages. There, human scale proportions and perceptions are what separate developed and undeveloped landscapes. These are areas where walking and the pedestrian realm on streets enhance the human experience and accommodate vehicles. They are core areas that are a focus for our community interactions and provide for a mix and range of housing types, businesses, household compositions and people of all ages. Places that respect human-scale offer visually interesting and positive streets and spaces, create opportunities for positive interaction, and create an atmosphere where people feel comfortable.

The Esopus/Delaware communities recognize the region's villages and hamlet areas as central to the residential, civic, and economic life of the Esopus/Delaware region. Most towns and villages have already developed local comprehensive plans that define their community character. There is a strong recognition of the importance of streets and the overall aesthetic environment to the quality of life of residents and our future economic health.

A key economic development recommendation of this Strategy is to enhance streetscapes and visual character of the hamlets and villages. People experience most places from the street. The first impression of a community, whether positive or negative, is usually provided from the street. Since the streetscape plays such an important role with visitors and residents, its design and the views from streets should be considered a major element of this economic revitalization strategy.

Actions related to enhancing the overall aesthetic appearance and historic character of villages and hamlets, enhancing the appearance and function of our streets and sidewalks, and working towards providing 'complete streets' are the key elements. Specifically, the region would benefit from design standards or guidelines that would serve to help enhance the character and appearance of main street areas, standards for planting and maintaining street trees, and plans for additional on and off-street parking in the hamlets and villages.



It is further recommended that our communities work to make their streets 'complete streets', especially our main streets. Research throughout the United States has shown that complete streets stimulate the local economy, spur private investment, and raise property values. Complete streets are designed and operated to enable safe access for all users, including pedestrians, bicyclists, and motorists of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle.

This is especially important in an area where outdoor recreation is promoted as the major attraction. Low-speed roads with on-street parking, well-marked crossings, and sidewalks with accessible curb cuts may best meet the needs within hamlets and villages. Along routes 28 and 30 outside hamlets and villages, complete streets can be provided using wide shoulders to allow safe bicycling and walking, and providing connections to regional trail and public transportation networks.

Implementing streetscape, pedestrian opportunity and visual improvements will require a commitment by local leaders, businesses, organizations and the general public. Some of this work has been, or is currently being done. For communities that have not yet started these types of actions, their municipal plans already set the stage for accomplishing this work.

To augment existing policy statements, it will be very important to provide educational opportunities about streetscape and design issues to highway staff, community leaders, businesses and the general public. The region should also acknowledge that our roads and streets are regional in nature, even though there are different jurisdictions that take care of them.

Full economic potential will be best met when networking with others. While there are many groups, agencies, and interested individuals interested in and working on streetscape and design improvements, there are more opportunities to network, share information and resources, and assist each other. For many tasks, there is no need to reinvent the wheel and communities should support and learn from each other. The New York State Department of State should be considered as a project partner to implement these actions.

An effort should be placed on including performance measures so the community can see progress and successes. These could include such measures as number of street trees planted, miles of bike lanes built or striped along Routes 28 and 30, or linear feet of sidewalks or trails built.

A streetscape and landscape design plan for our communities is recommended. This would offer an illustrated vision for main street areas, along with a description of needed improvements, and specific streetscape projects that could be accomplished. If funding is available, a specific streetscape design should be developed for each village/hamlet. This should include recommendations for planting and maintaining street trees, building design examples for quality development or redevelopment, and identification of locations for and treatment of parking lots in hamlet and villages.

Using that design, each community within the region could review and revise, or include new design guidelines to ensure that new buildings, parking lots, or other development is sensitive to the context of its community. Another potential outcome of this project could be a model set of design standards that local governments could include in site plan or zoning laws. A good model for this can be found in the award-winning *Pennsylvania Wilds Design Guide: A Design Guide for Community Character Stewardship*; see <http://tinyurl.com/PAWildsDG>.

Since scenic views are an important part of the environment that our communities want protected and are a major tourist asset, more attention needs to be paid to identifying, protecting, and promoting them. Scenic views along Route 28 have already been identified as part of the Scenic Byway CMP. An effort should be made to also identify important scenic resources along Route 30. Once viewsheds are identified, communities can establish development standards to protect them and promote them to visitors.

Enhanced Local Land Use Protection

The Esopus/Delaware region currently has multi-levels of regulations that affect land uses in the area. Together, the seven municipalities in the Esopus/Delaware region have instituted a range of land use controls and regulations. In addition, NYS DEC regulates land uses on state lands in the area and other regulations related to streams and wetlands elsewhere. NYC DEP regulations cover not just the lands they own, but also private property in the watershed, per the Watershed Agreement. Local land use regulations include zoning, site plan review, subdivision regulations and historic district regulations. These differ from City and State regulations, which pertain to the protection of the environment and do not regulate specific land uses. The majority of municipalities in the region have written comprehensive plans and zoning, site plan review and/or subdivision regulations in place.

Although often viewed as restrictive, land use regulations have many beneficial outcomes. These include assuring new development is in harmony with the area and other land uses; protecting property values by keeping incompatible or unsuitable uses away from other uses; providing certainty to

developers; protecting the environment; and protecting the safety of residents, motorists, and pedestrians.

Except in Roxbury, where no zoning law is in force, land use laws in the region are perceived as being adequate to accomplish these goals. Communities in the Esopus/Delaware region do not desire to be more restrictive. There are several improvements that could be made to existing land use regulations, however, that would allow for additional small business development, for guiding growth to perpetuate the traditional development patterns of the region, and for continuing to protect open spaces and the environment. This is particularly important because the environment is a significant asset that attracts people to the region.

In particular, adjustments to local zoning to allow for mixed use (commercial and residential) development in villages and hamlets along with home-based businesses elsewhere would offer additional flexibility to promote economic revitalization. Local zoning laws should also not put undue burdens or prohibitions for agricultural land uses, including forestry, farm markets, related agribusinesses, agri-tourism, and niche farms, especially where visitors travel. The region's towns can include incentives into their land use laws to promote certain uses or types of development. For example, many communities offer density bonuses which allow developers to obtain additional lots or housing units when they design their residential use as a conservation subdivision where open space and environmental features are preserved would also be useful amendments to local laws.

Long-term, business development will need telecommunication, water and sewer infrastructures. Many of the hamlets and villages in the region already have, or are working on improving these systems. In order to accommodate future growth, however, it would be important to identify areas suitable for expansion so that municipalities can plan for them over time. Suitable expansions would be those areas with few environmental constraints, and that are in or near hamlets and villages.

The message from residents, businesses, agencies and visitors to the Esopus/Delaware region is that growth is desirable and necessary, but that they want that growth to be sensible and completed in a way that also promotes the unique quality of life and the built and natural environment of the area. This goal is essentially one that embraces "smart growth."

As per the NYS DEC program, "Smart Growth seeks to discourage development on open space and farmland and encourage growth in developed areas with existing infrastructure...It is an approach that encourages clustered population centers, full of activity, diversity and character, surrounded by life-sustaining natural areas and working landscapes. In practice, it is a combination of community planning activity, land use regulations, government incentives, and individual actions that can turn investment toward quality of life and better places."

Some of the municipalities within the Esopus/Delaware region have already established smart growth policies within their comprehensive plan. To further implementation of those policies, it is recommended that municipalities review their existing zoning and land use laws and update them to support those smart growth principals. This includes allowing for mixed use development in hamlets and villages to perpetuate those traditional development patterns along with home-based businesses. This is already recommended in the comprehensive plans for Fleischmanns, Margaretville, Middletown, Olive, and Shandaken. It is also already recommended in the Main Street report for Shokan, which recommends "establishing a mixed-use hamlet in the area from the Post Office to Winchell's Corners."

A model set of site plan, subdivision, and/or zoning standards that would promote mixed uses consistent with our communities could be developed as a guide for this action.

Siting of sewer and water is important to establishing the desired development pattern. Hamlets and villages should be the main locations where this infrastructure is provided and it would be desirable to have excess capacity in those areas to allow room for growth. It is recommended that municipalities work with NYC DEP to identify suitable growth areas that would allow for infrastructure expansion. Further, it is recommended that Phoenicia establish a sewer system in order to address issues with septic systems that have had a negative impact on some local businesses. The New York State Department of State should be considered a project partner to implement these actions.

Agriculture and Agri-Business Development

The importance of agriculture in the region is well articulated in the 2000 Delaware County Agriculture and Farmland Protection Plan: “Agriculture is an economic and cultural mainstay in Delaware County. As a preferred land use for water quality protection, it is a critical part of environmental stewardship. It impacts our lives in ways we may barely perceive. Think about the loss of farms and farmland, and we must think about the loss of beautiful views, open space and natural resources. Think about the loss of farmers and we must think about the loss of rural character and stewardship.” Likewise, in Ulster County, agriculture is recognized as a major economic component and important to the landscape and environment.

Even though both counties and the towns within the Esopus/Delaware region have recognized and established goals to support and continue agriculture, farming does not receive adequate attention in economic development programs. Although many Catskill-region efforts are well underway to promote and support agriculture (Pure Catskills, Watershed Agricultural Council, Catskill WoodNet, and others, for instance), there is a need to encourage, promote, and foster existing and new agriculture and forest-oriented businesses.

Roxbury, Andes and Middletown still have much open land that could be used or reclaimed for agriculture. Although open farmland is scarce in Olive and Shandaken, there are still forest-oriented and small niche operations that could be established. There is a growing interest in the region for fresh, local food, and this should be taken advantage of in economic development programs. Both Delaware and Ulster counties would benefit by elevating the importance of agriculture in their economic programs.

Our communities should enhance agriculture's role by offering incentives, farm-friendly regulations, and educational programs. Incentives could take many forms including farmer-to-farmer mentoring, regionally based extension services, grants/loans for planning and start-ups, and removal of barriers to agriculture in local land use laws. The region should be promoted for its agricultural and forestry-related opportunities, both to attract those agri-entrepreneurs and to build public awareness of produce and agri-tourism opportunities. Agri-tourism is big business in many other places and is an activity that could be taken advantage of, especially during the summer and fall seasons.

The Esopus/Delaware environment and soil characteristics do pose limitations on the scale and type of farms that may be suitable for the region. However, there are many advantages that could be promoted including the region's proximity to large urban areas, transportation (Route 28 and 30) corridors, and

land (especially in Andes, Roxbury and Middletown). A coordinated effort to create a marketing and transportation network to help farmers get their produce to markets outside the area is needed.

Recommended actions that support this strategy include identification of agricultural products that could be grown in the region and sold in the NYC metro area, development of an agricultural products transportation system or cooperative to help local farmers bring their produce to market, creating a program linking land owners with farmers who want to buy or rent farmlands, and establishing farm to school programs in the region.

Both Ulster and Delaware counties should include in their future Agriculture and Farmland Protection Plans a toolbox of resources, methods and ideas that an individual could use to start new farm operations. This could include an inventory of farmlands or parcels that are suitable for farming and forestry opportunities and identification of crops or agricultural products that are marketable. Programs should be coordinated with the Watershed Agricultural Council, Pure Catskills, and Cornell Cooperative Extension.

Housing Opportunities

Housing is a key economic development issue. At its most basic level, a safe, decent living environment is a fundamental human need. Very often, the majority of structures in a municipality are under some form of residential use, which makes housing is a key component of the built environment of many communities. But like other elements of the built environment, housing is durable, ensuring that construction and land use decisions will have long-lasting implications. The location, design, mix of ages, tenure types, and affordability of the housing stock in a particular place are also related to demographics: housing should match needs of residents but can also attract new types of people.

Moreover, housing is directly related to workforce issues. Attractive, affordable housing options are needed to support business development, business attraction, and diversification efforts; housing issues, therefore, underlie many economic development initiatives. Housing development also contributes to the property tax base, directly influencing local government funding; and it is an area over which local governments exercise a considerable degree of control. In the Esopus/Delaware region, awareness of the linkages between housing, energy use, sustainability, and affordability is growing.



Although provided almost exclusively by the private sector at the local level, towns and other municipalities in New York State can influence housing production by setting goals, providing incentives, creating funding structures, and regulating land use and building practices, among other things. Maintenance of existing housing and property also falls squarely within the ambit of municipalities. This creates an opportunity for creative, locally-derived solutions. Specifically, zoning, building codes, and site plan review, among other controls commonly exercised by local governments, play an important role in shaping housing construction and can be used effectively to intervene in housing markets to support community goals and objectives. Affordability programs can help create opportunities to address groups with specific needs, such as the poor, renters, and the elderly.

In the Esopus/Delaware region, residents have identified several specific housing priorities. Given the aging of the population across the study area, elderly residents will increasingly shape housing needs. Despite their high rates of homeownership, seniors have housing requirements and desires that can vary considerably. There are several strategies that can be employed to address any gaps in housing and tenure types sought by people in this demographic.

Conversely, first-time home buyers and young families likely experience difficulty in finding adequate housing, in part due to increasing housing costs. This is important, as people in their prime working years will need suitable housing options in order to participate in local labor markets. Particular attention is focused on the needs of permanent, year-round residents. This plan has identified as a major obstacle to economic development in Ulster County the lack of affordable, “workforce” housing. Rental housing has also been identified as a need, especially because a large percentage of the population is low- and moderate-income.

Like other structures, homes remain part of the housing stock for decades. In the Esopus/Delaware region, which has a long history of settlement, recent estimates indicate that nearly one third of all housing units were built before 1940; half were built before 1970. The age of much of the housing stock has made rehabilitation, maintenance, and modification assistance priority needs.

In addition, the region’s settlement patterns, which have more compact areas mixed with newer, low-density development, create opportunities to target new housing investment toward locations with existing development. This, in turn, will create efficiencies associated with public infrastructure (e.g., roads and sewer systems). Compact settlements are part of a smart growth philosophy and will help communities meet their environmental and transportation goals.

A principal recommendation is encouraging the development of senior housing and assisted living facilities. Development of this type should be targeted toward locations with sufficient existing infrastructure capacity. To be effective, it will be important to further identify and characterize the specifics of the market for senior housing in the study area. A second priority action is to pursue funding to rehabilitate the existing housing stock. There are many such initiatives underway in parts of the Esopus/Delaware region, which provides a reservoir of experience that can be utilized in future efforts to implement and expand rehabilitation area wide.

It is also recommended that a housing needs study be conducted to assess needs, resources, and objectives. Specifically, the intent of the study would be to characterize the requirements of the year-round population. Such a study could identify gaps in the existing housing stock, unmet needs, and affordability issues. It could also help further identify locations for suitable development. Given the range of options for tailoring senior housing to meet the different activity and dependency levels of the region’s growing population of seniors, the study should examine senior housing trends within and beyond the region to ensure that the specific needs of existing and future residents are met.

The study could also uncover or recommend the use of new revenue sources, describe needed modifications or additions to existing regulations, and help spur the development of new partnerships and institutions, which are increasingly required in the face of the complex funding arrangements often used to make affordable housing investments viable. Importantly, the study could help identify any gaps in the knowledge, skills, and capacities of developers in the region. All of these need to be addressed as

they can be a significant barrier to market participation.

There is a complex mix of private and public partners that might implement these actions. Particularly important are private non-profit and for-profit housing developers, who will be responsible for most – if not all – additions or modifications to the housing stock. There are a number of federal and state programs, including those funded by the New York State Division of Housing and Community Renewal, which are tied either to particular places or benefit individuals and families. Linkages between housing and other priority action areas, such as Main Street initiatives, should be supported. Within the region, both municipalities and area non-profits are active in rehabilitation and affordable housing.

The housing stock in the region changes slowly and typically requires large amounts of private investment. Market conditions, both within and outside the Esopus/Delaware region, are a key factor, as is difficulty obtaining funding. The support of local communities is also important. In New York State, research has identified historical housing legacies, the development environment, and politics and perceptions as factors influencing local affordable housing support.²⁶ It is particularly important that successes in these efforts should, where possible, be promoted to help build local support.

Transportation

Ensuring the movement of people and goods is an essential component of economic development. Residents and visitors alike need a way to move throughout the area and access destinations. Most businesses rely upon this traffic which are made possible by the transportation system. Throughout the region, this is accomplished primarily using the road network – largely by the use of personal automobiles – and the majority of trips will likely be taken by car for the foreseeable future.

Increasingly, though, the benefits of alternative modes of transportation are recognized as desirable options to reduce fossil fuel dependence, as part of health promotion efforts, and even as generators of increased economic activity. For some, who lack access to or the ability to operate a personal vehicle, public transportation is a necessary alternative. In the Esopus/Delaware region, this group includes visitors to the area who arrive by means other than automobile. Others use the road network to recreate and view the landscape and can benefit from current best practices concerning safety infrastructure.

State Routes 28 and 30 provide mobility within the region and access to its many destinations. Providing additional ways to access and enjoy the unique experience these and other routes provide is a way to capitalize upon these assets. In particular, these roads can be made safer and more attractive for bicyclists. This will provide residents with additional transportation options and at the same time, increase economic activity in the region.

Walking is already a commonplace in the hamlet areas. There is an opportunity to link these areas of activity with each other and to area recreational destinations. Housing and environment goals, which focus on maintaining existing land use patterns while targeting development in already-developed areas, are also linked to the actions recommended in this section.

²⁶ Corianne Scally and Adam Yagelski, “Housing: Upstate-Style,” Presentation to Capital District Planners Association, Colonie, New York, May 31, 2012.

Specific priority projects include evaluating the feasibility of a bus or shuttle service linking recreational facilities, including ski areas, with hamlets and Main Streets. This could provide valuable service to residents lacking access to an automobile; to visitors who travel to the region by bus; and to businesses that would benefit from increased traffic. In addition, bicycle-specific infrastructure, including the addition of symbols within the shoulder areas along Route 28, should be installed to increase safety and help promote bicycling throughout the region. To further capitalize on the many scenic vistas found along the area's transportation routes, the creation of "turnouts" along these roadways should be considered to provide a place for people to stop and encourage them to enjoy unique views. There is an opportunity to link their construction to promotion and marketing efforts; interpretive signage goals can also be met.

Because a majority of funding for transportation improvements typically comes from higher levels of government, working with the New York State Department of Transportation, the Ulster County Transportation Council and similar agencies in Delaware County is essential to implement the transportation actions identified above. There are a range of funding options available by working with these and other agencies. This will be required where work involves activities along the State-owned highways in the area.

Coordination among area municipalities and transportation agencies should also help to ensure that actions outlined in this plan are instituted as policy and considered in capital improvement planning efforts. Interpretive and marketing efforts that go along with transportation improvements should involve members of the business and non-profit communities. Among the barriers to implementing these projects are difficulties in obtaining funding; hurdles associated with permitting and existence of multiple jurisdictions; and a lack of demand to support shuttle service financially.

Environmental Protection and Sustainability Programs

The environment plays a pivotal role in both the quality of life for residents and in the past, present and future economic health of the Esopus/Delaware communities. The unique environment, consisting of mountains, valleys, waterways, farms, and unbroken forests along with all the ecological roles they play, is recognized as the premier feature of the region. All public input throughout the years has been unified in support for environmental protection and sustainable growth.



Although large portions of the region are protected as State or New York City lands, residents and businesses recognize that their future rests on maintaining the environment. Much of this plan is oriented to helping the Esopus/Delaware communities find ways to take advantage of their magnificent setting to grow their economy. In particular, protecting water quality, is critical to both the ecology of the region and the economy. Therefore, actions designed to further protect the environmental resources of the region are an integral part of this strategy.

Much work has been done over the years related to the environment. Energy efficiency, sustainable communities, and stream protection have been identified repeatedly as important goals in many plans done for the region. The Esopus/Delaware Revitalization Strategy confirms those goals and recognizes that our local communities have many opportunities to further environmental protection and sustainability.

Protecting critical environmental areas as described in this Strategy, minimizing negative effects of invasive species in our stream systems, and promoting all our environmental features should be considered as the underpinning for all other actions in this Strategy. Some members of the community feel that the environment is adequately protected via State and City programs. Others see opportunities for additional work to be accomplished at the local level.

The Environmental Protection and Sustainability Programs section should also discuss increased community resilience from the effects of climate change and describe the Long Term Community Recovery strategies being developed for Fleischmanns, Margaretville, and Middletown.

There are opportunities for our towns and villages in the Esopus/Delaware region to strengthen their involvement with environmental protection. This includes encouraging communities to address stream management in local plans and laws and implement the many best management practices already articulated in the Stream Management Plans (SMPs) to reduce stormwater runoff and erosion. Local municipalities should work to implement their SMPs, mitigate flood impacts, address stormwater and infrastructure impacts on the environment, and develop strategies to enhance trout habitats.

Other actions include identification of local, unique environmental features that should be protected, and to encourage green building principles, energy efficiency, and sustainable designs to be an integral part of new development. Implementation of these steps could define the region and in itself, be an opportunity to promote the region. Ongoing efforts to decrease stormwater and infrastructure impacts on streams are needed.

There are many partners local communities can work with. These include NYS DOS, NYS DEC, NYS DEP, the Watershed Agricultural Council, the counties, Soil and Water Conservation Districts, and organizations such as Trout Unlimited.

Among the barriers to implementing projects such as these are difficulties in obtaining funding, hurdles associated with permitting, and the existence of multiple jurisdictions involved in environmental protection. Coordination, communication and collaboration within the region, and between the municipalities and agencies, are critical to reach environmental protection and sustainability goals.

SECTION 8 - Implementation and Action Plan

8.1 Prioritizing Actions

An important task taken during the planning process was to take a large number of ideas and proposed actions developed from prior efforts along with new recommendations and compile, organize and prioritize them. The goal is to provide the Esopus/Delaware communities with a tool that will help them move these actions into reality. This section prioritizes the actions based on community input and then provides details and an action plan on the most important actions to give the communities and stakeholders the necessary information needed to seek funds and organize for implementation.

Prioritization Process

The process used to prioritize actions involved significant public input. The steps taken to accomplish this included:

1. Compilation of a list of previously recommended actions from past plans and studies.
2. Organization of that list into revitalization categories (see Section 6).
3. Using information from the profile and inventory, steering committee, business and second home owner surveys, and consultant expertise and recommendations, the list was analyzed to determine what actions have already been completed; which are still relevant; and which ones were site- or community-specific, but also relevant to the broader region.
4. Held public meetings and online survey to invite the general public, agencies, and organizations to participate in the discussion and prioritization of the actions. This task included the following steps:
 - Organized list of actions into topics printed on posters.
 - Asked participants to review and place up to three stickers to identify their most important priority actions for each topic.
 - Asked participants to add other ideas for actions.
5. Project consultants compiled the results from the public meetings and survey. This involved adding up the total number of stickers each action received, listing the actions in order from those that received the most stickers to the least, and then converting those scores to a rank order.
6. Additional information was obtained about priority actions at the economic revitalization conference.

The results of this process are presented in the table below. Each proposed action is presented with a short description and identification as to what location it is relevant to and what revitalization topic it addresses.

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINESS					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
1	Top	Work with telecommunications and utility providers to extend cell phone and broadband service to areas that are currently un-served.	x			x	x	x	x		x			x								
2	Top	Improve signage identifying important local landmarks, historic buildings, and significant natural features.								x		x	x			x						
3	Top	Enhance the overall aesthetic appearance and historic character of villages and hamlets (by, for example, providing sidewalks, landscaping, benches, and streetlamps and burying utility lines). Develop design standards or guidelines to preserve the character and appearance of Main Street areas.								x	x	x	x	x								
4	Top	Encourage adjustment of land use regulations where necessary to allow for mixed commercial and residential uses and home-based businesses in villages and hamlets.		x	x	x	x	x	x		x	x	x									
5	Top	Adopt policies at the county and local levels to ensure that facilities for pedestrians, bicyclists, and trails are integrated into future transportation projects.								x				x	x							

	LEVEL OF PRIORITY	SUMMARY OF ACTION	WHERE TO IMPLEMENT ACTION								REVITALIZATION CATEGORY								READINGS			
			ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
6	Top	Develop a "Buy Local" initiative to enhance support for local businesses and farms.		x	x						x	x			x							
7	Top	Increase recreational access opportunities and facilitate access to watershed lands by working with NYC DEP.	x				x									x						
8	Top	Develop a coordinated wayfinding system with signs that direct travelers to downtown business districts and points of interest.								x		x				x		x	x			
9	Top	Promote community-building activities that bring full-time and part-time residents together and provide opportunities for them to establish stronger relationships while working towards common goals.								x			x					x				
10	Top	Develop an interactive website and mobile "app" for travelers that utilize GIS software to create user-friendly maps showing various attractions in relation to villages and hamlets, and helps visitors learn about things to see and do as they make their way through the region.								x	x	x			x	x	x					

	LEVEL OF PRIORITY	SUMMARY OF ACTION	WHERE TO IMPLEMENT ACTION								REVITALIZATION CATEGORY								READINGS			
			ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
11	Top	Provide technical assistance for local businesses, including workshops on social media marketing, to improve their chances for success.								x	x	x			x							
12	Top	Establish and promote funding mechanisms and financial incentives to support, retain, and attract specific types of businesses.								x	x	x			x	x						
13	Top	Establish a Business Recruitment Initiative, with appropriate staffing, to market the region and actively recruit tourism entrepreneurs and investors.								x	x				x	x						
14	Top	Develop and implement a marketing and branding strategy to promote the region's natural, historic, and recreational resources and encourage year-round visitation.								x	x	x				x		x				
15	Top	Create incentives for entrepreneurs interested in starting or expanding a farm.	x			x	x	x	x		x				x							
16	High	Provide training to towns and villages on ways to focus new business development and growth in villages and hamlets.								x	x	x										
17	High	Create multi-use trail connections to link hamlets and villages.								x				x		x						

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
18	High	Promote trails and pathways more effectively, through signage, maps, brochures, and websites.								x						x						
19	High	Include agriculture as a significant sector in economic development programs.								x	x				x							
20	High	Identify agricultural products that could be grown in the region and sold in the NYC metro area.								x	x				x							
21	High	Establish a small business loan fund that offers gap financing to the owners of tourism-related businesses, including start-ups, for "transformational" projects.								x	x											
22	High	Develop an inventory of vacant and underutilized buildings and businesses for sale to be used to attract entrepreneurs and investors to the region.								x	x	x										
23	High	Hire a professional downtown coordinator to serve as a "circuit rider" and assist Main Street areas with downtown revitalization and business development.	x	x	x			x	x			x										
24	High	Continue to pursue regional partnerships, like the Central Catskills Cooperative, to address issues that transcend town boundaries.								x								x				

			WHERE TO IMPLEMENT ACTION						REVITALIZATION CATEGORY								READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
25	High	Coordinate the development of an annual Travel and Tourism Conference to facilitate communication among local business owners, chambers of commerce, and tourism directors and provide an opportunity to share information about industry trends and strategies.								x								x				
26	High	Create a Tourism Business Revitalization Program that provides matching grants to lodging facility owners for building renovations, modernization, weatherization, and other improvements to enhance outdated facilities, extend operating seasons, and attract a new or more diverse clientele.								x	x					x						
27	High	Establish an economic development advisory team, with local government officials, business leaders and representatives of community-based organizations, to spearhead business recruitment and retention efforts and attract investment into the region.								x	x							x				

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
28	High	Encourage communities to address stream management in local plans and laws and use best management practices to reduce stormwater runoff and erosion.								x							x					
29	High	Evaluate the feasibility of a shuttle service linking recreational facilities, including ski areas, with Main Streets and hamlets.		x	x			x			x	x		x		x			x			
30	High	Develop a Catskill Ambassadors Program that provides training to front-line workers and business owners in customer service and hospitality.								x	x	x				x						
31	High	Develop a signature annual event like the Outdoor Experience Festival that promotes hiking and biking trails.								x						x						
32	High	Complete construction of the Catskill Interpretive Center in Mt. Tremper to welcome visitors and serve as the eastern gateway to the Catskill Park.								x						x						
33	Mod	Establish recreational trail systems linking communities and existing trails.								x						x						
34	Mod	Increase the number of farmers markets and other outlets for sales of local food.				x									x	x						

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
35	Mod	Encourage the development of senior housing and assisted living facilities in existing community centers with sufficient infrastructure capacity.	x	x	x			x					x									
36	Mod	Pursue funding to rehabilitate the existing housing stock and provide housing opportunities compatible with existing development patterns.								x			x									
37	Mod	Work with the NYS DEC and NYC DEP to upgrade trails, restrooms, signage and facilities on public lands in the region.	x			x	x	x	x					x		x						
38	Mod	Adjust local zoning laws to ensure that farm markets and related farm businesses are allowed, especially along major roadways where visitors travel.	x			x	x	x	x						x	x						
39	Mod	Evaluate the viability of creating a single economic development agency covering the entire Catskills region that pools resources, staff, and marketing budgets into a more powerful regional entity.								x								x	x			
40	Mod	Encourage green building principles, energy efficiency, and sustainable designs to be incorporated into new development.				x											x					

	LEVEL OF PRIORITY	SUMMARY OF ACTION	WHERE TO IMPLEMENT ACTION								REVITALIZATION CATEGORY								READINGS			
			ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
41	Mod	Increase recreational opportunities for families with children.								x			x			x						
42	Mod	Develop an agricultural products transportation system or cooperative to help local farmers bring their produce to market.						x			x				x							
43	Mod	Utilize portions of the Ulster & Delaware Railroad corridor to create a "rail + trail" system.								x						x						
44	Mod	Develop standards for planting and maintaining street trees in villages and hamlets.				x							x				x					
45	Mod	Design and install kiosks that provide information and maps about area attractions.								x		x				x						
46	Mod	Develop a "master" special events calendar to be utilized by all organizations and made available for viewing online.								x						x						
47	Mod	Create new opportunities for fishing, hunting, hiking, bicycling, water sports, bird and wildlife watching, skiing, golf and other forms of outdoor recreation.								x						x						

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
48	Mod	Identify areas with unique environmental features that should be protected and establish Critical Environmental Areas pursuant to the State Environmental Quality Review Act (SEQRA).								x							x		x			
49	Mod	Establish a "Catskill Outdoors" website/blog to promote outdoor amenities and recreational opportunities in the region.								x						x						
50	Mod	Conduct a housing needs study to identify and characterize the needs of the year-round population.								x			x						x			
51	Mod	Provide training to planning boards on ways to preserve historic, architectural, and cultural features during subdivision, site plan, and/or special use permit reviews.								x			x									
52	Low	Encourage the use of clustering, incentive zoning, and other tools to maintain current development patterns.				x							x		x		x					
53	Low	Provide technical support to landowners who want to list their properties on the National and/or State Registers of Historic Places.		x	x	x							x									

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINESS					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
54	Low	Bring travel opportunities to life by packaging elements from several communities and showing travelers how to move between communities.								x						x		x				
55	Low	Create a program linking land owners with farmers who want to buy or rent farmlands.	x			x		x	x						x							
56	Low	Implement invasive species management practices.								x							x					
57	Low	Establish free Wi-Fi High-speed Internet connections in selected locations, such as cafes and community centers, in villages and hamlets.	x	x	x		x	x	x					x								
58	Low	Identify future growth areas for water and sewer systems so that they serve existing areas plus lands for future growth.								x				x								
59	Low	Develop an illustrated design guide that provides examples of quality development/redevelopment.								x		x	x									
60	Low	Establish Farm to School programs to support local and regional farmers.								x					x							
61	Low	Ensure that communities include appropriate stormwater retention designs that mitigate flood impacts.				x											x					

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
62	Low	Identify and map scenic viewsheds along Routes 28 and 30.	x			x	x	x	x				x			x	x		x			
63	Low	Encourage NYS Department of Transportation to add bicycle symbols along the shoulders of Route 28 as a safety enhancement.								x				x		x						
64	Low	Develop online itineraries for travelers with specific interests (e.g., nature, history, farms, shopping).								x						x						
65	Low	Develop a pedestrian/biking trail between Margaretville and Arkville.			x	x								x		x						
66	Low	Consider the creation of “turnouts” along roadways where people can stop to enjoy scenic vistas.	x			x	x		x							x						
67	Low	Create or update floodplain laws to include limits on development and protect stream banks from encroachment.								x							x					
68	Low	Establish a regional community foundation to collect and manage resources from full-time and part-time residents, institutions, and investors.								x								x				

			WHERE TO IMPLEMENT ACTION								REVITALIZATION CATEGORY								READINES S			
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
69	Low	Maximize tourism opportunities through cross-marketing: make sure residents and business owners know what is available in other towns so they can direct travelers to other businesses and activities.								x						x		x				
70	Low	Encourage communities to develop and or implement source water protection plans.								x							x					
71	Low	Improve signage at public fishing access sites.								x						x						
72	Low	Conduct surveys of current and prospective visitors regarding types of additional businesses, activities, and amenities needed in the region.								x	x								x			
73	Low	Provide matching e-commerce business assistance grants for website design and development, including enhancement of existing sites to offer online shopping.								x	x											
74	Low	Create a website or webpage oriented solely to agri-tourism opportunities.	x			x	x	x	x						x	x						
75	Low	Inventory and map wetlands located along the East Branch, Esopus, and other tributaries.								x							x					

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINESSES					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
76	Low	Coordinate the work of Soil & Water Conservation Districts, the NYC DEP, counties, towns, Trout Unlimited, and other organizations to protect water quality.								x							x					
77	Low	Identify locations suitable for off-street parking and establish parking lots with landscaping/signage in hamlets and villages.			x							x		x								
78	Low	Encourage adoption of highway management plans to address stormwater and infrastructure impacts on streams.								x							x					
79	Low	Develop a trail ranking system (i.e., Beginner, Intermediate, Advanced) to help tourists identify the skill level of hikes.								x						x						
80	Low	Identify and address barriers to offering agri-tourism activities on farms.								x					x	x						
81	Low	Work with NYC DEP to manage water releases from the Shandaken Tunnel.					x		x							x	x					
82	Low	Develop strategies to protect spring seeps in the Main Stem of the Esopus for trout habitat.					x	x								x	x					
83	*	Restore Lake Switzerland in Fleischmanns.		x									x									

			WHERE TO IMPLEMENT ACTION							REVITALIZATION CATEGORY							READINES S					
	LEVEL OF PRIORITY	SUMMARY OF ACTION	ANDES	FLEISCHMANN'S	MARGARETVILLE	MIDDLETOWN	OLIVE	ROXBURY	SHANDAKEN	REGION-WIDE	BUSINESS DEVELOPMENT	MAIN STREET REVITALIZATION	SMALL TOWN CHARACTER	HIGH-QUALITY INFRASTRUCTURE	SUSTAINABLE AGRICULTURE	TOURISM - CULTURAL, RECREATIONAL	NATURAL ENVIRONMENT	STRONG REGIONAL PARTNERSHIPS	FURTHER STUDY NEEDED	MODEL IDENTIFIED	POTENTIAL CFA	RESOURCES IN PLACE
84	*	Establish a community center in Olive with town offices and other services.					x						x	x								
85	*	Support efforts to establish the Fleischmanns Theatre on Main Street as a year-round performing arts center and a community cultural anchor.		x								x				x						
86	*	Renovate the railroad depot in Roxbury						x				x				x						
87	*	Further develop the Phoenicia River Walk project.							x			x				x						
88	*	Revitalize the Andes Railroad Depot.	x										x			x						

* Action items not presented in our community meetings; includes additions and recommendations from previous plans and studies.

Fifteen actions from the process above have been identified as the highest priority to implement. Many of the other strategies that were lower priority will be more feasible and likely to occur once these priority actions are in place. The following details recommendations for implementation of those top actions.

8.2 Project Partners and Funding Sources

One of the important messages learned through this planning process is the need to collaborate and communicate. This is vital so that there is no duplication of effort, and so that communities can learn from each other's successes. While some actions will need to be implemented only in a specific location, many are useful throughout the region. The approach is 'think regionally, act locally'. In other words, this Plan can be used as the unifying direction that the communities work from in a coordinated fashion, but communities and stakeholders work locally to implement them.

Funding is, of course, a priority. As mentioned in Section 8.3, new mechanisms are in place to promote funding of specific, priority projects. In addition to the many agencies and organizations participating in economic development and community revitalization already throughout the region (see Appendix A), there are many other potential project partners and a variety of funding sources to support implementation.

Implementation efforts, even at the local community level, are rarely accomplished by one entity alone. In fact, one of the weaknesses identified during the planning process was that there was a lack of communication and coordination of projects and actions. The critical step in implementing the recommended actions starts with identifying project partners and funding sources. The following list identifies state and national agencies offering technical assistance and/or funding. Local and regional partners are identified in Appendix A.

Programs Offering Funding Sources and Technical Assistance

State Government Sources

- **Empire State Development (ESD):** <http://esd.ny.gov>.
- **New York Clean Water / Clean Air Act:** www.dec.ny.gov/chemical/8444.html
- **New York State Office of Parks, Recreation and Historic Preservation – Environmental Protection Fund:** <http://nysparks.com/grants>
- **New York State Smart Growth website** - a directory to State agencies and guidance on State agency funding programs and assistance grant and financial information, technical assistance, and data and regional inventories: www.SmartGrowthNY.com
- **New York State Office of Community Renewal – Community Development Block Grant (CDBG) Program:** www.nyshcr.org/Programs/NYS-CDBG
- **NYS Department of Agriculture and Markets** - Agricultural Nonpoint Source Abatement and Control Program (ANSCAP), Agricultural and Farmland Protection Implementation Project Program, and Farmland Viability Program: www.agriculture.ny.gov/RFPS.html
- **NYS Department of Environmental Conservation** - funds for protecting clean water, municipal wastewater treatment improvement, pollution prevention, agricultural and non-agricultural nonpoint source abatement and control and aquatic habitat restoration, open space that

protects water resources, public parklands and protect farmland, flood control: www.dec.ny.gov/pubs/grants.html

- **NYS Department of State Division of Local Government** - provides training assistance to municipalities related to zoning procedures in addition to other practical legal and technical advice: www.dos.ny.gov/lg
- **NYS Department of State Office of Communities and Waterfronts (formerly the Division of Coastal Resources)**: www.dos.ny
- **NYS Broadband Program Office - Connect NY Broadband Grant Program**: www.nysbroadband.ny.gov/ConnectNY2012
- **NYS Department of Transportation Environmental Initiative, Scenic Byways and Transportation Enhancements programs**: www.dot.ny.gov/display/programs/scenic-byways
- **NYS Department of Transportation Consolidated Local Street and Highway Improvement Program** – provides funds for certain capital projects: www.dot.ny.gov/programs/chips
- **NYS Division of Housing and Community Renewal (DHCR)** - Housing Trust Fund (HTF), HOME Program, New York State Housing Finance Agency (HFA), Homes for Working Families (HWF), Senior Housing Initiative (SHI), Housing Development Funds (HDF), Low Income Housing Credit Program (LIHC), and HouseNY: www.nyshcr.org/index.htm
- **NYS Emergency Management Office (SEMO)**: www.dhSES.ny.gov/oem
- **State and Federal Hazard Mitigation Planning Association of State Floodplain Managers (ASFPM)**: www.floods.org
- **NYS Energy Research and Development Authority - New York Energy \$mart Program**: www.nyserda.ny.gov/Energy-Efficiency-and-Renewable-Programs.aspx
- **NYS Environmental Facilities Corporation** - helps public and private entities comply with environmental requirements: State Revolving Funds (SRF), the Industrial Finance Program (IFP), Technical Advisory Services (TAS) and the 1996 Clean Water/Clean Air Bond Act Financial Assistance to Business (FAB); and NYS Clean Vessel Assistance Program: www.nysefc.org
- **NYS Office of General Services (OGS)** - Real Property Management and Development commercial docks, wharves, moorings and permanent structures: <http://ogs.ny.gov/BU/RE/LM/EGLP.asp>
- **Governor's Traffic Safety Committee** – administers the federally-funded Highway Safety Grant Application to address particular highway safety problems, including bicycle and pedestrian safety: www.safenyny.gov

State-Level Organizations and Non-profits

- **Center for Watershed Protection**: www.cwp.org
- **Cornell Cooperative Extension**: www.cce.cornell.edu
- **Cornell University Community and Rural Development Institute (CaRDI) Community and Economic Development Toolbox**: <http://cardi.cornell.edu/cals/devsoc/outreach/cardi>
- **New York State Conference of Mayors and Municipal Officials** – provides technical assistance to its members and holds a Main Street conference annually that addresses many issues related to the redevelopment of waterfronts and downtowns: www.nycom.org
- **New York State Council on the Arts (NYSCA)**: www.nysca.org
- **Preservation League of New York / New York State Council on the Arts Preserve New York program** – provides support for cultural resource surveys, historic structure reports, and historic landscape reports: www.preservenys.org/01_what_grants_presny.html

Federal Resources

- U.S. Department of Agriculture, Forest Service (FS): www.fs.fed.us
- **U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS):** www.nrcs.usda.gov/wps/portal/nrcs/site/national/home
- **U.S. Department of Agriculture, Rural Utility Service (RUS) Telecommunications Programs:** www.rurdev.usda.gov/RUSTelecomPrograms.html
- **U.S. Department of Agriculture, Farm Bill Broadband Program:** www.rurdev.usda.gov/utp_farmbill.html
- **U.S. Department of Agriculture, Community Connect Grant Program** – grants for broadband service providers and others who offer broadband services in rural and remote areas: www.rurdev.usda.gov/utp_commconnect.html
- **U.S. Department of Agriculture, Telecommunications Infrastructure Loan Program** - ongoing loan program for building broadband networks in rural communities: www.rurdev.usda.gov/utp_infrastructure.html
- **U.S. Department of Agriculture, Rural Repair and Rehabilitation Loans and Grants** - provides loans to very-low-income seniors to make repairs and improvements: www.rurdev.usda.gov/had-rr_loans_grants.html
- **U.S. Department of Energy, Weatherization Assistance Program** - enables low-income families to make their homes more energy efficient: www1.eere.energy.gov/wip/wap.html
- **U.S. Department of Energy Smart Communities Network:** www.smartcommunities.ncat.org/landuse/luintro.shtml
- **U.S. Army Corps of Engineers (USACE):** www.nan.usace.army.mil
- **U.S. Department of Housing and Urban Development (HUD):** http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/economicdevelopment
- **U.S. Environmental Protection Agency (EPA)** – provides grant funding for projects such as wetland protection and restoration, environmental education, water quality improvement, environmental justice, and brownfield redevelopment: www.epa.gov/brownfields/grant_info/index.htm
- **U.S. Fish and Wildlife Service** grant programs for Wetlands Conservation Act (NAWCA) and Endangered Species Grants: <http://grants.fws.gov>
- **U.S. Fish and Wildlife Service's North American Wetland Conservation Act (USFWS-NAWCA)** – federal program to acquire wetlands: www.fws.gov/grants/local.html
- **National Park Service Land and Water Conservation Fund Program:** www.nps.gov/ncrc/programs/lwcf/index.html
- **National Park Service Rivers, Trails and Conservation Assistance:** www.nps.gov/phso/rtcatoobox
- **National Park Service, Land and Water Conservation Fund** - provides matching grants to state and local governments for the acquisition and development of public outdoor recreation areas and facilities: www.nps.gov/lwcf
- **Federal Highway Administration, Recreational Trails Program** – recently reauthorized under MAP-21, provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses: www.fhwa.dot.gov/environment/recreational_trails/index.cfm

- **National Endowment for the Arts** – funds activities related to “creative placemaking”: www.nea.gov
- **Grants.gov** - comprehensive federal website for announcing competitive grant opportunities, with 1,000 grant programs from 26 agencies: www.grants.gov

Other Potential Funding Sources

- **Parks & Trails New York** - a statewide advocate for parks and trails, has worked with community organizations and municipalities to plan, create, promote, and protect parks, greenways, bike paths, and trails throughout New York State: www.ptny.org
- **SUNY ESF Center for Community Design Research**: www.esf.edu/ccdr
- **National Trails Fund** - the only privately supported national grants program providing funding to grassroots organizations working toward establishing, protecting and maintaining hiking trails: www.americanhiking.org/OurWork.aspx?id=71

8.3 Regional Economic Development Councils

In 2011, Governor Andrew Cuomo proposed a new operating model for state government to stimulate economic development throughout New York State. This new model is based on a regional approach, with the idea that identifying and addressing opportunities for economic growth and job creation in each region should be the responsibility of people who live and work in that region.

Subsequently, Governor Cuomo created ten Regional Economic Development Councils, or REDCs, to serve as “points of contact” for regional economic activity. The REDCs – whose members represent large and small employers, economic

development organizations, higher education, organized labor, and community organizations – are designed to work in collaboration with state agencies to drive regional and local economic development.



NY's Regional Economic Development Councils

In their first year, each of the ten REDCs developed strategic plans that included a comprehensive vision for economic development, and strategies and specific priority projects to help achieve that vision and stimulate economic investment and job creation. To provide an incentive for excellence, the REDCs were given the opportunity to compete for millions of dollars in capital funds and tax credits, resources that could be used to implement new projects and initiatives.

The creation of the REDCs also resulted in a major change in the way state agencies review and allocate funds for economic development and community revitalization. Until recently, many state programs had separate application forms, requirements, and deadlines. In 2011, the state developed a new, streamlined Consolidated Funding Application (CFA) that provides access to *multiple* funding sources, including the Community Development Block Grant Program (CDBG), the New York Main Street Program, the Local Waterfront Revitalization Program (LWRP), and the Environmental Protection Fund (EPF). An expedited internal review process allows projects to be approved and funded more quickly, taking into consideration the extent to which proposed projects align with each REDC's strategic priorities.

The consequence of this new approach to economic development in the state is that many funding programs are now driven by *regional* decision-making, making it imperative for stakeholders – whether they are private businesses, non-profit organizations, or municipal leaders – to work closely with their REDC in developing funding applications. Organizations seeking funds also need to be aware of the priorities identified in their REDC's strategic plan.

Unfortunately, there is no single REDC representing the Catskills. The Esopus/Delaware study area is split between two regions: *Southern Tier*, comprised of the counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins; and *Mid-Hudson*, which encompasses the counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester. The strategic plans for the Southern Tier and Mid-Hudson REDCs can be found at <http://regionalcouncils.ny.gov>.

Notably, the regional priorities of the Southern Tier REDC include revitalizing the “rural farm- and forest-based economy” and downtown and community center locations. The Southern Tier Council has created three economic development initiatives, including a \$2.5 million Community Revitalization Fund to facilitate downtown redevelopment and encourage investment and job creation. In a similar vein, the Mid-Hudson REDC’s strategic plan calls for leveraging the region’s outstanding natural resources, tourism industry, and agriculture and capitalizing on the Hudson Valley’s “unique location,” promoting waterfront development “to enhance tourism, recreation, and trade.”

8.4 Action Plan

The following action plan provides specific details that will assist in implementing the top priority projects and programs listed in Section 8.1. The table includes specific actions that are recommended, potential lead agencies and project partners, a concept level budget estimate, and information on time frames for project initiation.

1. Build capacity, communicate and collaborate.	
Actions	<p>1. Evaluate, organize and implement an institutional design to carry out the strategies recommended in this plan and to provide unifying support. Work with stakeholders including municipalities to create a structure, whether it is a council, task force, partnership, or expanded roles of an existing organization (or group of organizations) to take on this task. Stakeholders should collaborate and determine how to establish this framework. This organization should incorporate the need for ongoing paid staff support to facilitate these activities day to day, place to place, and year to year. Involve second homeowners in this organizational structure. Once the organization is determined, considering using memoranda of understanding between groups and municipalities to ensure this system is maintained long-term. Many of the following actions are those that should be undertaken by this entity:</p> <p>2. Consider creating a Catskills working group among the three REDCs that include portions of the Catskills.</p> <p>3. Provide for leadership development and skill training. Build on and continue the positive conversations started among the October 2012 economic revitalization conference participants.</p> <p>4. On an ongoing basis, advertise strengths and successes more. Build momentum from this process to continually promote efforts that show success. This should include success stories from local businesses, so that entrepreneurs can learn from one another.</p> <p>5. Be prepared for funding opportunities: Develop a list of and details about projects and programs that need to be funded. Have all the information ready to be included in a grant application as they become available, especially for the CFA rounds.</p> <p>6. Identify online communication tools that can be used to build communication between all municipalities, other agencies and organizations identified in this plan, and the general public. There is need to have one repository which keeps track of and shows what everyone else is doing, what grants have been obtained, and what projects funded. Consider this as an online clearinghouse for community revitalization.</p> <p>7. Assist towns and villages to develop online newsletters or other mechanisms of updating residents. This is especially important for second homeowners, as they have indicated they desire other mechanisms to become part of the community. Work with municipalities to help them find other ways to involve second homeowners such as through municipal Board meetings, volunteer opportunities or social activities.</p> <p>8. Emphasize relationships between the Central Catskill communities and its second homeowners. Promote these relationships to create a strong network so that these residents can leverage their business and entrepreneurial connections. (See text box in Section 7.1 for an example of a success story related to business recruitment.)</p> <p>9. Provide planning board training.</p> <p>10. Show how second homeowners have a positive effect on the economy. Get permanent residents to value second homeowners. Consider diversity training or professional facilitation to build positive attitudes. Add notes from conference. Have another conference to continue communication and solidify these ideas. Bring second homeowners and permanent owners together. Use Sharon Springs as example; increase the community development capacity of the Catskill Center, MARK Project, and Western Catskills Revitalization Council for facilitation, training, to serve as staff.</p>
Type of Action	Organizational Strategy

Lead Agency / Critical Partners	Everybody, all organizations, business groups, municipalities
Budget Estimate	\$100,000 for salary and expenses for events, programs and training
Time Frame	Immediate. This is the foundation that many of the following strategies will be built on.

2. Work with telecommunications and utility providers to extend cell phone and broadband service to areas that are currently un-served.	
Actions	<p>1. Contact MTC/Margaretville Telephone Company and other providers to determine current and long-term plans to add service in the region. Request information/maps of extent of current service.</p> <p>2. Using GIS and other tools, identify specific un-served/under-served areas and develop a map/list of locations that are a priority for providing these services. Also, identify and map the types and extent technology platforms (e.g. cable and DSL) already in the region upon which expansion of broadband service in those areas will rely.</p> <p>3. Conduct survey of potential subscribers (those currently un-served to whom service will be extended and those who may switch services after network improvements) to ascertain demand.</p> <p>4. Continue to seek state and federal funding to address gaps.</p> <p>5. As an interim strategy, consider establishing Wi-Fi hubs in selected village and hamlet locations. Research options, and provide a model that includes a step-by-step process to help municipalities or businesses establish a Wi-Fi hub.</p>
Type of Action	Capital improvement
Lead Agency / Critical Partners	MARK Project, individual municipalities, and service providers (e.g. MTC and Verizon Wireless); also consider developing a focus on key institutions, such as local school districts, to catalyze support and increase momentum
Budget Estimate	<p>Gap analysis and survey: \$25,000</p> <p>Wi-Fi hubs: Approximately \$300/per business + monthly internet service cost</p>
Time Frame	The gap analysis can begin immediately. Implementation can occur once the gaps are identified and as funding is procured.

3. Improve signage identifying important local landmarks, historic buildings, and significant natural features.	
Actions	<p>1. Inventory local landmarks, historic buildings, and natural features that need signs, their locations, and map them via GIS.</p> <p>2. Develop a model or common sign design, theme, sizes, cost estimates and a description of any permitting process that can be given to municipalities and organizations to place and construct.</p> <p>3. As part of the process, hold information sessions with DOT, DEC, businesses, and municipalities to identify needs and design ideas.</p> <p>4. Eventually integrate these actions into action #4.</p>
Type of Action	Capital improvement
Lead Agency / Critical Partners	Central Catskills Collaborative, DOT, DOS
Budget Estimate	<p>\$4,000-\$8,000 per community for the sign design (design is expensive because it often requires quite a bit of back and forth regarding style, sizes, materials, etc.)</p> <p>Information sessions: Hourly as needed at \$130.00/hour for landscape architect</p>
Time Frame	The inventory, mapping, and model sign design can begin immediately. Implementation can occur as funding allows. Communication with stakeholders should occur concurrently throughout the process.

4. Enhance the overall aesthetic appearance and historic character of villages and hamlets.	
Actions	<p>1. Engage a landscape architect to evaluate each of the villages and hamlets. Develop conceptual streetscape plans, and provide descriptions and cost estimates for recommended improvements. This should identify context sensitive designs that could be applied to all villages and hamlets, or if funding permits, on a community-specific basis.</p> <p>2. Seek funding for projects on a village/hamlet basis.</p> <p>3. Convert conceptual designs into design standards that will act long-term to preserve the character and appearance of Main Street areas. These standards could be made part of zoning or site plan review processes. Consider developing an illustrated design guide with examples of quality development/redevelopment for guidance only that could be given to project sponsors.</p>
Type of Action	Capital improvement, regulatory action
Lead Agency / Critical Partners	MARK Project, with individual municipalities, DOS
Budget Estimate	\$4,000-\$8,000 for each village or hamlet
Time Frame	This action will probably require the umbrella organization mentioned in action #1 to be well established. It will require the cooperation of all of the local government bodies involved.

5. Encourage adjustment of land use regulations where necessary to allow for mixed commercial and residential uses and home-based businesses in villages and hamlets.	
Actions	1. Develop a set of community specific regulatory standards that municipalities could use to update their existing land use regulations to accomplish this.
Type of Action	Regulatory Action
Lead Agency / Critical Partners	Individual municipalities, DOS
Budget Estimate	\$8,000 (approximate cost limited to mixed use and home-based business standards)
Time Frame	Model language can be developed immediately. Implementation of any of the model language will require buy-in by the local governing bodies.

6. Adopt policies at the county and local levels to ensure that facilities for pedestrians, bicyclists, and trails are integrated into future transportation projects.	
Actions	<p>1. Research existing complete street and healthy street initiatives, inventory bike and pedestrian facilities, identify gaps, and evaluate what policies are already in place for each community. This audit would include creating and completing a checklist for each community to evaluate or audit their pedestrian and bike friendliness.</p> <p>2. Based on the results of this audit, each community should adopt a new policy, improve an existing policy, or renew commitment to policies that work to improve pedestrian and bike opportunities.</p> <p>3. Develop a healthy streets plan for pedestrians with sections for each town, village or hamlet.</p>
Type of Action	Policy initiative with possible regulatory action
Lead Agency / Critical Partners	Individual municipalities, County MPO, County planning and health departments, DOT, DOS
Budget Estimate	<p>GIS mapping of streets, sidewalks, trails: \$1,500 to \$2,500 per community</p> <p>Traffic counts/traffic pattern/sidewalk and bike evaluation: \$2,500 per community</p> <p>Recommendations: \$2,500 per community</p> <p>Development of healthy streets plan document, with maps, photos, etc.: \$2,500 per community; probably less if combined with the conceptual streetscape plans described under action #4.</p>
Time Frame	A complete streets audit and inventory can begin immediately, followed by an evaluation of existing policies. Adoption of any of a healthy streets plan, new policies, or any other recommendations will occur based on the needs and buy-in of the individual municipalities.

7. Develop a "Buy Local" initiative to enhance support for local businesses and farms.	
Actions	<p>1. Review resources available on designing and executing an effective "Buy Local" campaign from the American Independent Business Alliance (www.amiba.net).</p> <p>2. Develop strategies to increase awareness of the benefits of purchasing locally (see www.newrules.org/retail/whylocal.pdf).</p> <p>3. Create marketing materials to implement the initiative.</p> <p>4. In the future, integrate the Buy Local campaign into the larger marketing plan for the area (see action #14).</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	Chambers of commerce and business groups / local businesses, DOS
Budget Estimate	Cost depends mainly on marketing materials used. Budgets should be developed as part of designing the campaign.
Time Frame	This action item may require the umbrella organization mentioned in action #1 to be established first. It will require the cooperation of all of the municipalities and other organizations.

8. Increase recreational access opportunities and facilitate access to all waterways including watershed lands.	
Actions	<p>1. Obtain public input in each community to identify local recreation needs.</p> <p>2. Review recommendations included in the completed East Branch Enhanced Recreational Process. With that information, create online maps showing watershed lands, lands that are or could be open to the public for recreation, overlay with roads and trails, and identify potential access points.</p> <p>3. Create one unified user-friendly database showing all recreation opportunities so that there is a 'one-stop' for recreation in the area. Compile information and data for this website.</p> <p>4. Review maps of existing DEP and State lands and identify specific properties where recreational opportunities should be provided or expanded. (Example: Flynn Brook in Andes – open for hunting only.)</p> <p>5. Meet with NYC DEP to advocate for changes to their access system. Work with DEP to advocate for easier public access permits so that the process to get an access permit is not a barrier to recreation itself. Consider establishing local options or outlets to obtain permits so that there are more opportunities to do this other than via online.</p> <p>6. Enhance maps and information sources showing where recreational lands are. The information portal should not be a barrier to access. There also needs to be an interactive master map of recreational locations. Work with DEP to update their website and foster better communication as to what recreational use is where and what can be done there.</p> <p>7. Work with SWCD and the Chamber to fully implement their access plan.</p>
Type of Action	Program initiative

Lead Agency / Critical Partners	Chambers of commerce, NYS DEP, DOS, NY/NJ Trail Conference, individual municipalities, CWC
Budget Estimate	<p>Development of an initial database, incorporating the work of the East Branch study done to date, expanding it to the rest of the region: \$2,500</p> <p>Developing a unified mapping application: \$7,000 initial costs, with additional costs for maintenance and ongoing/annual updates.</p>
Time Frame	<p>Some of the actions in this item may require the umbrella organization mentioned in action #1 to be established first. It will require the cooperation of the municipalities and other organizations.</p> <p>Some of the actions in this item should be coordinated with the online mapping system identified in strategy #10.</p>

9. Develop a coordinated wayfinding system with signs that direct travelers to downtown business districts and points of interest.	
Actions	<p>1. Develop a system through a wayfinding plan. The system should be based upon a common identity, brand, and/or logo and a detailed analysis of points of entry, parking areas, and destination/arrival points. It can also include an inventory of existing signage. The Plan can also consider a range of graphic devices or wayfinding tools, such as brochures, maps, placement of public art, kiosks, and information accessed via smart phone. For signage, the wayfinding plan should include a location plan, labeling scheme, design and dimensions, and sign materials.</p> <p>2. Identify locations where signs or kiosks need to go and what information points are in each community. Link this with an electronic web-based application. This should be primarily oriented to link downtowns and recreational locations and wayfinding between hubs. This system should include both signs and online directions. The sign design should be included in above actions related to sign design. Coordinate with the second phase of the DOT project (detailed in Existing Initiatives List, #44).</p>
Type of Action	Program initiative, capital improvement
Lead Agency / Critical Partners	DOT, municipalities, county planning agency, business groups and chamber of commerce, DOS
Budget Estimate	\$4,000 to \$8,000 for each village or hamlet
Time Frame	This action item may require the umbrella organization mentioned in action #1 to be established first. It will require the cooperation of the municipalities and other organizations.

10. Develop an interactive website and mobile “app” for travelers that utilize GIS software to create user-friendly maps showing various attractions in relation to villages and hamlets, and helps visitors learn about things to see and do as they make their way through the region.	
Actions	<p>1. Evaluate what needs a database and mapping system. Develop options for organizing this into online tools and applications. Collect all data to be included, including shopping, food, lodging, and activities and develop content for website).</p> <p>2. Develop and implement a website portal. This may involve enhancements to existing websites or the creation of an additional website with links. There are many options for this so there is need to evaluate what the best approach is.</p> <p>3. Evaluate mobile applications created for the Central Catskills Chamber of Commerce and determine capacity for expansion. This could be integrated into a wayfinding system, as could the access to DEP and State properties and access points. Note that in 2012 DOS funded a project in the Village of Tupper Lake to develop a website and mobile app for travelers. Information about that project will be shared with the Esopus-Delaware communities as it becomes available.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	Chambers of commerce, county tourism promotion agencies, DOS
Budget Estimate	\$25,000 to \$50,000
Time Frame	<p>Evaluating existing available websites and mobile apps and their capacity for expansion can begin immediately.</p> <p>A model website portal can be developed using data available now. This model could then be used to evaluate the options and needs for the various stakeholders that might use it.</p> <p>Evaluating the database needs for the expansion of, or development of a new mapping application can begin immediately. However, this will require an ongoing commitment to continuous updating of the database in order for it to be effective.</p> <p>Final implementation will require coordination with the wayfinding system identified in action #9.</p>

11. Provide technical assistance for local businesses, including workshops on social media marketing, to improve their chances for success.	
Actions	<p>1. Inventory existing training programs and workshops offered to business owners in the region. (Example: <i>Watershed Post</i> is now offering classes in Social Media for Businesses at the E-Centers in Delhi and Margaretville.) Work to more effectively market these programs to a broader audience. Further steps are based on this inventory.</p> <p>2. Survey local business owners to determine demand and need for specific forms of assistance, skills needed, etc. Potential topics might include small business marketing, website development, retail merchandising, and customer service in the hospitality industry.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	TBD. DOS, also could be undertaken by multiple organizations; may require contracting with outside experts to provide services.
Budget Estimate	\$5,000 for inventory and survey.
Time Frame	Identifying existing training programs can begin immediately, with ongoing support required as the programs are implemented.

12. Establish and promote funding mechanisms and financial incentives to support, retain, and attract specific types of businesses.	
Actions	<p>1. Inventory existing loan and grant programs and financial incentives available to existing and prospective entrepreneurs in the region.</p> <p>2. Develop a business resource directory (print and online) for business owners.</p> <p>3. Survey local business owners to determine other financing needs and uses, such as start-up or working capital, inventory and equipment, leasehold improvements, etc.</p> <p>4. Consider financial incentives to increase quantity and quality of certain business types.</p> <p>5. Identify funding sources and develop program guidelines as needed.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	TBD. Could be undertaken by multiple organizations and agencies: e.g. county economic development agencies, MARK Project, etc.
Budget Estimate	\$8,000 for business resource directory and survey.
Time Frame	Most of the actions in this strategy can begin immediately, with ongoing support required as financing needs are identified and financing programs are implemented.

13. Establish a Business Recruitment Initiative, with appropriate staffing, to market the region and actively recruit tourism entrepreneurs and investors	
Actions	<p>1. Develop a business recruitment and marketing strategy. Work with county economic development organizations to discuss recruitment initiatives oriented towards tourism and identify ways to implement them. This is likely to require additional funding for staff and/or specialized consulting expertise.</p> <p>2. Activities should include marketing and outreach, distributing materials on available properties and financing, coordinating with county and state agencies, etc.</p> <p>3. Communicate with and involve second homeowners. Their business contacts and social networks in the NYC metropolitan area could be helpful in identifying prospects.</p> <p>4. This initiative requires staffing in order to be successful. This should be a full time initiative.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	Staff, County planning and economic development agencies
Budget Estimate	\$150,000 to \$200,000
Time Frame	This action item may require the umbrella organization mentioned in action #1 to be established first. It will require extra funding, and hiring a staff person or a long-term relationship with a consultant to implement.

14. Develop and implement a marketing plan to promote the area's natural, historic, and recreational resources, encourage year-round visitation, and create a brand identity for the region.	
Actions	<p>1. This is a major need in the Esopus/Delaware area. Develop a comprehensive marketing and branding campaign oriented to building awareness and attracting visitors. This should include identification of target markets, methods of outreach, advertising, promotional materials, online and social media marketing, public relations, etc. If funding allows, this strategy is needed for the entire Catskills.</p> <p>As with Pennsylvania Wilds, each community/county would retain its own identity; the regional program would serve as an "umbrella" for regional marketing efforts.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	DOS, Existing county tourism promotion agencies, with other agencies and organizations
Budget Estimate	\$200,000
Time Frame	This action item may require the umbrella organization mentioned in action #1 to be established first. It will require extra funding, and hiring a staff person or a long-term relationship with a consultant to implement.

15. Create incentives for entrepreneurs interested in starting or expanding a farm.	
Actions	<p>1. Strengthen and implement both county's agriculture and farmland protection plans.</p> <p>2. Evaluate and identify locations suitable for farming. locations and opportunities, marketing to farmers, including an economic market analysis to show market potential, Columbia University Document – Four Farms in the Catskills...needs to market farming opportunities, Could take many forms including farmer-to-farmer mentoring, regionally-based extension services and grants/loans for planning and start-ups.</p> <p>2. Create a toolbox of resources, methods and ideas for agri-preneurs. Nan get name of conference.</p>
Type of Action	Program initiative
Lead Agency / Critical Partners	Watershed Agricultural Council, County planning agencies, organizations such as Catskills CRAFT
Budget Estimate	\$50,000
Time Frame	This action item may require the umbrella organization mentioned in action #1 to be established first. It will require the cooperation of the municipalities and other organizations.

SECTION 9 - Maps

Maps included in this document supplement the many maps created in other plans outlined in Section 4. These include:

- Base Map of Esopus/Delaware area
- Property Class (Land Uses)
- Second Homeownership Patterns
- Second Homeowner Locations and Participation in Survey
- Historic Resources
- Broadband Service Areas
- Recreation
- Access Points
- Public and Preserved Lands
- Tourism Sites
- Zoning