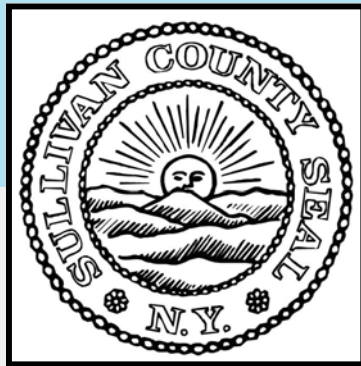


CONSERVING OPEN SPACE & MANAGING GROWTH

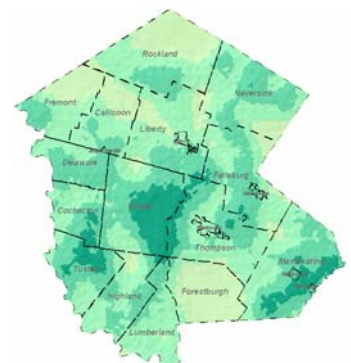
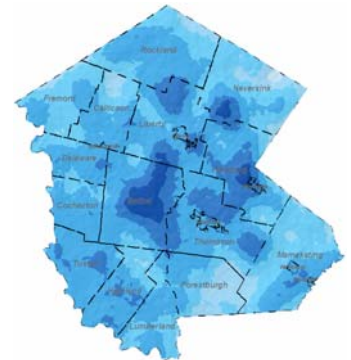
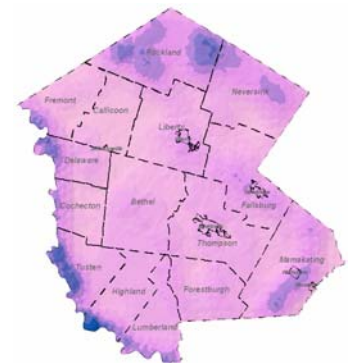
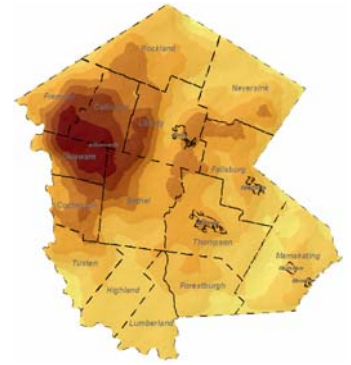
A Strategy for Sullivan County New York



Sullivan County
Division of Planning and
Environmental Management

December 2008

Adopted by the County Legislature 12/18/08



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was made possible through funding from the

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The plan was developed by the
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In cooperation with
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CONSERVING OPEN SPACE & MANAGING GROWTH

A Strategy for Sullivan County



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Plan Contents



Conserving open space will allow the County to protect its agricultural resources, expand its cultural and recreational opportunities and protect public health and safety, while planning and managing future growth.



Background

During the late summer of 2004, Sullivan County initiated a strategic plan — *Sullivan 2020* — to identify effective solutions for critical policy areas. *Sullivan 2020* identified the preservation of open space as a high priority since it is vital to the economy and quality of life of Sullivan County. The open space plan entitled **Conserving Open Space & Managing Growth: A Strategy for Sullivan County** is an outcome of that process. This plan also builds on two other related plans — the *Sullivan County Agricultural and Farmland Protection Plan* and the *New York State Open Space Conservation Plan* — which are discussed in the next chapter.

Objective

According to the New York State Department of Environmental Conservation, open space is land which is not intensively developed for residential, commercial, industrial or institutional use and can be publicly or privately owned. Open space conservation preserves and protects areas that:

- conserve and enhance natural or scenic resources;
- protect streams and water supply;
- promote conservation of soils, wetlands, watershed areas, and floodplains;
- have a public value or benefit such as parks, forests and unique areas; and
- enhance recreational opportunities.

Conserving open space will allow Sullivan County to protect its agricultural resources, expand its cultural and recreational opportunities and protect public health and safety, while planning and managing future growth. The development and implementation of this plan will be an on-going partnership among local government, residents, businesses, land trusts and other **non-governmental organizations (NGO)**.

Non-governmental organizations (NGO) are legally-constituted organizations with no participation or representation of any government. They include grass-roots, volunteer, civic and other non-profit organizations.

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Consumption

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Emerging Issues

Conserving Open Space & Managing Growth: A Strategy for Sullivan County identifies the County's existing natural resources so that open space conservation can be focused in areas where it will have the greatest impact. It will serve as a "road map" for Sullivan County to protect and restore these resources. The Plan will also be a resource for local municipalities to incorporate open space protection into land use decisions, local laws and planning documents. Finally, the plan will guide the development of new programs and partnerships to preserve open space while encouraging appropriate development throughout Sullivan County.

Organization

This document provides an overview of related plans, followed by a description of the process used to collect data and incorporate public input. Next, specific goals and strategies are organized into separate chapters that address the following resources:

- Agricultural Resources
- Biodiversity Resources
- Recreational & Cultural Resources
- Water Resources: Consumption
- Water Resources: Flooding

The next chapter discusses strategies to balance open space conservation with growth and development, followed by an action plan that prioritizes all of the strategies and identifies responsible parties, as well as potential funding sources for implementation. The final chapter addresses a number of emerging issues that may influence the future of open space conservation and growth in Sullivan County.



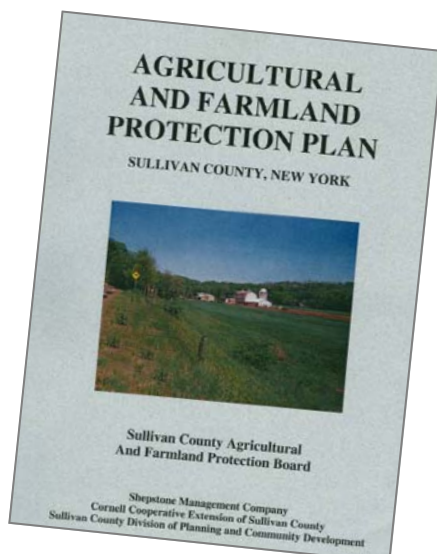
Conserving Open Space & Managing Growth: A Strategy for Sullivan County builds off of other related plans, including ***Sullivan 2020***, the ***Sullivan County Agricultural and Farmland Protection Plan***, and the ***New York State Open Space Conservation Plan***. Together, these plans serve as a means of preserving natural resources and promoting the revitalization of the economy within the region.



Sullivan 2020

Sullivan 2020 establishes a clear vision for the County for the next 10 to 15 years. Grounded in community feedback and practical research, the plan builds on existing strategies to improve the County's image. Furthermore, the plan promotes strategic thinking that yields creative and effective solutions. The development of this plan, *Conserving Open Space & Managing Growth: A Strategy for Sullivan County* is a recommended action directly from the *Sullivan 2020* plan.

Sullivan 2020 identifies policy areas common among municipalities within the County that need effective solutions and action plans to assist Towns and Villages addressing growth and change. *Sullivan 2020* encourages inter-municipal collaboration and regional coordination of zoning laws. It also includes strategies to promote Sullivan County's environmental consciousness. Examples include identifying the best sites available to pursue wind energy development, preserving viewsheds and natural resources, and protecting environmentally sensitive areas.



Sullivan County Agricultural and Farmland Protection Plan

The *Sullivan County Agricultural and Farmland Protection Plan* was developed to address the importance of farming as an industry by examining the economics, strengths, weaknesses and opportunities of agriculture. Within this framework, it offers an implementation schedule for the protection of agriculture in Sullivan County.

The *Sullivan County Agriculture and Farmland Protection Plan* is relevant to this plan because many of the goals and recommendations address parallel issues including right to farm laws, farmland preservation strategies, land use planning, agricultural zoning, transfer of development rights, public education, tax abatement programs, product marketing, and more.

Related Plans



Both the Shawangunks (above) and the Willowemoc river valley (below) are identified as priority areas in the NYS Open Space Plan.



NYS Open Space Conservation Plan

New York State has established an open space plan which identifies priority natural resources and open space at risk for irreversible impacts throughout the State. The State has created goals which identify high priority natural resources throughout our region in order to protect our landscapes from adverse human intervention, and to enhance these resources for continued cultural and recreational use.

The goals of the New York State Open Space Conservation Plan include protection of water quality, provision of high quality outdoor recreation, protection and enhancement of scenic, historic, and cultural resources, protection of habitat for the diversity of plant and animal species in order to ensure sustainable ecosystems, maintenance of critical natural resource-based industries such as farming, forest products, commercial fishing, and tourism, and provision of places for education and research on ecological, environmental, and appropriate cultural resources.

The 2006 New York State Open Space Conservation Plan has identified priority areas within Sullivan County, including:

- The **Mongaup Valley Wildlife Management Area** contains bald eagles and an abundance of hunting and fishing opportunities.
- The **Neversink Highlands** is a significant eco-region containing natural attractions and resources, hunting/fishing, and wildlife habitats.
- The **Shawangunk Mountains** (including the Bashakill Wildlife Management Area) is comprised of natural communities, rare plant and animal species, and is considered one of the highest priority areas for conservation in the northeast.
- The **Catskill Mountains Unfragmented Forest/Delaware River Area** is a major resource area, and contains significant major river corridors and riparian buffer land.
- The **Beaverkill/Willowemoc Corridor** provides an abundance of recreational opportunities and a unique natural riparian habitat.

Using an independent analysis and mapping process, discussed in the Plan Development chapter, these areas are also identified as priority areas in various chapters of this document.



SULLIVAN COUNTY Division of Planning & Environmental Management

Responsible for the creation of programs that foster orderly development and redevelopment of the County's physical infrastructure in a manner that conserves natural resources while providing economic opportunity for area residents.



THE CATSKILL CENTER for Conservation and Development

A non-profit organization founded in 1969 to help build healthy ecosystems and vibrant communities within the Catskill Mountain region.



The leading conservation organization working around the world to protect ecologically important lands and waters for nature and people.



A beautification and community development program with a mission to enhance the appearance of Sullivan County while fostering pride and community spirit.

The development of this plan was funded in part by a **Quality Communities** Grant secured by the **Sullivan County Division of Planning and Environmental Management (DPEM)**. Through this grant, the County collaborated with three core non-profit partners: **The Catskill Center for Conservation and Development**, **The Nature Conservancy (TNC)** Eastern NY Chapter, and **Sullivan Renaissance** — a program of the Gerry Foundation.

Stakeholder Participation

A variety of stakeholders participated in development of this plan to ensure a broad base of knowledge, input, support and buy-in. There were three levels of stakeholders during the planning process: the core non-profit partners for plan development; technical teams for data inventory, mapping and analysis; and finally a group of community members for goal, strategy and action development.

Recognizing that conservation strategies would differ depending on the type of resource to be preserved, the process started with DPEM staff and the core non-profit partners identifying five separate "resource areas" to be addressed in the plan:

- Agricultural Resources
- Biodiversity Resources
- Recreational & Cultural Resources
- Water Resources: Consumption
- Water Resources: Flooding

These areas were identified to help organize data and to ensure that the development of the plan was comprehensive, allowing focus to be placed on the individual resources. Growth and development was added as an additional resource area, recognizing that well-planned growth is essential for open space conservation.

Once the resource areas were identified, county staff began collecting a wide variety of data (in digital and other forms) necessary to conduct a mapping analysis of existing resources.

Quality Communities is a grant program administered by the NYS Department of State designed to encourage innovative community planning, and the development of tools and strategies that link environmental protection, economic prosperity and community well-being.

Plan Development

Data Analysis & Mapping

After the data was obtained and compiled by DPEM staff, “technical teams” for each of the resource areas were established to ensure completeness and applicability of the data. Members of the technical teams included representatives of state and federal agencies, local organizations, and individuals with specialized knowledge pertinent to the resource. Once the technical teams reviewed the data, county staff produced a series of resource maps analyzing the data. These maps were later used as a facilitative tool for the stakeholder summit meeting.

Figure 1

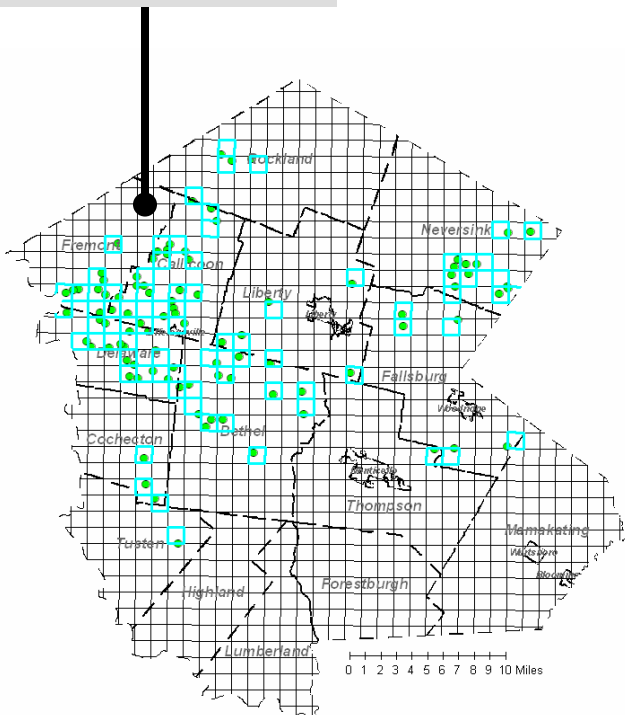
Grid superimposed on the County. Individual cells containing agricultural parcels of 100 or more acres (green dots) are highlighted in light blue. For this dataset, each of the selected cells would be assigned a value of 1, and unselected cells would have a value of 0. These values would be totaled up with the values from the other datasets, such as USDA Prime Soils.

Developing the Resource Maps

For each of the five resource categories, “priority areas” were identified using **Geographic Information Systems (GIS)** technology. Various datasets were used to show the location of existing resources pertaining to open space management. Many of the datasets were obtained from governmental and non-governmental agencies, or were derived from multiple other existing datasets. Others were created from descriptive data or by digitizing published and unpublished paper maps.

Step One: Grid Analysis

The analysis began by dividing the County into a uniform grid of cells of approximately one square mile each. The individual datasets were then superimposed on the grid. Each grid cell was assigned a value of one point for each dataset where it overlapped or intersected one or more resource features within that dataset (**see Figure 1**). Thus, the value of an individual cell could range from zero (meaning that none of the resource features were located within it) to potentially a number equal to the total number of datasets within the category, which would indicate that the area within that cell contained the highest number of types of resource features within that category.



Geographic Information Systems (GIS) is a means of combining electronic map data in different formats and from various sources into a single interactive computer map that can be queried and analyzed spatially.



At this stage of the analysis, the resulting maps show the relative diversity of resources within each of the approximately one-square-mile grid cells (see **Figure 2**). The result, in addition to being visually difficult to interpret, gives the misleading impression of discrete zones and well-defined boundaries between areas of differing priority values.

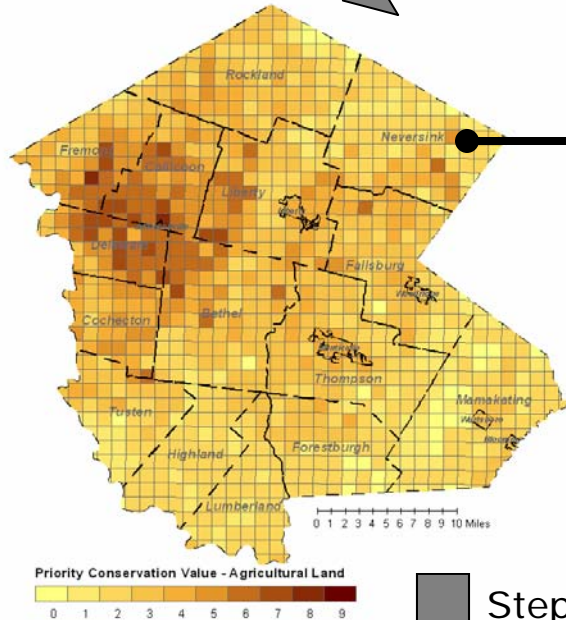


Figure 2

Results of initial analysis of agricultural resources. Darker-colored grid cells indicate that more of the eight categories of agricultural input data are present. The lightest color indicates that none of the input categories were present in the cell.

Step Two: Kriging

As the results are better viewed as averages with seamless and continuous transitions between the values, the technique of kriging was employed, in which the map is divided into much smaller cells, and the “weight” of the larger cells is averaged out between them. The result is a map showing regions that blend from one to another, yet are generally individually distinguishable and often correspond to the “common knowledge” of an audience familiar with the geography of Sullivan County (see **Figure 3**).

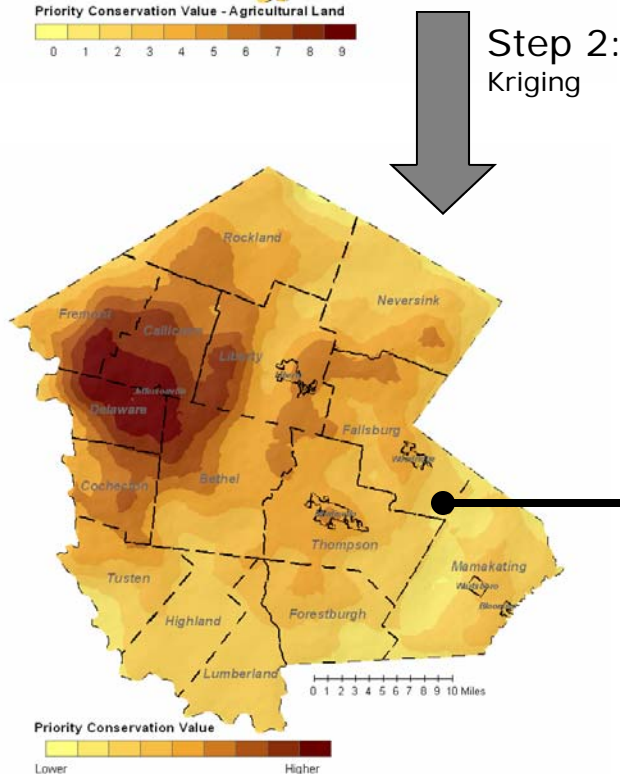


Figure 3

This is the final map of the agricultural priority areas, after the technique of kriging was employed. The map reflects the concentration of large farms in the northwestern part of the County. Similarly, the biological priority map (shown on the next page) clearly shows the environmental havens of the Bashakill wetlands and the Mongaup River, among others.

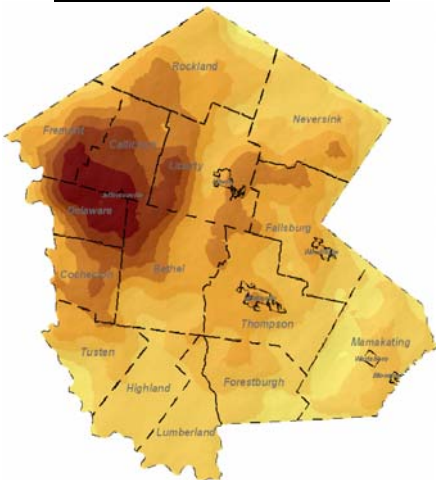
Plan Development

Interpreting the Resource Maps

Below are “thumbnail” versions of each of the resource maps that resulted from the GIS analysis. The darker shaded areas represent the places with the highest conservation value. Each map is shown in more detail in the proceeding chapters dedicated to each resource area. It is important to interpret each map according to the specifics of what it is trying to show.

This is best illustrated by the **Water Resources: Flooding** map, which emphasizes floodplains in the central part of the County that are still largely covered by natural land cover (forests and wetlands). This is not meant to contradict or detract from the observation that the most devastating floods in recent years have been in the northwestern part of the County. Instead, it is meant to address the separate issue of where the best opportunities lie for preserving still-existing open space resources that help protect the natural functions of floodplains and minimize flood damage.

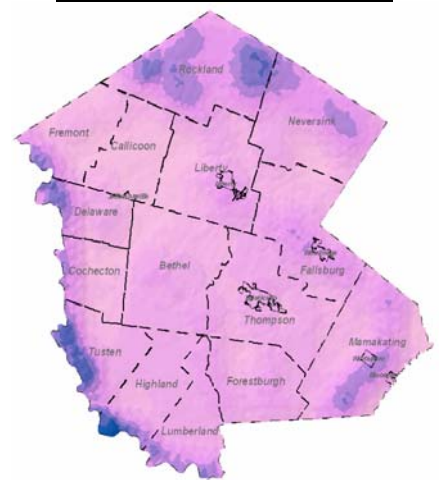
Agricultural Resources



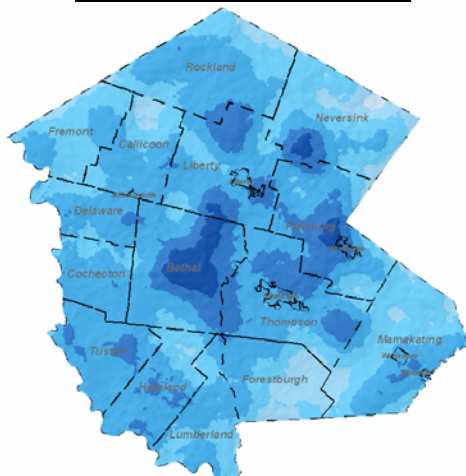
Biodiversity Resources



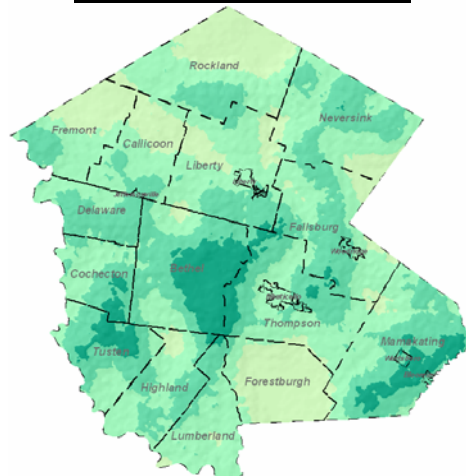
Recreation/Cultural Resources



Water Resources: Consumption



Water Resources: Flooding



Summit Meeting

After the resource maps were developed, a summit meeting was held at Cornell Cooperative Extension on August 29, 2007. More than thirty people representing local government agencies, community organizations and groups, and local municipal policy-makers attended the meeting, which was facilitated by The Nature Conservancy, with assistance provided by staff from DPEM and Sullivan Renaissance.



Step 1:
Identifying & Defining
Priority Resources

Step 2:
Identifying Obstacles
and Opportunities

Step 3:
Identifying Critical
Issues and Impacts

Step 4:
Developing Strategies
and Action Steps



The objectives of the summit meeting were as follows:

- Engage key decision makers and stakeholders in the development and implementation of strategies to conserve open space and manage future growth in Sullivan County;
- Review existing conditions and maps of the resource areas; and
- Collaboratively establish the most critical issues surrounding conservation of open space & growth management in Sullivan County, and develop a set of strategies and action steps to address those issues.

Meeting Format

The day-long meeting began with an explanation and overview of the resource maps. After a question and answer period, participants were divided into groups corresponding to each resource type.

Each group was given the task of first identifying *obstacles* and *opportunities*, which were written on sticky notes and placed on the corresponding map for everyone to see. The groups were then given worksheets and asked to write down critical *issues* and *impacts* for each of the resource types. The final step was to develop overall *strategies* that could achieve desired outcomes for open space preservation, along with specific *action steps* to implement these strategies.

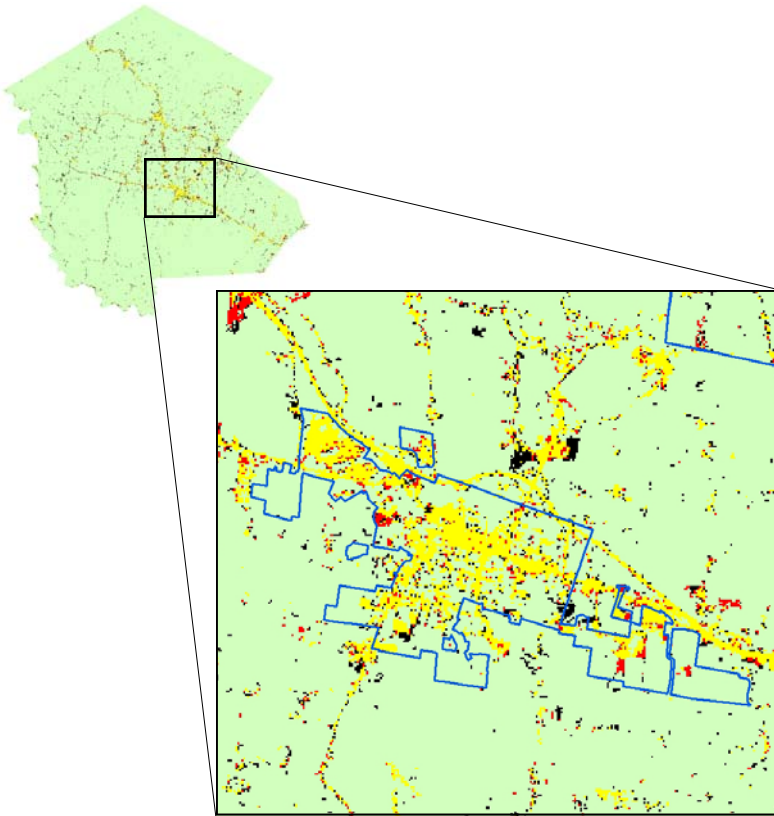
The results and outcomes of this meeting form the backbone of this plan. Without the input of the stakeholders and partners who participated in the summit, this plan could not have been written.

Plan Development

Growth & Development Analysis

As the process of defining Sullivan County's open space priorities and policies evolved, it became clear that the ability to make credible forecasts of future development was a critical element. A GIS mapping analysis designed to identify potential growth areas throughout the County was completed separately from that of the resource areas described earlier.

The maps depicting potential growth areas were derived from mapping and research projects already underway in the region — specifically the **SLEUTH Growth Model**. Analysis of these growth maps (contained in the final chapter dedicated to growth and development issues) was coupled with feedback from focus groups and survey data compiled during the *Sullivan 2020* planning process. DPEM staff then developed goals and strategies designed to guide development in a way that is complementary to the goals and strategies for the other resource areas.



The image above illustrates one of the data inputs used in the SLEUTH growth model — urban time series. Satellite imagery from NASA's Landsat program is used to create snapshots of urban versus non-urban land cover over the course of several years. In this image, the yellow areas show **impervious surfaces** in 1984, red areas show additional impervious surfaces by 1995, and areas in black show additional impervious surfaces by 2005.

SLEUTH Growth Model

SLEUTH is a computer-based model developed by Dr. Keith Clarke of the University of California Santa Barbara under the sponsorship of the U.S. Geological Survey and the National Science Foundation. The name SLEUTH is derived from the categories of data input: slope, urbanization, land cover, exclusion, transportation, and hillshade.

Sullivan County's introduction to SLEUTH has been under the auspices of Dr. Claire A. Jantz of Shippensburg University. Dr. Jantz has been working with Sullivan, Delaware, Wayne and Pike counties to develop forecasts of urban growth in the Upper Delaware River watershed.

The model utilizes the following data inputs: transportation, slope, urban time series, and development likelihood (exclusion/attraction layer). The time series for the County is from the years 1984, 1995 and 2005. The exclusion/attraction input layer is defined by the end user of the model. It depicts the user's estimate of the possibility that certain areas will or will not be open to urban growth.

Impervious surfaces are hard surfaces (rooftops, sidewalks, driveways, streets, parking lots, etc.) that do not allow rain water to infiltrate into the ground, and are generally a good indication of where development is taking place.

Introduction



Barns continue to be an important part of the rural character of Sullivan County.



Dairy farming is one of the many agricultural activities in Sullivan County.



Farmers markets provide a venue for local producers to sell directly to consumers.

Agriculture involves the growing, cultivating and marketing of natural resources for economic purposes. This includes dairy, livestock, produce and maple syrup, as well as lumber and value added items such as cheese. Agricultural lands are valued for their economic benefits as well as their aesthetic contribution to Sullivan County's rural landscape.

The best soils in Sullivan County are predominantly located in an area that encompasses parts of four towns: Bethel, Callicoon, Cochection, and Delaware. This has yielded a concentration of farming operations in that area which has been designated as **Agricultural District One** by New York State Agriculture and Markets. While soil quality has partly hindered success in obtaining a **New York State Farmland Protection Implementation Grants (FPIG)**, the concentration of farm operations is an asset. It is up to Sullivan County to recognize the assets and advantages of agricultural resources and to make local farms the economically strong and culturally important entities they once were.

Agricultural Goals

Protect and maintain existing farms.

Promote and market current and future farms.

Maintain history and preserve rural quality of Sullivan County.

Continue development of emerging agri-businesses and ag-diversification.

New York State Farmland Protection Implementation Grants (FPIG) offer state assistance for the purchase of agricultural conservation easements. Since Sullivan County has an approved Agriculture & Farmland Protection Plan, we are eligible to apply for this funding.

Agricultural Resources

Priority Areas

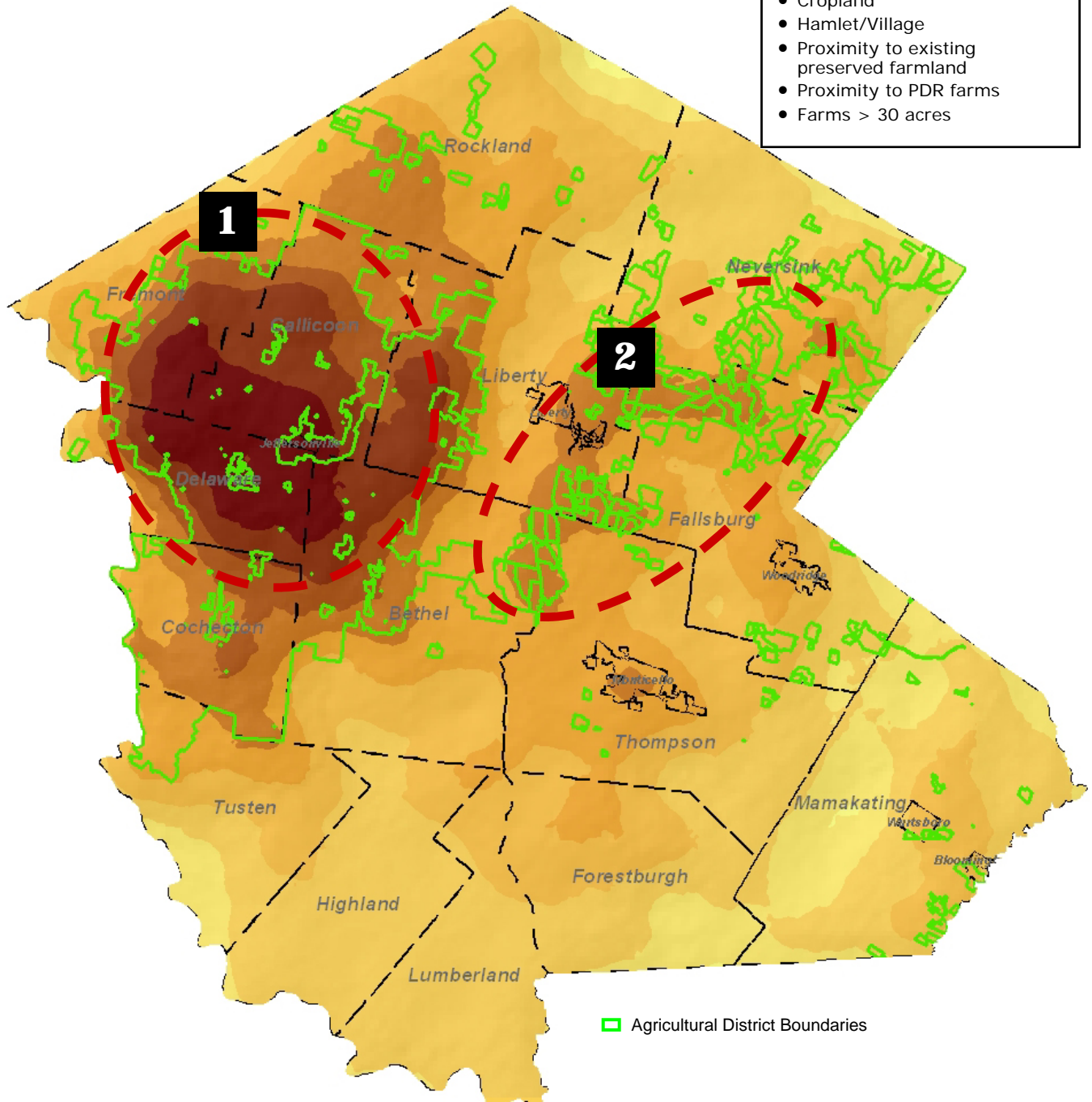
As explained in the Plan Development chapter, the following priority areas specific to agricultural resources were identified using Geographic Information Systems (GIS) technology. The darker shaded areas represent those of highest priority.

Priority Conservation Value



Mapping Criteria:

- Prime soils
- State & good defined soils
- Cropland
- Hamlet/Village
- Proximity to existing preserved farmland
- Proximity to PDR farms
- Farms > 30 acres



Description of Priority Areas

Sullivan County is home to many farms that deserve appropriate consideration for their contributions to the economy and rural appeal. The two priority areas shown on the preceding map identify the highest concentration of existing farms. They correspond with the two Agricultural Districts in Sullivan County designated by the New York State Department of Agriculture and Markets.

The purpose of creating agricultural districts is to encourage the continued use of farmland for agricultural production. Working farms located within these districts may be eligible for various incentives and protections, designed to forestall the conversion of farmland to non-agricultural uses. These benefits include preferential real property tax treatment such as agricultural assessment and special benefit assessment. In addition, there are also protections against overly restrictive local laws, government funded acquisition or construction projects, eminent domain proceedings and private nuisance suits involving agricultural practices.

1

Agricultural District One* encompasses the “Beechwoods” — an area of the most dense farming operations in Sullivan County. It has the best soils, and the highest concentration of active farms, including the Sullivan County’s first and only farm to enter into the New York State Purchase of Development Rights program for agriculture. This area may represent the County’s best chance for preserving farms. While the highest priority is concentrated in Delaware, Callicoon, and Fremont, the areas of importance reach into portions of the towns of Rockland, Cochection, Bethel and Liberty.

2

This portion of **Agricultural District Four*** encompasses portions of the towns of Bethel, Liberty, Fallsburg, and Neversink that have also historically been important farming areas. While there are fewer active farms still in existence in this district, the area nonetheless is home to numerous working farms. Inactive farms are often targets for development in towns facing increased growth pressure.

*While Sullivan County has only two designated agricultural districts, they are numbered one and four because the districts were consolidated and the boundaries redrawn.

Agricultural Resources

Summit Meeting Outcomes

Feedback from a wide variety of stakeholders during a county-wide summit meeting held in August 2007 resulted in identification of the following obstacles and opportunities facing the conservation of agricultural resources in Sullivan County. Stakeholders also identified specific political, cultural and economic issues and their associated impacts on conservation. The summit meeting is discussed in more detail in the Plan Development chapter.

Obstacles

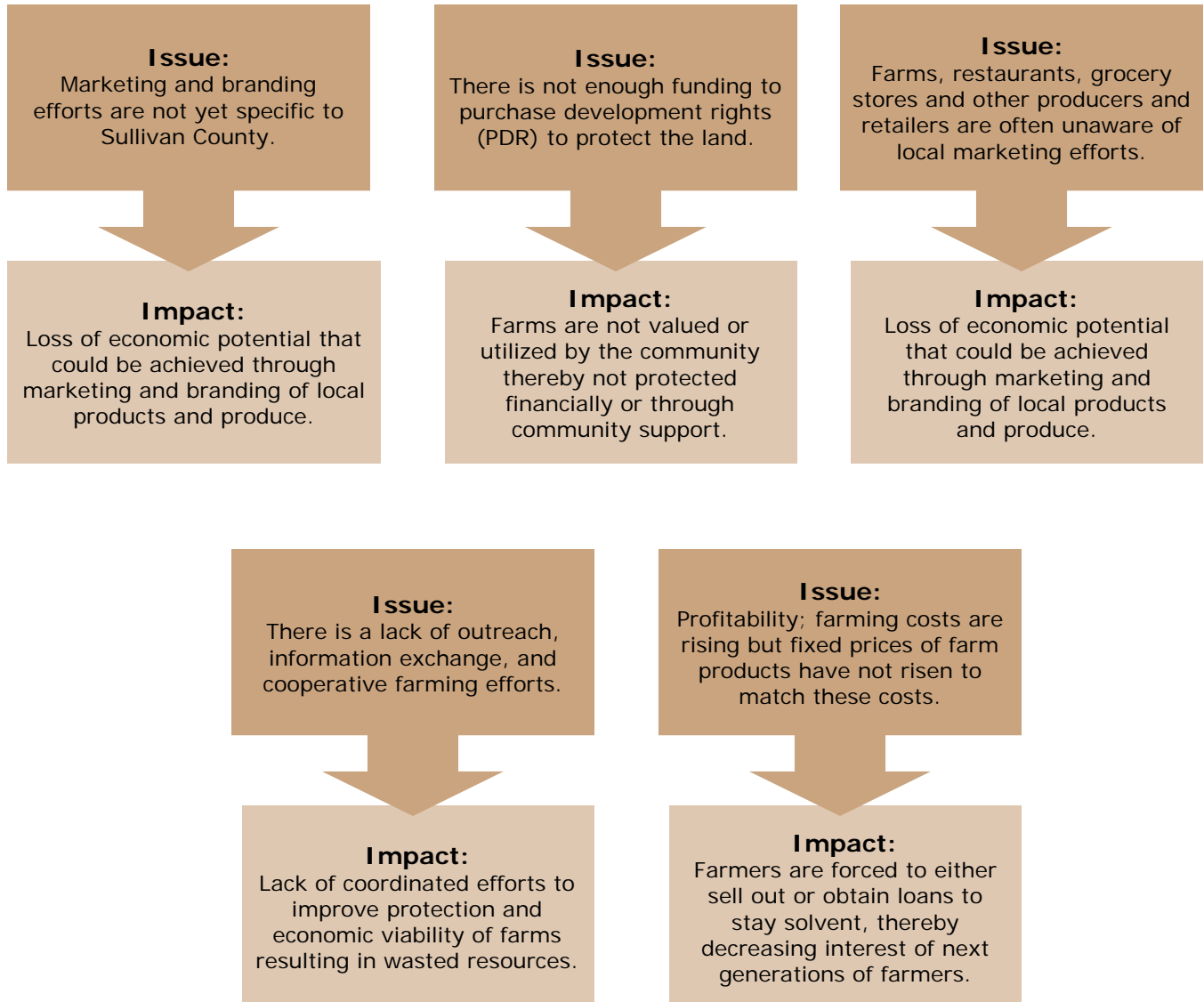
- Lack of farm worker housing
- Development pressure for market rate and luxury homes
- Desirability of area for second homes keeps prices high and influences development of new homes and businesses
- Land is sometimes more valuable to sell than to farm
- Value of land is too great to encourage farm succession
- Financial viability of farming (farmers forced to sell the farm or portions of farms to avoid financial devastation)
- Lack of funding to encourage protection
- Limited state/federal/local dollars to satisfy the need of willing landowners in selling development rights
- Lack of prime soils
- Loss of next generation farmers

Opportunities

- Potential to develop a Catskill Regional vision
- Density of farms located in core areas to attract State/Federal funding
- Creative and new interest in **niche farming**
- New legislation on State and Federal levels to assist small farms
- Proximity to major market (NYC)
- Importance of farming is evident by inclusion of agricultural needs in local comprehensive plans
- Incentive for farmers to retain their property
- Interested and committed landowners wanting to protect their family lands
- Diversity among farm operations
- New farms emerging each year
- Direct marketing opportunities
- Existing and potential processing facilities
- Potential to link biological corridors with agriculture through establishment of natural resource buffers
- Potential to be proactive regarding future development designed to protect existing farmlands

Niche farming involves the production of exotic or specialty produce on request for a single customer or a group of buyers (i.e. farmers markets, restaurants, and farm stands). Niche farming may also have an element of entertainment such as eco-tourism, u-pick, and/or corn mazes.

Summit Meeting Outcomes (cont.)



Agricultural Resources

Strategies and Actions

The following strategies and actions were derived from the analysis of obstacles, opportunities, issues and impacts discussed earlier. They are a direct result of feedback from stakeholders at the summit meeting, and later refined by county planning staff.

Strategy #1:

Create a branding and marketing campaign to promote Sullivan County agricultural products and agri-tourism.

Actions:

1. Partner with the Watershed Agricultural Council and promote membership in “**Pure Catskills**”.
2. Explore the possibilities of branding dairy products through local and regional processing facilities.
3. Work with farmers and timber harvesters to market their products with a Catskill/Sullivan identity.
4. Partner with the Sullivan County Visitors Association for branding and marketing.
5. Emphasize **global food security** and the benefit of eating local as an additional message.
6. Research partnership opportunities with existing initiatives (i.e. Slow Food, Farm to Table, Pride of New York, LEED, etc.).

Agricultural Goals Addressed

Promote and market current and future farms.

Continue development of emerging agri-businesses and ag-diversification.

Pure Catskills is a branding and “buy local” campaign sponsored by the Watershed Agricultural Council.

Global food security refers to the availability of food and one’s access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation.

Strategy #2:

Improve access to funding and encourage programs that protect farmland.

Actions:

1. Research local and regional opportunities to fund purchase of development rights programs.
2. Lobby to change the review criteria for FPIG program to make local farms more competitive.
3. Create a municipal pilot program to demonstrate innovative land use tools including transfer of development rights.
4. Focus initial preservation efforts in Priority Areas (see map) that have the highest concentration of existing working farms.
5. Recognize and support the potential for **hobby farms** and reverting former farmland to niche farms.

Agricultural Goals Addressed

Maintain history and preserve rural quality of Sullivan County.

Protect and maintain existing farms.

Strategy #3:

Identify new markets for local agricultural products.

Actions:

1. Develop a campaign to encourage large consumers (i.e. schools, prisons, hospitals) to buy local foods and products.
2. Organize events to inform local and regional residents and businesses of opportunities to buy directly from local producers.
3. Work with farmers to identify opportunities to expand their markets, including development of new products and participation in area farmers markets.
4. Improve accessibility of products to the market through programs such as **Community Supported Agriculture (CSA)**.

Agricultural Goals Addressed

Promote and market current and future farms.

Continue development of emerging agri-businesses and ag-diversification.

Hobby farms are small farms that are maintained without expectation of being a primary source of income.

Community Supported Agriculture (CSA) is a program that allows a consumer to buy a share in a local farm and build a one-on-one relationship with the farmer or producer. Every week during the growing season, farm fresh vegetables and dairy are packaged and delivered to a convenient drop-off location.

Agricultural Resources

Strategy #4:

Educate the public about the personal and societal benefits of supporting local agriculture.

Actions:

1. Use direct mail (tax forms, water bills, mailing lists) to disseminate information and/or surveys.
2. Produce a film about local agriculture for inclusion in festivals and competitions such as the local DIGIT film festival.
3. Publicize local success stories to promote awareness and duplication of effective business models and preservation efforts.
4. Research successful public educational initiatives by regional and national organizations for possible replication in Sullivan County.

Agricultural Goals Addressed

Protect and maintain existing farms.

Promote and market current and future farms.

Maintain history and preserve rural quality of Sullivan County.

Continue development of emerging agri-business and ag-diversification.

Strategy #5:

Improve farm profitability and product diversification.

Actions:

1. Improve profitability of local agricultural products by localizing meat and dairy processing.
2. Research cooperatives to improve farms' buying power and competitive pricing of their farm products.
3. Evaluate local laws to ensure they don't ultimately constrain farming operations, thereby adding production costs not recouped by sales.
4. Research and disseminate funding opportunities that address the profitability of farming.
5. Reduce costs of family farms and farm transfers by working with the financing industry and taxing bodies to make funds available.
6. Work with farmers to identify opportunities to diversify their farming operations (i.e. agri-tourism, products for niche markets and value added goods).

Agricultural Goals Addressed

Protect and maintain existing farms.

Maintain history and preserve rural quality of Sullivan County.

Continue development of emerging agri-business and ag-diversification.

Additional Resources and Potential Partners

AGRICULTURE

LOCAL AGENCIES

Cornell Cooperative Extension of Sullivan County (CCE) is the educational/outreach arm of Cornell University in the County, and is home to the Sullivan County Farmland Protection Board, Agricultural Local Development Corporation, Sullivan County Area Farmers Market, and the CCE Farm Market Manager.

www.cce.cornell.edu/sullivan/

STATE AGENCIES AND PROGRAMS

NYS Department of Agriculture & Markets fosters a competitive food and agriculture industry to benefit producers and consumers alike.

www.agmkt.state.ny.us

New York State Energy Research & Development Authority (NYSERDA) offers financial and technical assistance to address New York's energy and environmental needs. Agricultural incentives are available through a number of programs for various projects and initiatives.

www.nyserda.org/incentives.asp#Agricultural

New York Farmnet offers free and confidential on-farm consultants to help farm families answer business and personal questions about any topic of concern, including: finances, farm changes, farm transfer, natural disaster, personal stress, family communication, and marital conflict.

<http://www.nyfarmnet.org/>

New York FarmLink is a sister program with NYFarmNet that provides educational resources, consulting, and opportunities that enable more farms to be transferred and joint ventures to be developed for the economic enhancement of New York State agriculture

www.nyfarmlink.org

FEDERAL AGENCIES AND PROGRAMS

USDA Cooperative State Research, Education and Extension Service (CREES) is an agency within the U.S. Department of Agriculture (USDA) created to advance knowledge for agriculture, the environment, human health and well-being, and communities by supporting research, education, and extension programs in the Land-Grant University System and other partner organizations

www.csrees.usda.gov

Agricultural Resources

Additional Resources and Potential Partners

NON-PROFIT ORGANIZATIONS

American Farmland Trust works to protect farmland throughout the United States through conservation, community planning and growth management. They also offer consulting services.
www.farmland.org

Delaware Highlands Conservancy is a land trust created to conserve the forests, farms and waters of the Upper Delaware River region by acquiring conservation easements, or land, from willing landowners.
www.delawarehighlands.org

Open Space Institute protects scenic, natural and historic landscapes to ensure public enjoyment, conserve habitats and sustain community character through land acquisition, conservation easements, special loan programs, and creative partnerships.
www.osiny.org

Trust for Public Land is a national land conservation organization that conserves land for people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places.
www.tpl.org

Watershed Agricultural Council supports the economic viability of agriculture and forestry through the protection of water quality and the promotion of land conservation in the New York City watershed region.
www.nycwatershed.org

ADDITIONAL RESOURCES

Farmland Information Center provides an online collection of laws, literature and technical services and resources on farmland protection and stewardship.
www.farmlandinfo.org

Northeast Sustainable Agriculture Research and Education (SARE) offers grants to organizations such as community nonprofits, Cooperative Extension, local governments, educational institutions, planning boards, farming cooperatives, and incorporated citizens' groups.
www.uvm.edu/~nesare/grants_scomm.htm

USDA Natural Resources Conservation Service, Farm Bill Conservation Provisions
The Farm Security and Rural Investment Act of 2002 is legislation for conservation funding and for focusing on environmental issues.
www.nrcs.usda.gov/programs/farmbill/2002/index.html

Additional Resources and Potential Partners

FORESTRY

Catskill Forest Association (CFA) is a non-profit organization dedicated to enhancing all aspects of the forest in New York's Catskill region.

www.catskillforest.org

Cornell Cooperative Extension Forestry Extension Program provides leadership statewide for educational, research-based programs that address the stewardship and sustainable production needs associated with the management of private, non-industrial forestland.

www.dnr.cornell.edu/ext/forestry/index.htm

The New York State Department of Environmental Conservation (NYSDEC) encourages the long-term ownership of woodlands to produce forest crops, which increases the likelihood of a more stable forest economy. To this end, the State of New York has enacted a number of laws granting some form of tax relief to qualifying owners.

www.dec.ny.gov/lands/5236.html

New York Forest Owners Association (NYFOA) consists of members who volunteer their time and resources to promote stewardship of private forests, with the not-for-profit group consisting mainly of landowners.

www.nyfoa.org

New York Master Forest Owner/COVERTS Program provides forest owners of NY State with the information and encouragement necessary to manage their forest holdings.

www.dnr.cornell.edu/ext/mfo/

USDA Forest Stewardship Program provides interested landowners with advice regarding the trees, plants, flowers, wildlife, soil, water and the aesthetic value of their property.

na.fs.fed.us/stewardship/index.shtm

Introduction



Sullivan County is important for both wintering and breeding bald eagles. The area around the Delaware river is home to many eagle nests. Open water areas particularly in the main stem of the Delaware River, are critically important habitats for wintering bald eagles.

Biodiversity, in general terms, refers to the variety of plants and animals that inhabit a certain ecosystem. Sullivan County contains a variety of habitats and ecosystems, and a richly diverse collection of species.

In addition to a wide variety of common plant and animal species that can be found here, there are also a number of important species native to Sullivan County that have been identified as endangered, threatened, or of special concern by either the State or Federal government.

For example, some federally listed species in the County include the dwarf wedgemussel and the bog turtle. The bald eagle was formerly listed as both endangered and threatened, but its strong recovery has resulted in removal from the federal list. Some notable New York listed species include the lady's slipper, upland sandpiper, sharpshined hawk, ironcolor shiner, the longtail salamander, and the peregrine falcon.

Preserving biodiversity, however, is more than just thinking about rare species. It is about maintaining healthy and robust populations of common species by keeping ecosystems intact and maintaining connections between them. When ecosystems are healthy, they provide a host of benefits to the communities that protect them.



Lady's-slippers are a group of relatively primitive orchids that get their name from the inflated pouch on the flower, called a lip, which reminds some of the toe of a lady's slipper. Eleven species of slippers grow in North America, including five species found in New York State.

Biodiversity Goals

Identify and protect important natural habitats and ecological areas.

Improve public awareness of the presence and value of natural habitats and ecological areas.

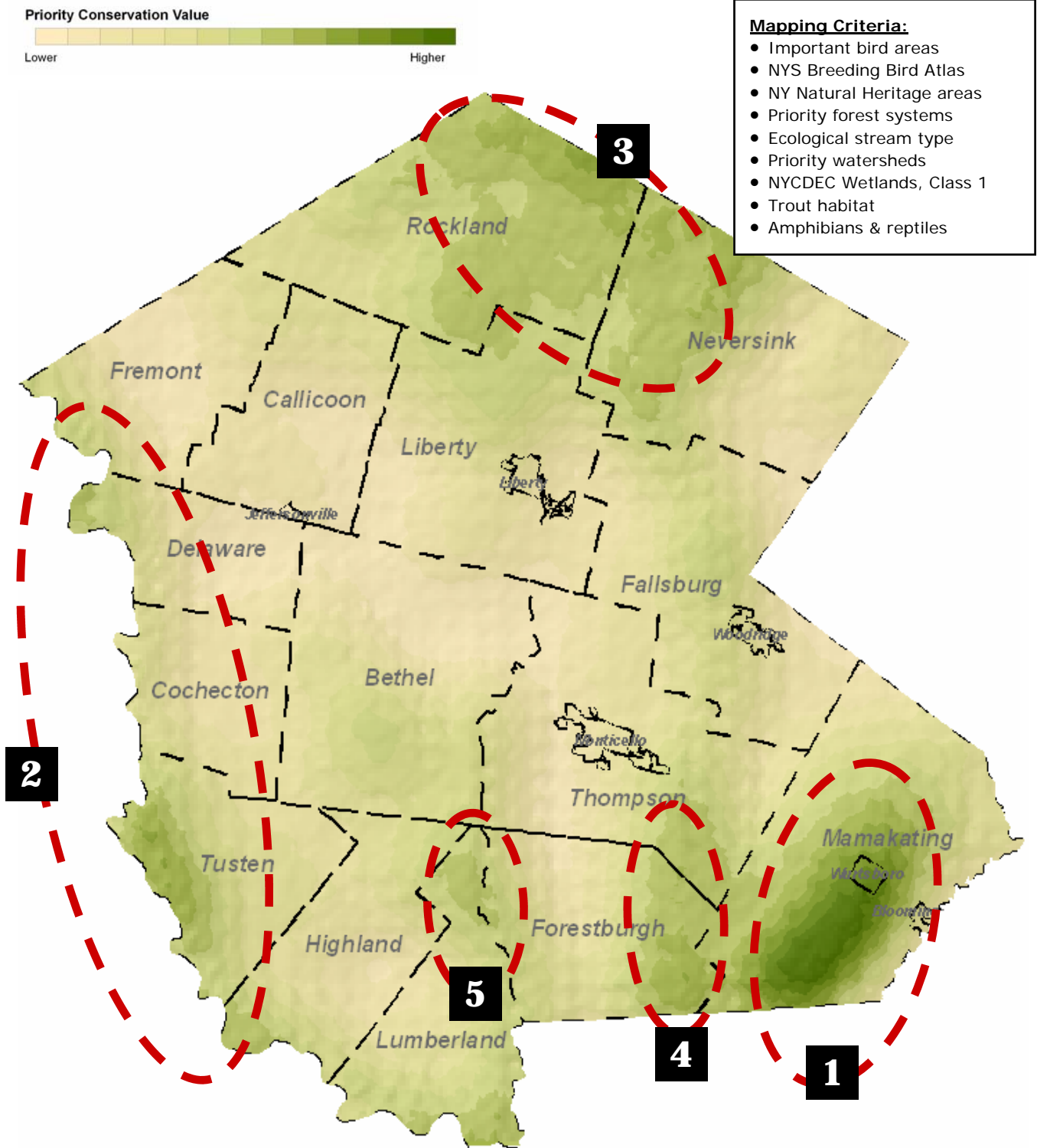
Limit encroachment, degradation and elimination of important ecosystems.

Link the protection of biodiversity to the development and marketing of eco-tourism.

Biodiversity Resources

Priority Areas

As explained in the Plan Development chapter, the following priority areas specific to biodiversity resources were identified using Geographic Information Systems (GIS) technology. The darker shaded areas represent those of highest priority.



Description of Priority Areas

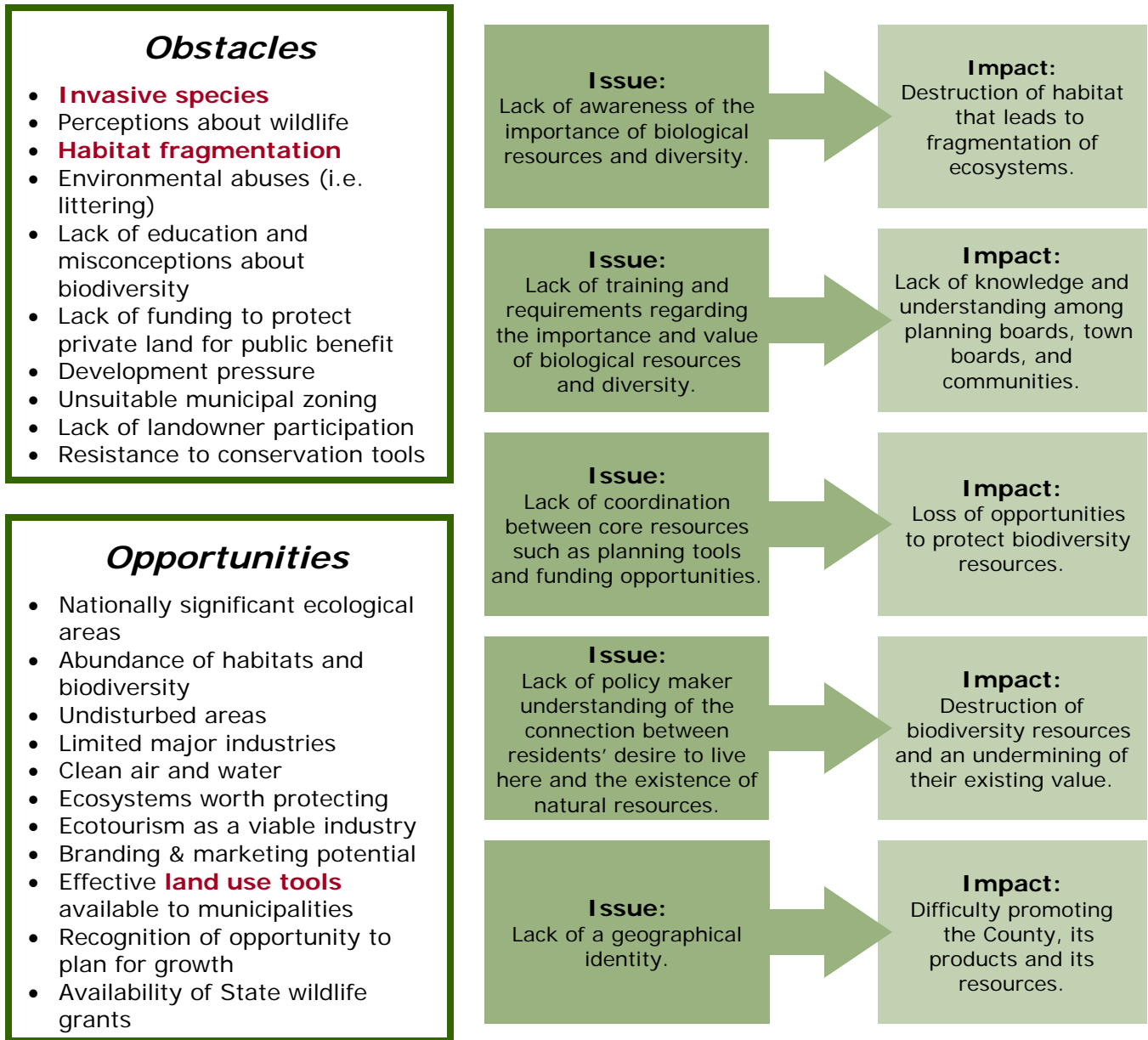
Sullivan County is fortunate to be made up of areas of natural beauty, as well as geological and ecological significance. From the marshes of the Bashakill and the mountainous Catskill Park to the Delaware and Neversink Rivers, Sullivan County features remarkable diversity of natural resources that makes us unique. This natural wealth of biological resources, scenic vistas and public open spaces provide a tremendous opportunity for further conservation through protection, education and collaboration.

- 1** The **Bashakill Wildlife Management Area** and **Shawangunk Ridge** is a regionally and nationally recognized biological corridor that needs protecting. The Bashakill, the largest freshwater wetland in the County, lies at the base of the Shawangunk Ridge, a largely intact green ridge corridor. Over 220 species of birds have been recorded, over 30 species of fish, over 40 species of butterflies in addition to numerous upland species. The Bashakill is also home to the only known locations in New York State of the ironcolor shiner and is a high quality habitat for the long-tail salamander.
- 2** The **Delaware River Corridor** begins in Hancock where the East and West branches of the Delaware River meet and continues approximately 70 miles where it joins with the Mongaup River. The Delaware River is significant because it is the longest free-flowing river in the northeast. It provides unfragmented aquatic habitat for the movement of the american eel, spawning habitat for the american shad, and feeding areas for striped bass. About 70% of the state's river otter population is now also thought to reside in this river basin. In addition, approximately 200 species of birds have been identified within the corridor including the bald eagle, which winters and nests here.
- 3** The **Catskill Park** is a region of close to 700,000 acres in Ulster, Greene, Delaware and Sullivan Counties. The park is made of private and public lands; 287,514 acres are owned by the state as part of the forest preserve and managed by the NYS DEC; another 5% is owned by the City of New York. It hosts over 98 peaks, numerous national register of historic places and a number of species of wildlife.
- 4** The **Neversink River Valley** was designated by the Nature Conservancy as one of the 75 "Last Great Places" throughout the United States due to its high quality and unique ecological significance. The state-designated and managed *Neversink Unique Area* consists of 5,466 acres and 4.9 miles of the Neversink River. This area meets the characteristics of "unique" as it possesses special natural beauty, wilderness character, geological significance, and ecological significance as an area that is essential for conservation of threatened or endangered species.
- 5** The **Mongaup River Valley** includes both the state-designated *Mongaup Valley Bird Conservation Area* and the *Mongaup Valley Wildlife Management Area*. It consists of a series of reservoirs, the Mongaup River, and creeks flowing through the Mongaup River Valley to the Delaware River. The river corridor is surrounded by relatively undisturbed and forested rolling hills. The area hosts one of the largest Bald Eagle wintering sites in the state, and also supports several active eagle nests. Rare communities include: a perched bog, a flood-plain forest, and a pitch pine-oak-heath woodland. Rare species, other than birds, include timber rattlesnake and spotted salamander.

Biodiversity Resources

Summit Meeting Outcomes

Feedback from a wide variety of stakeholders during a county-wide summit meeting held in August 2007 resulted in identification of the following obstacles and opportunities facing the conservation of biological resources in Sullivan County. Stakeholders also identified specific political, cultural and economic issues and their associated impacts on conservation. The summit meeting is discussed in more detail in the Plan Development chapter.



Invasive species are non-indigenous species (e.g. plants or animals) that adversely affect the habitats they enter economically, environmentally and/or ecologically.

Habitat fragmentation is frequently caused by humans when vegetation is cleared for human activities such as agriculture, residential/commercial development and road construction. Habitats which were once continuous become divided into separate, often smaller and less functional, fragments.

Land use tools include conservation subdivisions; transfer development rights; planned unit developments; floating zones.

Strategies and Actions

The following strategies and actions were derived from the analysis of obstacles, opportunities, issues and impacts discussed earlier. They are a direct result of feedback from stakeholders at the summit meeting, and later refined by county planning staff.

Strategy #1:

Protect existing habitats and minimize fragmentation by identifying and developing biological corridors throughout the County.

Actions:

1. Use mapping resources to identify existing and potential **biological corridors**, and opportunities to link them where appropriate.
2. Use parcel data to identify owners of properties that include biological corridors.
3. Conduct public outreach about the importance of minimizing fragmentation, and establishing biological corridors.
4. Encourage the use of land use and conservation tools such as **conservation easements** to conserve important habitat, by working collaboratively with local constituents, landowners and conservation organizations.

Biodiversity Goals Addressed

Limit encroachment, degradation and elimination of important ecosystems.
Identify and protect important natural habitats and ecological areas.

Strategy #2:

Raise public awareness about the value and importance of biodiversity resources and their contribution to quality of life in Sullivan County.

Actions:

1. Provide educational information concerning biological resources and the importance of biodiversity to community organizations, citizen groups and policy makers.
2. Implement existing environmental education programs (i.e. Catskills Sense of Place) into area schools to foster an understanding by youth of the importance of biological resources.
3. Establish a network of local conservation groups to be used as a resource and to foster regional collaboration.
4. Utilize local media sources to disseminate information and promote activities.

Biodiversity Goals Addressed

Limit encroachment, degradation and elimination of important ecosystems.
Identify and protect important natural habitats and ecological areas.

Biological corridors are continuous swaths of land that provide habitat and movement conduits especially between large tracts such as wildlife parks, hunting club grounds and other undeveloped land.

Conservation easements are an easement, covenant, restriction or other interest in real property which limits or restricts development, management or use of real property.

Biodiversity Resources

Strategy #3:

Develop a regional approach to protecting biodiversity by improving inter-municipal cooperation.

Actions:

1. Utilize existing maps and data to identify priority biodiversity resources that cross municipal boundaries.
2. Establish an inter-municipal network for collaborative education to share information about the potential environmental impacts of proposed development.
3. Develop and distribute an updated list of potential funding sources and incentives to protect biodiversity across municipal boundaries.

Biodiversity Goals Addressed

Identify and protect important natural habitats and ecological areas.

Limit encroachment, degradation and elimination of important ecosystems.

Improve public awareness of the presence and value of natural habitats and ecological areas.

Strategy #4:

Create a unique marketing identity or brand for Sullivan County that celebrates our natural resources and connects us to the Catskill Region.

Actions:

1. Identify linkages between existing inventories of biodiversity resources and eco-tourism activities currently ongoing or planned for Sullivan County.
2. Inventory and promote niche markets and businesses that support ecotourism activities (i.e. outdoor gear for fly fishing)
3. Establish a network of conservation groups for programming, cross promotion and joint marketing opportunities.
4. Work with tourism, conservation groups and Sullivan County Visitors Association (SCVA) to develop a brand or image that can be promoted regionally, nationally and internationally.
5. Work with the SCVA, Chamber of Commerce and other appropriate agencies to support ecotourism related businesses and to promote ecotourism.

Biodiversity Goals Addressed

Link the protection of biodiversity to the development and marketing of eco-tourism.

Additional Resources and Potential Partners

STATE AGENCIES AND PROGRAMS

New York Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYS DEC) and The Nature Conservancy. It enables and enhances conservation of New York's rare animals, rare plants, and significant ecosystems through field inventories and scientific analyses.

www.nynhp.org

NYS Biodiversity Clearinghouse has been developed by the New York State Biodiversity Project (NYSBP) to facilitate the use of biodiversity information by New York's citizens.

www.nybiodiversity.org

NYS Biodiversity Research Institute advances information and research for the conservation of New York State's biodiversity. Housed within the New York State Museum of the State Education Department and funded by the Environmental Protection Fund, BRI is a partnership among conservation and environmental groups and leaders from throughout the state.

www.nysm.nysed.gov/bri/about/index.html

NYS Department of Environmental Conservation (NYSDEC) is responsible for the conservation, improvement, and protection of natural resources within New York State. Sullivan County is located in DEC Region 3.

www.dec.ny.gov

NYSDEC List of Endangered, Threatened and Special Concern Species

This section of the NYSDEC web site lists those endangered species which meet one or both of the criteria specified in section 182.2(g) of 6NYCRR Part 182 and which are found, have been found, or may be expected to be found in New York State.

www.dec.ny.gov/animals/7494.html

NYS Department of Transportation (NYSDOT) is responsible for the development and operation of highways, railroads, mass transit systems, ports, waterways and aviation facilities in New York. Sullivan County is located in DOT Region 9.

www.nysdot.gov

FEDERAL AGENCIES AND PROGRAMS

US Fish & Wildlife Service is one of many partners involved in endangered species recovery activities for federally listed species in New York State. The New York Field Office is involved in a variety of recovery activities, both within and outside of the state.

www.fws.gov/northeast/nyfo/es/nyrecovery.htm

Biodiversity Resources

Additional Resources and Potential Partners

NON-PROFIT ORGANIZATIONS

The **Basha Kill Area Association** was founded in 1972 to protect the Bashakill wetlands and surrounding area from ecological degradation, to promote education and respect for the environment in general and to preserve the beauty of the area.

www.thebashakill.org

The **Catskill Center for Conservation and Development** encourages appropriate economic and cultural development consistent with conservation values. The Center offers programs in the areas of community planning and development, education, arts and culture and land conservation and natural resources.

www.catskillcenter.org

The **Nature Conservancy** works to preserve plants, animals and natural communities and is dedicated to preserving biological diversity and to achieve conservation as a state of harmony between man and nature.

www.tnc.org

ADDITIONAL RESOURCES

The Catskill Park

www.catskillpark.com

Upper Delaware Scenic and Recreational River

www.nps.gov/upde/

Comprehensive Wildlife Conservation Strategy

www.dec.ny.gov/animals/30483.html

The Metropolitan Conservation Alliance

www.metropolitanconservationalliance.org

Pace Law School—Land Use Law Center

www.pace.edu

Shawangunk Ridge Coalition

info@shawangunkridge.org

Recreational & Cultural Resources

Introduction

From the Delaware River to the Catskill Mountains, Sullivan County abounds with cultural and recreational opportunities. Institutions and organizations such as Bethel Woods Center for the Arts, Delaware Valley Arts Alliance, the North American Cultural Laboratory and the Sullivan County Dramatic Workshop provide a wide array of cultural opportunities for both residents and visitors. Historic sites such as Fort Delaware and the Sullivan County Museum are also valuable assets and destinations for heritage tourism.

In addition, the County's open spaces and unique natural resources provide a myriad of recreational opportunities. Hiking in the Catskill Park, biking along the D&H Canal, skiing at Holiday Mountain, swimming at Lake Superior State Park, fishing along the many trout streams, and canoeing the Delaware River, are just a sampling of the recreational opportunities that exist in Sullivan County.



Sullivan County Museum and Cultural Center in Hurleyville.



Sullivan County has turned this section of the D&H Canal near Summitville into a linear park.



Sullivan County operates Fort Delaware, an historic site depicting the life of the Delaware Company Pioneers who settled in the Upper Delaware Valley in 1754.

Recreational/Cultural Goals

Identify and preserve existing recreational, cultural and historic resources.

Identify opportunities to connect open spaces through trails, corridors and bicycle paths.

Promote current and developing cultural and historic resources.

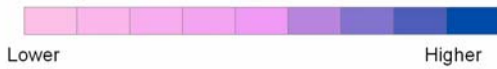
Develop and market the County as a destination for outdoor recreation.

Recreational & Cultural Resources

Priority Areas

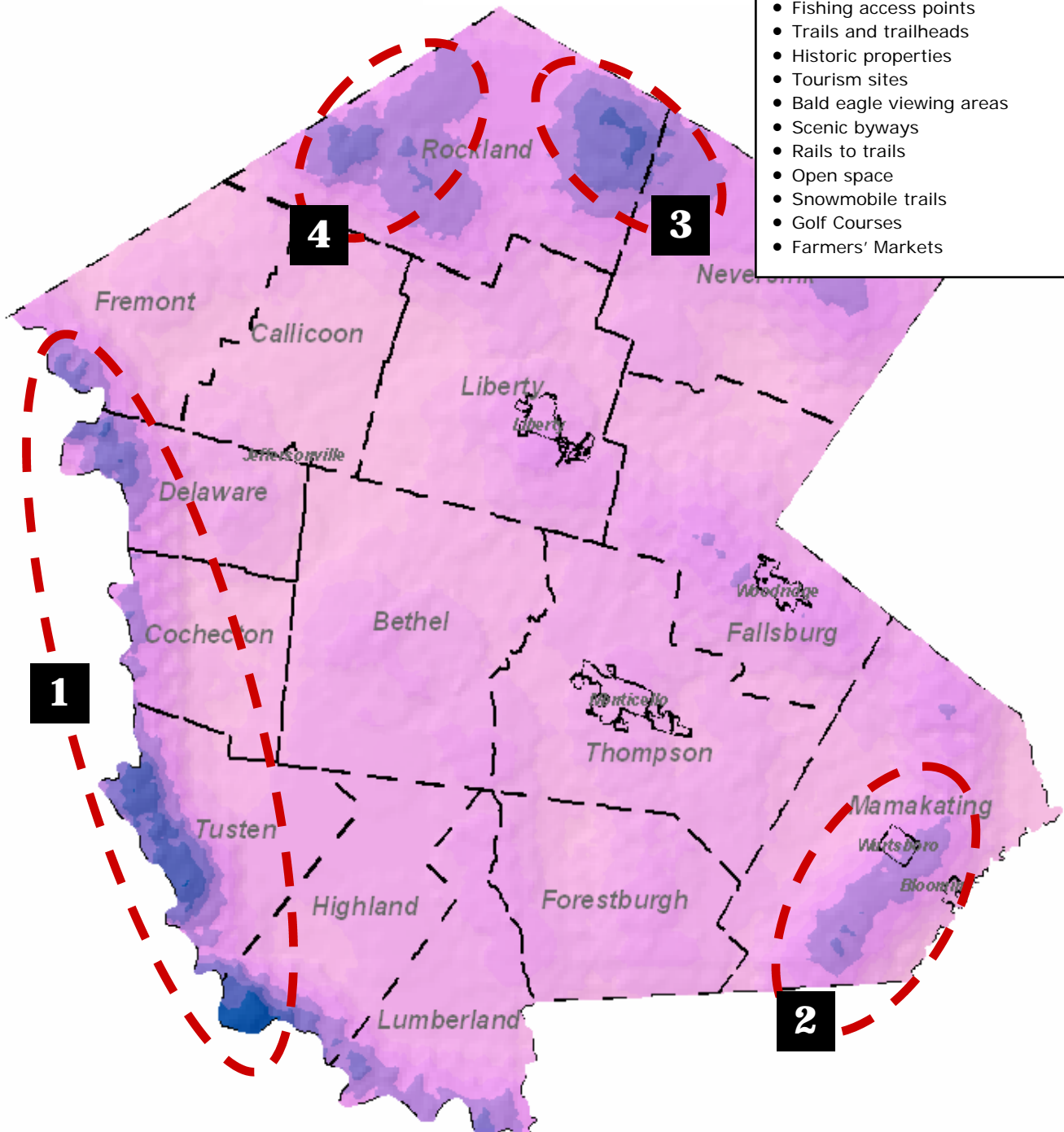
As explained in the Plan Development chapter, the following priority areas specific to recreational and cultural resources were identified using Geographic Information Systems (GIS) technology. The darker shaded areas represent those of highest priority.

Priority Conservation Value



Mapping Criteria:

- Camping, boat launch, fishing
- Outdoor activities
- Fishing access points
- Trails and trailheads
- Historic properties
- Tourism sites
- Bald eagle viewing areas
- Scenic byways
- Rails to trails
- Open space
- Snowmobile trails
- Golf Courses
- Farmers' Markets



Description of Priority Areas

There are many historic, cultural and recreational sites scattered throughout Sullivan County. The four areas outlined below represent the highest concentration of these resources.

1

The **Delaware River Corridor** is one of Sullivan County's most significant eco-tourism destinations due to both its scenic beauty and its abundance of recreational opportunities. As a part of the **National Wild and Scenic Rivers System**, the Upper Delaware is home to several public fishing and boating access points. There are many opportunities to camp, canoe and kayak along the river. Wintering bald eagles can be seen here, making this area a popular spot for eagle watching. Route 97, which roughly parallels the Delaware River throughout the County, is also known as **The Upper Delaware Scenic Byway** and a designated bicycle route. Cultural and historic sites in this area include the Delaware Valley Arts Alliance, the Roebling Bridge and the Minisink Battleground Park. In all, it is an area characterized by stunning scenery, a rich history, communities both lively and quaint, and an abundance of recreational opportunities.

2

This priority area includes the **Bashkill Wildlife Management Area** and **Shawangunk Ridge**. This area is rich in biodiversity resources and is also an outdoor recreation destination for fishermen, bird watchers, boaters, hikers and more. This priority area also encompasses a portion of the Delaware & Hudson Canal, the Shawangunk Ridge Trail and the Long Path. The County owns and operates the D&H Canal Linear Park, which consists of 45 acres and approximately 3½ miles of trail situated along the canal. These trails are ideal for hiking, biking, cross-country skiing, snowshoeing, nature watching and fishing.

3

This priority area covers the northeast portion of the Town of Rockland. It encompasses the Beaverkill Valley and a portion of the **Catskill Park** — a region of close to 700,000 acres in Ulster, Greene, Delaware and Sullivan Counties. The area includes two state-run public campgrounds (Mongaup Pond and the Beaverkill Campground), the DeBruce Environmental Education Camp, and the Catskill Fish Hatchery. Miles of public hiking trails are also found here, as well as fishing access sites.

4

This priority area covers the northwest portion of the Town of Rockland, including areas around the hamlet of Roscoe (also located within the **Catskill Park**.) Known as Trout Town, USA, the area is widely regarded as the birthplace of American fly-fishing. **Junction Pool** — where the Beaverkill meets the Willowemoc — lies about a mile from the center of town and is a popular spot for anglers. The Catskill Fly Fishing Center and Museum is located nearby, as is the Roscoe O&W Railway Museum and the Catskill Art Society.

Recreational & Cultural Resources

Summit Meeting Outcomes

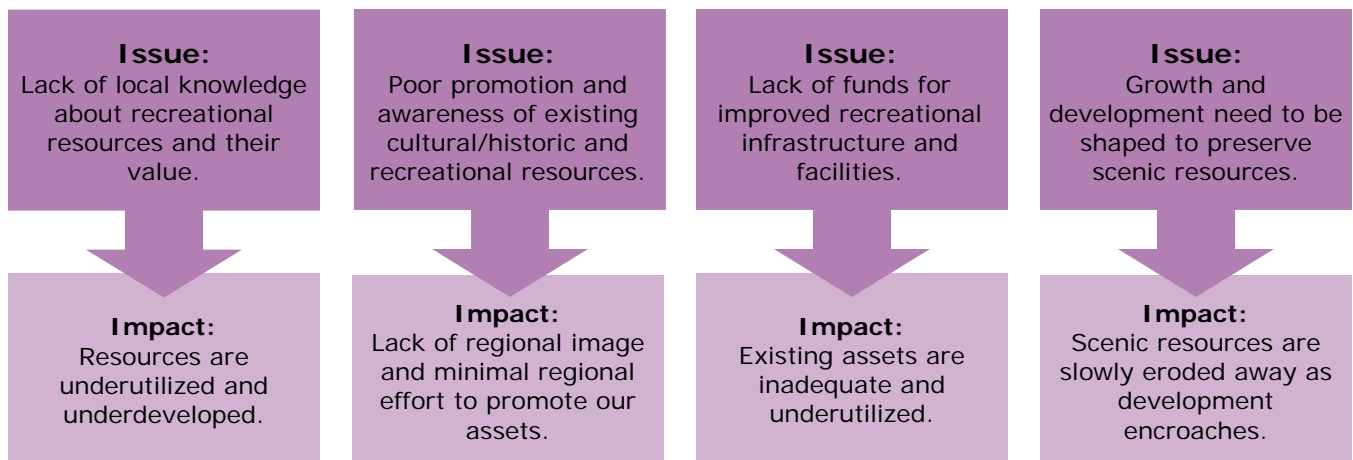
Feedback from a wide variety of stakeholders during a county-wide summit meeting held in August 2007 resulted in identification of the following obstacles and opportunities facing the conservation of recreational and cultural resources in Sullivan County. Stakeholders also identified specific political, cultural and economic issues and their associated impacts on conservation. The summit meeting is discussed in more detail in the Plan Development chapter.

Obstacles

- Misinformation about restrictions related to historic register nomination
- Lack of knowledge about existing resources and recreational opportunities
- Need for better accommodations
- Lakes are generally not publicly accessible
- Private property along Delaware River limits public access
- Loss of barns/farms diminish the rural landscape and scenic resources
- High development pressure
- Potential visual impacts associated with **New York Regional Interconnect, Inc.**
- Planned expansion of transportation corridors does not take into account cultural areas
- Lack of local government investment in recreation and open space protection

Opportunities

- Wide variety of existing resources with opportunities for enhancement
- Existing resources are deemed important by residents
- Boating, bicycling, hiking, driving tours
- Great potential for eco-tourism
- Linking D&H Canal to O&W rail trail
- Creation of more hiking, biking and cross country trails
- Connect communities through multi-use trails and trail networks
- Creation of new local and county parks
- Potential to create more public swimming access points to lakes and rivers
- Bethel Woods Center for the Arts is a destination and cultural anchor
- Possibility of a nature center near Bethel Woods
- Growing artist community



New York Regional Interconnect, Inc. proposes to develop, construct, and operate a high voltage direct current (HVDC) transmission line extending approximately 200 miles from Oneida County to Orange County with a direct path through Sullivan County.

Strategies and Actions

The following strategies and actions were derived from the analysis of obstacles, opportunities, issues and impacts discussed earlier. They are a direct result of feedback from stakeholders at the summit meeting, and later refined by county planning staff.

Strategy #1:

Help towns and villages guide future development in ways that that minimize impacts on existing historic, recreational, cultural, and scenic resources.

Actions:

1. Use GIS to define and locate important historic, recreational, cultural and scenic resources (by town) and disseminate maps to each municipality.
2. Develop and disseminate model regulations to town boards about the availability of tools such as scenic overlay districts, ridgeline development guidelines, historic districts, architectural review boards, and more.
3. Design and implement an educational program geared toward planning board members about ways to preserve historic, recreational and scenic resources during site plan and subdivision review.

Recreational & Cultural Goals Addressed

Identify and preserve existing recreational, cultural and historic resources.

Strategy #2:

Improve existing public recreational facilities and identify opportunities for the development of new ones.

Actions:

1. Use GIS to map all publicly accessible parks and recreational facilities in the County.
2. Inventory existing county-owned and managed recreational facilities and develop a county-wide parks master plan to guide future improvements.
3. Survey towns to determine their interest in developing new facilities and their use of recreational impact fees from development.
4. Assist towns in the creation of local park master plans to better position them to receive competitive grants for park acquisition or development.

Recreational & Cultural Goals Addressed

Identify and preserve existing recreational, cultural and historic resources.

Recreational & Cultural Resources

Strategy #3:

Encourage the expansion and development of trail systems within and among communities to link existing open spaces and recreational resources.

Actions:

1. Form a county-wide trail task force to coordinate local trail-building, maintenance and promotional efforts.
2. Explore opportunities to connect the D&H Canal linear park to the Ontario & Western (O&W) rail trail through acquisition and/or easements.
3. Work with the Sullivan County Visitors Association (SCVA) to develop a map of existing recreational trails and trail networks in Sullivan County to encourage increased use.
4. Partner with **Parks and Trails New York** to organize a county-wide trail planning workshop for the purpose of sharing information and exploring possible connections between communities.
5. Assist towns with trail planning to better position them to receive competitive grants for trail development.

Recreational & Cultural Goals Addressed

Identify opportunities to connect open spaces through trails, corridors and bicycle paths.

Develop and market the County as a destination for outdoor recreation.

Strategy #4:

Expand and improve efforts to promote Sullivan County's recreational, historic and cultural resources to both visitors and residents.

Actions:

1. Work with the SCVA to develop a targeted promotional campaign, guide, or brochure specific to outdoor recreation and eco-tourism opportunities.
2. Work with the SCVA to publish a trail map, guide or brochure of existing cultural and historic sites, as well as heritage tourism opportunities.
3. Work with the Sullivan County Historical Society to develop a local history curriculum for dissemination to county schools.

Recreational & Cultural Goals Addressed

Promote current and developing cultural and historic resources.

Develop and market the County as a destination for outdoor recreation.

Parks and Trails New York is a non-profit organization working statewide to protect New York's parks and help communities create new parks, trails and open spaces.

Strategy #5:

Increase the capacity of recreation-related businesses, sporting clubs, and cultural organizations to improve the County's position as a tourist destination.

Actions:

1. Explore the development of financial incentives (i.e. revolving loan fund, matching grants) for expansion and/or marketing of recreation-related businesses.
2. Work with recreation-related businesses to diversify their operations, explore opportunities for collaboration, and generate year-round interest.
3. Work with sporting clubs to explore opportunities for increased membership and complementary activities designed to generate supplemental income.
4. Increase funding for the County's Historic & Cultural Assistance Program (HCAP).

Recreational & Cultural Goals Addressed

Identify and preserve existing recreational, cultural and historic resources.

Recreational & Cultural Resources

Additional Resources and Potential Partners

PARKS, TRAILS & RECREATION

STATE/FEDERAL AGENCIES AND PROGRAMS

New York State Department of Environmental Conservation (NYSDEC) manages state lands which are freely open to active and passive recreational pursuits, including the Catskill Forest Preserve. The agency also takes the lead on New York's Open Space Conservation Plan, which serves as the blueprint for the State's land conservation efforts.

www.dec.ny.gov

New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) manages and develops parks owned and operated by the State of New York. The agency also offers grant programs for the acquisition or development of parks and recreational facilities.

www.nysparks.com

National Park Service's Rivers, Trails and Conservation Assistance Program (RTCA) provides technical assistance to communities and organizations interested in developing trails.

www.nps.gov/ncrc/programs/rtca/index.html

NON-PROFIT ORGANIZATIONS

The **Catskill Center for Conservation and Development** encourages appropriate economic and cultural development consistent with conservation values. The Center offers programs in the areas of planning and development, education, arts and culture and land conservation and natural resources.

www.catskillcenter.org

National Recreation and Park Association (NRPA) is a national organization with a mission to advance parks, recreation and environmental conservation efforts that enhance the quality of life for all.

www.nrpa.org

New York-New Jersey Trail Conference is a federation of 104 hiking clubs and environmental organizations and 10,000 individuals dedicated to building and maintaining marked hiking trails and protecting related open space in the bi-state region.

www.nynjtc.org

Parks and Trails New York is a non-profit organization with a mission to expand, protect and promote a network of parks, trails, and open spaces throughout New York State.

www.ptny.org

Rails-to-Trails Conservancy (RTC) is a nonprofit organization with more than 100,000 members and supporters. It is dedicated to creating a nationwide network of trails from former rail lines and connecting corridors to build healthier places for healthier people.

www.railtrails.org/default.asp

ADDITIONAL RESOURCES

Sullivan County Visitors Association

www.scva.net

Upper Delaware Scenic and Recreational River

www.nps.gov/upde/

Additional Resources and Potential Partners

CULTURAL & HISTORIC

FEDERAL/STATE AGENCIES AND PROGRAMS

New York State Department of Parks, Recreation and Historic Preservation manages and develops parks owned and operated by the State of New York. The agency also offers grant programs for the acquisition or rehabilitation of properties listed on the register of historic places.

www.nysparks.com

The **National Trust for Historic Preservation** is a private, nonprofit membership organization dedicated to saving historic places and revitalizing America's communities.

www.preservationnation.org

The **New York State Scenic Byways** program was created in 1992 and encourages both economic development and resource conservation along transportation corridors that are of particular statewide interest.

www.nysdot.gov/portal/page/portal/programs/scenic-byways

NON-PROFIT ORGANIZATIONS

The **D&H Transportation Heritage Council** is a partnership of public, private and not-for-profit organizations committed to the appreciation and preservation of the historic resources of the Delaware and Hudson Canal and Gravity Railroad.

www.dhthc.org

The **Ontario & Western Railway Historical Society** is a non-profit organization based in Middletown that is dedicated to preserving the history of the New York, Ontario & Western Railway.

www.owrhs.org

The **Preservation League of New York State** is dedicated to the protection of New York's diverse and rich heritage of historic buildings, districts, and landscapes. It administers the *Preserve New York Grant Program* which funds cultural resource surveys, historic structure reports, and historic landscape reports.

www.preservenys.org

The **Sullivan County Historical Society** was established to preserve the history of Sullivan County through the storage of historical records and documents, the acquisition of artifacts illustrative of different periods in the County's history, and the mounting of exhibits at the Sullivan County Museum.

www.sullivancountyhistory.org

ADDITIONAL RESOURCES

Sullivan County Visitors Association

www.scva.net

Upper Delaware Scenic and Recreational River

www.nps.gov/upde/

Recreational & Cultural Resources

Introduction



The Neversink Reservoir is one of six reservoirs that make up the New York City water supply system west of the Hudson River.

Water consumption refers to the quantity of water needed and/or available to individuals in particular communities for their basic needs. Adequate quantities of water are a prerequisite for survival, health, and sustainable development. In addition, protecting the quality of water used for consumption, recreation and habitat is critically important.

Quantifying current “local” water consumption will help to identify communities where the basic requirements of water quantity and quality are not being met, or are inadequate to meet future needs. Such information will assist policy makers in planning and setting priorities for additional water resource development. Engaging communities in a water resource planning process will help ensure necessary supply and protection of water resources.



Most public water supply systems in Sullivan County are fed by municipal wells.

The abundance and quality of water in the County is one of our most attractive features. As development continues to increase, so too will the demand for water for personal, commercial, and agricultural uses; thereby stressing existing resources and demanding a need for better local planning and protection.

Water Resources - Consumption Goals

Protect public health and safety by helping communities maintain and improve water quality.

Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.



Residents in the more rural areas of Sullivan County rely on private wells for their water supply.

Water Resources - Consumption

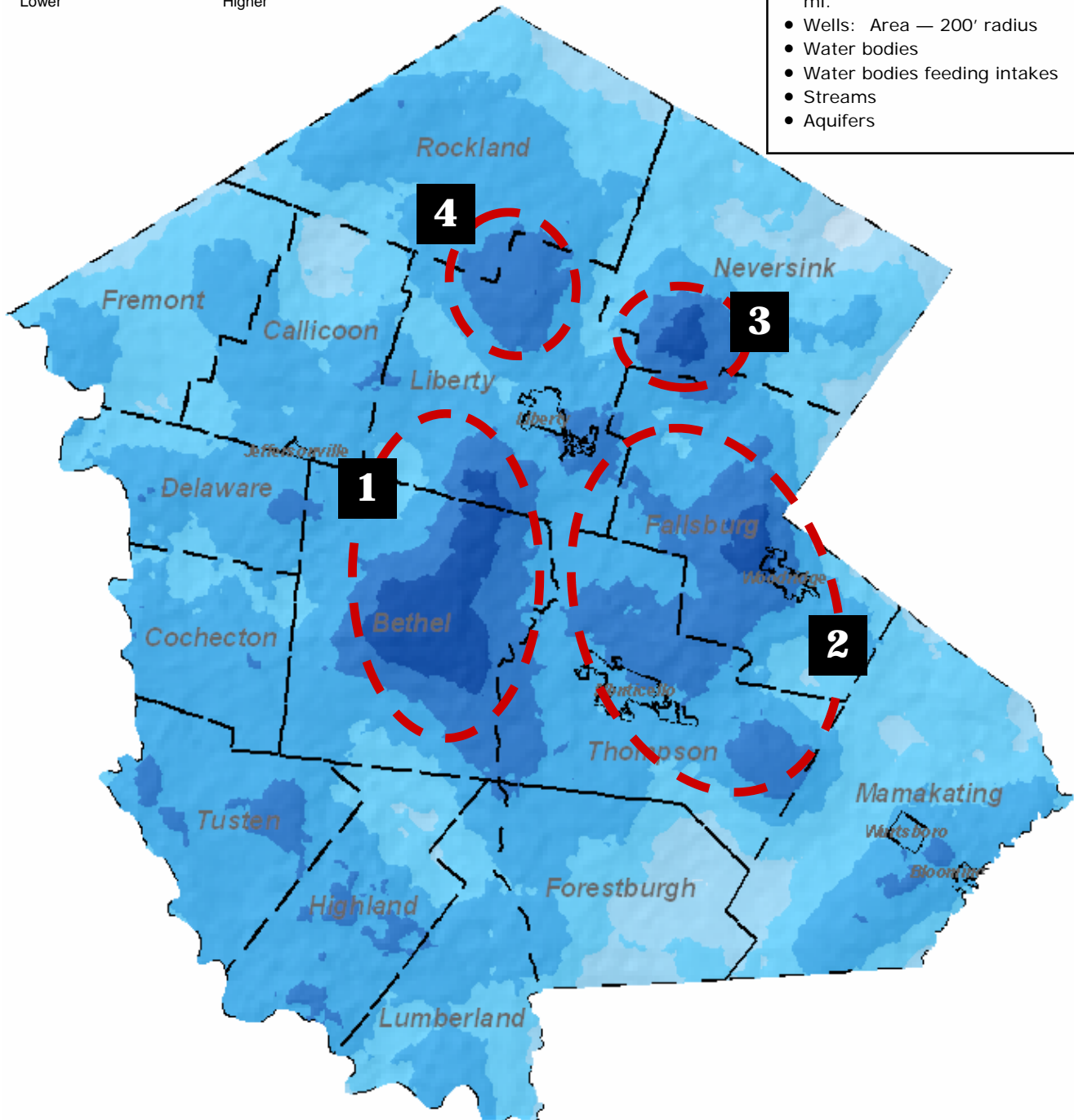
Priority Areas

As explained in the Plan Development chapter, the following priority areas specific to water resources (from a consumption perspective) were identified using Geographic Information Systems (GIS) technology. The darker shaded areas represent those of highest priority.

Priority Conservation Value



- Mapping Criteria:**
- Wells: Density >10 per sq. mi.
 - Wells: Area — 200' radius
 - Water bodies
 - Water bodies feeding intakes
 - Streams
 - Aquifers



Description of Priority Areas

Sullivan County is rich in water resources, and protecting water quality is an important component of any open space conservation strategy. The four priority areas outlined below represent the areas most in need of protection from a water quality perspective due to high concentrations of wells, water bodies, streams and aquifers.

- 1** The **Bethel/White Lake Priority Area**, encompasses a large portion of the Town of Bethel, and roughly follows the Route 55 corridor from Swan Lake to White Lake. The area has many small lakes and streams, as well as a high concentration of private wells. In addition, this area is facing increased development pressure.
- 2** The **Fallsburg/Thompson Priority Area** encompasses a large area between the Villages of Woodridge (Fallsburg) and Monticello (Thompson) following the Route 42 corridor. While there are several small ponds and lakes in this area as well, its importance as a priority area is largely due to the density of private wells and the presence of an underground aquifer.
- 3** The **Neversink Priority Area** covers an area in the southern part of the town that includes the Neversink Reservoir — part of the New York City water supply system. It is fed by the Neversink River, the longest tributary of the Delaware River. Water collected in this reservoir goes through the Neversink Tunnel a short distance to the Rondout Reservoir, where it is pooled with water from the Pepacton and Cannonsville Reservoirs, providing nearly half of the city's daily water consumption. As part of the New York City water supply system, this area benefits from protection by the NYC Department of Environmental Protection which has an active land acquisition and conservation easement program.
- 4** The **Liberty Priority Area** is located in the northern portion of the town near its border with the Town of Rockland. The presence of an underground aquifer in this area, coupled with the Lily Pond intake (a municipal water source), make it a high priority for protection.

Summit Meeting Outcomes

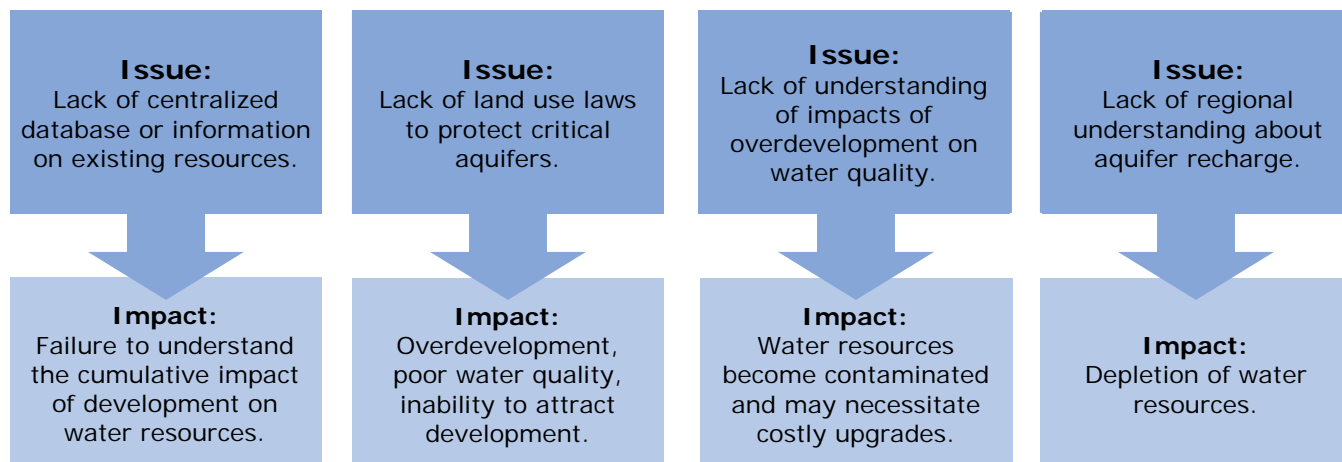
Feedback from a wide variety of stakeholders during a county-wide summit meeting held in August 2007 resulted in identification of the following obstacles and opportunities related to water resources (from a consumption perspective) in Sullivan County. Stakeholders also identified specific political, cultural and economic issues and their associated impacts on conservation. The summit meeting is discussed in more detail in the Plan Development chapter.

Obstacles

- Insufficient data on existing private wells
- No mechanism for county-wide water quality and quantity monitoring (including private wells)
- NYC Watershed provides significant funding, but for only three towns. Funding needs to be identified for protection of other water resources
- Proximity to metropolitan area and increased development pressure
- Municipalities lack knowledge to address the impact of increased development and high density subdivisions that threaten water resources
- Misconception about the abundance of water and perception that there is no imminent threat
- No consolidated view of development impacts on water resources

Opportunities

- Recognition of the opportunity to plan for growth
- Local benefit of availability of NYC watershed funds for acquisition and protection
- Local tools available to protect reservoirs and wells while planning for future development
- Flood maps are being updated
- Abundance of water in Sullivan County can be an asset if conserved
- Education of the public regarding water conservation
- Water resources are also a source of recreation and economic development



Strategies and Actions

The following strategies and actions were derived from the analysis of obstacles, opportunities, issues and impacts discussed earlier. They are a direct result of feedback from stakeholders at the summit meeting, and later refined by county planning staff.

Strategy #1:

Establish a county-wide clearinghouse of information relative to water resources which is continually updated.

Actions:

1. Develop overlay maps relative to recharge areas, well head protection, aquifers, wetlands, etc.
2. Ensure that the County is notified of subdivision and development activity that could potentially impact water resources for incorporation into a county-wide database.
3. Conduct a groundwater study to identify areas that may be facing capacity and/or contamination issues.

Water Resources - Consumption Goals Addressed

Protect public health and safety by helping communities maintain and improve water quality.

Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.

Strategy #2:

Provide municipalities with technical assistance to assess the cumulative impacts of development on water resources over time.

Actions:

1. Provide training to municipalities on the utilization of information contained within the maps and county-wide database.
2. Provide training to municipalities regarding NYS Realty Subdivision Laws and requirements under State Environmental Quality Review Act (SEQRA).
3. Develop a public outreach and education program to disseminate information to developers and property owners.

Water Resources - Consumption Goals Addressed

Protect public health and safety by helping communities maintain and improve water quality.

Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.

Water Resources - Consumption

Strategy #3:

Establish collaborative partnerships to facilitate inter-municipal water resource planning.

Actions:

1. Facilitate an annual informational meeting between Department of Health, county officials and municipal representatives to ensure consistent interpretation of state regulations.
2. Develop a framework for coordinated water supply planning and management.
3. Ensure local comprehensive plans are consistent with regional watershed management plans.
4. Identify funding sources to help municipalities develop local **Water Resource Management Plans**.
5. Explore the feasibility of establishing a Sullivan County department of environmental health services to improve regulations for the protection of water resources.

Water Resources - Consumption Goals Addressed

Protect public health and safety by helping communities maintain and improve water quality.
Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.

Strategy #4:

Ensure existing and planned infrastructure is sufficient to meet current and future needs.

Actions:

1. Inventory and assess existing water and wastewater infrastructure.
2. Assist municipalities in the development of an objective infrastructure prioritization system.
3. Assist municipalities in identifying funding and/or establishing reserves for water and sewer maintenance and upgrades.
4. Consider multi-purpose water resource projects that help reduce the impact of flooding while at the same time retain the water for alternate uses.
5. Assess the feasibility of establishing a county **Water Authority**.

Water Resources - Consumption Goals Addressed

Protect public health and safety by helping communities maintain and improve water quality.
Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.

Water Resource Management Plans integrate management and protection with growth planning. The plan addresses water supply, surface water and wastewater management.

Water Authority The primary function of a Water Authority is to develop, store and transport water for use by member agencies for delivery to residences and businesses.

Strategy #5:

Improve water quality by reducing **nonpoint source pollution**.

Actions:

1. Educate municipalities on the use of **conservation design practices** during site plan and subdivision review.
2. Encourage municipalities to develop incentives for the implementation of conservation practices.
3. Identify opportunities for municipalities and property owners to reduce, collect and treat **stormwater**.
4. Engage citizens and town officials in watershed management planning and volunteer water monitoring.
5. Work with regulatory agencies on an educational campaign about **best management practices** as a method to reduce nonpoint source pollution.

Water Resources - Consumption Goals Addressed

Protect public health and safety by helping communities maintain and improve water quality.

Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.

Nonpoint source pollution occurs when rain or snowmelt flows over areas (such as impervious surfaces, farmland and industrial sites) or through the ground, where it picks up pollutants.

Conservation Design Practices are design practices that contribute to the protection of natural resources and include flexible lot design standards, natural landscape and drainage systems, reduced impervious surface areas, and sustainable stormwater management techniques.

Stormwater is water that accumulates on land as a result of storms, and can include runoff from urban areas such as roads and roofs.

Best Management Practices are a combination of conservation measures, structures, or management practices that reduce or avoid adverse impacts of development on water quality.

Water Resources - Consumption

Additional Resources and Potential Partners

LOCAL AGENCIES

Sullivan County Division of Planning and Environmental Management provides technical assistance to local municipalities focusing on planning and land use issues, community and economic development, housing, farmland protection, shared service arrangements and water resources issues. Phone: 845-794-3000, ext 5028.

www.scgnet.us/orgMain.asp?sid=&orgId=83

Sullivan County Public Health Services Department is a resource for all issues relating to water-borne communicable diseases as well as food safety particularly after a flood or in the case of a contaminated water supply. Phone: 845-292-0100, ext 1.

<http://www.scgnet.us/orgMain.asp?sid=&orgId=83>

Sullivan County Soil and Water Conservation District provides assistance to landowners, organizations, businesses and local governments for management of natural resources. Phone: 845-292-6552.

www.nyacd.org/districts.html

REGIONAL/STATE AGENCIES AND PROGRAMS

Environmental Facilities Corporation (EFC) provides low cost financing and technical assistance to municipalities and state agencies for environmental projects.

www.nysefc.org

New York State Energy Research and Development Authority (NYSERDA) provides funding to the municipal water and wastewater treatment sector for projects that result in quantifiable energy, economic and environmental benefits.

www.nyserda.org/funding/1171summary.pdf

New York City Department of Environmental Protection delivers drinking water to over 9 million state residents. Locally they are responsible for monitoring the Neversink Reservoir area.

www.nyc.gov/html/dep/html/home

New York State Department of Environmental Conservation regulates and offers technical guidance for public water supply wells, registers water well contractors and provides information to the public about droughts.

www.dec.ny.gov

New York State Department of Health on a local level provides guidance for water testing, regulates public water supplies, and oversees well drilling and water source protection associated with proposed realty subdivisions and public water supplies. On a state level, the DOH publishes annual reports on water quality and provides funding through the New York State Revolving Fund.

<http://w2.health.state.ny.us/query.html?col=nysdoh&qt=water>

New York State Department of State has funding available for existing conditions analysis and infrastructure studies.

www.newyorkstatewaterfronts.com

New York State Water and Sewer Infrastructure Co-Funding Initiative is designed to help communities find sources of government funding for their water and sewer projects.

www.nycofunding.org

Additional Resources and Potential Partners

FEDERAL AGENCIES AND PROGRAMS

US Department of Agriculture's Rural Utilities Program (RUP) provides financing for water and waste disposal projects involving the construction, repair, modification, expansion, and other related costs to improve water supply and distribution systems, waste collection and treatment systems.
www.rurdev.usda.gov/NY

NON-PROFIT ORGANIZATIONS

Catskill Watershed Corporation was established to protect water resources of the New York City Watershed West of the Hudson River. They offer funding for programs such as residential septic rehabilitation, economic development, education, storm water controls and salt storage improvements.
www.cwc.online.org

The New York State Rural Water Association (NYRWA) offers no-cost, on-site technical assistance in an effort to improve the quality of utility services in rural New York. NYRWA's technical representatives assist local governments in their operations, and in their efforts to protect the public's health and comply with complex regulations. Technical assistance is provided in relation to both water and wastewater systems.
www.nyruralwater.org

Water Resources - Consumption

Introduction

A floodplain is flat or nearly flat land adjacent to a waterway that experiences periodic flooding. Floodplains perform several functions that are vital to the health of the associated water system, including storage of floodwaters, moderation of peak flows, groundwater recharge, and prevention of erosion. Floodplains also provide habitat for many species of flora and fauna and adds to the protection of water quality.



A major storm in June 2006 caused extensive flooding along the Callicoon Creek and resulted in significant damage to areas in Callicoon, Jeffersonville and Youngsville.



Livingston Manor in the Town of Rockland has been particularly hard hit by recent flooding. One person was killed in the June 2006 flood when the Cattail Creek overflowed its banks.



A 2007 flash flood just north of Roscoe in neighboring Colchester resulted in five deaths and significant property damage.

Sullivan County has approximately 720 miles of rivers and streams that have played a critical historic role in the development of communities by providing transportation to bring lumber, bluestone and other goods to New York City and New Jersey. Through the years, a lack of knowledge about the importance of floodplains and how they function, has led to an increase in the magnitude of flood damage. Since 2004, Sullivan County has had three 100-year flood events, with certain areas experiencing impacts of a 500-year flood. Tens of millions of dollars in damages were incurred by these communities.

Identifying undeveloped floodplains will allow Sullivan County to create strategies to protect communities against damages from flood events. It will also provide opportunities for the preservation of habitat and the many natural functions that floodplains perform, thus maintaining water quality. Sullivan County and local municipalities should pursue reclamation of developed lands through acquisition of properties that have been severely damaged by major flooding events.

Water Resources - Flooding Goals

Prevent loss of property and habitat destruction.

Ensure resident and community safety.

Maintain, protect and restore floodplains, wetlands and riparian areas.

Water Resources - Flooding

Priority Areas

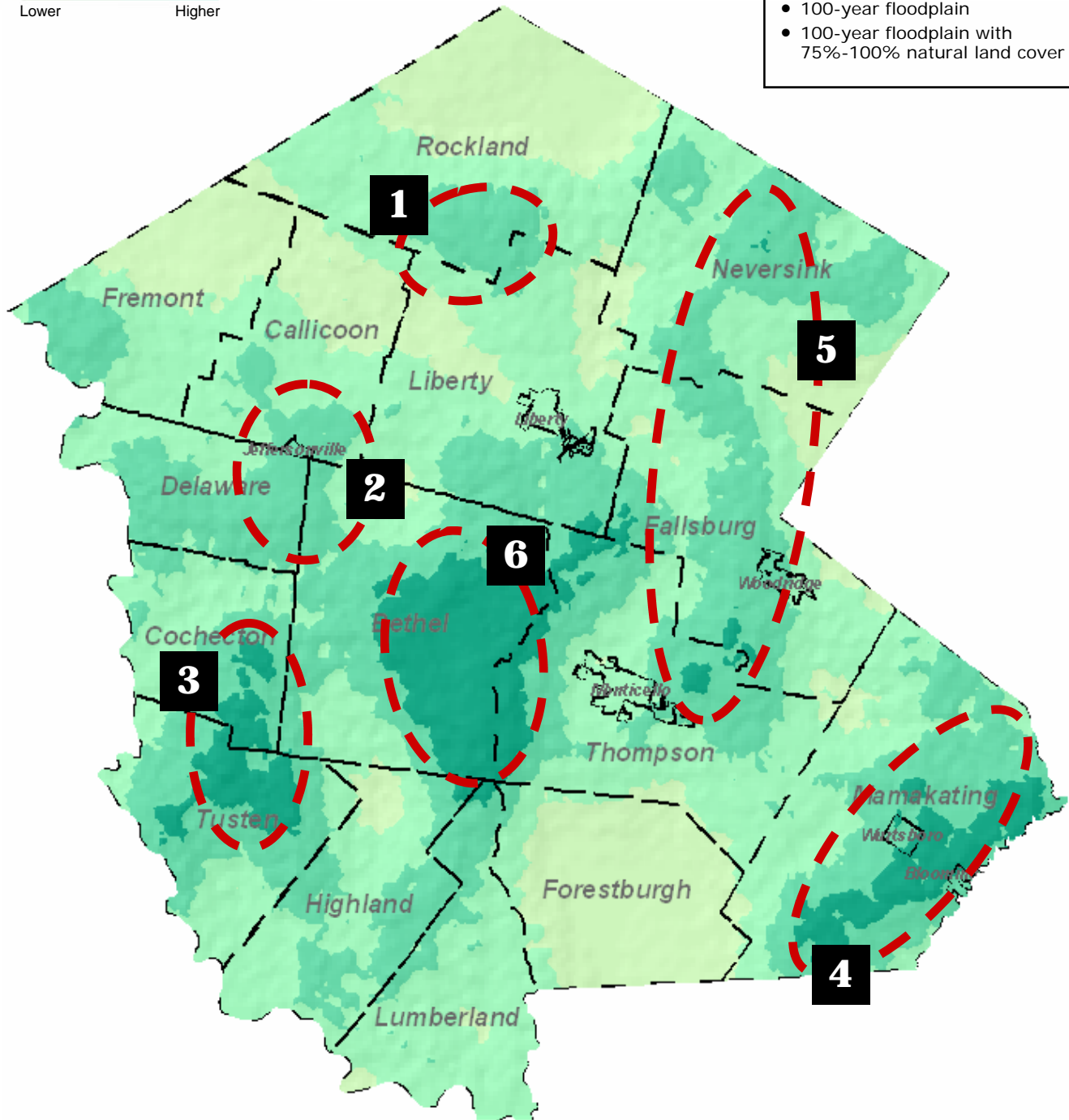
As explained in the Plan Development chapter, the following priority areas specific to water resources were identified using Geographic Information Systems (GIS) technology. The darker shaded areas represent the places with the highest conservation value from a flood prevention and mitigation perspective.

Priority Conservation Value



Mapping Criteria:

- Aquifer region
- 100-year floodplain
- 100-year floodplain with 75%-100% natural land cover



Description of Priority Areas

Sullivan County has approximately 720 miles of rivers and streams. The six priority areas outlined below represent the areas most in need of protection from a floodplain management perspective. Some areas include floodplains with a documented history of severe flooding, whereas others are functioning well during flood events, but are facing development pressure that may impact how those floodplains function in the future.

- 1** **Beaverkill/Willowemoc:** This area has a well documented history of flooding. Due to the amount of development in the floodplains of streams such as the Willowemoc Creek, the Little Beaverkill and Cattail Creek, significant damages — and even loss of life — have been attributed to flooding events.
- 2** **Callicoon Creek Watershed:** This watershed encompasses the Towns of Bethel, Callicoon, Delaware, Fremont and Liberty, and the Village of Jeffersonville. Development in the floodplains of the Callicoon Creek and its tributaries has led to significant damages when the streams reach their flood stage water levels.
- 3** **Ten Mile River/East Branch of the Ten Mile River/Beaver Brook Tributaries:** This watershed includes portions of the Towns of Cochecton and Tusten with large sections of undeveloped land which are potential development sites. Due to the extensive exposure to flooding these sites should be protected.
- 4** **Bashakill/Pine Kill/Shawangunk Kill:** Located in the Town of Mamakating, this area is not only environmentally significant but has shown significant potential for flood damage as evidenced by the Pine Kill Flood in 2004. In addition, wetlands like the Bashakill, act as stormwater retention areas that slow down and contain flood waters, while recharging groundwater supplies.
- 5** **NYC Watershed/Neversink River:** New York City owns thousands of acres in the Towns of Neversink, Liberty and Fallsburg, and maintains these lands to protect the quality of its largest source of drinking water. The Neversink River has a history of flooding resulting in significant damages as it passes through densely populated areas such as Woodbourne. In the Town of Neversink, this river was dammed to form the Neversink Reservoir. As part of the New York City water supply system, this area benefits from protection by the NYC Department of Environmental Protection which has an active land acquisition and conservation easement program.
- 6** **Mongaup River:** Most of this area is in its natural state and, as such, has continued to perform its natural functions during flood events. However, more damage is possible as development increases in these areas. As such this is a priority area for floodplain preservation.

Summit Meeting Outcomes

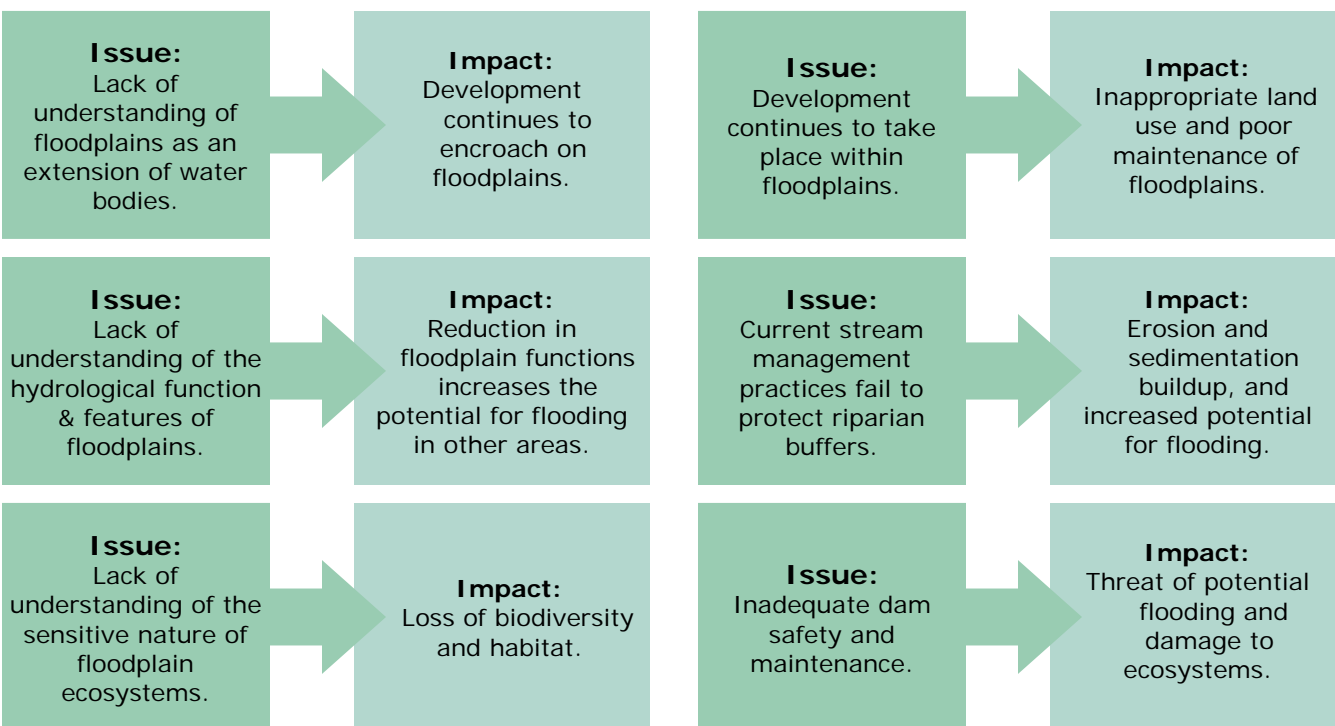
Feedback from a wide variety of stakeholders during a county-wide summit meeting held in August 2007 resulted in identification of the following obstacles and opportunities related to water resources (from a flood mitigation perspective) in Sullivan County. Stakeholders also identified specific political, cultural and economic issues and their associated impacts on conservation. The summit meeting is discussed in more detail in the Plan Development chapter.

Obstacles

- Densely populated communities are often located within floodplains due to historical development patterns
- Proximity to the New York City area leads to heavy development pressure
- Floodplains are often overlooked during site plan review
- Communities located near river systems lack information necessary to make appropriate land use decisions
- Landowners are unaware of or are resistant to proper floodplain management practices
- The FEMA Flood Insurance Rate Maps (FIRMs) are out of date
- There is a lack of funding for proper floodplain management

Opportunities

- Existing regulations for floodplain development and storm water management could be enhanced and enforced
- Identify existing sources of funding for restoration (funding may exist through the NYS DOT State Route 17 conversion to I-86)
- Stream maintenance overlay zoning districts can be created with requirements for stream cleanups and maintenance of riparian buffers
- Structures and properties that are severely damaged during flooding may be acquired with grant funding



Strategies and Actions

The following strategies and actions were derived from the analysis of obstacles, opportunities, issues and impacts discussed earlier. They are a direct result of feedback from stakeholders at the summit meeting, and later refined by county planning staff.

Strategy #1:

Limit further development within floodplains and restrict development in floodways.

Actions:

1. Help municipalities adopt the updated **Flood Insurance Rate Maps (FIRMs)** upon their completion.
2. Provide municipalities with model floodplain ordinances, as well as information about the use of tools such as **overlay zoning districts**.
3. Use GIS to define and locate important **riparian buffer zones** within each town and disseminate maps to each municipality.
4. Develop a model ordinance designed to help municipalities restrict development adjacent to and/or within wetlands and riparian buffer zones.
5. Work with municipalities to identify and acquire properties within floodplains for public use (such as parks) or for preservation of scenic vistas.

Water Resources (Flooding) Goals Addressed

Prevent loss of property and habitat destruction.

Ensure resident and community safety.

Maintain, protect and restore floodplains, wetlands and riparian areas.

Flood Insurance Rate Maps (FIRMs) are flood insurance rate maps produced by FEMA to determine insurance costs based on probability of flooding.

Overlay Zoning Districts are a districts or zones which address special land use circumstances or environmental safeguards and are superimposed over an underlying existing zoning district.

Riparian Buffer Zones refer to vegetated strips of land adjacent to a river, lake or stream, which filter stormwater and also serve as a transition from an aquatic ecosystem to a terrestrial ecosystem.

Water Resources - Flooding

Strategy #2:

Provide educational opportunities on the function of floodplains and wetlands, and the importance of protecting them.

Actions:

1. Create a continuing education program for local boards on how floodplains and wetlands function and tools to incorporate best management practices into local land use regulations.
2. Work with school districts to educate children about the importance of floodplains and wetlands, and their role in the protection of habitat and water quality.
3. Work with the Sullivan County Soil and Water Conservation District to develop and/or disseminate a publication to streamside property owners about best management practices.
4. Encourage municipal participation and compliance with the National Flood Insurance Program (NFIP).

Water Resources (Flooding) Goals Addressed

Prevent loss of property and habitat destruction.

Ensure resident and community safety.

Maintain, protect and restore floodplains, wetlands and riparian areas.

Strategy #3:

Help municipalities and landowners implement appropriate stream maintenance practices, repair damaged stream banks, preserve wetlands, and restore floodplains.

Actions:

1. Help municipalities inventory existing infrastructure (i.e bridges and culverts), and evaluate its capacity to manage peak flows.
2. Encourage increased participation in existing county-funded stream maintenance, clean-up, and flood mitigation programs.
3. Assist towns with stream management planning to better position them to receive competitive grants for stream maintenance and flood mitigation projects.

Water Resources (Flooding) Goals Addressed

Prevent loss of property and habitat destruction.

Ensure resident and community safety.

Maintain, protect and restore floodplains, wetlands and riparian areas.

Strategy #4:

Improve the safety and maintenance of public dams.

Actions:

1. Develop a comprehensive inventory of existing publicly owned dams in Sullivan County.
2. Assess the condition of existing dams and identify funding sources for maintenance.
3. Assess the functionality of existing dams and their role in flood mitigation efforts.
4. Identify potential locations and funding sources for dam removal.

Water Resources (Flooding) Goals Addressed

Prevent loss of property and habitat destruction.

Ensure resident and community safety.

Maintain, protect and restore floodplains, wetlands and riparian areas.

Additional Resources and Potential Partners

LOCAL AGENCIES

Sullivan County Division of Planning and Environmental Management in cooperation with Sullivan County Soil and Water Conservation District provides limited funding for local mitigation initiatives. Phone: 845-794-3000, ext 5028.

Sullivan County Public Health Services Department is a resource for all issues relating to waterborne communicable diseases as well as food safety particularly after a flood or in the case of a contaminated water supply. Phone: 845-292-0100, ext 1.

Sullivan County Soil and Water Conservation District provides assistance to landowners, organizations, businesses and local governments for management of natural resources. It has unique ability to work on public and private lands to implement conservation programs that address local needs and provides a wide range of services including flood protection, emergency management, stream restoration and stormwater management. Phone: 845-292-6552.
www.nyacd.org/districts.html

STATE/FEDERAL AGENCIES AND PROGRAMS

Environmental Protection Agency (Funding Opportunities for Nonpoint Source Pollution)
www.epa.gov/owow/nps/funding.html

Federal Emergency Management Agency provides disaster assistance, flood insurance guidelines, flood mapping and funding for mitigation projects including grants for acquisition, elevation, infrastructure reconstruction, planning and technical assistance.
www.fema.gov

National Flood Insurance Program (NFIP) works through FEMA to provide flood insurance, in addition to establishing regulations and guidelines for development, building standards and codes for communities in floodplains, incentives and reduced insurance costs for communities that comply with stricter regulations.
www.fema.gov/business/nfip

United States Department of Agriculture Cooperative State Research, Education and Extension Services (CSREES) provides grants to address water supply and quality in rural, agricultural, and urbanizing watersheds, and include bio-energy production and water resource projects.
www.csrees.usda.gov

Empire State Development Corporation offers grants for small businesses to assist in mitigation measures to reduce impacts of flooding.
www.empire.state.nu.us

NYS Division of Housing and Community Renewal created a new grant program for acquisition of primary homes that have repetitive damage. Presently administered locally through the Sullivan County emergency Management Office. Phone: 845-794-3000, ext. 3100.

NYS Department of Environmental Conservation's Division of Water works with communities to reduce and protect against physical and property damage caused by flooding, assists with floodplain management, works with communities participating in the National Flood Insurance Program (NFIP), and administers local regulations and building standards for flood damage prevention.
www.dec.state.ny.us

Additional Resources and Potential Partners

STATE/FEDERAL AGENCIES AND PROGRAMS (Cont.)

New York State Emergency Management Office (SEMO) helps communities with hazard identification, loss prevention, planning, training, technical support, and disaster recovery assistance. It also interfaces with FEMA and national funding programs for hazard mitigation programs and funds.

www.semo.state.ny.us

NON-PROFIT ORGANIZATIONS

The **Catskill Center for Conservation and Development** encourages appropriate economic and cultural development consistent with conservation values. The Center offers programs in the areas of community planning and development, education, arts and culture and land conservation and natural resources.

www.catskillcenter.org

The **Nature Conservancy** works to preserve plants, animals and natural communities and is dedicated to preserving biological diversity and to achieve conservation as a state of harmony between man and nature.

www.tnc.org

ADDITIONAL RESOURCES

FEMA, Emergency Management Institute— Community Rating System Resource Center

www.training.fema.gov/EMIWeb/CRS/index.html

Technical Tools for Watershed Management

www.epa.gov/docs/owow/watershed/tools/index.html

The Stormwater Manager's Resource Center

www.stormwatercenter.net

USGS National Water Resource Data

www.waterdata.usgs.gov

New York Association of Conservation Districts (NYACD)

www.nyacd.org

"SMART GROWTH"

covers a range of development and conservation strategies that help protect our natural environment and make our communities more attractive, economically stronger and more socially diverse.



Conservation subdivisions — where homes are clustered close together so that part of the subdivision can remain as open space — are just one tool to balance the goals of conservation and development.



Encouraging development in existing hamlets and villages that have adequate infrastructure to support future growth is another approach.

Introduction

Based on public input during both the *Sullivan 2020* plan and this plan, county residents overwhelmingly favor preservation of open space and rural character while encouraging economic growth. Open space preservation and development are not mutually exclusive goals and both should be considered in a well integrated planning policy. This approach is widely recognized as “Smart Growth”.

The goals and strategies for each of the five resource areas identified in the preceding chapters all reveal a common thread in the need to balance the preservation of open space with community and economic development. This plan recognizes the inherent contradictions in the two dynamics and this chapter is dedicated to:

- 1) Mapping growth areas within the County and identifying where those areas might overlap with high priority conservation resources;
- 2) Identifying strategies that will strengthen our local economy while preserving open space and protecting our rich natural resources.

Growth & Development Goals

Encourage appropriate development in areas that can adequately support future growth.

Help communities plan for growth consistent with their unique features and economic development goals.

Utilize the County's natural resources to attract new business and improve the local economy.

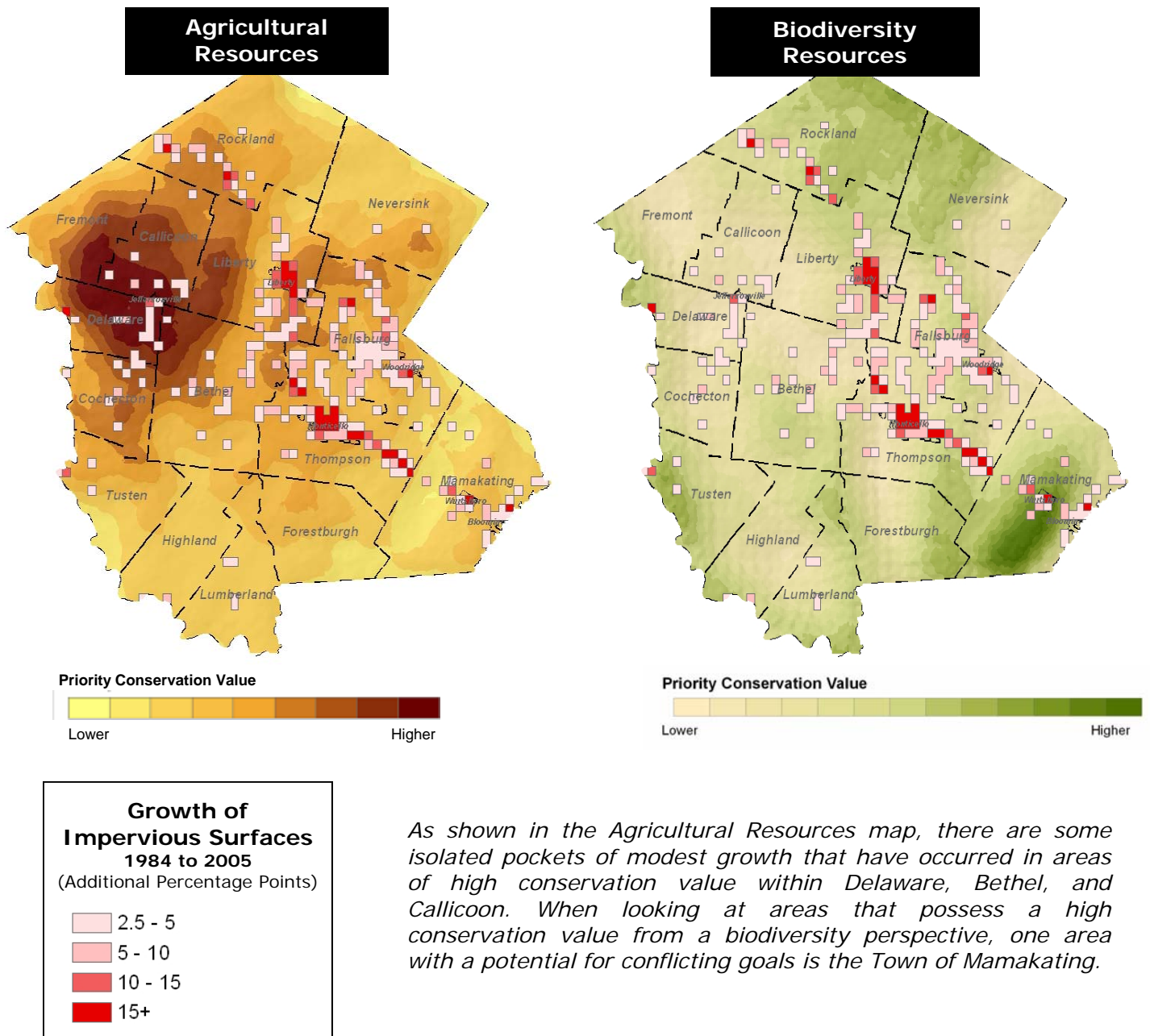
Strengthen the County's ability to target, attract and locate appropriate business and industry.

Growth & Development

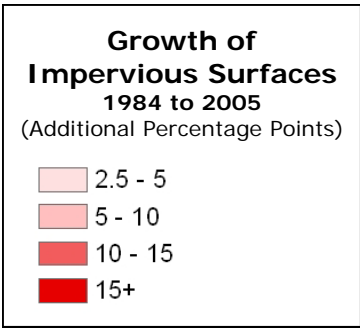
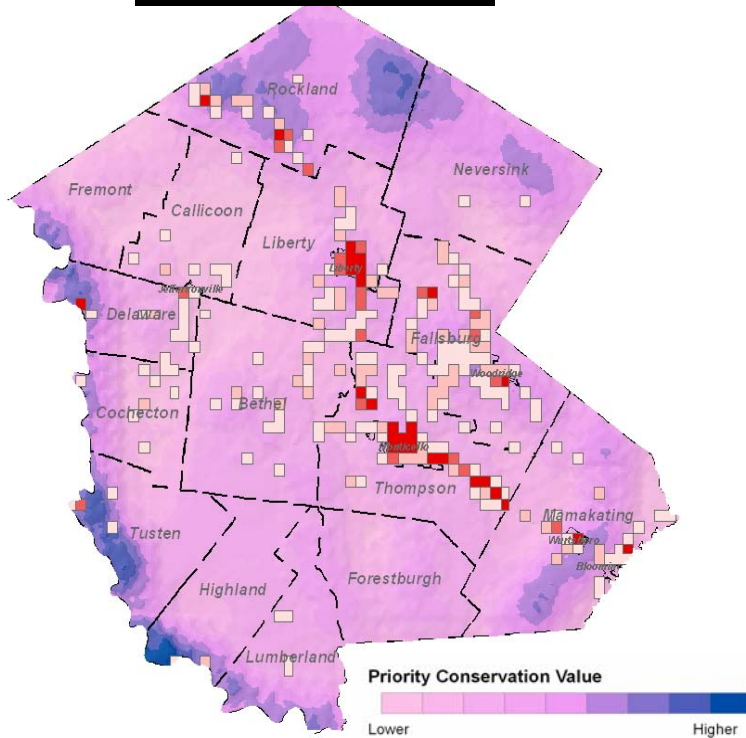
Growth Analysis

As explained in the Plan Development chapter, data inputs used in the SLEUTH growth (urban time series) model were used to create the following maps showing areas within Sullivan County that have experienced the most growth over the past twenty years. Satellite imagery was used to identify areas where impervious surfaces have increased from 1984 to 2005.

These growth areas have been superimposed on each resource map to show where there may be competing conservation and economic development goals, or the potential for land use conflict in the future.

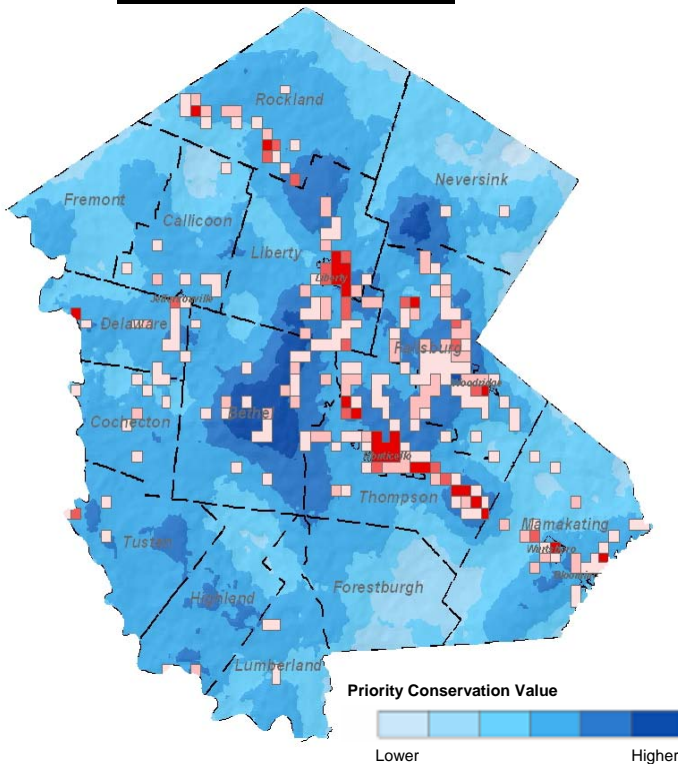


Recreation/Cultural Resources

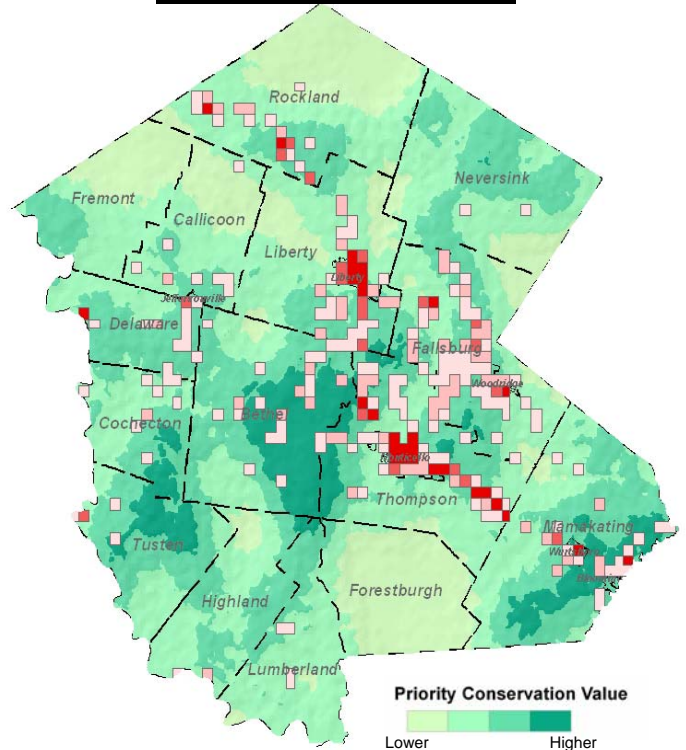


For recreational and cultural resources, the map shows pockets of growth in areas of high conservation value within both Rockland and Mamakating. When examining water resources from a consumption perspective, there is the potential for future degradation of the water supply in Thompson, Bethel and Fallsburg, where much growth has taken place and will likely continue. A similar pattern emerges for flooding resources.

Water Resources: Consumption



Water Resources: Flooding



Growth & Development

Issue Analysis

The following obstacles, opportunities, issues and impacts related to growth and development in Sullivan County follows the same format as the previous chapters, but did not come from the August 2007 summit meeting. Rather, the information was derived from the *Sullivan 2020* plan, with additional input by county planning staff.

Obstacles

- Lack of a coordinated vision for growth
- Limited shovel ready sites
- Limited growth potential along major corridors due to inadequate infrastructure
- Insufficient professional and skilled workforce
- Lack of workforce housing
- Unrealistic and inflated property prices due to speculative development
- Planning and zoning board processes are not always timely, predictable or flexible
- Poor fiber-optic and communication networks in many parts of the County
- Educational quality is uneven and perceived as poor
- Efforts aimed at attracting new businesses are not balanced with retention strategies

Opportunities

- Improved inter-municipal communication
- Acknowledgement of unique needs of individual communities
- Creative economic use of open space, i.e. trails and tourism
- Benefit of open space to main street and niche business development
- Opportunities to emphasize open space in County identity
- Conversion of Route 17 to I-86 for development purposes
- Existing educational and vocational services (SCCC; BOCES)
- Required training and education for planning and zoning boards
- Re-use and rehabilitation of vacant and underutilized buildings
- Growing artist, second home and engaged population

Issue:

Lack of consensus on what to develop, protect, or preserve among communities.

Issue:

Open space is underutilized as an economic development resource.

Impact:

Development is fragmented and uncoordinated.

Impact:

Open space preservation becomes a low priority.

Issue:

County lacks an identity to define itself regionally and nationally.

Issue:

County is perceived as weak in the areas of education, transportation and communications.

Impact:

County is misunderstood and stigmatized by the decline of the hotel industry.

Impact:

Inability to attract business development and skilled workforce.

Issue:

I-86 corridor is underutilized and lacks a comprehensive plan.

Issue:

Housing development has been scattered in rural areas that lack infrastructure.

Impact:

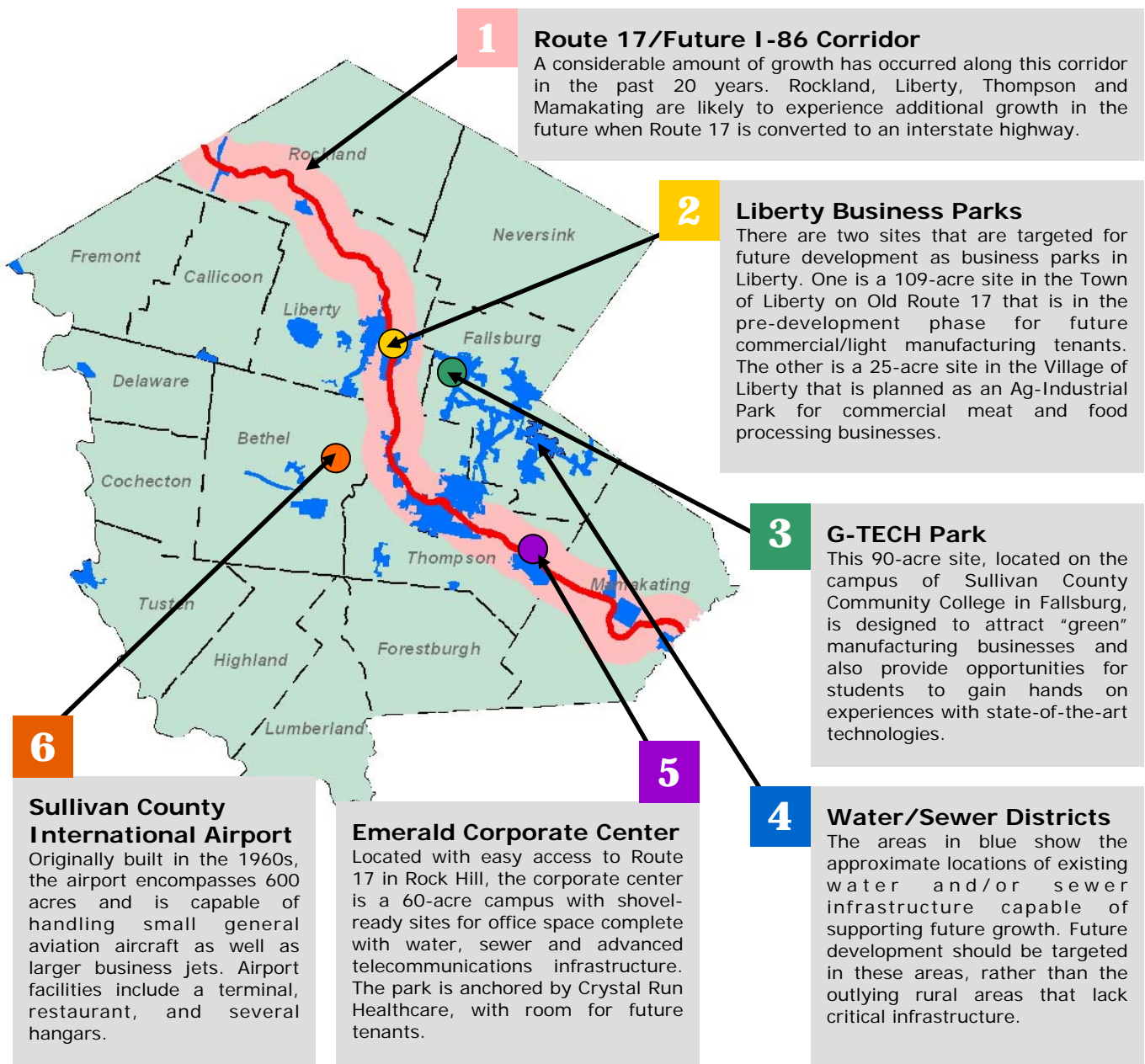
Missed opportunities to attract economic development in appropriate areas.

Impact:

Forest fragmentation and the need for costly infrastructure.

Growth Priority Areas

Conservation and development are not mutually exclusive goals. Conservation of valuable scenic and natural resources can be accomplished if economic development is targeted through “growth zones” or shovel ready sites that complement the natural attributes of Sullivan County and take advantage of existing infrastructure. Based on input derived through the *Sullivan 2020* planning process, the map below identifies areas where growth and development are being strategically targeted by the County at the macro level. At the individual town or village level, communities can identify their own economic development goals and strategically target areas for future development to meet their unique needs.



Growth & Development

Strategies and Actions

The following strategies and action steps related to growth and development in Sullivan County did not come from the August 2007 summit meeting, but rather were derived from the *Sullivan 2020* plan, with additional input by DPEM staff. They are designed to address the need to balance growth with open space conservation, encourage development in appropriate areas, and utilize our rich natural resources to attract business and investment. Additional strategies from a purely economic development standpoint can be found in the *Sullivan 2020* plan.

Strategy #1:

Foster partnerships among the County, towns and villages, and non-profit groups to help communities create economic development plans that address their unique needs and natural features.

Actions:

1. Assist municipalities with GIS mapping to identify areas for growth and preservation at the local level.
2. Distribute maps to individual towns and villages as a reference tool for developing planning policy and a decision-making tool for planning/zoning boards.
3. Work with Sullivan County Partnership for Economic Development and Industrial Development Agency to help municipalities identify economic opportunities best suited to their needs.
4. Initiate pilot project with the Towns of Thompson, Mamakating, Liberty & Rockland to identify target areas for development and development niches.

Growth & Development Goals Addressed

Encourage appropriate development in areas that can adequately support future growth.

Help communities attract and plan for growth consistent with their unique natural features and individual economic development goals.

Strategy #2:

Develop a comprehensive plan for the I-86 corridor to attract and focus development in appropriate, highly visible and accessible locations.

Actions:

1. Establish a development team including NYSDOT, County, Partnership, IDA and communities along the corridor to create a multi-jurisdictional plan for Future I-86.
2. Work with towns along the I-86 corridor to identify parcels for local acquisition and/or re-zoning as shovel-ready sites.
3. Help communities along the I-86 corridor streamline their approval processes with manageable timelines for local planning and zoning boards.

Growth & Development Goals Addressed

Help communities attract and plan for growth consistent with their unique natural features and individual economic development goals.

Strategy #3:

Focus residential development within and around existing areas of density and encourage development that preserves open space in less dense areas.

Actions:

1. Identify capacity and need of water and sewer systems and where identified as necessary, increase capacity to accommodate new growth.
2. Develop an educational program about the benefits and marketability of conservation subdivisions and other development tools for municipalities, developers and realtors.
3. Educate municipalities on the benefits of using **exactions** to help balance development with preservation.

Growth & Development Goals Addressed

Help communities attract and plan for growth consistent with their unique natural features and individual economic development goals.

Exactions are a strategy to offset the burdens and enhance the benefits of new development on a community. Exactions are typically in the form of "impact fees" that are used to fund new schools and parks, construction or maintenance of public infrastructure. They can also be in the form of community enhancements such as workforce housing, parkland or emergency response equipment.

Growth & Development

Strategy #4:

Create an environment where existing businesses are supported and encouraged to grow, maximizing existing infrastructure.

Actions:

1. Develop incentives for creative re-use and rehabilitation of existing downtown buildings.
2. Partner with the Chamber to support niche businesses and the creation of business incubators.
3. Encourage home-based businesses, which require less in the way of infrastructure, through flexible zoning and building codes.
4. Encourage the development of parks and open space areas in or on the edge of downtown districts as a way of creating desirable destinations that attract visitors and retain businesses.
5. Encourage municipalities to revisit tax structures and water and sewer charges to ensure businesses are being taxed equitably, and encouraged to conserve water resources.
6. Ensure all eligible businesses are using the benefits available through Empire Zone, IDA and Chamber of Commerce.

Growth & Development Goals Addressed

Encourage appropriate development in areas that can adequately support future growth.

Help communities attract and plan for growth consistent with their unique natural features and individual economic development goals.

Strategy #5:

Promote Sullivan County's natural assets and competitive advantages to attract new businesses and investment.

Actions:

1. Work with the Partnership and the SC Chamber of Commerce to develop a branding campaign and marketing strategy to identify and attract targeted industries.
2. Work with the Partnership to recruit businesses that will support outdoor recreation and heritage tourism.
3. Ensure that business recruitment efforts are coordinated with surrounding regional agencies so that themes are complementary and regional promotions include Sullivan County.
4. Develop marketing campaigns to recruit small niche, home-based businesses and second home owners as potential investors.

Growth & Development Goals Addressed

Utilize Sullivan County's natural resources to attract new business and improve the local economy.

Strategy #6:

Make Sullivan County more conducive to business development by improving community services and quality of life attributes.

Actions:

1. Facilitate a dialogue to improve the quality and choice of educational opportunities in the County.
2. Work with health care providers and facilities to continue efforts toward regional partnerships aimed at improving health care.
3. Facilitate a dialogue with local telecommunications providers to improve and expand county-wide access to high-speed internet, cable, and cell phone service.
4. Update the County's transportation plan, ensuring that the needs of workers, commuters and businesses are met.
5. Work with municipalities and developers to create incentives to ensure housing availability at all income levels.

Growth & Development Goals Addressed

Strengthen the County's ability to target, attract and locate appropriate business and industry.

Growth & Development

Additional Resources and Potential Partners

LOCAL AGENCIES AND PROGRAMS

Sullivan County Division of Planning and Environmental Management developed the Sullivan 2020 Comprehensive Master Plan along with a toolbox to assist municipalities with the implementation of smart growth.

www.co.sullivan.ny.us

Sullivan County Industrial Development Agency was created under the auspices of the State of New York to attract and enhance Industrial and economic development, create jobs and maintain economic stability within municipal or regional boundaries.

www.sullivanida.com

Sullivan County Partnership for Economic Development is a public/private partnership established in 1994 to better serve the needs of relocating and/or expanding businesses in Sullivan County.

www.scpartnership.com

Sullivan County Chamber of Commerce & Industry focuses on growth and retention of its member businesses and other entities in Sullivan County. As a member driven organization, it provides many programs for the betterment of small business.

www.catskills.com

STATE/FEDERAL AGENCIES AND PROGRAMS

US Environmental Protection Agency offers a Smart Growth program which covers a range of developmental strategies that help protect our natural environment and make our communities more attractive, economically stronger and more socially diverse.

www.epa.gov/smartgrowth

The Smart Growth Network began as part of the EPA's smart growth initiative and now provides a clearing house for over 700 agencies and programs to provide information, training and funding for various smart growth programs.

www.smartgrowth.org

Empire State Development Corporation is New York's Economic development agency that provides assistance and services to businesses to encourage economic investment and prosperity in NY.

www.empire.state.ny.us

Governors Office for Small Cities administers the Community Development Block Grant program which provides funding to revitalize neighborhoods, expand affordable housing and economic opportunities and improve municipal infrastructure and services.

www.nysmallcities.com

Additional Resources and Potential Partners

New York State Division of Housing and Community Renewal (DHCR) administers a wide range of programs for municipalities in the state. The Restore NY program and the NY Main Street grant programs help to revitalize local economies. In addition, in cooperation with the Community Preservation Corporation they funded grants to businesses that had suffered flood damage. They also administer the Housing trust Fund and provide a wide-range of funding opportunities for affordable housing.

www.dhcr.state.ny.us

New York State Department of State (Quality Communities Initiative) is a clearinghouse of information and support designed to demonstrate the state's commitment to provide smart, innovative solutions to strengthen the economy, environment and improve the quality of life in our communities.

www.qualitycommunities.org/index.asp

New York State Small Business Development Center delivers high quality free business counseling and training to New Yorkers who want to start a business or improve the performance of an existing business.

www.nyssbdc.org

NON-PROFIT ORGANIZATIONS

The Catskill Center for Conservation and Development assists local communities with development and land conservation issues with a range of services including planning and technical support.

www.catskillcenter.org

Catskill Watershed Corporation was formed to establish a working partnership between the City of New York and the communities in the Catskill/Delaware Watershed administering watershed protection and partnership programs, as well as a \$60 million economic development fund.

www.cwconline.org

Mid-Hudson Pattern for Progress is a non-profit, public policy research and planning institution serving a nine county area, including Sullivan County.

www.pattern-for-progress.org

ADDITIONAL RESOURCES

Cornell Cooperative Extension of Sullivan County

www.cce.cornell.edu/sullivan

Sullivan County Board of Realtors

<https://scbr.getlamps.net/>

Board of Cooperative Educational Services (BOCES)

www.scboces.org

Summary of Plan Goals

AGRICULTURE	Protect and maintain existing farms.
	Promote and market current and future farms.
	Maintain history and preserve rural quality of Sullivan County.
	Continue development of emerging agri-businesses and ag-diversification.
BIODIVERSITY	Identify and protect important natural habitats and ecological areas.
	Improve public awareness of the presence and value of natural habitats and ecological areas.
	Limit encroachment, degradation and elimination of important ecosystems.
	Link the protection of biodiversity to the development and marketing of eco-tourism.
RECREATION/CULTURE	Identify and preserve existing recreational, cultural and historic resources.
	Identify opportunities to connect open spaces through trails, corridors and bicycle paths.
	Promote current and developing cultural and historic resources.
	Develop and market the County as a destination for outdoor recreation.
WATER CONSUMPTION	Protect public health and safety by helping communities maintain and improve water quality.
	Ensure that the supply of water is sufficient to meet future needs, and is conserved by its users.
WATER FLOODING	Prevent loss of property and habitat destruction.
	Ensure resident and community safety.
	Maintain, protect and restore floodplains, wetlands and riparian areas.
GROWTH & DEVELOPMENT	Encourage appropriate development in areas that can adequately support future growth.
	Help communities plan for growth consistent with their unique features and economic development goals.
	Utilize the County's natural resources to attract new business and improve the local economy.
	Strengthen the County's ability to target, attract and locate appropriate business and industry.

Introduction

Based on the goals and strategies outlined in the previous chapters, this Action Plan is designed to answer the question, "**How do we get there?**"

In this chapter, the individual action items have been organized (by resource type) into manageable timeframes spread over a five year implementation schedule. Ongoing initiatives involving education and/or outreach have been separated into their own implementation schedule.

For each action item, the action plan also identifies who will take the lead on implementation, partner agencies and organizations, and possible funding sources.

The table on the following page serves as a key to the abbreviations used for the various agencies and organizations referenced in the action plan.

***Vision without action
is a daydream.***

***Action with without
vision is a
nightmare.***

- Japanese Proverb

Action/Implementation Plan

KEY TO AGENCY ABBREVIATIONS	
AFPB	Agriculture & Farmland Protection Board
AgLDC	Agriculture Local Development Corporation
APA	American Planning Association
BOCES	Sullivan County Board of Cooperative Educational Services
CCE	Cornell Cooperative Extension
CED	Sullivan County Community & Economic Development
CFA	Catskill Forest Association
CWC	Catskill Watershed Corporation
DHC	Delaware Highlands Conservancy
DPEM	Sullivan County Division of Planning & Environmental Management
DPW	Sullivan County Division of Public Works
DRBC	Delaware River Basin Commission
EPA	United States Environmental Protection Agency
ESDC	Empire State Development Corporation
FEMA	Federal Emergency Management Agency
FPIG	New York State Farmland Protection Implementation Grants
Grants Admin.	Sullivan County Department of Grants Administration
IDA	Sullivan County Industrial Development Agency
MTA	Metropolitan Transportation Authority
NFIP	National Flood Insurance Program
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NYCDEP	New York City Department of Environmental Protection
NYS Ag & Mkts.	New York State Ag & Markets
NYSICA	New York State Council of the Arts
NYSCH	New York State Council for the Humanities
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOS	New York State Department of State
NYSDOT	New York State Department of Transportation
NYSOPRHP	New York State Office of Parks & Recreation & Historic Preservation
NYSORPS	New York State Office of Real Property Services
OSI	Open Space Institute
PTA/PTO	Parent Teacher Association/Organization
REAP	Sullivan County Rural Economic Area Partnership
RPTA	Sullivan County Real Property Tax Administration
SARE	Northeast Sustainable Agriculture Research & Education
SASD	Sullivan Alliance for Sustainable Development
SBDC	New York State Small Business Development Corporation
SC Audubon	Sullivan County Audubon
SC Chamber	Sullivan County Chamber of Commerce
SC Partnership	Partnership for Economic Development
SCCC	Sullivan County Community College
SCVA	Sullivan County Visitors Association
SEMO	New York State Emergency Management Office
SWCD	Sullivan County Soil & Water Conservation District
TNC	The Nature Conservancy
UDC	Upper Delaware Council
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGBC	United States Green Building Council
USGS	United States Geologic Survey
WAC	Watershed Agricultural Center

Action/Implementation Plan



Agricultural Strategies

- 1 Create a branding and marketing campaign to promote Sullivan County agricultural products and agri-tourism.
- 2 Improve access to funding and encourage programs that protect farmland.
- 3 Identify new markets for local agricultural products.
- 4 Educate the public about the personal and societal benefits of supporting local agriculture.
- 5 Improve farm profitability and product diversification.

SHORT-TERM YEAR 1: 2009

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Partner with the Watershed Agricultural Council and promote membership in "Pure Catskills".	Watershed Agricultural Council/ DPEM, CCE, AFPB, AgLDC	Existing resources
1.6	Research partnership opportunities with existing initiatives (i.e. Slow Food, Farm to Table, Pride of New York, LEED, etc.).	Division of Planning & Environmental Management (Ag ED)/ CCE, WAC, Center for Discovery, Farm to Table, NYS Ag & Mkts., Northeast Organic Farming Association, USGBC	Existing resources
2.4	Focus initial preservation efforts in priority areas that have the highest concentration of existing working farms.	Division of Planning & Environmental Management (Ag ED)/ CCE, AFPB, OSI, DHC	N/A
3.3	Work with farmers to identify opportunities to expand their markets, including development of new products and participation in area farmers markets.	Cornell Cooperative Extension/ DPEM, WAC, AgLDC, AFPB, farmers' markets, chambers of commerce	Existing resources
3.4	Improve accessibility of products to the market through programs such as community supported agriculture (CSA).	Division of Planning & Environmental Management (Ag ED)/ CCE, SC Chamber, WAC	Existing resources
5.4	Research and disseminate funding opportunities that address the profitability of farming.	Department of Grants Administration/ CCE, OSI, DPEM, AFPB, AgLDC	Existing resources
5.6	Work with farmers to identify opportunities to diversify their farming operations (i.e. agri-tourism, products for niche markets and value added goods).	Division of Planning & Environmental Management (Ag ED)/ CCE, WAC, SCVA, AFPB, AgLDC	Existing resources

Action/Implementation Plan

MEDIUM-TERM YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.3	Work with farmers and timber harvesters to market their products with a Catskill/Sullivan identity.	Division of Planning & Environmental Management (Ag ED)/ WAC, CCE, SC Chamber, AgLDC, CFA	NYS Ag & Mkts. Existing resources
1.4	Partner with the Sullivan County Visitors Association for branding and marketing.	Sullivan County Visitors Assn./ DPEM, CCE, AgLDC, WAC, SASD, SC Chamber	NYS Ag & Mkts., WAC Existing resources
2.5	Recognize and support the potential for hobby farms and reverting former farmland to niche farms.	Cornell Cooperative Extension DPEM, AFPB, AgLDC, OSI, Board of Realtors, municipalities	N/A
5.1	Improve profitability of local agricultural products by localizing meat and dairy processing.	Division of Planning & Environmental Management (Ag ED)/ AgLDC, SC Partnership, IDA, REAP, WAC, Hudson Valley Fresh, municipalities	USDA, USEDA, NYS Ag & Mkts., ESDC
5.3	Evaluate local laws to ensure they don't ultimately constrain farming operations, thereby adding production costs not recouped by sales.	Division of Planning & Environmental Management/ CCE, AFPB, municipalities	Existing resources
5.5	Reduce costs of family farms and farm transfers by working with the finance industry and taxing bodies to make funds available.	Cornell Cooperative Extension DPEM, municipalities, banks, USDA, OSI, DHC	Existing resources

LONG-TERM YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.2	Explore the possibilities of branding dairy products through local and regional processing facilities.	Division of Planning & Environmental Management (Ag ED)/ CCE, AFPB, AgLDC, REAP, WAC, Hudson Valley Fresh	USDA, USEDA, NYS Ag & Mkts., ESDC, WAC
2.1	Research local and regional opportunities to fund purchase of development rights programs.	Agriculture and Farmland Protection Board DPEM, CCE, Grants Admin., OSI, DHC	NRCS (Farm & Ranchlands Protection Program), NYS Ag & Mkts (FPIG), OSI, Legislature
5.2	Research cooperatives to improve farms' buying power and competitive pricing of their farm products.	Division of Planning & Environmental Management (Ag ED)/ AFPB, CCE, AgLDC	Existing resources

Action/Implementation Plan



Biodiversity Strategies

- 1 Protect existing habitats and minimize fragmentation by identifying and developing biological corridors throughout the County.
- 2 Raise public awareness about the value and importance of biodiversity resources and their contribution to quality of life in Sullivan County.
- 3 Develop a regional approach to protecting biodiversity by improving inter-municipal cooperation.
- 4 Create a unique marketing identity or brand for Sullivan County that celebrates our natural resources and connects us to the Catskill Region.

SHORT-TERM YEAR 1: 2009

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.4	Encourage the use of land use and conservation tools such as conservation easements to conserve important habitat, by working collaboratively with local constituents, landowners and conservation organizations.	Division of Planning and Environmental Management/ DHC, OSI, TNC, CFA, NRCS, Catskill Center, Sullivan Renaissance, municipalities, WAC	Existing Resources
2.3	Establish a network of local conservation groups to be used as a resource and to foster regional collaboration.	Catskill Mountainkeeper/ DPEM, DHC, Upper Delaware Visioning Committee, The Eagle Institute, NYSDEC, SASD, Basha Kill Area Association, SC Audubon, Catskill Center, Sullivan Renaissance, TNC, CFA	Existing Resources
3.1	Utilize existing maps and data to identify priority biodiversity resources that cross municipal boundaries.	Division of Planning and Environmental Management (GIS)/ NYSDEC, Upper Delaware Visioning Committee, TNC, SC Audubon, Trout Unlimited, USGS	Existing Resources
3.3	Develop and distribute an updated list of potential funding sources and incentives to protect biodiversity across municipal boundaries.	Department of Grants Administration/ Municipalities, conservation groups	N/A
4.3	Establish a network of conservation groups for programming, cross promotion and joint marketing opportunities.	Catskill Mountainkeeper/ SCVA, conservation groups	Existing Resources

Action/Implementation Plan

MEDIUM-TERM

YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
2.4	Utilize local media sources to disseminate information and promote activities.	The Nature Conservancy/ Conservation groups	Existing resources
3.2	Establish an inter-municipal network for collaborative education to share information about the potential environmental impacts of proposed development.	Division of Planning and Environmental Management/ Municipalities, Catskill Mountainkeeper, SASD, NYSDEC, NYSDOS, Catskill Center, CFA	Existing resources
4.1	Identify linkages between existing inventories of biodiversity resources and eco-tourism activities currently ongoing or planned for Sullivan County.	Division of Planning and Environmental Management/ SCVA, Catskill Mountainkeeper, NYSDEC	Existing resources
4.2	Inventory and promote niche markets and businesses that support eco-tourism activities (i.e. outdoor gear for fly-fishing).	Chamber of Commerce/ SCVA, chambers of commerce, businesses, SC Partnership	Existing resources
4.4	Work with tourism, conservation groups and the SCVA to develop a brand or image that can be promoted regionally, nationally and internationally.	Visitors Association/ DPEM, SC Partnership, SC Chamber, Catskill Mountainkeeper, TNC	Sullivan County Legislature, member items
4.5	Work with the SCVA, Chamber of Commerce and other appropriate agencies to support eco-tourism related businesses and to promote eco-tourism.	Chamber of Commerce/ SCVA, chambers of commerce, businesses	Explore New York

LONG-TERM

YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Use mapping resources to identify existing and potential biological corridors, and opportunities to link them where appropriate.	Division of Planning and Environmental Management (GIS)/ Upper Delaware Visioning Committee, TNC, SC Audubon, Catskill Center, NYSDEC	Existing resources
1.2	Use parcel data to identify owners of properties that include biological corridors.	Real Property Tax Administration/ DPEM	Existing resources

Action/Implementation Plan



Recreational/Cultural Strategies	
1	Help towns and villages guide future development in ways that minimize impacts on existing historic, recreational, cultural, and scenic resources.
2	Improve existing public recreational facilities and identify opportunities for the development of new ones.
3	Encourage the expansion and development of trail systems within and among communities to link existing open spaces and recreational resources.
4	Expand and improve efforts to promote Sullivan County's recreational, historic and cultural resources to both visitors and residents.
5	Increase the capacity of recreation-related businesses, sporting clubs, and cultural organizations to improve the County's position as a tourist destination.

SHORT-TERM YEAR 1: 2009

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
3.1	Form a county-wide trail task force to coordinate local trail-building, maintenance and promotional efforts.	Division of Public Works (Parks)/ DPEM, SCVA, trail groups	NPS Rivers Trails & Conservation Assistance Program Existing resources
3.3	Work with Sullivan County Visitors Association (SCVA) to develop a map of existing recreational trails and trail networks in Sullivan County to encourage increased use.	Visitors Association/ DPW, DPEM, trail groups	Explore New York, Legislature, member items, existing resources
5.4	Increase funding for the County's Historic and Cultural Assistance Program (HCAP).	Division of Planning & Environmental Management/	Legislature, member items

MEDIUM-TERM YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Use GIS to define and locate important historic, recreational, cultural and scenic resources (by town) and disseminate maps to each municipality.	Division of Planning & Environmental Management (GIS)/ DPW, Sullivan County Historical Society, municipalities	Existing resources
2.1	Use GIS to map all publicly accessible parks and recreational facilities in the County.	Division of Planning & Environmental Management (GIS)/ DPW, municipalities	Existing resources
2.2	Inventory existing county-owned and managed recreational facilities and develop a county-wide parks master plan to guide future improvements.	Division of Public Works (Parks)/ DPEM, Grants Admin., Sullivan Renaissance, DHC, OSI	NYSOPRHP, existing resources

Action/Implementation Plan

MEDIUM-TERM

YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
2.3	Survey towns to determine their interest in developing new facilities and their use of recreational impact fees for development.	Division of Planning & Environmental Management/ DPW, municipalities	Existing resources
3.2	Explore opportunities to connect the D&H Canal Linear Park to the Ontario and Western (O&W) rail trail through acquisition and/or easements.	Division of Public Works (Parks)/ DPEM, trail groups, OSI, DHC, Sullivan Renaissance, Parks & Trails NY, New York/New Jersey Trail Conference	Existing resources, NYSOPRHP (Recreational Trail Grants), NYSDOT (TEP)
4.2	Work with the SCVA to publish a trail map, guide or brochure of existing cultural and historic sites, as well as heritage tourism opportunities.	Visitors Association/ DPW, DPEM, Sullivan County Historical Society, municipalities	Explore New York, Legislature, member items, existing resources

LONG-TERM

YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
2.4	Assist towns in the creation of local park master plans to better position them to receive competitive grants for park acquisition and development.	Division of Planning & Environmental Management/ Grants Admin., DPW, municipalities	Existing resources
3.5	Assist towns with trail planning to better position them to receive competitive grants for trail development.	Division of Planning & Environmental Management/ Grants Admin., DPW, municipalities	NPS Rivers Trails & Conservation Assistance Program, existing resources
4.1	Work with the SCVA to develop a targeted promotional campaign, guide or brochure specific to outdoor recreation and eco-tourism opportunities.	Visitors Association/ DPEM, Catskill Mountainkeeper, Eagle Institute, Catskill Fly Fishing Center, UDC, Upper Delaware Scenic Byway, businesses, NYSDEC	Explore New York, Sullivan County Legislature, member items, existing resources
5.1	Explore the development of financial incentives (i.e. revolving loan fund, matching grants) for expansion and/or marketing of recreation-related businesses.	Partnership for Economic Development/ Grants Admin., SC Chamber, IDA, SCVA	ESDC, Governor's Office for Small Cities (CDBG)
5.2	Work with recreation-related businesses to diversify their operations, explore opportunities for collaboration, and generate year-round interest.	Chamber of Commerce/ DPEM, SCVA, SC Partnership, chambers of commerce, businesses	Existing resources
5.3	Work with sporting clubs to explore opportunities for increased membership and complementary activities designed to generate supplemental income.	Division of Planning & Environmental Management/ DPW, sporting clubs, NYSDEC, Sportsmen Federation, Longbeards, Trout Unlimited	Existing resources

Action/Implementation Plan



Water (Consumption) Strategies

- 1 Establish a county-wide clearinghouse of information relative to water resources which is continually updated.
- 2 Provide municipalities with technical assistance to assess the cumulative impacts of development on water resources over time.
- 3 Establish collaborative partnerships to facilitate inter-municipal water resource planning.
- 4 Ensure existing and planned infrastructure is sufficient to meet current and future needs.
- 5 Improve water quality by reducing nonpoint source pollution.

SHORT-TERM YEAR 1: 2009

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.2	Ensure that the County is notified of subdivision and development activity that could potentially impact water resources for incorporation into county-wide database.	Division of Planning and Environmental Management/ Municipalities, NYSDOH, NYSDEC, County Clerk	N/A
3.1	Facilitate an annual informational meeting between Department of Health, county officials, municipal representatives to ensure consistent interpretation of state regulations.	Division of Planning and Environmental Management/ Municipalities, Code Enforcement Officers, consulting engineers, NYSDOS, NYSDOH	Existing resources

MEDIUM-TERM YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Develop overlay maps relative to recharge areas, well head protection, aquifers, wetlands, etc.	Division of Planning and Environmental Management (GIS)/ Municipalities, SWCD, NYSDOH, EPA	Existing resources
1.3	Conduct a groundwater study to identify areas that may be facing capacity and/or contamination issues.	Division of Planning and Environmental Management/ Grants Admin., NYSDEC, municipalities	Sullivan County Legislature, member items
3.3	Ensure local comprehensive plans are consistent with regional watershed management plans.	Division of Planning and Environmental Management/ CWC, municipalities, UDC, DRBC, NYSDEC, NYCDEP	NYSDOS (Water Quality Planning & Implementation Grants)
3.4	Identify funding sources to help municipalities develop local Water Resource Management Plans.	Department of Grants Administration/ Municipalities	Existing resources

Action/Implementation Plan

MEDIUM-TERM YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
3.5	Explore the feasibility of establishing a Sullivan County department of environmental health services to improve regulations for the protection of water resources.	Sullivan County Legislature/ County Manager, Public Health Services, municipalities, NYSDOH, DPEM	Existing resources
3.5	Inventory and assess existing water and wastewater infrastructure.	Division of Planning and Environmental Management/ Grants Admin., municipalities	NYSDOS (Brownfield Opportunity Areas Program)
4.3	Assist municipalities in identifying funding and/or establishing resources for water and sewer maintenance and upgrades.	Department of Grants Administration/ Municipalities	Existing resources
5.2	Encourage municipalities to develop incentives for the implementation of conservation practices.	Division of Planning and Environmental Management/ Municipalities, NYSDOS, NYCDEP, Sullivan Renaissance	N/A
5.3	Identify opportunities for municipalities and property owners to reduce, collect and treat stormwater.	Division of Planning and Environmental Management/ Municipalities, SWCD, CWC, NYSDEC, NYCDEP, Sullivan Renaissance	Existing resources

LONG-TERM YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
3.2	Develop a framework for coordinated water supply planning and management.	Division of Planning and Environmental Management/ Municipalities, engineering/planning professionals, NYSDOH, NYCDEP	NYSEFC, NYSDOH, Governor's Office for Small Cities, USDA Rural Development
4.2	Assist municipalities in the development of an objective infrastructure prioritization system.	Division of Planning and Environmental Management/ Municipalities, engineering/planning professionals, NYSDOH, NYCDEP	NYSEFC, NYSDOH, Governor's Office for Small Cities, USDA Rural Development
4.4	Consider multi-purpose water resource projects that help reduce the impact of flooding while at the same time retain the water for alternate uses.	Soil and Water Conservation District/ DPEM, municipalities, NYSDEC, USACE, NYCDEP	USDA, USACE, existing resources
4.5	Assess the feasibility of establishing a county Water Authority.	Sullivan County Legislature/ County manager, municipalities, NYSDOH, NYCDEP	NYSDOS (Water Quality Planning and Implementation Grants)
5.4	Engage citizens and town officials in watershed management planning and volunteer water monitoring.	Cornell Cooperative Extension/ Municipalities, NYSDEC, NYCDEP, SWCD, WAC, Catskill Center, Hudson Basin River Watch	Existing resources

Action/Implementation Plan



Water (Flooding) Strategies

- 1 Limit further development within floodplains and restrict development in floodways.
- 2 Provide educational opportunities on the function of floodplains and wetlands, and the importance of protecting them.
- 3 Help municipalities and landowners implement appropriate stream maintenance practices, repair damaged stream banks, preserve wetlands, and restore floodplains.
- 4 Improve the safety and maintenance of public dams.

SHORT-TERM YEAR 1: 2009

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Help municipalities adopt the updated Flood Insurance Rate Maps (FIRMS) upon their completion.	Division of Planning & Environmental Management/ NFIP, NYSDEC (Flood Control), municipalities	Existing resources
1.2	Provide municipalities with model floodplain ordinances, as well as information about the use of tools such as overlay zoning districts.	Division of Planning & Environmental Management/ NFIP, NYSDEC (Flood Control), Pace Land Use Law Center, municipalities	NYSDEC, NFIP, NYSDOS, UDC
1.4	Develop a model ordinance designed to help municipalities restrict development adjacent to and/or within wetlands and riparian buffer zones.	Division of Planning & Environmental Management/ NFIP, NYSDEC (Flood Control), UDC, SWCD, municipalities	NYSDEC, NFIP, NYSDOS, UDC
1.5	Work with municipalities to identify and acquire properties within floodplains for public use (such as parks) or for preservation of scenic vistas.	Department of Grants Administration/ DPEM, SEMO, OSI, DHC, TNC, municipalities	FEMA, SEMO, OSI, member items, NYSOPRHP, Legislature, municipal resources
2.4	Encourage municipal participation and compliance with the National Flood Insurance Program (NFIP).	Division of Planning & Environmental Management/ NYSDEC (Flood Control), NFIP, municipalities	Existing resources
3.2	Encourage increased participation in existing county-funded stream maintenance, clean-up and flood mitigation programs.	Division of Planning & Environmental Management/ DPW, SWCD, Sullivan Renaissance	Legislature, SWCD, Sullivan Renaissance, FEMA, SEMO
3.3	Assist towns with stream management planning to better position them to receive competitive grants for stream maintenance and flood mitigation projects.	Soil & Water Conservation District/ DPEM, NRCS, NYSDEC (Flood Control)	SWCD, FEMA, NRCS

Action/Implementation Plan

MEDIUM-TERM

YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.3	Use GIS to define and locate important riparian buffer zones within each town and disseminate maps to each municipality.	Division Planning & Environmental Management (GIS)/ SWCD, municipalities, Riverkeeper, TNC	Existing resources
3.1	Help municipalities inventory existing infrastructure (i.e. bridges and culverts) and evaluate its capacity to manage peak flows.	Division of Public Works/ DPEM, NYSDEC, municipalities	Existing resources
4.1	Develop a comprehensive inventory of existing publicly owned dams in Sullivan County.	Soil & Water Conservation District/ DPEM, NYSDEC, municipalities	Existing resources
4.4	Identify potential locations and funding sources for dam removal.	Department of Grants Administration/ SWCD, DPEM, municipalities	Existing resources

LONG-TERM

YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
4.2	Assess the condition of existing dams and identify funding sources for maintenance.	NYS Department of Environmental Conservation/ SWCD, Grants Admin., municipalities	NYSDEC Existing resources
4.3	Assess the functionality of existing dams and their role in flood mitigation efforts.	NYS Department of Environmental Conservation/ SWCD, municipalities	NYSDEC

Action/Implementation Plan



**SHORT-TERM
YEAR 1: 2009**

Growth and Development Strategies

- 1 Foster partnerships among the County, towns and villages, and non-profit groups to help communities create economic development plans that address their unique needs and natural features.
- 2 Develop a comprehensive plan for the I-86 corridor to attract and focus development in appropriate, highly visible and accessible locations.
- 3 Focus residential development within and around existing areas of density and encourage development that preserves open space in less dense areas.
- 4 Create an environment where existing businesses are supported and encouraged to grow, maximizing existing infrastructure.
- 5 Promote Sullivan County's natural assets and competitive advantages to attract new businesses and investment.
- 6 Make Sullivan County more conducive to business development by improving community services and quality of life attributes.

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.3	Work with Sullivan County Partnership for Economic Development and Industrial Development Agency to help municipalities identify economic opportunities best suited to their needs.	Community & Economic Development/ DPEM, SC Partnership, IDA, SC Chamber, municipalities	Existing resources
2.1	Establish a development team including NYSDOT, County, Partnership, IDA and communities along the corridor to create a multi-jurisdictional plan for Future I-86.	Division Planning & Environmental Management/ Municipalities, NYSDOT, SC Partnership, IDA	Existing resources
2.2	Work with towns along the I-86 corridor to identify parcels for local acquisition and/or rezoning as shovel-ready sites.	Partnership for Economic Development/ IDA, DPEM, RPTA, municipalities	Existing resources
4.4	Encourage the development of parks and open space areas in or on the edge of downtown districts as a way of creating desirable destinations that attract visitors and retain businesses.	Division of Public Works (Parks)/ DPEM, NYSDEC, DHC, OSI, Catskill Center, Sullivan Renaissance, municipalities	NYS Quality Communities, Sullivan Renaissance, NYSOPRHP
4.3	Encourage home based businesses which require less in the way of infrastructure, through flexible zoning and building codes.	Municipalities/ SC Chamber, CED, DPEM, SBDC	Existing resources
5.3	Ensure that business recruitment efforts are coordinated with surrounding regional agencies so that themes are complementary and regional promotions include Sullivan County.	Partnership for Economic Development/ IDA, SC Chamber, CED, Mid-Hudson Pattern for Progress, SCVA	Existing resources
4.6	Ensure all eligible businesses are using the benefits available through Empire Zone, IDA and Chamber of Commerce.	Community & Economic Development/ IDA, SC Chamber, SC Partnership	Existing resources
6.3	Facilitate a dialogue with local telecommunications providers to improve and expand county-wide access to high-speed internet, cable, and cell phone services.	Sullivan County Legislature/ DPEM, Grants Admin., SC Partnership, IDA, SC Chamber, State representatives, municipalities	Member items, existing resources

Action/Implementation Plan

MEDIUM-TERM
YEARS 2 & 3: 2010/2011

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.1	Assist municipalities with GIS mapping to identify areas for growth and preservation at the local level.	Division Planning & Environmental Management (GIS)/ DHC, SC Partnership, OSI, Upper Delaware Visioning Committee, municipalities	Existing resources
4.1	Develop incentives for creative re-use and rehabilitation of existing downtown buildings.	Division Planning & Environmental Management/ Grants Admin., ESDC, SC Partnership, IDA, Sullivan Renaissance	New York State Department of Housing & Community Renewal, NYSDOS Quality Communities, Restore NY, Governors Office of Small Cities, Sullivan Renaissance
4.2	Partner with the Chamber to support niche businesses and the creation of business incubators.	Community & Economic Development/ SC Partnership, SC Chamber, DPEM, SBDC, businesses	SBDC, SC Partnership, existing resources
5.1	Work with the Partnership and the SC Chamber of Commerce to develop a branding campaign and marketing strategy to identify and attract targeted industries.	Community & Economic Development/ SC Partnership, SC Chamber, SCVA, DPEM, businesses	Existing resources
5.2	Work with the Partnership to recruit businesses that will support outdoor recreation and heritage tourism.	Community & Economic Development/ SC Partnership, SCVA, SC Chamber, DPW	NYSOPRHP, existing resources
5.4	Develop marketing campaigns to recruit small niche, home-based businesses and second home owners as potential investors.	Sullivan County Chamber/ SCVA, DPEM, SC Partnership, Board of Realtors, RPTA, businesses, municipalities	Existing resources
6.4	Update the County's transportation plan, ensuring that the needs of workers, commuters and businesses are met.	Mobility Management/ Shortline, Grants Admin., Division of Family Services, DPW, SC Chamber, Center for Workforce Development, BOCES, SCCC, Catskill Regional Medical Center, Crystal Run Healthcare, Center for Discovery, Childcare Council, MTA	Existing resources

Action/Implementation Plan

LONG-TERM YEARS 4 & 5: 2012/2013

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.4	Initiate pilot project with the Towns of Thompson, Mamakating, Liberty and Rockland to identify target areas for development and development niches.	Division Planning & Environmental Management/ CED, SC Partnership, IDA, municipalities	ESDC, existing resources
2.3	Help communities along the I-86 corridor streamline their approval processes with manageable timelines for local planning and zoning boards.	Division Planning & Environmental Management/ New York State Planning Federation, NYSDOS, APA, Pace Land Use Law Center, municipalities	Existing resources
3.1	Identify capacity and need of water and sewer systems and where identified as necessary, increase capacity to accommodate new growth.	Division of Public Works/ NYSDOH, EPA, DPEM, NYSDEC, Grants Admin., municipalities	Governors Office of Small Cities
4.5	Encourage municipalities to revisit tax structures and water and sewer charges to ensure businesses are being taxed equitably, and encouraged to conserve water resources.	Supervisors Association/ Sullivan County Assessors Association DPEM, RPTA, County Treasurer, CCE, SWCD, NYSDOH, NYSORPS, municipalities	NYSORPS, NYS Shared Municipal Services, existing resources
6.1	Facilitate a dialogue to improve the quality and choice of educational opportunities in the County.	Sullivan County Community College/ BOCES, school districts and PTA/PTO, satellite colleges and universities, Center for Workforce Development, Legislature	Existing resources
6.2	Work with health care providers and facilities to continue efforts toward regional partnerships aimed at improving health care.	Mid Hudson Pattern for Progress/ Catskill Regional Medical Center, Crystal Run Healthcare, Horton Medical Center, Westchester Medical Center, Center for Discovery, health practitioners, Sullivan County Legislature	Existing Resources
6.5	Work with municipalities and developers to create incentives to ensure housing availability at all income levels.	Community & Economic Development/ Sullivan County Housing Task Force, DPEM, Board of Realtors, SC Partnership, CCE, municipalities	Governors Office of Small Cities, Community Preservation Corporation, Affordable Housing Corporation, USDA Rural Development, existing resources

Action/Implementation Plan

Education and Outreach

The following action items are ongoing in nature and involve public outreach, educational campaigns, or instructional workshops. They are divided into two categories — actions for which county agencies would take the lead, and actions that would be implemented by outside agencies or organizations with participation by county staff.

Actions Led by County Agencies			
ACTION ITEMS	LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)	
2.3	Create a municipal pilot program to demonstrate innovative land use tools including transfer of development rights.	Division of Planning & Environmental Management DHC, OSI, Pace Land Use Law Center, CCE, APA, AFPB, municipalities	Bond financing, existing resources
3.2	Organize events to inform local and regional residents and businesses of opportunities to buy directly from local producers.	Division of Planning & Environmental Management (Ag ED)/ CCE, NYS Ag & Mkts., AgLDC, AFPB, DHC, OSI, Sullivan Renaissance, SCVA, SC Chamber, WAC, businesses	Sullivan Renaissance, WAC, existing resources
4.1	Use direct mail (tax forms, water bills, mailing lists) to disseminate information and/or surveys.	Division of Planning & Environmental Management (Ag ED)/ RPTA, municipalities, assessors	Existing resources
4.3	Publicize local success stories to promote awareness and duplication of effective business models and preservation efforts.	Sullivan County Legislature/ DPEM, SC Partnership, AgLDC, DHC, OSI, Catskill Mountainkeeper, WAC, CCE, SBDC, SC Chamber, local media, businesses	NYS Ag & Mkts., existing resources
4.4	Research successful public educational initiatives by regional and national organizations for possible replication in Sullivan County.	Division of Planning & Environmental Management/ NYS Ag & Mkts., CCE, DHC, Catskill Center, SCCC, BOCES, USDA, school districts	Existing resources
1.3	Conduct public outreach about the importance of minimizing fragmentation and establishing biological corridors.	Division of Planning and Environmental Management/ TNC, NYSDEC, SC Audubon, OSI, DHC, Catskill Center, Catskill Mountainkeeper, CFA, WAC, Basha Kill Area Association, The Eagle Institute, NPS, UDC	Existing resources
2.1	Provide educational information concerning biological resources and the importance of biodiversity to community organizations, citizen groups and policy makers.	Division of Planning and Environmental Management/ TNC, NYSDEC, SC Audubon, OSI, DHC, Catskill Center, WAC	Existing resources

Action/Implementation Plan

Actions Led by County Agencies (cont.)

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.2	Develop and disseminate model regulations to town boards about the availability of tools such as scenic overlay districts, ridgeline development guidelines, historic districts, architectural review boards, and more.	Division of Planning & Environmental Management/ APA, NYSDOS, NYPF, Pace Land Use Law Center, municipalities	NYSDOS, existing resources
1.3	Design and implement an educational program geared toward planning board members about ways to preserve historic, recreational and scenic resources during site plan and subdivision review.	Division of Planning & Environmental Management/ DPW, APA, NYSDOS, NYPF, Pace Land Use Law Center, municipalities	NYSDOS, existing resources
2.1	Provide training to municipalities on the utilization of information contained within the maps and county-wide database.	Division of Planning and Environmental Management/ Municipalities	Existing resources
5.1	Educate municipalities on the use of conservation design practices during site plan and subdivision review.	Division of Planning and Environmental Management/ APA, NYSDOS, Pace Land Use Law Center, DHC, OSI, municipalities	Existing resources
2.1	Create a continuing education program for local boards on how floodplains and wetlands function and tools to incorporate best management practices into local land use regulations.	Division of Planning & Environmental Management/ SWCD, NYSDEC, USACE, FEMA, NFIP, WAC	USACE, FEMA, NFIP, existing resources
1.2	Distribute maps to individual towns and villages as a reference tool for developing planning policy and a decision-making tool for planning/zoning boards.	Division of Planning & Environmental Management/ Municipalities	NYSDOS (Technical Assistance Grants), UDC, existing resources
3.2	Develop an educational program about the benefits and marketability of conservation subdivisions and other development tools for municipalities, developers and realtors.	Division Planning & Environmental Management/ NYSDOS, SC Partnership, DHC, OSI, Sullivan County Board of Realtors, municipalities	Existing resources
3.3	Educate municipalities on the benefits of using exactions to help balance development with preservation.	Division Planning & Environmental Management/ RPTA, Pace Land Use Law Center, NYSORPS, DHC, NYSDOS, OSI, SC Partnership, municipalities	Existing resources

Action/Implementation Plan

Actions Led by Outside Agencies/Organizations

ACTION ITEMS		LEAD AGENCY/ PARTNERS	FUNDING SOURCE(S)
1.5	Emphasize global food security and the benefit of eating local as an additional message.	Cornell Cooperative Extension/ DPEM, Slow Foods, area farmers markets, Pure Catskills, OSI	USDA, NYS Ag & Mkts., Northeast SARE, existing resources
2.2	Lobby to change the review criteria for FPIG program to make local farms more competitive.	Agriculture and Farmland Protection Board/ DPEM, CCE, state representatives, OSI	Existing resources
3.1	Develop a campaign to encourage large consumers (i.e. schools, prisons, hospitals) to buy local foods and products.	Cornell Cooperative Extension/ DPEM, Pure Catskills, DHC, school districts, Center for Discovery, BOCES	Northeast SARE, existing resources
4.2	Produce a film about local agriculture for inclusion in festivals and competitions such as the local DIGIT film festival.	Delaware Valley Arts Alliance/ DPEM, AgLDC, CCE, OSI	NYSICA, NYSCH
2.2	Implement existing environmental education programs (i.e. Catskills Sense of Place) into area schools to foster an understanding by youth of the importance of biological resources.	Catskill Center/ BOCES, school districts, PTA/PTO	CWC, existing resources
3.4	Partner with Parks and Trails New York to organize a county-wide trail planning workshop for the purpose of sharing information and exploring possible connections between communities.	Parks & Trails New York/ DPW, DPEM, NPS, Sullivan Renaissance, local municipalities, trail groups	NPS Rivers, Trails and Conservation Assistance Program, Sullivan Renaissance
4.3	Work with the Sullivan County Historical Society to develop a local history curriculum for dissemination to county schools.	Sullivan County Historical Society/ Catskill Center, school districts, BOCES	NYSCH
2.2	Provide training to municipalities regarding NYS Realty Subdivision Laws and requirements under SEQRA.	NYS Department of State/ NYSORPS, NYSDOH, DPEM, RPTA, County Clerk, Board of Realtors, municipalities	Existing resources
2.3	Develop a public outreach and education program to disseminate information to developers and property owners (<i>about the cumulative impacts of development on water resources</i>).	NYS Department of Health/ DPEM, NYSDEC, NYCDEP, EPA, SWCD	Existing resources
5.5	Develop an educational campaign on the use of best management practices as a method to reduce non-point source pollution.	NYS Department of Environmental Conservation/ SWCD, NYCDEP, WAC, EPA, NYSDOH, municipalities	Existing resources
2.2	Work with school districts to educate children about the importance of floodplains and wetlands, and their role in the protection of habitat and water quality.	Soil & Water Conservation District/ BOCES, school districts, Catskill Center, TNC, NYSDEC, FEMA, USACE, NYCDEP, NYSDOH	CWC, NFIP, Sullivan Renaissance
2.3	Work with the SWCD to develop and/or disseminate a publication to streamside property owners about best management practices.	Soil & Water Conservation District/ DPEM, NYSDEC, NYCDEP, NYSDOH	Existing resources, member items, Sullivan County Legislature

Introduction

Any plan can easily become outdated as emerging issues and technology change the environment or general conditions. It is our hope that this document will set up a framework that will help municipalities evaluate and address emerging issues, thereby keeping this document as relevant in the future as it is today. When new issues arise, opportunities and obstacles can be identified, and then placed in the context of the goals set forth here. Natural gas drilling, rising fuel costs, new agricultural opportunities, and global climate change are just a few examples of issues that may influence the future of open space conservation and growth in Sullivan County for many years to come.



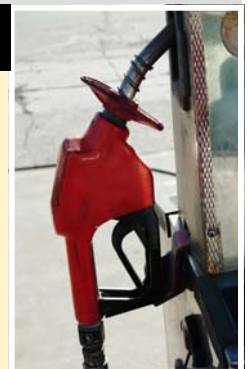
Natural Gas Drilling

Sullivan County and parts of New York's southern tier are on the edge of a rock formation (Marcellus Shale) that contains large amounts of natural gas. While the price of gas stayed flat at about \$2 per thousand cubic feet through the 1990s, it is now six times that amount. Add to that the fact that new technology for the horizontal drilling process known as "fracking" now makes drilling more economical, and its no wonder dozens of parcels of land in prime agricultural areas are under contract with gas companies.

Without passing judgment on whether gas drilling will be good or bad for the County, communities can begin a discussion about possible obstacles and opportunities arising from it that relate specifically to conserving open space. Opportunities may include the possibility of turning new access roads into trails for public enjoyment once the drilling is over, or acquiring information such as geologic surveys, which can help municipalities make more informed decisions on other matters. Obstacles may include forest fragmentation, prime soil disturbance, increased storm water run off, and other issues.

The Rising Cost of Fuel

Over the past five years, gas prices have soared from just over a dollar per gallon to over four dollars per gallon in some places. Rising fuel prices mean higher cost for shipping, delivery, and overall operations. In general, high energy costs impact the amount that farmers are able to produce during the year because farmers use energy in the fertilization process and other farm operations. In addition, high gas prices impact the amount of disposable income that families have to spend on goods and services, as they readjust their spending in order to pay high amounts to heat their homes and drive their cars.



While rising fuel costs present a significant obstacle to our local farmers and small businesses in the form of increased operational costs, it may also present some opportunities as well. These include boosting local tourism from surrounding population centers during a time when it is becoming prohibitively expensive to travel long distances by automobile. Another opportunity is the possibility of a pricing advantage to our local farmers based on the cost of transporting products to the market.



The Changing Face of Agriculture

As noted earlier, Sullivan County has its roots in agriculture, and it remains an important part of our local economy. Over the last several years, while many large family farms have ceased operations, many new small farms, niche farming operations and farmers markets have grown. At the same time, there has been a strong national movement toward more sustainable living through support of local agriculture and businesses as well as individual efforts to grow food sources.

On a national level there has been a growing interest in the next generation of “farmers”. More and more young people are turning toward agriculture as a career and a life choice. This raises an interesting question about how this trend might encourage or result in continued farming with families. It also presents an opportunity to further explore how to attract these young “agrarians” to Sullivan County as a place to establish their farming operations.

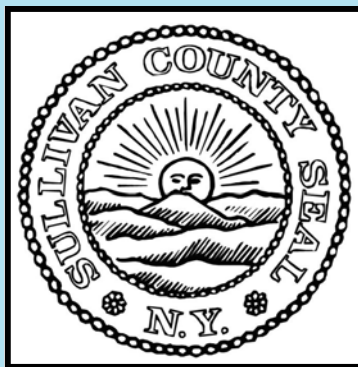
Global Climate Change

The dramatic increase in fossil fuel production and use over the past century has led to an increase in the amount of greenhouse gas emissions that are trapped in our atmosphere, impacting global climate change. The International Panel on Climate Change agrees that human action is causing global climate change to happen at a faster rate than once expected.



Locally, changes in global climate patterns mean that several species, including the Sugar Maple (the New York State tree) are extirpating north to cooler climates. The results of this may be extinction, a loss of biodiversity, or economic loss. In addition, more severe storms have resulted in more flooding and damage to our area and local economy, which may also compromise our water quality in the future.

As these and other emerging issues change the environment or general conditions of Sullivan County, this plan can serve as a guide, but may also need to be revisited and evolve. It is our hope that this document will be a framework to help municipalities and communities conserve open space and manage growth well into the future regardless of the changes and new issues they may face.



CONSERVING OPEN SPACE & MANAGING GROWTH