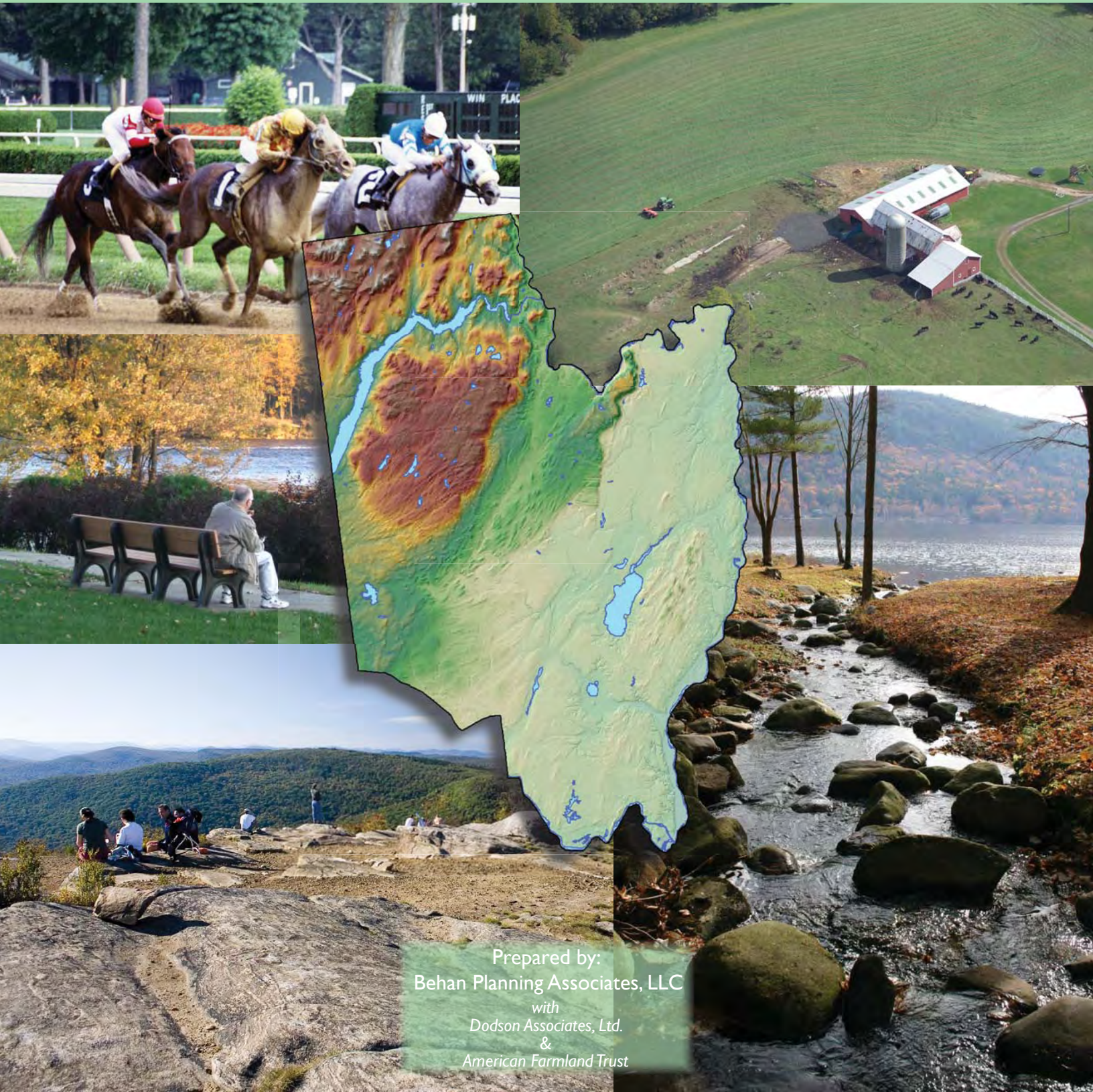


# Green Infrastructure Plan for Saratoga County

*Adopted November 21, 2006*



Prepared by:  
Behan Planning Associates, LLC  
with  
Dodson Associates, Ltd.  
&  
American Farmland Trust



# Green Infrastructure Plan for Saratoga County

**Adopted November 21, 2006**

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# **Green Infrastructure Plan for Saratoga County**

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## Executive Summary

### Why Are We Planning for Green Infrastructure?

Saratoga County and its communities have invested in planning—and have reaped the rewards—from historic downtown revitalization in Saratoga Springs to economic development fostered by the county’s wastewater collection and treatment system to current initiatives toward creating the Luther Forest Technology Campus. By investing in highways, water systems, and the like; the “grey infrastructure,” county residents and businesses set the stage for the growth of income and employment. And, like our ancestors who set up our system of national and state parks, county residents and leaders recognize the importance of conservation of our natural and cultural resources. By protecting our working farmlands and natural resources now, we can ensure the character of the county, the sense of place, will be part of our economic prospect for current and future generations.

The county’s green infrastructure resources – its lakes, rivers, forests, farmlands, and historic resources – are in transition. As the county continues to grow, these resources face increasing pressure. In particular, areas in proximity to the Adirondack Northway, state highway corridors, farmlands and waterfronts are among the places facing growth pressure.

The county has enjoyed the benefits of abundant and healthy natural resources—“green infrastructure.” This green infrastructure is as important to our health and well being as our system of grey infrastructure. These green assets provide clean air and water. They maintain functioning natural systems that reduce the impacts of flooding and erosion and provide many other significant environmental benefits. They help to sustain important economic, scenic, historic and recreational landscapes that attract residents and visitors to live, work, shop and recreate in Saratoga County. And, most importantly, protecting green infrastructure helps to maintain the intrinsic values of the county’s highly-respected landscape for future generations.



*Clean water is an economic benefit of a healthy ecosystem.*

There is no better time to plan for green infrastructure in Saratoga County than now. The county is expected to grow by an additional 58,000 persons by 2040. Housing units will grow at a rate faster than population growth due to reductions in average household sizes. Farmland is projected to become increasingly fragmented and developed—an irreplaceable loss of resources and county character. This plan is intended to help address both of these kinds of concerns in a positive manner—supporting growth important to the economy and helping willing landowners keep the land open.

To date, there are approximately 43,000 acres of protected open space lands (county and state forests, parks, etc.) in the county (or about eight percent of the land area in the county). The majority of this acreage is in the Adirondacks. Hence, the part of the county facing the greatest development pressure is the part of the county with the least amount of protected open space.

Balancing and benefiting from this green infrastructure are the communities, neighborhoods and employment centers of the county. This plan recognizes the importance of the availability of affordable housing and employment opportunities and the need for thriving commerce and industry to make a sustainable place. This plan is an important step in maintaining the integrity of Saratoga County's green infrastructure system and the exceptional quality of life that sets Saratoga County apart from other regions.

## **What is the Green Infrastructure Plan for Saratoga County?**

The Green Infrastructure Plan for Saratoga County is a regional initiative to identify and safeguard valued community open space resources. The plan brings together the county's most important open space resources, including natural systems such as streams, wetlands and watersheds; working landscapes such as farms and managed forests; recreational and trail opportunities such as multi-use trails and fishing access; and cultural resources such as scenic and historic corridors.

Community members in the county have actively participated in the creation of this plan. The plan began with a set of regional workshops in several communities throughout the county, designed to identify shared values for resource protection and priorities. Many community members participated in these workshops and helped to create an open space vision for the future of Saratoga County. These workshops helped to set the stage toward the creation of the recommendations set forth in this plan. Hence, this is a plan built from the ground up.

The plan builds upon local conservation goals and efforts to create regional priorities. This plan advances the concept of "borderless communities" in Saratoga County. Green infrastructure resources, such as rivers, wetlands, and even farmlands, do not always follow local municipal borders. In fact, the resources and economics of the region are more often unifying and cohesive, rather than divisive and fragmented. Often, it makes sense for several communities to collaborate to conserve a regional resource such as a greenway or natural area. This plan helps to identify these regional resources and provides a framework for communities to work together, with county leadership, to achieve a common goal.

The plan is about growing partnerships. This plan for Saratoga County is more than a plan for county governmental action. This plan recognizes at its foundation that successful open space conservation projects are the work of dedicated individuals and organizations motivated toward a common vision. This plan illustrates that vision. It will be in the hands of many to turn the vision into reality.

The core strategy of this plan, then, is the concept of growing partnerships for conservation. So much has been accomplished towards this end, yet there is much more work to be done. To



accomplish the goals set forth in this Green Infrastructure Plan for Saratoga County, there will need to be continued expansion of participation and support from all corners; from land owners to the municipalities, and from nonprofits to the county, state, and federal agencies.

## What is the Vision for the Green Infrastructure?

The vision for the county's green infrastructure network includes a system of unfragmented wildlife "hubs," linked together by conservation greenways. It includes retention and conservation of core working landscapes of agriculture and forestry. It includes opportunities for people to connect to the land, through trails, parks and waterfront access. It includes celebration of the county's cultural heritage and the integration of green infrastructure with tourism and economic development initiatives. And, lastly, it includes the balancing of settlement and "grey infrastructure" to sustain green infrastructure. The green infrastructure network includes five major components, which are illustrated and discussed at length in Chapter 4 of this plan:

### Farmland Core Areas

Large, unfragmented blocks of working farms and farmlands should be retained and conserved.

### Natural Systems Hubs

Areas of unfragmented forest, interconnected wetlands, and other habitat should be conserved and balanced with sustainable uses that maintain the resource value.

### Greenway Corridors and Trails

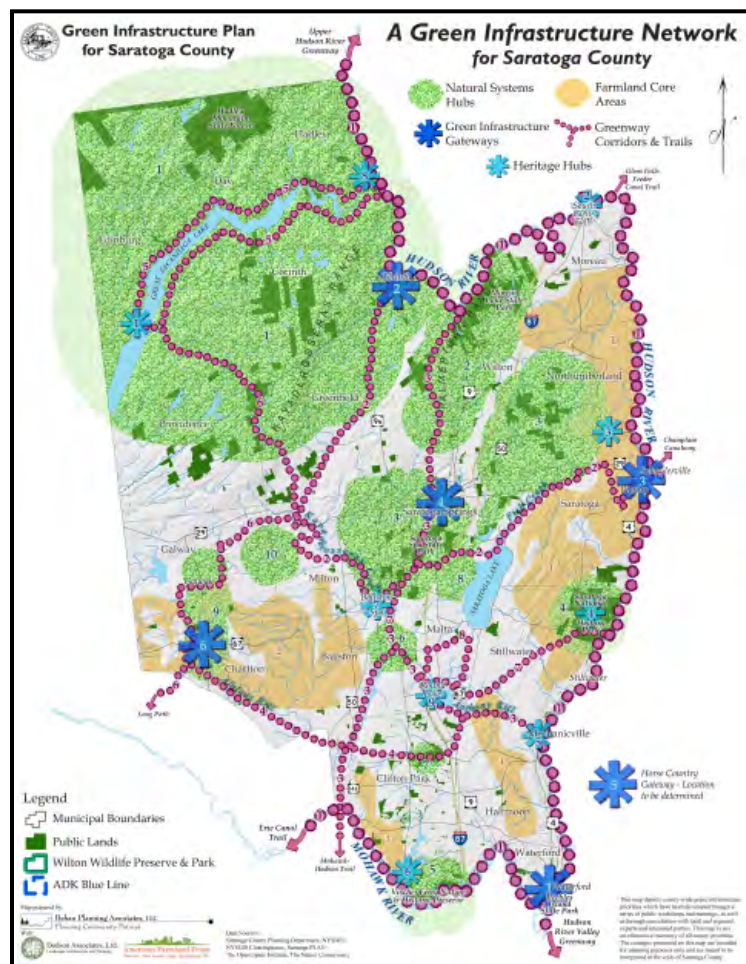
Connections between natural systems hubs, for both wildlife and people, should be created with sensitivity to the natural and cultural setting.

### Heritage Hubs

Concentrated areas of significant historic resources should be preserved and integrated into a heritage tourism network that celebrates the rich history of the county.

### Green Infrastructure Gateways

Major destinations and entrances to the county's green infrastructure network should be celebrated and integrated with economic development and tourism efforts.



*This plan's vision for an interconnected green infrastructure network is summarized in Chapter 4.*

## **What are the Plan's Major Recommendations?**

The plan recommends three major actions to be taken by the county to help advance green infrastructure planning and implementation:

### **I. EXPAND AND MODIFY THE EXISTING COUNTY FARMLAND/ OPEN SPACE GRANT PROGRAM**

The existing farmland/open space grant program should be modified as follows:

- Provide grants in all four categories of green infrastructure, including expansion of the types of farmland protection projects funded
- Provide grants for planning and implementation of county green infrastructure priorities
- Remove the per-project funding cap
- Increase the percentage of the county share on farmland protection projects
- Consider landowner contributions in the form of donations and bargain sales in project budget calculations for matching funds
- Increase the amount of funds to meet the growing demands of the program

Prioritize projects that:

- Are identified as priorities in this green infrastructure plan (see Chapter 4 summary and green infrastructure network map)
- Meet the guidelines for a county priority project

### **2. LINK GREEN INFRASTRUCTURE PLANNING WITH GREY INFRASTRUCTURE PLANNING**

- Continue to implement the policy of the county's development plan to guide infrastructure away from areas where intensive development is not appropriate
- Coordinate county public works projects, such as those planned for county highways and other corridors, with green infrastructure planning

### **3. HELP TO BUILD LOCAL CAPACITY FOR GREEN INFRASTRUCTURE BY CREATING A COUNTY GREEN INFRASTRUCTURE ASSISTANCE PROGRAM**

This program would provide assistance to county municipalities for green infrastructure planning and implementation, including:

- A geographic information systems (GIS) database that tracks existing and planned green infrastructure resources and projects
- A green infrastructure resource center that provides a central source for reports, model ordinances and practices, grant funding opportunities, and other innovative information
- Conferences, promotional materials and other educational efforts

## What Can I do to Help?

There is a role for everyone in building the green infrastructure network:

**Saratoga County** can play a significant role in helping communities, landowners, and others achieve the vision for the future through additional planning, administration, and project funding support, as discussed throughout this plan.

**State and Federal Agencies** will be able to more clearly see the county's vision for a green infrastructure network and will be able to deliver their programs more readily in response to local needs and opportunities.

**Landowners** are the heart of the green infrastructure plan. Those who have been stewards of the land for many years will be provided additional opportunities for farmland, open space, and natural resource conservation as this plan is implemented.

**Conservation Organizations** will be increasingly important partners in public education and advocacy and toward developing and stewarding projects.

**Cities, Towns and Villages** can use this plan to work together and with other partners to identify projects that meet the vision established herein as it fits their respective local vision and plans. This county plan highlights several opportunities for more detailed resource-specific planning and project identification, as well as potential increased funding opportunities.

**Development Community** members who have long supported smart growth measures that add to the quality of life and community amenities can continue to support and implement the concepts of conservation-based design for development.

## What is Included in This Plan?

The major focus of this plan has been to identify county green infrastructure resources and prioritize these resources for regional and local conservation and planning efforts. To this end, the plan and its products include the following major products:

### **A County-wide Green Infrastructure Database** (Chapter 3)

An extensive collection of data for green infrastructure resources in all of Saratoga County's municipalities. This database will be available to county municipalities to help direct their conservation and planning activities.

### **Theme-based Resource Inventory Maps** (Appendix A and Chapter 3)

A set of maps that synthesize the county's green infrastructure resources and concepts for four green infrastructure topic areas: natural systems; working landscapes; recreation and trails; and cultural landscapes.

### **County-wide Green Infrastructure Network Map** (Chapter 4)

A synthesized vision map for the county which helps to illustrate the interconnections between



green infrastructure resources.

**Recommendations and Strategies** (Chapters 5 and 6)

Detailed recommendations and strategies for Saratoga County to undertake to help achieve the vision and conservation goals of this plan.

**A Local Guide to the Plan** (Chapter 7)

A guide for local municipalities on how they can use, and build upon, this plan at the local level.

**Visualizing Conservation and Development in Saratoga County** (Appendix B)

An illustrated guidebook with real-world examples depicting how the goals of this plan can be accomplished at the local level using a menu of conservation and planning tools.

## What are the Next Steps?

This plan identifies three important strategic actions that Saratoga County can take to advance the recommendations and goals of this plan. The first step is to adopt this plan and distribute the materials within it to each municipality in the county. Maps and data created as part of this plan have already been used in local planning initiatives, and should continue to be updated and shared with green infrastructure partners.

This plan has identified short and long-term conservation goals and has illustrated the need for county assistance to help close the funding gap. An important action item of this plan is for the county to develop a long-term financing strategy for increasing green infrastructure funds at the county level. This financing strategy should analyze the goals of this plan, as well as existing funding sources, and quantify the need and realistic goals for filling this need.

Lastly, the county should retain the capacity needed to implement the green infrastructure plan's recommendations. This will likely include county designation of a green infrastructure "point person;" consultant assistance with detailed conservation planning, financing and project development; and expanded partnerships with land conservation organizations and others.

## Conclusion

With this plan begins a journey and a challenge to identify and prioritize a green infrastructure network in Saratoga County. It identifies a network that is composed of natural systems, working landscapes, trails and recreation opportunities, and cultural resources. It provides a comprehensive strategy for Saratoga County communities to continue to advance the conservation of the resources that form this network.

But this plan is just the beginning. The green infrastructure network is a long-term vision, with significant goals established for 5 to 20 years in the future. Completion of this plan is a significant accomplishment. Now there is both a vision and a database of the county's green infrastructure resources in place. There is a plan for the county, its municipalities, and community-based organizations to continue to increase their partnerships toward expanded conservation of these resources.

## Green Infrastructure Plan for Saratoga County

The plan has clearly illuminated the need for partnership from all levels – from federal, state, county, and local governments to private land conservation organizations, developers and landowners. The county is taking the lead in this partnership by completing this plan.

The journey will continue beyond this plan. Additional data will become available, and the plan database and maps will change. Future studies, for example on the county's ecological framework, may help to shed some light on the existing resources and refine priorities within the network. This plan should be considered a working document; the next step down the journey to conserve and celebrate the green infrastructure network of Saratoga County.



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## Chapter 1: Understanding Green Infrastructure

### Introduction

Green infrastructure is a relatively new concept that recognizes the importance of interconnected natural systems that provide valuable services to us each and every day. This chapter defines green infrastructure and its elements. It provides an overview of its many benefits to Saratoga County – from economics to quality of life. Lastly, it provides a summary of the reasons why this plan is needed now.

*Green infrastructure is the interconnected system of natural lands, parks, waterways, farms, and historic areas that sustain Saratoga County's environmental health, economy, and quality of life.*

### What is Green Infrastructure?

Like the highways, water, sewer, and electric lines and other built or “grey” infrastructure, “green” infrastructure is the network of natural landscapes including forests, farmlands, parks and preserves. This green infrastructure system is the source of clean air and water. It provides habitat for fish and wildlife, and is key to maintaining the quality of life that makes Saratoga County such a desirable place. Our quality of life and economic success is immeasurably enhanced by the county’s green infrastructure resources. From the mountains to the working landscapes in the river valley, from the parks and nature preserves to the trails and historic sites, these resources provide a sense of place and a beautiful environment in which to live and work. They also provide a setting that attracts millions of visitors and hundreds of millions of dollars of new investment in homes and businesses every year. They are part and parcel of Saratoga County’s economic base.



*The outlet of Saratoga Lake at Fish Creek illustrates the components of an interconnected green infrastructure network.*

### Benefits of Green Infrastructure

- Clean air and water
- Wildlife habitat
- Functioning natural systems
- Access to fresh local foods
- Preservation of cultural heritage
- Recreational opportunities

## Elements of Green Infrastructure

This plan refers to four basic interconnected elements of green infrastructure:

### Natural Systems

Large unfragmented areas of forests and other habitat, stream corridors, and wetlands - lands that protect water quality and serve as primary wildlife corridors.

### Recreation and Trails

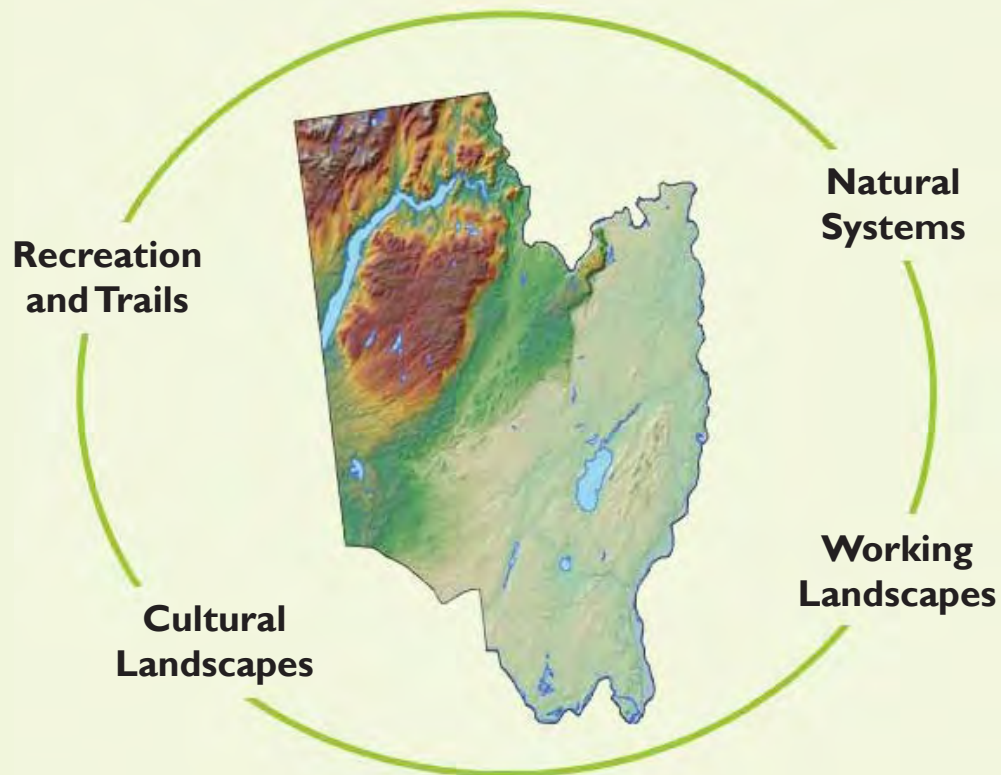
Land and water trails, parks, fishing and access areas – community connections to the landscape.

### Cultural Landscapes

Historic areas; heritage sites; and scenic landscapes, vistas and roadways – key elements of rural character and tourism.

### Working Landscapes

Farmlands, orchards and forests - lands that sustain us and contribute to economic productivity and agritourism.



## Why Conserve Green Infrastructure?

### Conserving Green Infrastructure Benefits People

Green infrastructure benefits all of us, every day. Some of us find peace and tranquility living amidst the forest, or next to a running stream. Others live in more urban places and find tranquility by escaping for a hike in the woods. Some of us enjoy the drive through farmlands and historic hamlets on our way to work. And, for some, including farmers and foresters, green infrastructure is our livelihood. Whether environmental, economic, psychological, or social, green infrastructure provides benefits for all.

We often take these resources for granted, assuming that they will always be preserved. We see open farm lands and we presuppose that they will remain that way forever. Or, we assume that the quiet little pocket of woods adjacent to our home will always be there for our children to play in. Often, it is not until these resources become threatened that we step forward to protect them. Through this plan, we hope to identify the most important of these regional resources and ensure that someone steps forward now, before it is too late, to ensure that they will remain for future generations to enjoy.



*People benefit from green infrastructure resources in many ways. Recreational sport fishing brings many people to Saratoga County's lakes and streams (top); timber harvesting and lumber-milling at G. Mackey & Daughters Sawmill is an important economic component of the Adirondack forest (bottom left); picking holiday trees at Ellms is an annual family event (bottom right).*



## Conserving Green Infrastructure is Important to Saratoga County's Economy

Saratoga County's green infrastructure holds a special place in the hearts of residents and visitors. People love Saratoga County's historic neighborhoods; the vast Adirondack wilderness; the mineral springs and spas; the racetrack and downtown Saratoga Springs; the mighty Hudson and Mohawk Rivers; the open farmlands; and the horse farms. They love the parks, trails and walking paths. These "green infrastructure" resources have attracted many people to work, live, and play in Saratoga County. They are important contributors to the region's economy and quality of life.



*Downtown Saratoga Springs is a unique destination for people from all over the country.*

The Saratoga County Chamber of Commerce highlights the importance of open space in their website's opening statement: *"Saratoga is a modern county with fairytale neighborhoods, a business-like county that takes time to smell the flowers lining its streets, and a growing county that doesn't lose touch with its past. Saratoga is a developing county that doesn't let progress step on the greenery of its extraordinary series of parks, and a thriving county that still values the fine art of living well."* This statement captures much of what is unique about Saratoga County, and makes the link between the county's open space resources and its economic success.

*"The quality of life is one of the things that most employers are looking for when relocating a business operation. This can be in educational opportunities, safety, the rural character, or cultural aspects of a community, but quality of life is critical to most quality companies. You have to maintain certain visually aesthetic areas, recreational and environmentally important areas."*

-Joe Dalton, Saratoga County Chamber of Commerce President <sup>1</sup>



## Conserving Green Infrastructure Makes Fiscal Sense

Agriculture plays a significant role in Saratoga County's economy. Farm owners provide employment, spend local dollars on equipment, and pay taxes on county lands. Farmlands generally require less in services than residential development, placing less of a burden on local governments and school districts. Studies estimate that for every dollar of revenue collected, residential development requires \$1.16 in services (such as schools, roads, water and sewer) while open space and farmland only requires \$0.36<sup>2</sup>. Thus, keeping working farmlands in the county not only provides direct revenue to the county; it provides indirect local fiscal savings.



*This patchwork of farmlands in the Town of Northumberland is an important component of Saratoga County's economic health.*

### ***Economic Impact of Agriculture in Saratoga County***

Farms play an important role in supporting the economy of Saratoga County. In 2003, farms in Saratoga County provided full and part-time jobs to 1,382 people. Farms sold almost \$39 million in farm products in 2004, a 17% increase from 2002. In 2002, local farms spent over \$32 million on expenses at hardware stores, feed and seed dealers, machinery repair facilities, banks, and many other businesses in the county and the broader region, re-investing their capital into the economy of the county. Farms are capital-intensive businesses requiring significant on-going investments to remain profitable and competitive. Saratoga County farms owned almost \$214 million in land and building assets and an additional \$41 million in machinery and equipment in 2002. This combined \$250 million investment is an indication of the commitment of the county's farmers to their businesses and the local economy.



## Conserving Green Infrastructure is Important to the Equine Industry

One example of the link between green infrastructure resources and economics is the equine industry in Saratoga County. The county ranks 1<sup>st</sup> in New York State in equine inventory (number of horses), with 11,800 head according to the 2000 New York Equine Survey. The American Horse Council estimates that the equine industry in New York produces a total economic impact valued at \$2.4 billion. **In Saratoga County, the value of the equine industry's impact is estimated to be more than \$317 million<sup>3</sup>.**

Open lands are essential to maintaining the equine industry, which in turn helps to uphold Saratoga County's horse country appeal that attracts hundreds of thousands of tourists each season. In Saratoga Springs, for example, retailers often have similar or higher sales numbers during the August racing season than they do during the December holidays. In this way, the retail business in downtown Saratoga Springs is intimately tied to the preservation of farmland and open space.



*The equine industry provides economic benefits that extend far beyond the Saratoga Racetrack and the tourism dollars it generates each year.*



*In addition to its economic benefits, horse pasturing helps to keep County lands open.*

The economic value of the equine industry extends beyond the thoroughbred and harness tracks and the tourism dollars they bring the county each year. The equine industry supports pasture, hay, and feed production businesses in the county. These industries require farmland and open space to grow hay or to pasture horses. The equine industry also provides direct local investment in equipment such as trailers and fencing and services such as veterinarians and blacksmiths. There is additional economic benefits from recreation such as from horseback riding and exhibitions.

## Conserving Green Infrastructure Can Increase Property Values

Green infrastructure resources are a large part of the lives and experiences of Saratoga County residents. People want to live in Saratoga County to take advantage of its parks and trails, its proximity to the Adirondacks, its rural landscapes and its historic villages. These resources are fully utilized by the real estate market in promotional materials.

Not only do these resources help to attract new residents to the county --they can also help to increase property values. Across the country, studies exploring the relationship between open space and property values have uncovered a positive relationship between the two. Take, for example, the results of four separate studies:

*“In order to create economic value we need to preserve rural farmland and open space, gateways in our communities that create value. It’s a world-class community. Having a balance between development and open space is key to the economy of a successful community”*

-John Witt, owner of Witt Construction <sup>1</sup>

- As reported in *The Economic Value of Open Space*,<sup>4</sup> the earliest study from Boulder, Colorado,<sup>5</sup> found that the existence of greenbelts (linear open space features such as trails or stream corridors) showed a beneficial impact on adjacent residential property values ranging from 8 to 32 percent.
- In a study on the effect of proximity to forest preserves from Grand Rapids Michigan, a premium of 19 to 35 percent in the value of lots bordering the preserve was found.<sup>6</sup>
- In Portland, Oregon, a study on single family home sales found that natural area parks could add up to 20 percent to the value of nearby homes, and that the beneficial effect extended farthest from large, natural parks relative to other open spaces.<sup>7</sup>
- A September 2003 background paper by the New York City Independent Budget Office<sup>8</sup> concluded that all else equal, prices of houses in historic districts are higher than those of similar houses outside of historic districts.

Other elements that contribute to property value, such as the availability of employment opportunities, proximity to transportation systems, and the quality of the school system, are also noteworthy. Balancing these desirable components with green infrastructure will help Saratoga County retain a competitive edge in the real estate market.

In addition to providing positive benefits in property values, a well-planned open space system provides substantial clarity and guidance for development and open space goals, limiting the occurrence of parcel-by-parcel conflicts. A recent article from the National Association of Homebuilders highlights the benefits of a comprehensive approach to open space planning. **“From the builder’s perspective, an advantage of having a well-planned program of open space acquisition is that it removes the focus from a parcel-by-parcel attempt to stop development. In contrast, in the absence of an open space acquisition program, each development proposal is seen by the community as a threat to open space, and defeat of the development proposal is seen as the only way to preserve open space.”**<sup>9</sup>



## Why Plan for Green Infrastructure Now?

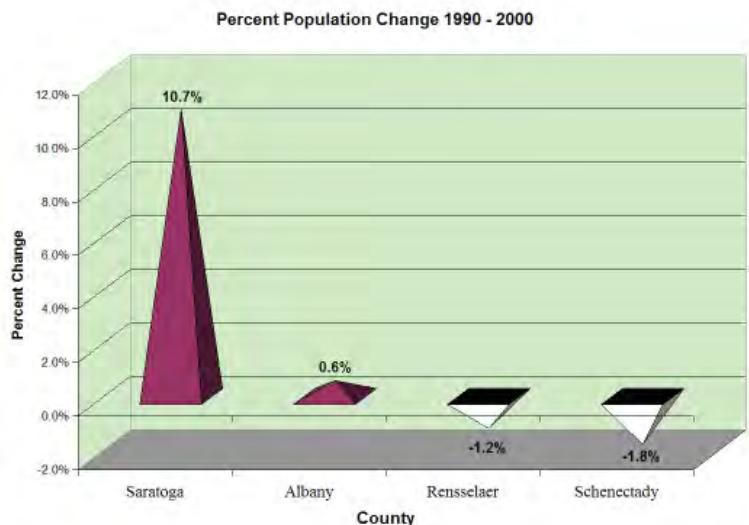
The concept of creating a green infrastructure plan comes from the recognition that land is a finite resource. As the county continues to attract investment and grow, the open spaces and natural areas that make the county attractive are also being consumed by that growth. Looking back in history over the settlement of our nation, we can see that urban growth essentially has no boundaries. Perhaps the most poignant example in our nation is found right here in our own state in Manhattan in New York City. There, the image of the metropolis is spread out in all its glory, with Central Park as the centerpiece of all of that real estate. If Central Park had not been set aside and protected as a park, it too, would have been consumed by development. New York City would not have been the attractive place that it is today, nor would it be considered a truly livable city, without the foresight to identify and protect open spaces.

Thankfully, Central Park was protected, and in fact, New York State leads the nation in land conservation. New York has more land permanently protected for open space through state and local initiatives than any other state in the nation. The first area protected for scenic beauty in the nation was the Niagara Reservation at Niagara Falls. The nation's largest area of state forest preserve is found in New York's Adirondack Park. In the mid 1970's communities on Long Island partnered with local farmers to create the first permanent farmland protection projects in the nation through a purchase of development rights program. This farmland protection concept has grown nation wide. Approximately 1.7 million acres of working farm and ranch land have been protected as of summer 2006 using public (state and local) funds.

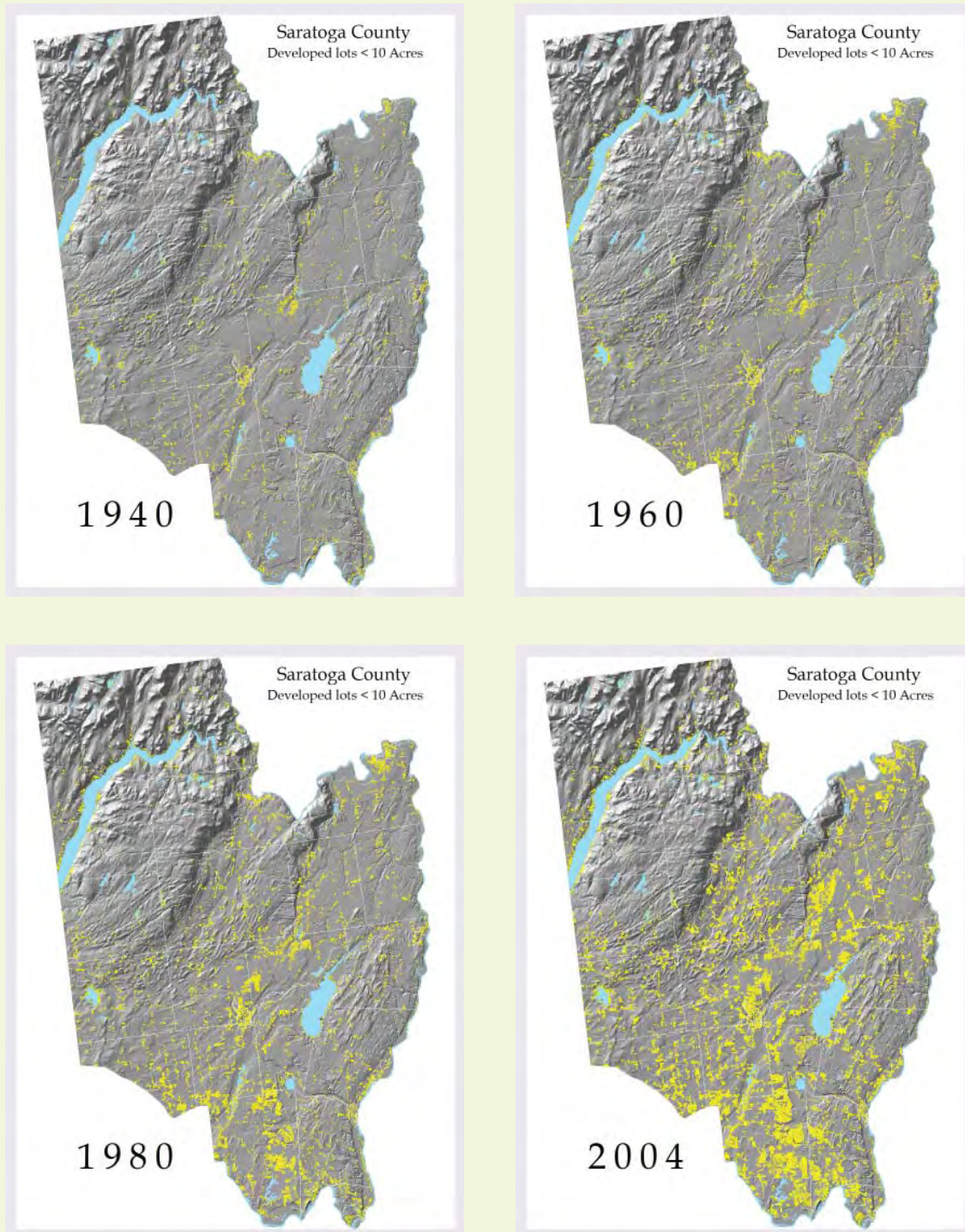
## The County's Population is Growing

Now is the time to identify and begin setting aside lands for a green infrastructure network in Saratoga County. As more people are attracted to live and work in Saratoga County, growth is putting pressure on irreplaceable resources such as farmlands.

**Saratoga County's population grew by 10.7% in the 1990s.** For comparison, the capital region (Albany, Rensselaer, Schenectady and Saratoga Counties) grew by 2.1% in the 1990s and upstate New York as a whole grew by 1.1%. Cornell University professor of city and regional planning Rolf Pendall describes Saratoga County as a "special standout" in the Hudson Valley "axis of growth." The Hudson Valley region from New York City to Saratoga, for example, grew by 5.5% in the 1990 and Dutchess County, in the southern Hudson Valley region, grew by 8% in the 1990s.<sup>10</sup>



Source: US census data, compiled by CDRPC



*This series of images depicts the growth of Saratoga County from 1940 to 2004. The yellow areas are developed lands, which have clearly increased substantially from the 1940s pattern. Most significant is the trend of increased development that has been spurred by the Adirondack Northway, which was built in the late 1960s.*



## Development is Increasing and Becoming More Spread Out

According to projections by the Capital District Regional Planning Commission, **by the year 2015, more than half of the new households in the capital region are expected to be built in Saratoga County<sup>11</sup>**. This growth is expected to increase the number of automobile trips generated in Saratoga County by 46%<sup>12</sup>. Most of this growth is expected to occur in the Northway towns but as these areas become congested, development will begin to spread outward.

The future character of Saratoga County and associated property values will be dependent, in a large part, on how well new growth is managed. Much of the recent development has been spread out in patterns that consume the county's green infrastructure resources, resulting not only in development that is costly to serve, but also in loss of the open space and rural nature of the county – the very reason why people want to move here.



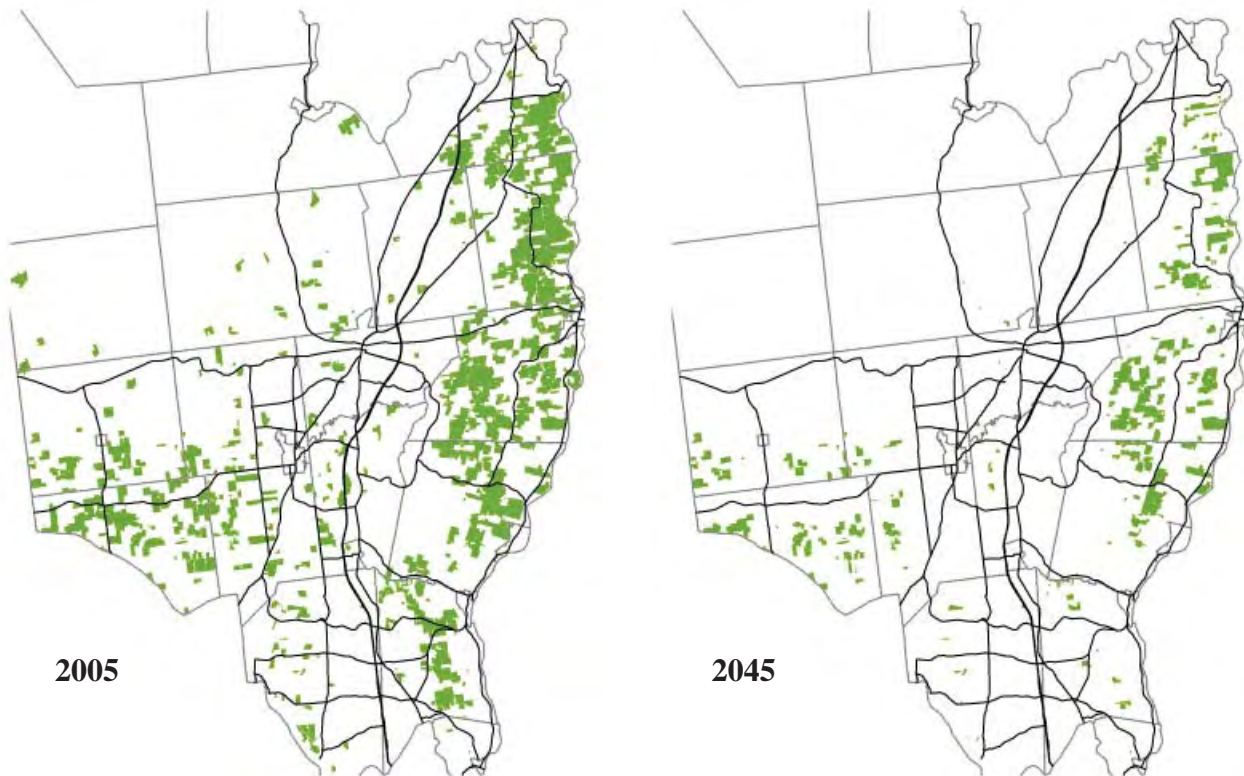
*Traditional hamlet-style development (above) is juxtaposed with today's typical development pattern (bottom) which consumes much more land and fragments important green infrastructure resources (in this case, farmlands).*



## Farmland is Being Converted to Residential Development

According to American Farmland Trust, America is losing 1.2 million acres of farmland a year<sup>13</sup>. This trend extends to Saratoga County, which has converted 19,000 acres of farmland between 1982 and 1997<sup>14</sup>. This number represents 20% of Saratoga County's active farmlands.

Below is a set of images that illustrate the future of the county's agricultural land base, under projected trends. The first image, 2005, is the existing agricultural land base at the start of this green infrastructure plan. The second is the projected future of the agricultural land base in 2045. This simulation was developed through evaluation of current agricultural data and trends, in consultation with local and national experts in agriculture. It would lead to an average farmland loss rate of 9,000 acres every 5 years. Clearly, if this trend continues, there will not be enough land left to sustain agricultural businesses in the county.



*Images showing the amount of land in agriculture at the start of this plan (left) and projected land in agriculture in 2045 given current trends (right).*



## **Conclusion: The Time is Now**

Saratoga County still has an excellent network of green infrastructure resources. Every day, we lose a little bit more of this network. Every day, the county's resources become more fragmented. The long-term viability of this network is at stake as people continue to be attracted to the county as a place to live, work, recreate, and conduct business. Strong competition for land will continue to make it difficult for landowners and communities to hold on to our green infrastructure resources, especially the county's farmlands. The time for identifying the county's important resources, and taking steps to make sure that they are permanently conserved, is now.

## Chapter 2: Planning Process and Setting

### Introduction

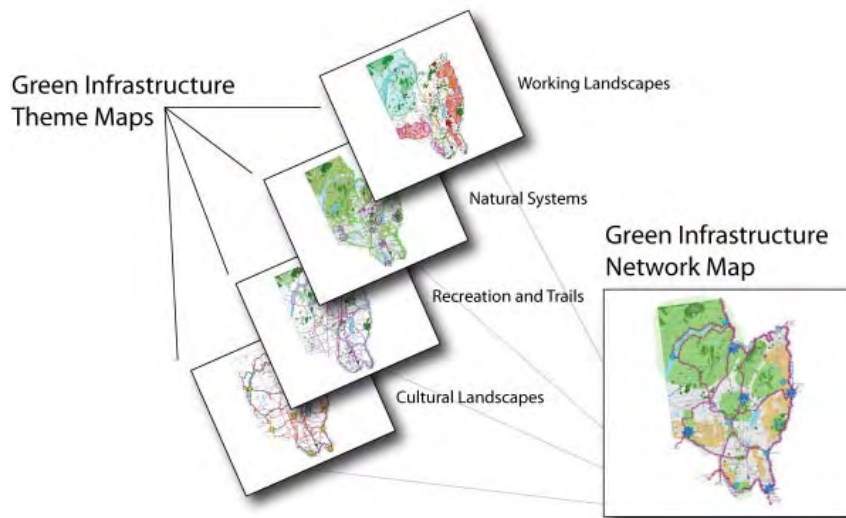
This chapter summarizes the planning process that was used to transform data, maps, and local knowledge into to a community-based vision and strategy for conserving a green infrastructure network in Saratoga County. It also introduces the reader to Saratoga County, its major regional green infrastructure resources (such as the Adirondack Mountains, and the Hudson and Mohawk Rivers) and the existing state of green infrastructure in the county.

### Planning Process

The goal of this green infrastructure plan is to identify a priority county-level green infrastructure network and develop a strategy for its conservation. To do this, an extensive inventory and analysis of the county's existing and planned resources was undertaken. This **inventory process** included consultation with state, county, and local officials, planners, agencies, and community members. It included review of all local comprehensive plans, open space plans and other resource-specific plans in the county. It included the creation of many new geographic information system (GIS) data layers for the county, such as historic resources, forest cover, farmlands, and planned trails. Many of these data layers were created by combining existing maps and data with local field-verification.

In developing a plan that has an abundance of resources, it is often useful to identify and separate individual layers (analysis) to understand them better and then bring them back together again in the end (synthesis). This is the process that was used for the plan. The county's green infrastructure resources broken down, or analyzed, according to the four theme areas discussed in Chapter 1:

- Natural Systems
- Working Landscapes
- Recreation and Trails
- Cultural Landscapes



*In order to make sense of the volumes of data that were analyzed in this plan, components of green infrastructure were separated into themes and then brought back together to create a county green infrastructure network map.*

For each of the four categories, detailed data were collected and analyzed. As an example, the **natural systems** category included data about natural communities and other important areas for imperiled species. It included digital mapping of unfragmented forest cover. It included mapping of wetlands, streams, and other water bodies. It also included identification and mapping of all existing protected lands, as well as locally-desired conservation areas planned for the future. The maps created during the analysis phase of the plan are included in Appendix A.

Detailed data for all four green infrastructure theme areas were then brought back together (synthesized) and prioritized to create a **Green Infrastructure Network Map** for the county. Criteria were developed to help guide the prioritization process. For example, the Hudson River greenway is a priority because it travels through more than half of the county's communities; and because it provides benefits in all four of the green infrastructure categories. It is also a priority for many local communities, as well as for the state. The **Green Infrastructure Network Map** is **essentially a regional guide for priority projects**.

Once the green infrastructure network was identified, specific county-level strategies for its conservation were established. This information then became the framework for this plan.



*As part of the inventory phase of this plan, county resources were identified, including several farms like these in Charlton and Northumberland.*



## GREEN INFRASTRUCTURE PLANNING PROCESS:



*A simplified diagram illustrates the process used to complete this plan.*

## Planning Team

This plan was created by a team of local and county representatives, and consultants with expertise in open space planning, agricultural planning, and historic and scenic resources planning. The county Board of Supervisors sponsored the plan. The county's Farmland and Open Space Preservation Committee, which is chaired by county supervisor Bill Peck, met monthly throughout the planning process to provide guidance. Working closely with staff from the county planning department, community planning consultants Behan Planning Associates helped to develop the process, prepare the plan and its recommendations, and conduct public outreach. American Farmland Trust assisted with all aspects related to the working landscapes component of the plan. Dodson Associates assisted with all aspects related to the cultural resources component of the



plan, and prepared Appendix B; “Visualizing Conservation Development in Saratoga County.”

More importantly, community leaders and residents provided substantial guidance throughout this process. Many local officials participated through public meetings and workshops, individual meetings, phone conversations, and correspondence. Local and state professionals participated in a series of focus groups that were based on the four green infrastructure theme areas. Community members participated in workshops and attended committee meetings, and many participated through direct correspondence. This high level of involvement helped to shape the plan in a way that is useful to local communities.



*Workshop participants help to identify important trail connections in the towns of Clifton Park and Halfmoon.*



*Supervisor Bill Peck introduces the idea of regional planning using the term “borderless communities.”*



*Nearly 100 people turned out in Malta for the first round of public meetings (right).*

### Public Involvement in the Green Infrastructure Plan

- Regional Visioning Workshops (4 total): October/November 2005
- Focus group sessions (4 total): December 2005
- Presentation at County Planning Conference: January 2006
- Regional Presentations (4 total): May/June 2006
- County Board of Supervisors Meetings (3 total)
- Public Presentation: September 2006

## County Green Infrastructure Framework

Saratoga County is located in upstate New York in the Hudson Valley. Sixty-two percent (62%) of the county's border is bounded by nearly 100 miles of the Hudson and Mohawk rivers. The county covers over 540,000 acres, approximately 20,000 of which is surface water. The elevation in the county changes by over 2,500 feet from the lowest point at the southeast tip of the county in Waterford, to the highest point in the Adirondack Park. Nearly 30% of the county is located in the Adirondack Park; three of the county's twenty-one municipalities fall entirely within the park boundary.

The county's physical appearance is the result of multiple geologic events that have occurred over millions of years. The most recent event was the glaciation of the area approximately 22,000 years ago which played a large role in sculpting the familiar hills and valleys of the county. For a detailed description of the geologic history of the county refer to the text box located in Chapter 3.



*Saratoga County is bounded on two sides by the Hudson and Mohawk Rivers, seen here at their confluence in Waterford.*

## County Settlement Patterns

The cultural landscape history and settlement pattern of the region is primarily based on the development of small hamlets within each town. There are over 100 hamlets in the county. These hamlets developed around a variety of natural and cultural elements such as major crossroads, the location of mineral springs and water resources, and the concentration of agricultural or industrial land uses. Technological advancements such as electricity and phone lines affected settlement patterns and brought significant changes to the cultural landscape. The county now has two cities, 19 towns, and nine villages.

There are many significant transportation corridors that have contributed to the history of Saratoga County. The Hudson and Mohawk Rivers were long used as transportation routes until they were supplemented with the development of the railway system and the Erie and Champlain Canals. Early movement of settlers across the region was on Stagecoaches. Running both north/south and east/west, several rail systems carried goods and people into and out of the region. Many towns also had trolley systems that provided an early form of public transportation. More recently, the development of the Adirondack Northway has spurred suburban-style growth in the county.

In addition to the Hudson and Mohawk, other water resources have played a major role in the county's settlement pattern. Historic industrial settlements exist along many of the rivers and streams through the county, and recreation and scenic value has caused the shorelines of the major lakes within the county to become nearly built out where physically possible.



## Current State of Green Infrastructure in Saratoga County

Approximately 80% of Saratoga County is undeveloped. However, only about 10% of the undeveloped land is considered “protected” because it is owned by a public entity, such as by the State of New York, Saratoga County, or one of the municipalities within the county. Of approximately 43,000 protected acres in the county, over half is owned by the State of New York. The state will have an additional 26,000 acres in conservation easements in the near future from the purchase of development rights from International Paper. After the state, local municipalities account for the most protected land in the county with just over 6,000 acres.



Saratoga County owns approximately 3,400 acres, mostly as forest management parcels. The federal government accounts for approximately 3,000 acres, and the remainder of the protected lands in the county are controlled by land conservation organizations like Saratoga P.L.A.N., the Open Space Institute, and The Nature Conservancy. The majority of protected open space is forest and/or park land.



*Protecting open space is critical, whether it be a large state park, like Moreau Lake State Park (above), or a city park, like Congress Park (left).*

Perhaps the most endangered open space in the county is agricultural land. Agricultural lands are threatened because their good soils and flat terrain also make excellent land for development. In Saratoga County, and many other areas of the country, rising land values make it difficult for agricultural landowners to hold on to farmland. The land offers more financial reward if it is developed than if it remains in farming.

Very little active farm land is protected in Saratoga County, and most is protected with term-easements. Term easements last for a given period, such as 10 or 15 years, and are therefore not a permanent guarantee that the land will remain farmland forever.

Just under 2,000 acres of the approximately 53,000 acres of active farmland is considered permanently protected, or approximately 3%. This is compared to 34,000 acres of protected forest land, soon to be 60,000, which will be approximately 18% of the forest land in the county.

### ***The Problem of Fragmentation***

Fragmentation is the process by which a large area of habitat, such as a forest, wetland or meadow, is broken up into smaller pieces. Modern-day settlement patterns are the largest contributor to habitat fragmentation in our country today. Single-family homes that are spread out across the landscape fragment habitats with their building footprints, lawns, roads and driveways.

Habitat fragmentation creates dramatic effects on wildlife for several reasons. The process of habitat fragmentation inherently results in loss of habitat as land is cleared for roads, homes and other development. This loss of habitat is coupled with the breaking up of one large habitat “patch” into two or more separate pieces. This results in isolation of one habitat patch from another, and often creates barriers for dispersal of seed or for wildlife travel.

Fragmentation does not just affect wildlife. Many farms require large patches of working land, often with prime soils, to remain viable. However, prime farmlands are often just as suitable for growing houses as they are for growing crops. Thus, in many cases, the choice comes down to economics: will the land return more value if it developed for homes or if it is used for agriculture? In most cases, as is particularly the case in Saratoga County, the economics of development are much more competitive. Farms easily become fragmented by residential development as lands become subdivided into smaller units. This fragmentation results in smaller “patches” of farms that can continue to be subdivided, or which become enveloped by residential development. Ultimately, farming is no longer a viable business. Farmlands are also overlooked for their habitat value, and thus the fragmentation of farmlands is also of concern for ecological purposes.

One of the major goals of any successful conservation program is to drastically reduce the rate of fragmentation of both wildlife habitat and farmland. This can be done in two major ways. The first is direct conservation of important green infrastructure resources such as wildlife habitat or prime farmlands. This method is proactive and provides the best results, but most communities do not have the capital they need to conserve all of their important lands. Another important way to reduce fragmentation is to ensure that local land use tools do not promote settlement patterns that lead to fragmentation. This costs much less and can provide measurable results.

Updating land use tools is no easy task. Most local land use and zoning regulations favor the types of development patterns that contribute to fragmentation. This plan is focused on county tools to conserve green infrastructure, which are mainly programmatic (such as grant programs for conservation and GIS mapping assistance) and policy-based. Yet, it recognizes that without making changes to local land use tools, the green infrastructure vision is difficult to obtain.



*An example of farmland fragmentation, where a large area of working farms is divided by roads, homes and other types of development.*



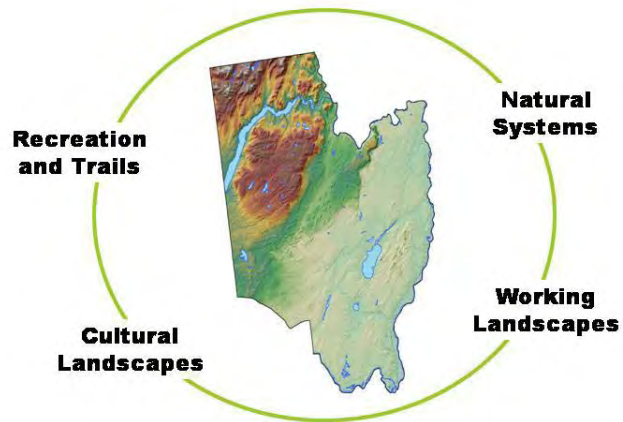
## Conclusion

Chapter 1 of this plan helped to define “green infrastructure,” its benefits, and the need for planning at this time. This chapter has described the process and partners involved in the green infrastructure plan. It has also provided background information on the county’s resources and setting. These chapters help to set the stage for the rest of the plan chapters, which begin with an inventory and analysis of green infrastructure resources and end with a county strategy and action plan for conserving them.

## Chapter 3: Vision and Goals for Green Infrastructure

### Introduction

This chapter provides a summary of the existing resources for each of the four green infrastructure theme areas: natural systems, working landscapes, recreation and trails, and cultural landscapes. For each green infrastructure theme area, concepts, visions and goals are identified. These theme areas are illustrated in the maps located in Appendix A. Many of these concepts are discussed in more detail in Chapter 4.



*The area around Round Lake exhibits all four green infrastructure themes - the cultural landscape of the village and scenic Route 67; the natural system of the lake, wetlands, forests and Anthony Kill; the recreational opportunities provided by the lake, and the Zim Smith Trail; and the surrounding working landscape of active farms.*

## Natural Systems

Saratoga County contains a wealth of natural resources, from the forests of the Adirondacks to the mineral springs in Saratoga Springs. The county is largely forested with over 60% of the county covered by trees. There are over 800 miles of rivers and streams throughout and bordering the county. The county has several large areas of wetlands, which are home to numerous species of plants and animals, some of which are listed as threatened or endangered.

### VISION FOR NATURAL SYSTEMS

An interconnected web of functioning natural systems sufficient to enhance and preserve clean water, clean air and healthy living environments for flora and fauna for current and ongoing generations.

Smaller, local wetlands are located throughout the county and are also of significance for threatened and endangered animals. They are also more vulnerable because they are not regulated and are often fragmented, filled, or altered during development. Seasonal wetlands, such as vernal pools are also important for conservation purposes because they provide habitat for rare plants and animals. Animals such as frogs, turtles and salamanders live in adjacent wetlands and migrate to breed or feed in vernal pools. The vernal pools provide a “safe haven” for breeding because they are devoid of fish and other aquatic predators.



*Wetlands in Vischer Ferry Nature Preserve provide habitat for a variety of wildlife.*

According to the New York State Department of Environmental Conservation’s (DEC’s) Natural Heritage Program, numerous rare, threatened or endangered species are located within the county. The list includes five species of birds, one species of reptile, eight species of insects, four species of plants, and nine natural communities or ecosystems. The dominant endangered species in the county is the Karner blue butterfly. Saratoga County is home to the largest population of Karner blue butterflies of anywhere on the east coast. Refer to Chapter 4 for more information on this unique resident of Saratoga County.

Among the abundant natural features of the county, there are four major components or concepts that best exemplify natural systems goals at the county scale: large contiguous forests, important natural areas, greenways, and geologically significant sites. These concepts are illustrated on the *County Natural Systems Concept Map* located in **Appendix A**.



## Natural Systems Concepts

### Large Contiguous Forests

Large contiguous forest areas are defined as those areas of forest that are unfragmented by roads and development and are greater than 500 acres in size. There are approximately 86 patches of large contiguous forest in the county, which comprise over 200,000 acres. The majority of these large forest patches are located in the Adirondack Park area of the county. Outside of the park boundary, large areas include the Kayaderosseras and Palmertown Ranges, Luther Forest, Saratoga National Historic Park, the U.S. Naval training facility in Galway and Milton, and woodlands in Northumberland and Wilton.

### Important Natural Areas

Important natural areas are defined as those areas that provide significant natural benefits of regional and/or statewide importance. These areas include New York State Open Space and Conservation Plan priorities, designated important bird areas, and areas of major natural heritage. Approximately a dozen important natural areas are identified in this plan. Examples in the county include Moreau Lake State Park, the Wilton Wildlife Preserve and Park, Vischer Ferry Nature and Historic Preserve, and Ludlow Swamp and Consaulis Vly in Galway.



*An aerial view of Vischer Ferry Nature and Historic Preserve illustrates the importance of this large, undeveloped “safe haven” for wildlife along the Mohawk River.*

### Greenways

A greenway is a corridor that connects a diverse system of open space resources, such as parks, protected lands, and wildlife habitat. Where appropriate, the greenway may provide low-impact recreational opportunities. There are 15 greenways identified in the county totaling approximately 250 miles. The majority of greenways follow watercourses, such as the Kayaderosseras Creek, Alplaus Kill, the Snook Kill, and Hudson and Mohawk Rivers.

### **Geologically Significant Sites**

Geologically significant sites are natural features that have been recognized by the public and geologists as being unique to not just Saratoga County, but the State of New York as well. Several of these sites also have cultural significance in addition to their scientific significance. For example Stark's Knob is geologically significant in that it is the only occurrence of volcanic pillow lava in the State. Culturally, Stark's Knob played a role in the defeat of the British in the Battle of Saratoga as General Stark prevented General Burgoyne's army from escaping to the north.



*Cohoes Falls is a unique tourist destination, and rivals Niagara Falls in size.  
Photo from Mohawk Towpath Scenic Byway Coalition, Inc.*

## **GOALS FOR NATURAL SYSTEMS**

- Conserve and enhance a diverse system of wildlife “hubs” and “stepping stones”
- Provide for wildlife connectivity between hubs
- Support the recovery and long-term protection of rare, threatened, endangered and unique species and natural communities
- Protect unique sites: natural habitats and geological features of the county

### *Geologic History of Saratoga County*

Saratoga County contains two major geologic areas, the Adirondack Mountains and the Hudson-Mohawk Lowlands. The rock of the Adirondack Mountains is older than the surrounding rock in the Hudson-Mohawk Lowlands, however the Adirondack Mountains themselves formed well after the formation of the Lowlands.

The rocks of the Adirondacks first began forming approximately 1.3 billion years ago as sediments were deposited in a shallow sea. After many millions of years, the sediment was buried, deformed and metamorphosed and became the predominate granitic gneiss that we hike over. However the rocks of the Adirondacks were not exposed at the surface until at least 70 million years ago when the “Adirondack Dome” began to rise up above the surrounding valley. Erosion has carved the dome into the mountains we see today. The leading theory for how this uplift occurred (and appears to still be occurring) is that there is a “hot spot” beneath the Adirondacks causing the earth’s crust to expand, and thus push up. As of the year 2000, the rate that the Adirondacks were rising was greater than the rate at which they were eroding, thus the Adirondacks are actually getting higher in elevation (at a *staggering* 2 to 3 mm per year).

The rocks of the Hudson-Mohawk Lowlands began forming about 500 million years ago in a shallow sea. The petrified sea gardens in Saratoga Springs provide an excellent view of these older rocks. The majority of the bedrock in the county was formed approximately 400 to 450 million years ago as a volcanic island arc collided with the coast of the original north American continent – which was located near the equator at the time. Sediments were deposited between the island arc and the continent and were later folded and uplifted during the collision forming the Taconic Mountain range. Over the next several million years the region experienced additional collisions which further shaped the landscape, the last of which occurred over 200 million years ago. The bedrock of the Hudson-Mohawk Lowlands is almost entirely sedimentary rock (mostly sandstone, limestone, and shale), which is more easily eroded than the metamorphic rock of the Adirondack region.

Most “recently” the region was reshaped by glaciation. The Laurentide Ice Sheet covered nearly all of New York about 22,000 years ago. The advance and presence of the Ice Sheet, and associated glaciers, carved out much of the present day landforms in Saratoga County. As the front of the ice sheet retreated, a large lake, known as Glacial Lake Albany, filled the Hudson Valley from Poughkeepsie, north to Lake Champlain. Glacial Lake Albany is believed to have been present for 4,000 to 5,000 years. During that time a large amount of sediment was deposited in the lake, including sand along the edge of the lake. After the lake drained approximately 9,000 years ago some of the sand was reworked by wind and streams to form sand dunes throughout the county. The Pinebush, which is home to Karner Blue butterflies, is comprised of these sand deposits.



*Right: The extent of Glacial Lake Albany approximately 12,000 years ago.  
Map data source: The Nature Conservancy, Text data source: Geology of New York A Simplified Account*



## Working Landscapes

Saratoga County is home to a diverse farm community that cultivates dairy, livestock, fruit, vegetable and other horticultural products. Horse farms are also a growing element in Saratoga County - supporting local horse racing and the region's tourism industry. The county is also an important link to the large-scale northern forests and forestry industry of the Adirondacks and the Northeast.

### VISION FOR WORKING LANDSCAPES

Maintain a productive core of working agricultural and forestry lands that provide substantial benefits to Saratoga County's economy and communities.

Saratoga County's working landscapes provide many benefits, including the following:

- Support for the local tax base while requiring few public services
- Limited recreational opportunities that are compatible with farm and forestry businesses
- Valuable habitat for wildlife
- Cultural contributions of connections to the landscape that are cherished by the county's residents and tourists
- Fresh, high-quality foods and other locally-produced products.
- Scenic farm fields, pastures and forest lands
- Resources for use by the county's agricultural and forestry businesses that contribute to Saratoga County's economy

Saratoga County's working landscapes should continue to be assets for agricultural and forestry resource-based industries and be valued for the many benefits they provide to the county and its residents.

There are two primary categories that define the working landscape of Saratoga County, agriculture and timber. The USDA Census of Agriculture tracked 47,522 acres of cropland and 5,623 acres of pastureland in Saratoga County in 2002. This represents approximately 10% of the county's land area. The two most influential agricultural uses in the county are dairy farms and horse farms. Approximately 40,000 acres of forest land is reportedly in timber use, and the actual number is likely



*The majority of the county is covered by forests like those seen above (left) from Hadley Mountain, and farm fields, like those at right in Northumberland.*

much higher. Both agriculture and timber uses are sustainable industries which help preserve the county's natural environment through economic benefits to landowners and residents.

## Working Landscape Concepts

As shown on the *County Working Landscapes Core Areas Concept Map* located in **Appendix A**, there are four core farm areas and one core forestry area in the county. The **core farm areas** are those areas that have high-quality soils available for agricultural production, and there is a significant concentration of existing working farms in the area. The two largest of these areas are the Hudson River belt that extends from Moreau to Stillwater, and the western county area which includes Charlton, Galway, Milton and Ballston. Large blocks of farmland in Clifton Park and Halfmoon represent the other two core farm areas in the county. The **core forestry area** has large contiguous forest that either is or has the potential to be managed for timber and other forest products and is located in the northwest portion of the county.



*Saratoga Sod Farm is one of the few protected farms in Saratoga County.*

## GOALS FOR WORKING LANDSCAPES

- Maintain large blocks or tracts of land adequate to support the viability of the agricultural and forestry industries in Saratoga County
- Encourage a supportive business environment in Saratoga County for the continued economic viability of farming and forestry enterprises
- Support continued growth of the agricultural and forestry industries and build connections between these economic sectors and other components of Saratoga County's economy
- Maintain the scenic and other unique qualities of the working landscape that supports the quality of life for residents in Saratoga County and attracts tourists to the region
- Encourage positive connections between farm and forestry businesses and county residents and tourists

## ***Farming Families in Saratoga County***

### **Isabel Prescott and Family – Riverview Orchards**

When Isabel Prescott's father moved the family from a poultry farm in Charlton, New York to the apple orchard in Clifton Park in 1945, the landscape looked much different than it does today. Today, Riverview Orchards' 97 acres is one of only a few remaining working farms in Clifton Park and Isabel says the land use change is both a challenge and an opportunity. While new neighbors appreciate the scenic view of the orchard, they often don't

understand the day-to-day operations required to keep it in production. At the same time, as a direct retail operation, the new residential development provides Isabel and her family with a readily accessible market for their product. All of the apples grown at Riverview Orchards are sold directly from the farm.



*In addition to the benefits it provides to the local economy, Riverview Orchards is a scenic landscape that benefits the surrounding community of Clifton Park and provides a place for residents to purchase locally-grown products.*

Isabel is proud to have kept her father's legacy alive in a rapidly changing market, but worries about the struggles facing her son in the future. She is currently working with the Town of Clifton Park to place a conservation easement on her property. She believes that purchase of development rights (PDR) programs will help keep her farm viable now while protecting the land base for the next generation of farmers. Isabel's commitment to agriculture in New York and the quality of life it brings is evident by her active roles on the town Open Space, Trails and River Front Committee, the County Cooperative Extension Board of Directors and Agricultural Promotion Board and the New York State Farmers' Direct Marketing Association.



### ***Farming Families in Saratoga County***

#### **The Hanehan Family – William Hanehan & Sons Dairy**

The average dairy farm family is confronted with a host of dilemmas that threaten their livelihood every day including unpredictable milk prices, the rising cost of fuel, and labor concerns. Yet, Marty Hanehan, partner in William Hanehan & Sons Dairy, cites development pressure as the biggest challenge currently facing his farm. “Land prices are skyrocketing. We are ok now, but in two to five years, I don’t know what will happen,” Marty said. The Hanehans, brothers Marty and Pat, their respective wives, Cathy and Sherri, and children, milk 600 cows and crop approximately 1,400 acres in Saratoga County to feed those cows. With roughly half that land in lease agreements, land prices and development pressure stand to directly affect the Hanehans’ ability to do business.

When the brothers purchased land in the Town of Stillwater in 1999, they researched the state Farmland Protection Program as a way to protect the land from development while liquidating assets to invest in the business. By selling the development rights on 135 acres through the state program, the Hanehans were able to offset the cost of the new land and help fund the construction of a brand new 400 cow freestall barn. Marty is hopeful for the future of the farm, which has been in the family since 1913. Members of the family are involved in 4-H, the New York State Dairy Princess Program, and Farm Bureau, with Marty currently serving as the Saratoga County President. Both families show cows at the fair and the next generation stands ready to join the farm partnership when the time is right. The Hanehans are facing their challenges each day by staying positive and pursuing all avenues to keep the business profitable and growing.



*William Hanehan & Sons Dairy Farm in the Town of Saratoga.*

## Trails and Recreational Resources

Saratoga County has several opportunities for residents and visitors to enjoy the county's natural and historic setting. There are three state parks in the county, excluding the Adirondack State Park which covers nearly a third of the county. Moreau Lake State Park is located

at the north end of the county, Saratoga Spa State Park is conveniently located near the center of the county, and Peebles Island State Park is located at the southern end of the county. In addition to the state parks, several of the state forests can be accessed with hiking trails. The National Park Service maintains the Saratoga National Historic Park in Stillwater, home of the Saratoga Battlefield and numerous trails. At the local level there are numerous parks and hiking, biking, and walking opportunities throughout the county, some of the larger parks are Vischer Ferry Preserve and Park in Clifton Park, Congress Park in Saratoga Springs, Woods Hollow Nature Preserve in Milton, the Wilton Wildlife Preserve and Park in Wilton and Northumberland, and the Henry Betar Recreation Park in Moreau. Saratoga County owns forest lands which are open to hiking, as well as a county park and boat launch located on Great Sacandaga Lake at the Day-Edinburg boundary.

### VISION FOR TRAILS AND RECREATION

An interconnected greenway, park and trail system that provides diverse opportunities for recreation, enjoyment, health, economic development, heritage tourism, and alternative transportation and meets the needs of the County's growing population.

The State Bike Route system covers approximately 94 miles in Saratoga County on Routes 4, 9 and 50. There are approximately 60 miles of established snowmobile trails which cross the county. The Zim Smith Trail, a multi-use trail which is partially paved, extends approximately seven miles from Halfmoon to Ballston Spa, and may serve as the spine for a county-wide trail system in the future (see Chapter 4). There are several other local trails which could be extended to become county-level trail corridors, such as the Ballston Veterans Bike Trail in the Town of Ballston, the Champlain Canal Trail in Waterford, and the bike and trail network in Saratoga Springs.

## Trail System Concepts

There are approximately 300 miles of trail concepts depicted on the *County Trails System Concept Map* located in **Appendix A**. The scale of these approximately 25 trail concepts ranges from connector trails of a mile or two, to over 40 mile long trails that traverse the county. The **trail concepts** presented on the map are a mix of off-road or unpaved trails (Class I), designated signed and striped bicycle lanes (Class II), and on-road bicycle routes with directional markers (Class III). Some of these trails have more clearly defined alignments than others. For example several trail concepts follow existing utility right-of-ways, others however are a line from point A to point B that



*Local trails, like this one in Malta, could be expanded to link multiple towns within the county.*

*Photo courtesy of the Town of Malta*

would require extensive planning and land owner negotiations. **Appendix C** contains details of each of the 25 conceptual trail alignments.

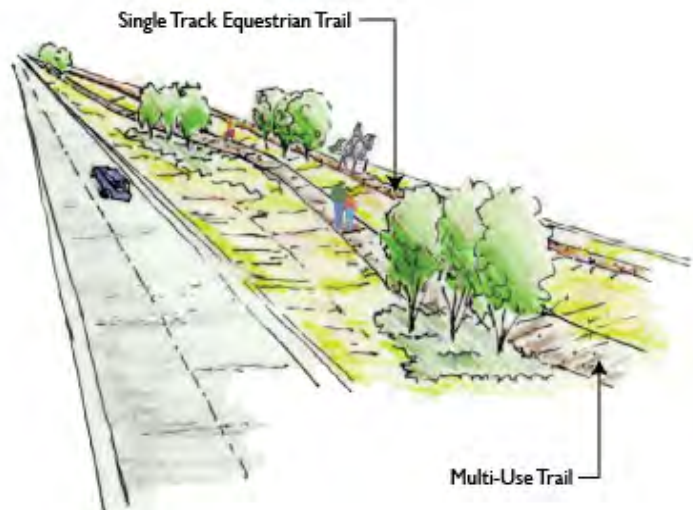


*Paddling on the Kayaderosseras – a waterway identified as a blueway in this plan.*

Another concept depicted on the trail system map is the idea of blueways. A **blueway** is a designated public access water trail with diverse opportunities for in-water activities such as canoeing, kayaking, swimming, and fishing that is connected to parks, launch areas, and other access points at the river's edge. The blueways for the county are the Hudson, Mohawk, and Sacandaga Rivers, the Kayaderosseras and Fish Creek, and the Anthony Kill.

## Trail Types and General Guidelines

A trail network may consist of many different types of trails. It is necessary to base the trail type on the environmental context which it will pass through as well as the desired uses for the trail. Equestrians may prefer to create loops and destinations long enough for at least a one day ride, and cyclists may prefer to reach their destinations and create loops of different lengths and challenges. Multi-use trails may be able to accommodate two or more uses, while environmental constraints such as sharp turns, wet areas or steep slopes may restrict a trail to a single use. More detailed trail design guidelines are provided in Appendix E.



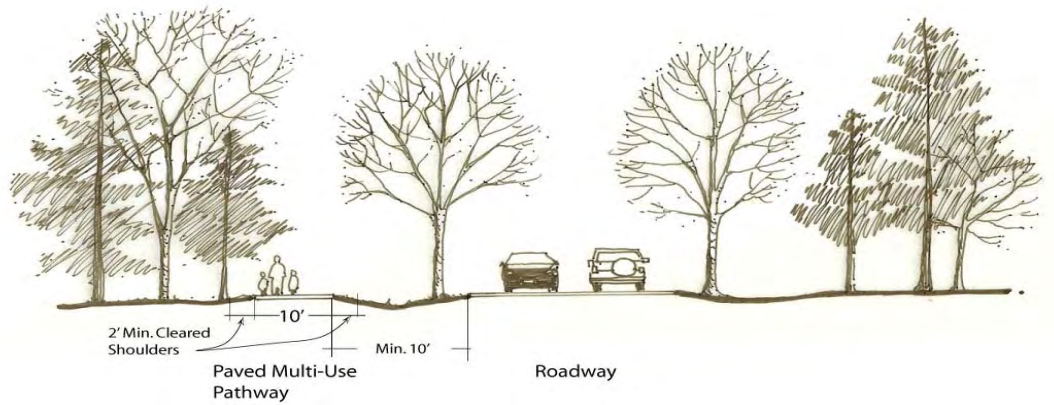
*High traffic multi-use trail with adjacent equestrian trail.*

**Shared-use pathways** are intended to accommodate different uses and generally require a width of 8 to 12 feet depending on how much space is available and how many users are expected. In higher traffic areas, where passing is frequent, a typical multi-use pathway should be 10 to 12 feet if possible. The main path should be paved for cyclists, pedestrians, or rollerbladers, but a separate soft-surface trail should be provided where horses are allowed.

**Nature pathways** are generally soft surface trails through forest or other non-urban environments and may accommodate different uses depending upon conditions. Mountain biking may be compatible with hiking or horseback riding where there are sight distances of at least 100 feet and



low density of use. Signs with yield rules are important under these circumstances. In general, it is recommended that mountain bike trails be dedicated to that one use where



*Section drawing showing a typical multi-use pathway separated from roadway.*

possible. Hiking and horseback riding are compatible uses where there are dry conditions, or a separate trail may be provided for short distances in wet areas and then rejoined.

**Bike lanes** that are part of the vehicular roadway can be provided to create a network for cyclists where other trails are not available. A bike lane is a dedicated lane created on the shoulder 4 to 6 feet wide and marked by a wide paint stripe and signage. A shared roadway bike route provides signs to direct a cyclist and alert motorists. Cyclists travel on the shoulder of the road indicated by a standard 4 inch painted stripe.

## GOALS FOR TRAILS AND RECREATION

- Create an interconnected regional trail system throughout the county that provides a balanced diversity of appropriate trail experiences and uses and ensures compatibility with resource conservation goals
- Provide alternative transportation options as an integral component of the trail and greenway system and ensure that these options connect places of residence, places of work, and other major destinations
- Plan for critical trail linkages (pedestrian bridge, underpass, etc.) across highways and major roadways and provide for trail continuity across county lines
- Establish new parks or public access areas to fill the needs of the population, and expand upon existing parks where possible
- Create blueway systems along major river corridors in the county; provide access to water (rivers, streams, and lakes) for multiple uses including non-motorized boating, fishing, swimming, passive recreation such as picnicking; and ensure that adequate amenities are provided at access points (parking, restrooms, launch sites, etc.)
- Link trail, park and access development to heritage tourism and economic development opportunities

## Cultural Resources

Saratoga County has a rich cultural history, from the Native American settlements, through the Revolutionary War and the Industrial Revolution, to the formation of Tech Valley. Evidence of the history can be seen throughout the county. There are 39 historic places and 12 historic districts listed on the National Register of Historic Places in Saratoga County. There are over 1,100 additional historic sites known to exist in the county which are not listed on the National Register.

### VISION FOR HISTORIC, CULTURAL, AND SCENIC RESOURCES

Preserve and celebrate, for future generations, the rich diversity of cultural heritage and visual character of the County through a network of significant historic sites, cultural landscapes and scenic corridors.

Perhaps one of the most well known events in Saratoga County's history was the defeat of General Burgoyne at the Battle of Saratoga in 1777, which is widely thought to be the tipping point in the Revolutionary War and is in fact considered one of the 15 most decisive battles in history. See the accompanying text box on the following page for more information on the defeat of Burgoyne and the Saratoga National Historic Park.

## Cultural Resource Concepts



*The Saratoga Monument celebrates an important turning point in the American Revolution.*

The *County Cultural & Historical Concept Map* located in **Appendix A** helps to illustrate the county's substantial cultural and historic wealth. Over 63,000 acres of the county are considered to be located within **significant cultural areas**, or areas of distinct historic resources that contribute to the cultural character and context of the region. Connecting these cultural areas are approximately 375 miles of **cultural corridors** (both primary and secondary) which are considered linear resources that link the region's rich historic and cultural areas together.

At a more synthesized level, some of the cultural areas and corridors can be viewed as **heritage hubs and corridors**. The difference being, that the heritage hubs and corridors exemplify and celebrate the county's history and scenic qualities. The heritage hubs are detailed in Chapter 4, and the heritage corridors are defined in **Appendix D**.

### ***A Brief History of the Saratoga National Historic Park***

On September 13, 1777 General John Burgoyne crossed the Hudson River from what is now Washington County, into Saratoga County (at the present day Village of Schuylerville) on his way from Canada to Albany. Gen. Burgoyne was forced to engage the American army under the command of Gen. Horatio Gates four miles north of the Village of Stillwater. Col. Thaddeus Kosciuszko (the name-sake of the “twin-bridges” that cross from Saratoga County to Albany County on the Northway) had set up fortifications on Bemis Heights, a hill overlooking the narrow passage of the road to Albany (now U.S. Route 4), and the Hudson River making it impossible for Burgoyne to advance without being barraged with cannon fire.

Thus, on September 19, 1777 the British army (of which nearly half were German mercenaries) made their first assault on the American troops. The Americans were forced to retreat to their encampment, however the British army was heavily degraded. On October 7<sup>th</sup> Burgoyne sent a 1,500 men, eight cannon, “reconnaissance-in-force” out against the Americans and was soundly beaten back. After which, General Benedict Arnold led the American troops against the British fortifications and forced them back again. The following night, after having lost more than 2 soldiers for every 1 of the Americans’ Burgoyne retreated north. On October 17, 1777, surrounded, and outnumbered more than 3-to-1, Gen. Burgoyne surrendered.

As a result of this decisive series of battles, the Saratoga Battlefield was established as a New York State Historic Site in 1926. President Roosevelt, who led a guided tour of the site while Governor of New York, convinced congress to place the battlefield in the National Park Service in 1938, thus creating the Saratoga National Historic Park. The park has hiking trails; a 10-mile tour road; a visitor center containing a museum, theater, and bookstore; monuments; and a farm house.

### **GOALS FOR HISTORIC, CULTURAL, AND SCENIC RESOURCES**

- Protect historic buildings, sites and landscapes from demolition or loss by neglect or development pressure
- Promote the adaptive re-use and rehabilitation of historic buildings and structures
- Identify and protect archeological sites
- Preserve significant scenic qualities of regional working landscapes
- Preserve historic, cultural, scenic resources within new development and changes in the landscape
- Promote the creation of partnerships and collaborative efforts in the protection and preservation of historic and cultural resources



## ***County Cultural Resource Themes***

The unique and rich layers of history found in Saratoga County set it apart from other areas of the country. Many of these historic themes, however distinct, overlap along the county's historical timeline. Some are unique to certain areas of the county while others are represented throughout the county as a whole.

### ***Native American Settlement and Migration***

The migrations and settlement of Native Americans is significant throughout the county but there are presumably concentrations along the major water bodies and navigation routes.

### ***Colonial Settlement and the French and Indian Wars***

Early settlement occurred throughout the county and was often impacted by the relationships between the settlers and the French and Native Americans.

### ***The American Revolution***

The sites and corridors that reflect the regional history of the American Revolution are primarily located within the Hudson River Valley and the Towns of Saratoga and Stillwater.

### ***The Civil War and the Underground Railroad***

The impact of the Civil War was significant throughout the county as indicated by the many sites and routes thought to be part of the underground railroad.

### ***Commerce and Canal Development***

The creation of the Erie and Champlain Canals, running west and north from Waterford, was significant to the development of commerce routes through the region.

### ***The Industrial Revolution***

The role of the Industrial Revolution was significant throughout the county, particularly along major streams such as the Kayaderosseras, and especially with larger industrialized areas along the Hudson and Mohawk Rivers.

### ***Resort Development***

The development of resort areas and entertainment destinations was significant primarily in Saratoga Springs and the southern Adirondack region.

### ***Suburbanization***

Changes in settlement and movement throughout the county based on the development of the automobile and the rise in consumerism, dramatically changed the cultural landscape. The broadened technological base also contributed to the growth of the region and the spread of people and services.

### ***Horses***

The development of the horse racing industry in Saratoga Springs impacted not only the commercial and economic patterns of the region but has changed the agricultural landscape of the county as well.

## Conclusion

As this chapter clearly indicates, there are many layers in Saratoga County's green infrastructure system. A vision and set of goals for each layer is articulated in this chapter, with specific focus on the individual resource layers and their components. The following chapter synthesizes these layers into one vision for an interconnected network of green infrastructure in Saratoga County.

## Chapter 4: The Green Infrastructure Network

### Introduction

This chapter of the green infrastructure plan sets the stage for prioritizing green infrastructure at the county level, with the goal of creating a meaningful, well-connected and diverse network of open spaces. It establishes basic guidelines for identifying county priority projects. It also identifies the major components of the green infrastructure network, and sets acreage goals for green infrastructure implementation in the short- and long-term.

### What Makes a Project a County Priority?

At the county level, the most important resources are those that are significant for their conservation value; traverse multiple communities; provide multiple benefits; and are important at local, state and/or federal scales. Below are several guidelines that help to identify priority county projects:

- **Multiple Benefits:** the project has benefits in all four green infrastructure categories: natural systems, working landscapes, trails and recreation, and cultural and historical resources.
- **Federal or State Priority:** the project is listed on the State Open Space Conservation Plan or is designated as a federal priority (National Park, National Heritage Corridor or Scenic Byway, for example).
- **Local Priority:** the project is listed in a local open space plan, comprehensive plan, trail or recreation plan, or other relevant document.
- **Intermunicipal Project:** the project demonstrates partnership between two or more communities and/or attempts to remove the political barriers that divide green infrastructure resources.
- **Existing Framework for Advocacy or Implementation:** a group has been formed to identify and help advance the project vision (for example, a nonprofit group such as Saratoga P.L.A.N., Friends of the Kayaderosseras, Saratoga Springs Preservation Foundation, the Wilton Wildlife Preserve, etc.)
- **Local Commitment:** public support or investment for the project is demonstrated.
- **Significant Resource:** the project conserves endangered, threatened, or rare species habitat; rare or unique resources (such as a geological area); exceptional diversity of wildlife (such as an important bird area); prime farmlands; countywide significant cultural or historical resources; or other important resource.

### Priority Green Infrastructure Network

The county's green infrastructure network includes a system of unfragmented wildlife "hubs," linked together by conservation greenways. It includes retention and conservation of core working landscapes of agriculture and forestry. It includes opportunities for people to connect to the land, through trails, parks and waterfront access. It includes celebration of the county's cultural heritage and the integration of green infrastructure with tourism and economic development initiatives. And, lastly, it includes the balancing of settlement and "grey infrastructure" to sustain green infrastructure. The green infrastructure network includes five major components which are outlined on the next page and illustrated on the Green Infrastructure Network Map. It is important to note that the Green Infrastructure Network Map is meant to be read conceptually, rather than literally.



## GREEN INFRASTRUCTURE NETWORK COMPONENTS



### **Farmland Core Areas**

*Large, unfragmented blocks of working farms and farmlands should be retained and conserved.*



### **Natural Systems Hubs**

*Areas of unfragmented forest, interconnected wetlands, and other habitat should be conserved and balanced with sustainable uses that maintain the resource value.*



### **Green Infrastructure Gateways**

*Major destinations and entrances to the county's green infrastructure network should be celebrated and integrated with economic development and tourism efforts.*



*Photo source: Josh Gerritsen, Saratoga P.L.A.N.*

### **Greenway Corridors and Trails**

*Connections between natural systems hubs, for both wildlife and people, should be created with sensitivity to the natural and cultural setting.*



### **Heritage Hubs**

*Concentrated areas of significant historic resources should be preserved and integrated into a heritage tourism network that celebrates the rich history of the county.*

## The Green Infrastructure Network: A Summary

### **A. Farmland Core Areas**

1. Hudson River Valley
2. Western County
3. Clifton Park
4. Halfmoon

### **B. Natural Systems Hubs**

1. Southern Adirondacks
2. Palmertown Range and Adirondack Foothills
  - Moreau Lake State Park
3. Karner Blue Butterfly Recovery Units
  - Wilton Wildlife Preserve and Park
  - Saratoga Spa State Park
  - Malta Ecological Park
  - Petrified Sea Gardens/Lester Park
  - Bear Swamp
4. Saratoga National Historical Park
5. Vischer Ferry Nature and Historic Preserve
6. Greenway Convergence (Ballston/Malta)
  - Shenantaha Creek Park
7. Dwaaskill Natural Area
8. Saratoga Lake/Drummond Creek Wetlands
9. Galway/Charlton Wetlands
10. West Milton Forest Hub

### **C. Greenway and Trail Corridors**

1. Erie Canal Greenway and Hudson River Trail (Mohawk River, Champlain Canal, Hudson River)
2. Kayaderoseras Creek-Fish Creek Greenway
3. Mid-County Trail System (Zim Smith Trail, Ballston Veterans Memorial Trail, Palmertown Range Trail)
4. Alplaus Kill Greenway
5. “Loop The Lake:” Sacandaga Lake Trail
6. The Long Path
7. Mid-County Equestrian Trail
8. Luther Forest Loop Trail

### **D. Heritage Hubs**

1. Adirondack Wilderness Hub (Town of Edinburg)
2. South Glens Falls Hub
3. Bacon Hill Hub (Town of Northumberland)
4. Saratoga National Historical Park Hub (Town of Saratoga)
5. Mechanicville Hub
6. Vischer Ferry Hub (Town of Clifton Park)
7. Ballston Spa Hub
8. Hadley Hamlet Hub
9. Village of Round Lake Hub

### **E. Green Infrastructure Gateways**

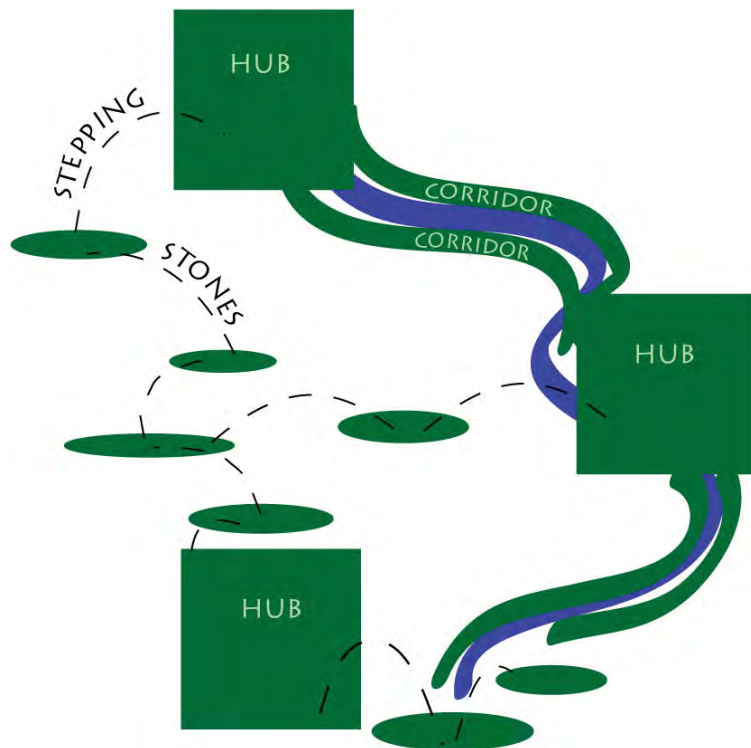
1. Hudson-Mohawk Gateway (Waterford)
2. Adirondack Gateway (Village of Corinth)
3. “Old Saratoga” Gateway (Villages of Schuylerville and Victory)
4. Saratoga Springs Gateway (City of Saratoga Springs)
5. Horse Country Gateway (location TBD)
6. West County Gateway (Charlton/Galway)

## ELEMENTS OF THE GREEN INFRASTRUCTURE NETWORK

**Hub** – A sizeable unfragmented patch of a landscape or habitat type such as a forest, meadow or wetland. Large hubs provide important habitat (food, shelter, cover, etc.) for wildlife and help to maintain functioning natural systems. Hubs are the foundation of a regional green infrastructure system, and are connected together with corridors and stepping stones.

**Stepping Stones** – Smaller patches of a landscape or habitat type which serve as a means of connectivity for movement of animal species or seed and pollen dispersal between hubs. Stepping stones are often conserved at a local level, such as through a town open space plan.

**Corridors** – A linear area of landscape or habitat type which connects one hub to another or connects stepping stones to a hub. Corridors often follow water courses such as a river or stream, including the high-quality habitat often associated with adjacent wetlands and floodplains. Other corridor types may include a recreation greenway not associated with a waterway.



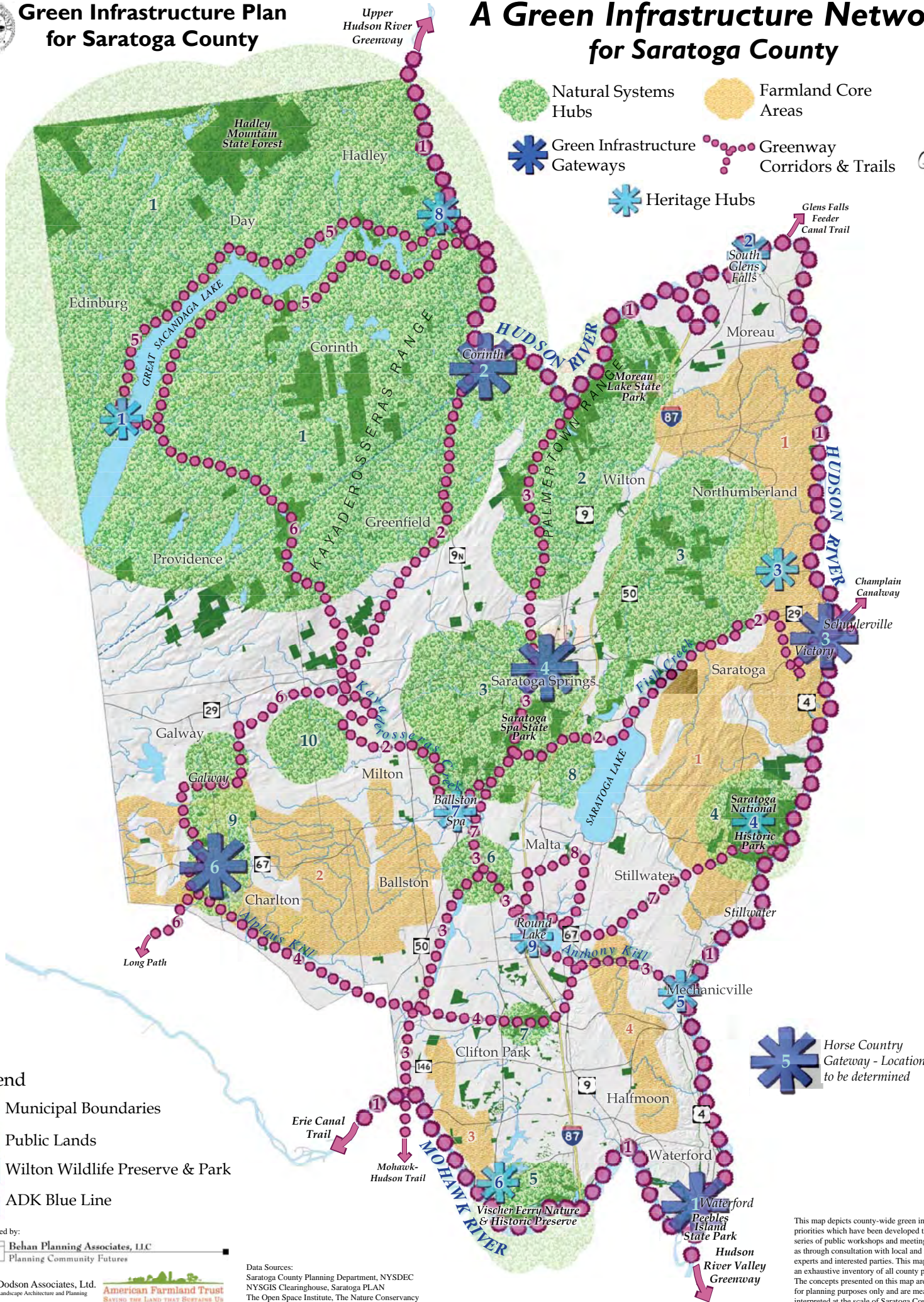




# Green Infrastructure Plan for Saratoga County

# A Green Infrastructure Network for Saratoga County

- Natural Systems Hubs
- Farmland Core Areas
- Green Infrastructure Gateways
- Greenway Corridors & Trails
- Heritage Hubs



- ### Legend
- Municipal Boundaries
  - Public Lands
  - Wilton Wildlife Preserve & Park
  - ADK Blue Line

Map prepared by:  
**Behan Planning Associates, LLC**  
Planning Community Futures

With:  
**Dodson Associates, Ltd.**  
Landscape Architecture and Planning

**American Farmland Trust**  
SAVING THE LAND THAT SUSTAINS US

Data Sources:  
Saratoga County Planning Department, NYSDEC  
NYSGIS Clearinghouse, Saratoga PLAN  
The Open Space Institute, The Nature Conservancy

This map depicts county-wide green infrastructure priorities which have been developed through a series of public workshops and meetings, as well as through consultation with local and regional experts and interested parties. This map is not an exhaustive inventory of all county priorities. The concepts presented on this map are intended for planning purposes only and are meant to be interpreted at the scale of Saratoga County.



## Green Infrastructure Network Components: Detailed Discussion

### **A. Farmland Core Areas**

#### **1. Hudson River Valley Farmland Core Area**

Including towns of Moreau, Northumberland, Saratoga and Stillwater

The fertile Hudson River Valley has been the site of productive agriculture for centuries and is still home to Saratoga County's largest farming community at roughly 45,000 acres. Animal agriculture is predominant here including; dairy farms, horse boarding and breeding operations and farms raising meat. The flat valley land and rolling upland hills provide excellent soil for growing feed to raise these animals, namely corn, soybeans and grass for hay. This region is also home to several small-scale horticulture operations and diversified farm stands providing a variety of fruits, vegetables, animals, and plants. Farms in the Hudson River Valley Farmland Core Area tend to be larger than in other parts of the county.

Representative farms include:

- McMahon of Saratoga Thoroughbreds - home to over 200 horses including 3 of New York's top stallions
- Thomas Poultry Farm of Schuylerville - raise over 180,000 laying hens producing 21 billion eggs annually
- Kings-Ransom Farm and Bed and Breakfast – milk more than 500 cows and crop over 900 acres
- Winney Farm – tend 14,000 blueberry bushes on a pick-your-own operation

Currently, over 750 acres in this region have been permanently protected from development with funding provided by the New York State Farmland Protection Program and Saratoga County.



*Saratoga Apple preserves lands outside of the Villages of Schuylerville and Victory (top) and also provides a unique destination for residents and tourists (below).*



### ***Farming Families in Saratoga County***

#### **The Griffen Family – Saratoga Sod Farm**

Located in the heart of historic Saratoga County, Saratoga Sod Farm began as a father and son experiment to keep the family in agriculture. Phil Griffen and son Steve seeded their first 50 acres to Kentucky bluegrass in 1986 in an effort to diversify the family farm whose history in Saratoga County runs back 220 years. Today, Saratoga Sod Farm, now owned and operated by Steve and his wife Laurie, is a successful family business, growing and marketing 650 acres of turfgrass sod of several varieties. Sod grown on the farm has graced the sports fields of the National Baseball and Soccer Halls of Fame as well as the lawn of New York State Capitol.

The Griffen family's dedication to agriculture extends beyond the family farm. Steve has served as the president of the New York State Turfgrass Association and is currently a member of the board of directors for the New York State Farm Viability Institute. Laurie, a graduate of the LEAD New York program, is a past member of the Cornell University Agricultural Finance Advisory Committee and sits on the Planning Board for the Town of Saratoga. In 2002, Phil received funding from New York State and Saratoga County to sell the development rights on 360 acres of the original family farm that directly abut the Saratoga National Historic Park and Battlefield. This land is part of a block of over 750 acres of permanently protected farmland in the region and represents both a local respect for the heritage of the landscape and a deep commitment to the future of agriculture in Saratoga County.



*The Saratoga Sod Farm grows and sells several varieties of turfgrass sod.*



## **2. Western County Agricultural Core Area**

Including towns of Galway, Charlton, Ballston, and Milton

Located west of the Northway and south of the Adirondack blue line, the Western County core is the second largest farming community in Saratoga County covering about 30,000 acres. Farm operations range from dairy farms to horse stables, apple orchards to Christmas tree farms. Farms tend to be smaller here compared to those in the Hudson River Valley core area. There are several farms that produce fiber in the region, raising llamas, alpacas and sheep. With a smaller land base to work with, farms in this region tend to be more diversified than in the Hudson Valley core area. Representative farms include:

- Morning Side Farms – home to roughly 30 horses and offer lessons, trail riding and breeding
- Smith Brothers Dairy and Bake Shop - milk cows, raise beef, tend an apple orchard and sell homemade baked goods from a shop on their farm
- Eildon Tweed Farm – milk nearly 370 cows, crop about 600 acres, and host school groups for tours about agriculture
- Lledge Rock Llamas & Woodside Weavers – feature fiber products made from nearly 80 llamas and a handful of alpacas

## **3. Clifton Park/Mohawk River Corridor Agricultural Core Area**

Town of Clifton Park

There is a strong farming presence in Clifton Park despite the recent rapid growth of the community. This region is somewhat different than the Hudson River Valley and Western County core as most farming operations in the region direct retail their products through farm stands or farmer's markets, as opposed to selling wholesale. The farm land base is much smaller than in the other two regions, with the total agricultural land base only reaching 3,800 acres. Representative farms include:

- Riverview Orchards – market a variety of apples grown on the farm and host dozens of events on the farm including weddings, birthday parties and school tours
- Willow Spring Perennial Farm – grow over 500 varieties of plants for sale on the farm
- Lawrence's Tree Farm – offer approximately 3,000 trees for sale during the holiday season
- Bowman's Orchards – pick-your-own orchard also selling farm-raised beef and honey products

#### 4. Halfmoon Agricultural Core Area

##### Town of Halfmoon

The Halfmoon core area encompasses approximately 6,700 acres between the Northway and the City of Mechanicville. Products grown in this region are largely marketed locally, on the farm or through farmer's markets. Representative farms include:

- Betts Brothers – raise replacement dairy heifers, field corn and hay
- DeVoe's Rainbow Orchard – sell apples, small fruits, annuals and perennials at their farm market and by mail order

### **B. Natural Systems “Hubs”**

#### 1. Southern Adirondacks

In Saratoga County, the Adirondack Park “Blue Line” (or boundary) includes all of the Towns of Day, Hadley, and Edinburg, and the Village of Corinth; and part of the Towns of Corinth, Greenfield, and Providence. The Kayaderosseras Range is a major topographic feature within this southern portion of the Adirondacks. A large portion of land within the Blue Line is conserved as state forest land (such as Hadley Mountain State Forest Preserve) or other public land (such as the county forests). The remaining land is in private ownership and is subject to the land use regulations established by the Adirondack Park Agency.

Over 40% percent of the protected lands within the county are located within the Adirondack Park boundary. New York State Department of Environmental Conservation, International Paper Company and The Conservation Fund are currently partnering to place working forest easements on 257,000 acres in the Adirondack Park, 26,000 acres of which will be located in Saratoga County. This acquisition would substantially increase the amount of conserved lands within the county.



*This scenic Saratoga County park in the Town of Day overlooks the Sacandaga Reservoir.*

The Adirondack Park lands provide significant acreage of unfragmented forest that serves as habitat for large carnivores and keystone species in the county. Bald eagles are known to forage at

Stewarts Bridge Dam in Hadley. The Lake Desolation area hosts moose and snowshoe hare. White-tailed deer, wild turkey, ruffed grouse, and eastern coyote are rather common, and black bear are occasionally found. Maintaining these unfragmented forests is critical to the long-term ecological health of Saratoga County's natural systems.

For over a century, the Adirondack Park has served as a model for balancing conservation and wise use of natural resources. Sustainably-managed forest products have been a mainstay of the Adirondack economy while protecting the natural systems benefits of large, unfragmented forests to the region. Maintenance of these working forest lands is an important component of the green infrastructure vision.

## **2. Palmertown Range and Adirondack Foothills**

The Adirondack foothills serve as a transition zone between the Hudson River valley and the dramatic topography of the Adirondack Mountains. The Palmertown Range is the major topographical feature in the foothills and the most eastern of the mountain ranges. The Palmertown Range extends from Sugarloaf Mountain near Lake Champlain and terminates in the western hills of Saratoga. Several significant natural communities are within the foothills, including a large unfragmented contiguous block of hemlock northern hardwood forest as well as a red maple-black gum swamp in Lincoln Mountain State Forest.

Moreau Lake State Park is within the foothills hub. In addition to providing exceptional recreational opportunities, Moreau Lake State Park is a significant open space resource within the Towns of Moreau and Corinth in Saratoga County, and extends northward into Warren County. The park includes over 4,100 acres on both sides of the Hudson River, as well as Moreau Lake, a glacially-derived "kettle hole lake." The park includes two significant natural communities: hemlock-northern hardwood forest and calcareous talus slope woodland, the latter located in the Warren County portion of the park. The park also contains significant wetlands, as well as scenic and cultural resources and serves as an important large, unfragmented forest for wildlife.

The park is currently being evaluated for designation as a State Bird Conservation Area (BCA), due to its high abundance and diversity of species, including resident and migratory species. Maintenance of a large, unfragmented forest block in this area is important.



*Moreau Lake State Park is an important source of unfragmented forest.*



### 3. Karner Blue Butterfly Recovery Units

The Karner blue butterfly, *Lycaeides melissa samuelis*, is a state and federally-listed endangered species. Karner blue butterflies are known to exist in only seven states within the United States. In New York, the Karner blue exists almost entirely within the former location of Glacial Lake Albany primarily due to the sandy soils which support wild lupine, *Lupinus perennis*, which is the only known larval food plant for the Karner blue. Over half of the subpopulations of the Karner blue are found in Saratoga County.

The largest population in the state is at the Saratoga County Airport, where as of 2003, was estimated by the State Department of Environmental Conservation (DEC) to have 10,000 butterflies. Most areas in the county have populations of less than 100 butterflies, some even less than ten. The two recovery units (Saratoga Sandplains Karner Blue Butterfly Recovery Unit and Saratoga West Karner Blue Butterfly Recovery Unit) are the areas in the county that the US Fish and Wildlife Service and DEC are focusing efforts to maintain and restore Karner blue habitat, based on the relative large butterfly populations that already exist. The goal within these areas is to protect the habitat that already exists, maintain and try and grow the population of Karner blue butterflies in these areas, and increase the habitat area and connectivity within the recovery unit boundaries.



The greatest threat in the butterfly recovery units, besides destruction of habitat due to development, is the succession of meadows to forest. The tree cover prevents the growth and spread of lupine, without which the Karner blue population can not be sustained. The goal of the recovery units is to increase the population of Karner blue to the point that they are no longer considered an endangered species. This can be accomplished through acquisition and conservation of land through easements, as well as through management of land to maintain suitable habitat for the butterfly.

This hub also includes several important conservation areas, including the Wilton Wildlife Preserve and Park (WWPP), Saratoga Spa State Park, the Malta Ecological Park, Lester Park and the Petrified Sea Gardnes, and Bear Swamp.

The Wilton Wildlife Preserve and Park in the Town of Wilton currently has approximately 1,600 acres of land protected, and there are 12 miles of trails for non-motorized use. The preserve is situated on sand plains and is host to the Karner blue butterfly as well as the frosted elfin, among many other significant plant and animal species. The park also includes significant wetlands and vernal pools, which serve as breeding grounds and habitat for reptiles and amphibians, including the Blanding's turtle and a several other imperiled species. These vernal pools and wetlands extend beyond the park's eastern boundary into the town of Northumberland. Opportunities to protect these vulnerable wetlands through both local and intermunicipal efforts should be explored. The WWPP also offers opportunities for education, hiking and passive recreation.

Saratoga Spa State Park is known as a cultural and recreational park, with interesting architecture, museums, the mineral baths, the performing arts center, and other attractions. It is also, however, an important natural "hub" which includes mineral springs of geological significance, the Geyser Brook

## ***Case Study: Wilton Wildlife Preserve & Park (WWPP)***

### **Origin and Significance of the Park**

In 1996, Saratoga County identified a one-acre parcel in its list of properties being auctioned for back taxes in Wilton. The Nature Conservancy (TNC) and the State Department of Environmental Conservation (DEC), knowing the parcel harbored the Karner blue butterfly, approached the Town of Wilton and asked if it would be willing to purchase the parcel and donate it to TNC to protect the butterfly. Then Supervisor Roy McDonald responded that the town would use the opportunity as the genesis of a 3,000-acre preserve for the butterfly, and a park for the people.

Wilton, one of the fastest growing municipalities in New York State, began to work with partners to strike a balance between people, community and habitat. Soon thereafter, the town and partners established a Board of Directors consisting of interested citizens and representatives from TNC and the town. Partners identified a study area encompassing the greatest density of occupied Karner blue butterfly habitat and associated buffers to serve as the focus area. group received its 501(c)(3) nonprofit status in 2001. In order to further its work, the WWPP has an Adopt A Natural Resource Agreement with DEC enabling it to undertake certain activities on state-owned lands. The town has a management agreement with Saratoga County that allows for the

submission and review of Karner blue butterfly habitat management plans and recreation trails for county-owned forestlands within and immediately adjacent to the study area.



*The Karner blue butterfly nectars on butterfly weed, one of several important plants for adult butterflies.*

*Photo source: George Silverstruck*

This area harbors remnant patches of the Saratoga Sandplains, savannahs with native grasses, wildflowers, pitch pines and oak trees. This oak-pine savannah encompasses ecologically significant vegetative communities and species, thus attracting the DEC and TNC's attention. These species and communities include the state and federally endangered Karner blue butterfly; the state-threatened frosted elfin butterfly and Blanding's turtle; special concern species including the eastern spadefoot toad, eastern hognose snake, and blue-spotted salamander; pine barren vernal ponds; wetland complexes; and various reptile and amphibian species.

### **Making it Work**

The program's success hinges on a successful partnership. Each partner recognizes that it must contribute to advance the mutually beneficial mission. Collectively, partners contribute funding, space, equipment, and technical expertise and services, i.e., financial, science, protection, legal, and enforcement. The partners gather at periodic Roundtable Meetings to discuss the issues and plan for the future. The organization's volunteers make things happen, assisting with trail work, educational programming, outreach, and Karner blue butterfly habitat management and restoration. Funding is at the heart of the program's work. Land protection, land management, education and recreation programs all require it. In addition to partner financial contributions, many individuals and area organizations and business generously contribute to the effort.

*The Wilton Wildlife Preserve & Park, Inc. (WWPP) is a nonprofit organization whose mission is to protect land ensuring the survival of wildlife including rare and endangered species and the natural communities that support them, and to create a natural area for educational and recreational benefits. It represents a partnership between the Town of Wilton, Saratoga County, the New York State Department of Environmental Conservation (DEC), and The Nature Conservancy (TNC). The WWPP is located in the Wilton and generally extends from the Adirondack Northway (I-87) east to the Wilton town line and from Ballard Road in the north to Loudon Road in the south.*

and heron rookery, and old growth forests. It is within the Saratoga West Karner Blue Butterfly Recovery Unit and provides habitat for the endangered butterfly. The Kayaderosseras Creek corridor traverses the southern edge of the park. There are opportunities to continue to expand this natural systems hub and connect it to other priority resources.

The Malta Ecological Park, which is currently under development in the Town of Malta, sits along the southern edge of the Saratoga West recovery unit. This park offers a setting for recreation and exploration of the area's natural resources. The park conserves wetlands, ponds and a diversity of plants and wildlife amidst a rapidly-growing community.

Lester Park and the Petrified Sea Gardens contain unique geologic formations called stromatolites which are the fossilized remains of blue-green algae that existed approximately 500 million years ago when Saratoga County was located near the equator. Stromatolites were first described in North America at Lester Park in 1847, and the fossils contained in the Sea Gardens were discovered in the 1920s. Lester Park is owned by the New York State Museum and maintained by the geology department at Skidmore College. The Petrified Sea Gardens, which is a National Natural and Historic Landmark, is privately owned. The Sea Gardens was operated by a not-for-profit group through 2005, however the park is not currently open to the public. These two important geological sites sit at the border of the City of Saratoga Springs and the Town of Greenfield.



*Geyser Creek in Saratoga Spa State Park is an important natural and geological area.*

Also included in this green infrastructure hub is Bear Swamp, in the City of Saratoga Springs, which is a rich shrub fen that is ranked as critically imperiled/imperiled according to the New York State Natural Heritage Program. Because of its location, Bear Swamp may be threatened by non-native invasive species such as purple loosestrife, as well as by pollution from run-off from adjacent residential or agricultural land use.

#### **4. Saratoga National Historical Park**

This 3,200 acre National Historical Park commemorates a significant military victory recognized as a major turning point of the American Revolution. The park also provides major scenic and natural systems benefits. Nearly one-third of the park is covered in grasslands, and the majority of the remaining area is forested, with several large areas of old growth forest. The park also contains significant natural communities of floodplain forest and successional fern meadow. According to the park's 2004 general management plan, 16 bird species and four amphibian species within the park's known inhabitants are state listed as special concern, rare, threatened, or endangered.



The National Historical Park is also designated as an Important Bird Area (IBA) by the National Audubon Society. The park's 2004 general management plan provides a framework for balancing the natural, scenic, and cultural heritage benefits of the park. Conservation of the farmlands surrounding this park is also critical to sustaining its scenic and natural benefits.

### **5. Vischer Ferry Nature and Historic Preserve**

The Vischer Ferry Nature and Historic Preserve is between River Road and the Mohawk River in the southern portion of Clifton Park, located on the Erie Canal. The preserve includes a large freshwater wetland with marshes, as well as deciduous forest lands. The preserve provides habitat for a diversity of birds and is designated by the National Audubon Society as an IBA. This is a priority open space in the Town of Clifton Park's 2003 Open Space Plan and is listed as a priority project on the *Draft 2005 State Open Space Conservation Plan*.

### **6. Greenway Convergence**

Several significant greenway corridors pass through this area at the border of the towns of Malta and Ballston. This ecologically-significant area includes the Mourning Kill, Ballston Creek and Drummond Creek. Saratoga P.L.A.N. is currently working with partners to create the Ballston Creek Preserve in this area. Several important public access opportunities including the Ballston Bike Trail and the Zim Smith Trail, also meet in this area. The existing Shenantaha Creek Park, which includes a geologically-significant moraine area along the Ballston Creek, is also included in this area.

### **7. Dwaaskill Natural Area**

Amid the rapidly-growing northern part of Clifton Park, in an area west of Northway Exit 10, the Dwaaskill Natural Area provides open space conservation for a diversity of wildlife, and provides protection for one of the town's major aquifers. The area conserves a diversity of habitat types and structures, ranging from aquatic, riparian, and upland areas, and serves as a wildlife corridor connecting the town's open spaces and riparian corridors.

### **8. Saratoga Lake/Drummond Creek Wetlands**

A large complex of wetlands extending from Saratoga Springs to Malta along the western edge of Saratoga Lake includes several of the county's most significant wetlands. This complex is associated with Bog Meadow Brook, Spring Run, Drummond Creek and Saratoga Lake. This complex includes the largest Class I regulated DEC wetland (3,750 acres) in Saratoga County. This important wetland area also includes the upland habitat area necessary to maintain its function. Maintaining connectivity of the wetland and upland connections



*The Old Champlain Canal Towpath in Schuylerville is currently accessible as a recreational pathway.*

along Saratoga Lake and Drummond Creek is important for wildlife and natural system function. The Malta Nature Preserve is an example of a local initiative to preserve and restore habitat in the Drummond Creek corridor.

### **9. Galway/Charlton Wetlands**

A large expanse of significant wetlands between Charlton and Galway provides important wildlife habitat for a diversity of species. Ludlow Swamp is a large (517 acre) class I wetland complex located north of the Village of Galway. A heron rookery is located nearby on wetlands associated with nearby Glowegee Creek. Closer to the Charlton/Galway border, Consaulis Vly is a large wetland that sits among several smaller but significant wetlands. The Consaulis Vly County Forest is also located within this area.

### **10. West Milton Forest Hub**

This important wildlife hub provides extensive unfragmented forest cover along both the Kayaderosseras and Glowegee Creeks in the Towns of Milton and Galway. The center of this area is the operating part of the Kenneth A. Kesserling Site (Knolls Atomic Power Laboratory). This is a small operating area that is buffered by a vast unbroken forest; creating a wilderness-like enclave in the middle of the county.

## **C. Greenway and Trail Corridors**

### **1. Erie Canal Greenway and Hudson River Trail (Champlain Canal, Mohawk River Trail)**

The Erie Canal Greenway, which includes both the Hudson and Mohawk Rivers in Saratoga County, is one of the county's most prominent green infrastructure resources. The Hudson River forms the county's eastern border with Rensselaer, Washington and Warren Counties and spans the full length of the county, as well as paralleling the northern boundary for a substantial distance. The southern tip of Saratoga County is bounded by the Mohawk River, which connects with the Hudson River in Waterford.

The greenway's significance in Saratoga County is evidenced by the many efforts to preserve and celebrate historic resources along the Hudson and Mohawk corridors. The corridor's heritage is diverse and includes its significance as a Native American settlement and transportation corridor; its role in major battles for independence, specifically the Revolutionary War; its critical role in as a transportation corridor via the Erie and Champlain Canals on the east coast; and its influence the Industrial Revolution, owing to the combination of transportation corridors and water power.

The Erie Canalway is designated as a National Heritage Corridor, and the area where the Hudson and Mohawk meet (Town and Village of Waterford) is designated by the state as the Hudson-Mohawk Urban Cultural Park. The Saratoga National Historical Park celebrates the important victory of the Battle of Saratoga, considered to the turning point of the Revolutionary War. The area that includes the Saratoga Battle Monument in the Town of Saratoga, the Champlain Canal, and the Hudson River has been the focus of several efforts of heritage preservation and promotion in Saratoga and Washington Counties currently being integrated into one project called "Old Saratoga on the Hudson" being organized by Saratoga P.L.A.N.

Most recently, the governor announced plans to develop the Erie Canal Greenway, modeled after

the success of the Hudson River Greenway. The proposed Erie Canal Greenway is planned to stretch across New York State—from Buffalo to Albany, and north along the Hudson River. It would ultimately connect to the Niagara River Greenway and the Hudson River Greenway forming an extensive statewide greenway system. The governor's proposed 2006-2007 budget includes \$10 million in funding for the Erie Canal Greenway; this would be a source of matching funds for implementation of the greenway in Saratoga County.



*Fish Creek provides significant opportunities for fishing, as well as other recreational activities such as rowing and kayaking.*

In addition to its historical significance, the Erie Canal Greenway provides important natural, scenic, agricultural and recreational opportunities. The greenway is a significant regional wildlife corridor that extends well beyond Saratoga County, and provides wildlife connectivity throughout the state. It includes the Lakes to Locks National Scenic Byway and the Champlain Canal Scenic Byway. Agricultural lands within the Hudson and Mohawk River valleys are important to the region's economy, help to conserve open land, and contribute to the rural character and scenic quality of the county. Recreational resources such as the Champlain Canal Trail, and those in the Vischer Ferry Nature and Historic Preserve, serve as the foundations of a future interconnected greenway trail system. Several significant geological features are within the greenway, including Cohoes Falls, Stark's Knob, and Cooper's Cave.

The Erie Canal Greenway serves as a major connective spine in Saratoga County, providing opportunities for multiple benefits, including recreation, economic development, and conservation of natural and historic resources. It can also serve as a main spine linking together other county trails and greenways, such as the proposed Mid-County Trail System, Kayaderosseras Creek-Fish Creek Greenway, and "Loop the Lake" Sacandaga Lake trail.

## **2. Kayaderosseras Creek-Fish Creek Greenway**

An interconnected waterway system including Kayaderosseras Creek, Saratoga Lake and Fish Creek winds its way through eight communities in Saratoga County, connecting the southern Adirondacks "hub" to the Hudson River. This greenway links together many open space resources including the Adirondacks, Spa State Park, Saratoga Lake, and the "Old Saratoga" gateway area. The greenway provides opportunities for a diversity of experiences, including existing water and land trails (with opportunities for expansion), historic villages, and scenic agricultural lands. This greenway provides opportunities for passive recreation and conservation that are appropriate to the natural capacity of the land.



### **3. Mid-County Trail System (Zim Smith, Palmertown Range, and Ballston Veterans Memorial Trail)**

This trail system is the central spine of the county, connecting the Hudson River, Mohawk River and Palmertown Range. This trail system includes the Zim Smith Trail (and an extension east to the Hudson River), the Ballston Veterans Memorial Trail, and the Palmertown Range Trail connecting Saratoga Springs to Moreau Lake State Park. It links major recreational destinations to some of the county's most significant population centers, including the Cities of Saratoga Springs and Mechanicville, the Villages of Round Lake, Ballston Spa and South Glens Falls, as well as the developed areas of Northway towns such as Malta and Clifton Park.



*The Zim Smith Trail in Malta is the heart of a future mid-county trail system which will someday extend the length of the county.*  
*Photo source: Town of Malta*

### **4. Alplaus Kill Greenway**

The Alplaus Kill, a tributary of the Mohawk River, provides an opportunity to conserve a wildlife corridor connecting the Dwaas Kill Natural Area and Mohawk River to the Galway/Charlton wetland “hub” and the southern Adirondack “hub.” This greenway would extend along the Alplaus Kill from where it meets the western edge of the Town of Clifton Park, through the towns of Ballston, Charlton, and Galway, meeting up with the Long Path in Galway. The greenway could also include public access trail connections that are appropriate for the ecological setting.

### **5. Loop the Lake**

“Loop the Lake” is a concept for a loop trail around Sacandaga Lake in the Towns of Edinburg, Day, and Hadley. The loop trail would provide public access to this scenic and recreational asset and would connect various public lands and recreational areas, including the state boat launch and county recreational park in Day, and the Sacandaga River whitewater recreation area. This concept could also include a scenic driving tour that extends around the Sacandaga Reservoir from Edinburgh to Greenfield via Desolation Road and Route 12, as well as a connection via Route 9N from Hadley to Corinth along the Hudson River.

### **6. The Long Path**

The Long Path is a long-distance hiking path that currently connects the George Washington Bridge in New Jersey to John Boyd Thatcher Park in Albany County, mostly following public lands. Ultimately, it is proposed to connect to Whiteface Mountain. In Saratoga County, the Long Path is proposed to extend along roadways and through public lands including Lake Desolation and lands within the Adirondack Park. It would link major landmarks, including Revolutionary War sites and several significant geological features in the county.

## **7. Mid-County Equestrian Trail**

This proposed multi-use trail would connect several important recreational destinations in the Towns of Saratoga, Malta and Stillwater. The trail would connect Saratoga Spa State Park, the Village of Round Lake and the Saratoga National Historical Park, and would provide a parallel route for equestrians and snowmobiles.

## **8. Luther Forest Loop Trail**

This loop trail would connect future public access improvements on Routes 9 and 67 with the Luther Forest Technology Park. It would provide connections to existing destinations in the county, including the Mid-County Trail System (Zim Smith Trail), Downtown Malta, and the Village of Round Lake. It would also provide a substantial alternative transportation opportunity in this populated area of the county.

# **D. Heritage Hubs**

## **1. Adirondack/Wilderness Hub (Edinburg area)**

There are many overlying themes present in the history of the Adirondack region and particularly in the southern foothills. The earliest known settlement of the area was by the Mohawk Indians who inhabited the area for generations with white settlement not starting until the late 18<sup>th</sup> century. Settlers moved west from Massachusetts for the fertile land of the Sacandaga River Valley and the great forests.

The advent of the Industrial Revolution brought additional settlers and the development of logging operations, woodenware mills and increased farming. Industry thrived into the late 19<sup>th</sup> century at which time many mills burned and people moved elsewhere looking for new jobs. The population also starting thinning out with the rumors of a dam to be built that would destroy several communities to create a reservoir.

By 1931 the Sacandaga River Valley was fully flooded and the Sacandaga Reservoir (or Great Sacandaga Lake as it is now known) came into being. Development along the shores of the lake was primarily seasonal throughout the early 20<sup>th</sup> century, with most farming operations gone and only some remaining logging. The historic fabric of communities such as Edinburg lives on with resources such as the Copeland Covered Bridge that is believed to be the last covered bridge in Saratoga County.



*The Copeland Covered Bridge in Edinburg was recently restored.*

## 2. South Glens Falls Hub

The Town of Moreau and the Village of South Glens Falls contain a variety of resources that reflect the rich county history. These include early settlements patterns, the French and Indian and Revolutionary Wars and Native American history. Most historically significant is the area's cultural relationship with author James Fenimore Cooper. Many resources reflect the life and work of the author including, most notably, the site of Cooper's Cave along the Hudson River which was made famous in *The Last of the Mohicans*.

## 3. Bacon Hill Hub (Town of Northumberland)

Extensive dairy farms, many generations old, provide this area with a distinguished scenic and historic landscape. Some of these farm families were the original settlers to the area following the Native Americans. They came for the fertile land within the Hudson River Valley and have created prosperous and cohesive communities.



*An aerial view of Bacon Hill illustrates the rich agricultural heritage of this community.*

The area is named after the site of the home of Ebenezer Bacon who built the first framed tavern in 1794. The Bacon Hill hamlet developed in the 19<sup>th</sup> century with its own schoolhouse, church and grange hall.

## 4. Saratoga National Historical Park Hub (Town of Saratoga)

The Battles of Saratoga are considered to be the “turning point” of the Revolutionary War and the National Park Service has permanently preserved the site for generations of Americans. The Historical Park interprets the Revolutionary War troop movements, encampments and battlefields but in doing so also captures the early settlement pattern of the region including several historic farmsteads and scenic views.

## 5. Mechanicville Hub

Mechanicville has a rich history related to trade and transportation based on its location along the Hudson River and the King's Highway. The King's highway, first traveled by Native Americans, was a trail the led from Albany to Lake Champlain. Traveling along these routes, white settlers, primarily farmers, starting inhabiting the area by the late 17<sup>th</sup> century. The Hudson River and King's Highway became significant routes for soldiers on both sides during the Revolutionary War due to the development of taverns and inns along the King's Highway prior to the War.

In 1800, a small canal was constructed between Stillwater and Mechanicville that provided additional opportunities for manufacturing and commerce on the Hudson River. The early 19<sup>th</sup> century brought woolen and friction match mills to Mechanicville but it was the construction of the Champlain Canal in 1825 that truly inspired the industrial growth of the area. This growth



stimulated the development of housing and services that provided a sense of community for canal workers.

The 20<sup>th</sup> century brought the railroad and trolleys to Mechanicville and stimulated immigration to the area. Many immigrants came looking for work in the emerging brick making industry as well as in the paper and transportation industries. The early 20<sup>th</sup> century also brought significant architecture to the city. Craftsman and products were more accessible and the development and population boom of this period produced many architecturally significant homes and buildings.



*The City of Mechanicville (center and right) was once an important transportation hub along the Hudson River.*

#### **6. Vischer Ferry Hub (Town of Clifton Park)**

The hamlet of Vischer Ferry developed around the settlement and transportation patterns associated with the Mohawk River. The earliest settlement along the Mohawk River was in 1672 and by the early 1700s there were two rope ferries crossing the River. One of these was operated by Eldert Vischer, hence the name of the hamlet. Vischer Ferry continues to provide an excellent example of the historic character of early river settlements.

The construction of the Erie Canal brought significant additional commerce and development to the area and there is now a historic site and park to provide interpretation. Vischer Ferry had two dry docks where canal boats were built and repaired and a surge in carpenters and canal workers greatly increased the population of the village.

#### **7. Ballston Spa Hub**

Ballston Spa was originally settled by the Algonquin and Mohawk Indian tribes who used the area as a hunting ground. With the settlement of the area by whites in the early 1700s the conflict between the two began. Native Americans sided with the British against the colonists through the 18<sup>th</sup> century.

Earlier than Saratoga Springs, Ballston Spa's history is also associated with the natural springs located in the area. The first naturally carbonated mineral spring was found in this area in 1771. By the early 19<sup>th</sup> century the development of the springs as attractions brought hotels, services and large summer homes and cottages. By 1825, it was considered by many to be the most famous "watering place" resort in America.

The Industrial Revolution brought different types of commerce to the village with the development

of paper mills and other manufacturing along the Kayaderosseras Creek. The Union Bag & Paper Mill buildings, where the paper bag was invented, are still extant and in continued use.

### **8. Hadley Hamlet Hub**

The Hadley area is rich in Native American history with the confluence of the Sacandaga and Hudson Rivers. Many tribes including the Mohawk, Oneida and Algonquins fought for this land and traveled the many trails throughout the region. After the French and Indian and Revolutionary Wars, former soldiers and others settled the area. The earliest settled areas, including Conklingville, were later flooded to create the Sacandaga Reservoir.

Through the 19<sup>th</sup> and 20<sup>th</sup> centuries, Hadley became a significant tourist destination and summer retreat. Vacationers could travel by train, which reached Hadley in 1865, to the many hotels and boarding houses. There were numerous outdoor activities and a pristine scenic wilderness to see and explore. The attraction to the area by outdoor enthusiasts, tourists and summer vacationers continues this tradition today.

### **8. Village of Round Lake Hub**

The Village of Round Lake began as a summer camp location for groups of Methodists. The area was chosen because of its lakeside pine woods, convenient access to train service, mineral springs, and nearby farms. The first structures built in the village were Victorian-style cottages. This was followed in the late 1800s by a building boom that led to larger-scale development, including many existing cultural destinations such as the Auditorium, The Pines and the Cluett Mansion. Today, the village still maintains its unique camp-like layout, in which the Auditorium serves as the central feature, surrounded by narrow cottage-lined streets connected by pedestrian pathways and ample open spaces and gathering areas.

*Note: the Green Infrastructure Gateways that follow are also significant heritage hubs.*

## **E. Green Infrastructure Gateways**

### **1. Hudson-Mohawk Gateway (Village of Waterford)**

The confluence of the Hudson and Mohawk Rivers has a rich and varied history. From its earliest settlement by the Mahican Indians at Peebles Island through the Industrial Revolution and Canal development, the area has been a vital crossroads.

The Town and Village of Waterford played a significant role in the Revolutionary War. The Hudson River corridor served as a major supply route and the mouth of the Mohawk River and Peebles Island provided encampments and fortifications against General Burgoyne's possible advance to Albany.

With the development of the New York Canal System in the 1820s the area became significant as a major gateway of commerce to western New York and Canada. The Erie and Champlain Canals provided a more efficient system for transporting large amounts of freight. This, in turn, brought the region to importance as one of the birthplaces of the American Industrial Revolution.

The significance of this gateway has already been declared through the designation of the Hudson-



*The Erie Canal in Waterford is a recreational and cultural destination.*

Mohawk State Heritage Area, which celebrates the importance of the confluence of Hudson and Mohawk Rivers in shaping the heritage of the region and state. The convergence of the Hudson and Mohawk Rivers was the center of transportation and the Industrial Revolution and has had a significant impact on the settlement of the region.

From a recreational and heritage tourism perspective, the Hudson-Mohawk Gateway is the entrance to Saratoga County from Rensselaer County and points south. Importantly, it is also the junction between two significant state greenways: the Hudson River Valley Greenway and the Erie Canal Greenway.

## **2. Adirondack Gateway (Village of Corinth)**

The Corinth area was settled directly after the Revolutionary War, as former soldiers and others moved north and west along the Hudson River. Early settlers were primarily involved in farming and logging operations. Quickly though, the forests of the region provided an impetus for industrial growth in the form of wood products and paper manufacturing. This industrial growth continued into the early 20<sup>th</sup> century.

The Adirondack Gateway in the Village of Corinth is Saratoga County's northernmost entryway to tourism and recreation. The village can be the starting point for Adirondack adventures such as hiking Hadley Mountain and riding the Sacandaga whitewater trail, and a major stopping point along the planned Adirondack Scenic Rail connecting Saratoga Springs to North Creek.

## **3. "Old Saratoga" Gateway (Villages of Schuylerville and Victory)**

Native Americans were the first known settlers of this area with trails and encampments along the Hudson River and extending along Fish Creek to Saratoga Lake. White settlers came north into the area by the mid 18<sup>th</sup> century traveling up the along the Hudson River.

The Hudson River Valley in the Schuylerville region is most significant for its associations with the Revolutionary War. With the pivotal Battles of Saratoga fought in nearby Stillwater, many significant troop movements and skirmishes, as well as the ultimate surrender of General Burgoyne, occurred in the vicinity of Schuylerville and Victory. The area also has additional historic associations with the Civil War-era Underground Railroad that had stops and routes through the area.

By the 19<sup>th</sup> century, the Hudson River Valley became a primary route for trade and commerce



*Route 29 enters the Village of Schuylerville from Washington County across the Hudson River.*



and was enhanced by the development of the Champlain Canal in the 1820s. The canal increased economic activity and provided a catalyst for the growing industrial mill development in both Schuylerville and Victory.

The “Old Saratoga” Gateway celebrates a major concentration of historical, cultural, scenic and recreational significance within the county. It is also the eastern connection to Washington County. Some of the many resources this gateway introduces include: Stark’s Knob, the Champlain Canal, Hudson River, Saratoga Monument, Saratoga National Historical Park, Lakes to Locks Scenic Byway, and the historic Villages of Schuylerville and Victory. There are many efforts currently underway in this gateway, which are being coordinated by Saratoga P.L.A.N.

#### **4. Saratoga Springs Gateway (City of Saratoga Springs)**

The historical development of Saratoga Springs is directly related to the unique geologic conditions that created the naturally carbonated spring waters that can be found throughout the city. By the early 19<sup>th</sup> century, the “waters” of Saratoga were considered highly medicinal and people flocked to the area seeking the benefits. The development of spas, bathhouses and bottling plants brought many individuals from diverse ethnic origins.

With this influx of people arriving for the springs, a resort industry developed with hotels, parks, summer cottages and activities such as gambling and horse racing. With the founding of the Saratoga Racetrack, the horse industry also became a predominant feature of the city including the development of the homes on Union Street and many horse farms surrounding the area.

The City of Saratoga Springs is the county’s major population center and one of the primary tourism destinations in the county. The gateway currently serves as a starting point for recreational excursions for both residents and visitors, providing further opportunities for promotion of the county’s expansive system of green infrastructure resources.



*Downtown Saratoga Springs is a gateway for many people visiting Saratoga County and upstate New York.*

#### **5. Horse Country Gateway (location TBD)**

The equine industry provides significant direct and indirect economic benefits to the county that should continue to be supported. Many people are drawn to Saratoga County because of the significant equine infrastructure and industry that give the county its horse-friendly reputation. The “Horse Country” gateway would become the central staging area and destination for those entering Saratoga County for the “horse country” experience. The gateway could include an equestrian park linked to a system of horse trails, in a conveniently-located area accessible from the Northway. It could also include interpretive and education features such as a museum or visitor center.



*One of the many equine friends in Saratoga County.*

## **6. West County Gateway (Charlton/Galway)**

The early settlement pattern of the west county communities was primarily agricultural. Family farmsteads developed around rich, fertile crop and grazing land to create small hamlets in a rural setting. Originally, many of the farms were dairy operations, but the rise of the equine industry brought additional horse farms to the area. With the Industrial Revolution came the development of mills along the Alplaus Kill. This increased the population in the region as well as diversifying the economic base.

The west county gateway celebrates the rural character and heritage of this western portion of Saratoga County. It includes important colonial settlement patterns, and heritage of the Industrial Revolution, as well as significant natural features such as the Alplaus Kill and wetlands such as Ludlow Swamp and Consaulis Vly. Importantly, this gateway offers an opportunity to highlight agritourism and working landscapes in this area of the county, including dairy, livestock and orchards, which are some of the major elements of this area's rural experience.

## **Conservation Goals for the Green Infrastructure Partnership**

Setting goals for future land conservation and trail implementation is an important part of the green infrastructure plan. The goals established in this plan recognize that the early stages of the green infrastructure program involve public education, planning, and advocacy that will set the stage for future implementation. As such, the program goals have been developed to start out slow and increase as planning is completed and projects are cultivated. These goals reflect a future vision for the county based on a partnership approach, which includes the efforts and contributions of partners such as state, federal, county, and local governments; landowners; conservation organizations; and the development community.

Farmland retention and protection include keeping land in production and permanently protecting farmland from development with a conservation easement. If the county and communities were to match the current amount of protected acreage over the next five years, an additional 1,200 acres would be permanently conserved. If the county were to double the conservation goal every five years, after 20 years nearly 20,000 acres could be permanently protected. Add to that another 25,000 acres that remain in production through farmland retention tools such as property tax reductions and farm business grants. This would result in a total of 45,000 acres (out of about 55,000 acres currently in production) still in farming—a huge accomplishment considering the projected rate of 1,800 acres of farmland loss per year.

For natural systems “hubs” a similar approach is suggested. Here, it is recommended that a larger acreage goal of 4,000 additional acres be established over the next five years and increasing the goal by 150% every five years. In 20 years we could expect to conserve about 32,500 acres of natural systems priority lands. Some of this acreage can be set aside as part of development projects, and some of this land can be protected by purchase or donation of conservation easements.

Greenway and trail development can include a range of options including off-road multi-purpose trails, nature pathways, equestrian trails and enhanced bike lanes along county highways. Trails can be constructed with new development projects as well as through volunteer-built and publicly funded efforts. The trail system could expand by 10 to 20 or more miles over the next five years, if developed in this low-cost to higher-cost mix of project types. In 20 years, we could expect to implement up to 80 miles of trails and greenways in the county.

While cultural and historical resources do not lend themselves to acreage or mileage goals, a reasonable short-term goal would be to document the buildings and features that comprise the heritage hubs and gateways and establish them as National Register Districts. Funding for cultural resource surveys is available through the Preservation League of New York State, the National Trust for Historic Preservation, and the NYS Historic Preservation office. The National Register listing opens up funding opportunities for building owners and local financial tools for preservation. As an example, the Town of Malta recently applied for and became a Certified Local Government, making it eligible for funding of historic preservation projects and programs.

### **Conclusion**

This chapter provides the framework for a county-wide system of green infrastructure: natural systems hubs, trails and greenways, working landscape core areas, and areas of significant heritage. The chapters that follow outline a county strategy and actions for conserving this network of green infrastructure.



## Chapter 5: Recommendations

### Introduction

This chapter outlines the major recommendations for achieving the green infrastructure network at the county level. These recommendations relate to county actions, policy and programs and encourage the communication of this plan's goals between the county and its communities. As discussed in Chapter 4, state, federal, and local agencies and private entities (such as nonprofits and developers) are also partners in this effort.

### A. Overall Recommendations

#### I. EXPAND AND MODIFY THE EXISTING COUNTY FARMLAND/ OPEN SPACE GRANT PROGRAM

The existing farmland/open space grant program should be modified as follows:

- Provide grants in all four categories of green infrastructure, including expansion of the types of farmland protection projects funded
- Provide grants for planning and implementation of county green infrastructure priorities
- Remove the per-project funding cap
- Increase the percentage of the county share on farmland protection projects
- Consider landowner contributions in the form of donations and bargain sales in project budget calculations for matching funds
- Increase the amount of funds to meet the growing demands of the program

Prioritize projects that:

- Are identified as priorities in this green infrastructure plan (see Chapter 4 summary and green infrastructure network map)
- Meet the guidelines for a county priority project (see page 37)

#### Examples of Green Infrastructure Planning Projects

- Farmland protection plan
- Agricultural economic development plan
- Habitat assessment or biodiversity plan
- Comprehensive local green infrastructure or open space plan
- Trail corridor plan
- Cultural Resource Survey



*Large private farms like the one above should be identified to inform landowners of possible conservation easement opportunities.*

### **Examples of Green Infrastructure Implementation Projects**

- Working Landscapes: Farmland protection projects

### **Examples of Green Infrastructure Implementation Projects (*cont.*)**

- Natural Systems: Creation or expansion of nature preserve or greenway (acquisition, PDR, etc.), habitat restoration, stewardship, etc.
- Trail Connections, Expansions, and Recreation: Trail acquisition, design, or construction, water access areas
- Scenic and Historic Resources: Creation or expansion of National Register or local historic districts

## **2. LINK GREEN INFRASTRUCTURE PLANNING WITH GREY INFRASTRUCTURE PLANNING**

Saratoga County can continue to help advance the vision and goals expressed in this plan by refining county policy. Policy areas for consideration include county infrastructure, county highways, tax foreclosure and the disposition of lands, and county forests. More detail on recommended policy enhancement follows.

### **Infrastructure Planning and Growth Areas**

According to the county's development plan, it is a policy to guide infrastructure away from areas where intensive development is not appropriate. This policy can be further refined by continuing to work with the local municipalities to define appropriate growth areas. By defining

#### ***Case Study: Genesee County Smart Growth Plan***

In 2001, Genesee County worked with each of the municipalities to create a "Smart Growth Plan". This plan had the following objectives:

- Focus and encourage economic growth in areas with available public services
- Revitalize city, village and hamlet business districts and neighborhoods
- Protect farmland and reduce impacts upon agricultural activity

This plan was used to help locate future infrastructure service areas that coincided with appropriate local areas designated for future growth.

growth areas, investments in water, sewer, and other infrastructure can be most efficient. This offers the additional benefit of reducing development pressure in areas such as agricultural districts, where intensive growth is not appropriate. Genesee County has provided an interesting approach to this subject in their smart growth plan.

### **County Highways and Other Service Corridors**

Saratoga County has an excellent system of county highways that link communities together. These highway corridors often run through scenic landscapes, providing the traveler with

magnificent landscape views. Many of these roads are also popular bicycling routes. As highway improvement projects are planned, it is recommended that the county continue to strengthen its practice of considering appropriate provision for bicycle users in the highway design. For example, when Meadowbrook Road (County Route 65) was being improved, provisions were made for a shoulder that would better accommodate bicyclists. Ideally, a comprehensive approach would be made for the county highway system, where priority routes would be identified to accommodate the needs of other highway users in addition to motorists. This green infrastructure plan identifies a few opportunities in this regard which include, for example, Geyser Road (County Route 43), and West River Road (County Route 29).

There is a need for wider shoulders on county roads for bicycling (and walking in some places). In addition, some county roadways could be better signed and maintained to allow for a safer and bicycling experience. Explore the option to reserve right-of-way where feasible for off-road bicycle and pedestrian trails (desired first choice) and/or ensure that road shoulders have adequate width for bicycling (at least 4-5') and sidewalks where appropriate, with the understanding that different treatments are appropriate for different settings.



*County Route 60 is a scenic road that would benefit from bicycle and pedestrian improvements.*

### **3. ANTICIPATE FUTURE GREEN INFRASTRUCTURE OPPORTUNITIES**

#### **Tax Foreclosed and Surplus County Real Property**

Prior to sale of property acquired by the county for tax foreclosure or the disposal of other county real property, consideration should be given to offering parcels to the local municipality for use as park, open space, trail, or similar public use. These parcels may become key parcels for the creation of an open space network. For example, the right-of-way of the old Champlain Canal is now recognized as presenting an opportunity to create a continuous trail system along this historic travel route, offering recreation, exercise, and tourism benefits for county residents and tourists alike.

#### **County Forest Lands**

The county manages several parcels as forest. It is recommended that an overall comprehensive long-range use and management plan for the parcels that comprise the county forest be developed to identify ways to maximize the benefit of this resource for county residents. For example, some parcels may be appropriate for the county to retain and manage for wildlife conservation, forest management, and recreation and open space purposes.



#### **4. IDENTIFY AND COMMUNICATE WITH OWNERS OF IMPORTANT LARGE-ACREAGE GREEN INFRASTRUCTURE LANDS**

Identify a process for working with public and private landowners of large-acreage parcels and those of important green infrastructure significance, such as Federal Agencies (Kesserling Site), State of New York (Canal Corporation, Hudson River-Black River Regulating District, etc.), utility companies, municipalities outside of the county (for example, the Stony Creek Reservoir in Clifton Park owned by the Town of Colonie and the Amsterdam Reservoir in Providence). Many of these large-acreage lands provide significant green infrastructure benefits that should be maintained. The county should be informed should these landowners plan for disposition of lands.

#### **5. HELP TO BUILD LOCAL CAPACITY FOR GREEN INFRASTRUCTURE BY CREATING A COUNTY GREEN INFRASTRUCTURE ASSISTANCE PROGRAM**

The county can play a very important role in green infrastructure planning and implementation by providing support and information to local communities for conservation needs. Areas where county leadership could be applied include the following:

##### **County Geographic Information System (GIS) Database**

Track and maintain local and regional GIS data, and share this with local communities. Advocate for/assist with creation of new data as needed.

##### **Green Infrastructure Resource Center**

Create a central location for green infrastructure information. This might be a library or resource center at the county offices, or it might be green infrastructure link on the county's website. Topics of interest to local communities that were mentioned throughout this process include:

- State of the art conservation and land-use planning tools, such as model ordinances, conservation development practices, conservation easements and term easement language, zoning incentives, etc.
- Existing open space plans, reports, research, etc. in Saratoga County
- Grant funding opportunities
- Planning for road maintenance to manage for water quality protection, (sand and salt, e.g.) support wildlife corridors, (native planting for Karner blue, e.g.) and discourage the use of invasive and exotic species
- Landscape planting guidance (for development and conservation) to promote habitat for the Karner blue butterfly and other species, where appropriate
- Design guidelines for trails, including equestrian multi-use trails (see Appendix E)

### **Training for Conservation-Based Needs**

The county could sponsor annual training sessions for conservation-based needs for local municipalities. For example, as municipalities begin to hold more conservation easements as a condition of subdivision approval under open space development, there may be a need for training of monitoring and enforcement of easements. Likewise, as communities begin to adopt conservation subdivision regulations, planning board members may need training in the review of site plans under conservation development.

### **County Staffing and Support of Local and Statewide Planning Initiatives**

The county should continue to provide assistance with green infrastructure planning through participation in local planning initiatives to help convey the county vision. Likewise, the county should ensure representation in the state open space plan updates within Region 5 to ensure that the goals of this green infrastructure plan are communicated at the state level. The county should also continue to support and participate in efforts to create and implement management plans for natural areas within Saratoga County (Karner Blue Butterfly Recovery Plan, Management Plan for Saratoga National Historical Park, Moreau Lake State Park Draft Master Plan, State Forest Unit Management Plans, etc.).

### ***Sustainable Forest Management Practices and Conservation***

New York has 18.5 million acres of forest land covering 62% of the state, 74% of which is in private ownership. If managed soundly, these forests can provide both economic and environmental benefits. The Right to Practice Forestry Bill, effective as of March 1, 2004 requires municipalities to have their zoning “facilitate the practice of forestry.” Often, zoning regulations focus on the protection of active agricultural land, but ignore timber operations.

According to *A Municipal Official’s Guide to Forestry in New York State* “most timber harvesting in New York is done on a selection basis, which removes certain trees, thins the forest to improve health, vigor and future growth, makes way for natural regeneration and generally maintains a forest cover of the site. .... Communities should understand that forests are living, changing natural ecosystems that can be conserved, but not frozen in time. Trees will grow, change, fall victim to ice storms, tornados, insects or disease, and regenerate. It is unrealistic to view (and try to protect) trees and forests the same way we view historic buildings or man-made artifacts.”

There are several landowners in Saratoga County that participate in the state’s 480-A program, which requires a 10-year commitment and management plan, and a minimum of 50 acres of forest land. The program provides tax relief, similar to an agricultural exemption, in exchange for an approved timber management plan. There are many landowners in the county that could take advantage of this beneficial program. The county and local governments can help to publicize the program to landowners as an economic incentive to maintain working forests, which can help to conserve lands that might otherwise be developed. Informational programs can also help to promote the environmental benefits of sustainable forest management practices as an alternative to clear-cutting or lot clearing.

### **Promotional Materials**

The county can support the development of promotional materials such as maps, websites, brochures and books that inform people of existing green infrastructure resources such as parks, trails, water access, historic resources, scenic roads, agritourism, and other publicly-accessible opportunities. This type of product could be combined with a larger economic development effort. One example of this type of promotional resource that was recently created is the “Saratoga Farms” map developed by the Saratoga County Cornell Cooperative Extension.

### **Educational Efforts**

Engage in and support educational initiatives to enhance and promote public understanding of the green infrastructure resources in Saratoga County. This effort might include county collaboration with local municipalities and nonprofit organizations in the development of brochures or other published materials, websites, conferences or lectures, outings or other types of educational media.

### **Information Sharing at County Conference**

Continue to provide a “green infrastructure planning” track at the annual county conference as a way for communities to share their experiences and information and also to provide updates on the county’s successes. As needed, consider sponsoring additional conferences focused solely on topics related to green infrastructure planning.

## **6. EXPLORE THE POSSIBILITY OF EXTENDING THE HUDSON RIVER VALLEY GREENWAY TO THE ADIRONDACK PARK**

With state, county and local officials, explore the opportunity to extend the Hudson River Valley Greenway along the Hudson River up to the Adirondack Park, including Saratoga, Washington, and Warren Counties. This would provide greater funding and planning support for communities within the greenway.

## **7. CONSIDER DEVELOPING A SARATOGA COUNTY GREEN INFRASTRUCTURE LOGO AND SIGN STANDARDS AND ENSURE THAT COUNTY-FUNDED PROJECTS ARE CELEBRATED IN A PUBLICLY-VISIBLE LOCATION**

As projects funded under the county green infrastructure grant program are initiated and completed, signs can be erected to help county residents understand the public benefits of the projects. A design for these signs can be developed, along with general standards that encourage signs to be erected with county-funded implementation projects (such as trail construction or purchase of development rights). Guidelines should be flexible enough to prevent over-signage where multiple funding partners are present.



## **B. Resource-Specific Recommendations:**

### **Natural Systems**

#### **1. WORK WITH MUNICIPALITIES AND OTHER PARTNERS TO GATHER NEW DATA ON THE NATURAL HERITAGE (PLANT AND ANIMAL SPECIES AND NATURAL COMMUNITIES) OF SARATOGA COUNTY**

One major gap in our understanding of green infrastructure resources in Saratoga County is in the area of natural heritage. There is a lack of historical and current data on species and natural communities in Saratoga County. The natural heritage of the county should be consistently inventoried, mapped, and evaluated so that we can begin to identify and prioritize areas for conservation. As new data become available, it will be necessary to evaluate and update county priorities in this plan, as well as local priorities.

#### **2. HELP COUNTY MUNICIPALITIES AND OTHER PARTNERS CREATE PROTECTION PRIORITIES, GOALS, AND STRATEGIES FOR THE CONSERVATION OF NATURAL HERITAGE**

Once we have a better understanding of the locations, status, and needs of the county's natural heritage, we can establish priorities, goals and strategies for their conservation using a scientific planning approach. Protection strategies and goals can help guide planning decisions at all scales, from the ecoregion down to the species, and can be used for a plethora of purposes including helping to guide public investment in open space, conservation design, land management activities, and planning and zoning decisions. For example, communities could offer incentives to landowners and developers to maximize protection of priority natural heritage areas.

### **Working Landscapes**

#### **3. SPONSOR A WORKING LANDSCAPES ACTION PLAN**

Appendix F includes some detailed strategies for maintaining working farmland core areas in Saratoga County. The strategy includes acreage goals for farmland conservation and retention as well as recommended tools to help achieve the goals. These strategies should be considered a starting point for a more extensive farmland protection action program in the county.

#### **4. ENCOURAGE COUNTY-CERTIFIED AGRICULTURAL DISTRICTS THROUGHOUT THE CORE FARM AREAS IDENTIFIED IN THE GREEN INFRASTRUCTURE PLAN**

Maintaining strong support for Agricultural Districts will help stabilize farmland and sustain a supportive business environment for local farmers.

### **Trails and Recreation**

#### **5. PROVIDE LANDOWNERS WITH INCENTIVES FOR PUBLIC ACCESS**

There are many different incentives that could be provided to landowners who allow

public access on their lands to help fulfill a county trail corridor or other public access area, including tax incentives and liability insurance. As an example, the Greenway Conservancy for the Hudson River Valley offers landowners insurance for trail access in planned greenway areas to help overcome obstacles to trail development. In a similar effort, the county could provide liability insurance where needed to secure a designated county trail link, where a local municipality or landowner is not able to do so. Likewise, tax incentives could be provided to encourage landowners to provide public access easements.

***Case Study: Washington and Old Dominion Railroad Regional Park, VA***

The Washington and Old Dominion Trail (WODT), owned and maintained by the Northern Virginia Regional Park Authority, gives new meaning to a multi-use trail system. Forty-five miles of paved trail run along the old railroad bed, providing excellent opportunities for biking, running, and rollerblading. Adjacent to the paved trail is 32.5 miles of old bridal path that was included when the park was designated as a National Recreational Trail in 1987. The bridal path has allowed for equestrian use in conjunction with the paved path uses. Parking areas in the bridal path zone allow for trailer access and the Friends of Washington and Old Dominion Trail, a non-profit citizens organization, actively promote safe and shared use of the trail through education and outreach to the many different kinds of trail users. In addition, three other horse trails on privately owned property intersect with the WODT, including a horse park with a dressage ring.

**6. REFINE PLANS FOR HORSE TRAILS AND GATEWAYS IN THE COUNTY**

Existing horse trail networks provide a foundation for the development of new horse trail networks or incorporation of horse access to other multi-use trails in the area. Trail systems should have parking areas that allow for horse trailers, staging areas and, when possible, water access. Extensive horse trail systems on public land can encourage development of privately owned horse arenas, parks and cross-country areas, adding value to the economic impact of the equine industry and attracting more tourists to the region. The county can support future horse trail systems by sponsoring additional planning to identify desired horse trails, furthering the concept of the horse country gateway, and providing funding for construction when appropriate. Existing trails and rights-of-way in the county may also be redesigned to accommodate equestrians (see trail guidelines in Appendix E). The private land trust community can work with horse enthusiast groups to maintain and promote trail systems and protect against development through right-of-way agreements or conservation easements.

## Cultural Landscapes

### **7. HELP COUNTY MUNICIPALITIES AND OTHER PARTNERS IDENTIFY AND DEVELOP STRATEGIES FOR PRESERVATION OF THE HISTORIC RESOURCES OF COUNTY HERITAGE HUBS AND GATEWAYS**

Work with participating municipalities, nonprofits, and other stakeholders to help identify important resources of the county's heritage hubs and gateways and achieve their long-term preservation. This strategy can help provide guidance to participating municipalities on the following actions:

- Creating new National Register Districts
- Encouraging municipalities to become Certified Local Governments
- Applying for State Certified Local Government Grant Funding for historic preservation planning and projects
- Using federal Community Development Block Grant funding to support rehabilitation of buildings for low and moderate income families
- Developing zoning incentives and specific local tools to work with landowners to preserve historic resources

### **8. DEVELOP A COUNTY HERITAGE TOURISM PLAN**

The county could help to integrate regional economic development efforts and research, working with Saratoga Economic Development Corporation (SEDC), the region's Chambers of Commerce, and other organizations to create an economic development strategy that celebrates the protection of the county's green infrastructure and promotes the "economics of preservation." This work would include integrating and building upon of the county's existing and ongoing economic development strategies, including the assessment of the economic impacts of the equine industry, the county's Agriculture and Farmland Protection Plan, and other similar efforts. The county can encourage and expand positive connections between farm and forestry businesses and county residents and tourists through events such as the annual Sundae on the Farm and activities such as farmers' markets, u-pick operations and farm stands. Other areas of future expansion include hiking, fishing and other forms of recreation; historic resources; and agritourism. The green infrastructure gateways can be used as the organizing theme for the economic development efforts.

#### ***Case Study: Cattaraugus County Plans for Growth of the Equine Economy***

As part of its "Smart Development for Quality Communities Series," Cattaraugus County issued a study and plan called "Growing the Equestrian Economy in Cattaraugus County, New York." The guidebook is directed towards the business and equestrian communities, as well as general citizens. The guidebook presents ideas for increasing economic opportunities through expansion of trails, facilities and events. It also provides a discussion of the economic impacts of the equestrian industry, as well as common issues such as planning for horse trails.



## **9. DESIGNATE A SYSTEM OF SCENIC ROADS IN THE COUNTY**

Use the heritage corridors defined in Appendix D as the basis for a system of scenic roads in the county. Scenic roads can be integrated into economic development efforts – for example by signing them and creating a driving tour brochure. Additional guidance for local communities, such as design guidelines for scenic roads to meet the specific character of each road or road segment, could be developed in the future as part of this effort.

## **Conclusion**

This chapter has provided an outline of recommendations for the county to help achieve green infrastructure goals. Most of these recommendations will be straightforward to accomplish, and will not require additional study or expenses. The following chapter (Chapter 6) provides a summary of the strategic actions that will be necessary to accomplish these and other important recommendations of this plan.

## Chapter 6: Strategic Action Plan

### Introduction

This chapter summarizes actions that will need to be taken by the county to accomplish the major recommendations of this plan (Chapter 5). It identifies immediate, short-term, and long-term actions for the county, working in partnership with local communities. The action program stresses the need for a partnership approach to funding, which will help to leverage successful and competitive projects and make the plan goals easier to accomplish.

### Growing Green Infrastructure Partnerships

There is no better course to take, than one in partnership for conservation. This plan for Saratoga County is more than a plan for county governmental action. This plan recognizes at its foundation that successful open space conservation projects are the work of dedicated individuals and organizations motivated toward a common vision.

The core strategy of this plan, then, is the concept of growing partnerships for conservation. So much has been accomplished towards this end, yet there is much more work to be done.

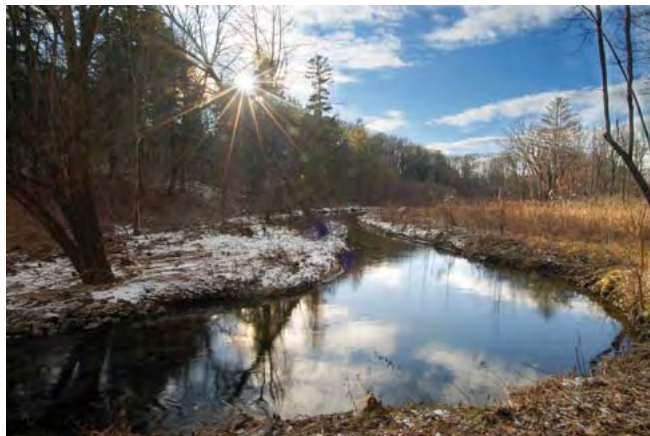
#### Ten Springs Woods: A Collaborative Model

This recent addition to the open space network in Saratoga Springs was the end product of years of work and support of many partners. The property was identified for its historic and open space values as part of the city's open space and urban heritage area plans. The landowners, Messrs. Eger and Baker were supportive of the concept of this land becoming a nature park.

Saratoga P.L.A.N., the land trust for the Saratoga region, assembled funding from numerous public and private partners and guided the project from concept to acquisition. The City of Saratoga Springs purchased the Ten Springs Woods parcel from Saratoga P.L.A.N. with the support of a matching grant from Saratoga County.

Spring Run Trail, which runs through the Ten Springs Woods Park, is being funded with grants from several partners including the New York State Department of Transportation, National Grid, and Bikes Belong, a coalition of the bicycle industry.

This one example has been successfully repeated in different form with different partners in communities across the county.



*Photo source: Josh Gerritsen, Saratoga P.L.A.N.*

Today, the communities that comprise Saratoga County have shown tremendous growth in land conservation and natural resources and historic preservation activities. To accomplish the goals set forth in this *Green Infrastructure Plan for Saratoga County*, there will need to be continued expansion of participation and support from all corners; from land owners to the municipalities, and from nonprofits to the county, state, and federal agencies.

## Expanding Roles

**Saratoga County** can play a significant role in helping communities, landowners, and others achieve the vision for the future through additional planning, administration, and project funding support.

**Cities, Towns and Villages** can use this plan to work together and with other partners to identify projects that meet the vision established herein as it fits their respective local vision and plans. This county plan highlights several opportunities for both more detailed resource-specific planning and project identification, as well as potential increased funding opportunities.

**Landowners** are the heart of the green infrastructure plan. Those who have been stewards of the land for so many years will be provided additional opportunities for farmland, open space, and natural resource conservation as this plan is implemented.

**Conservation Organizations** like Saratoga P.L.A.N., the Friends of the Kayaderosseras, Saratoga Springs Preservation Foundation, and other similar groups will be increasingly important partners in public education and advocacy and toward developing and stewarding projects.

**Development Community** members who have long supported smart growth measures that add to the quality of life and community amenities can continue to support and implement the concepts of conservation-based design for developments and innovative zoning tools to protect resources and provide appropriate amenities inclusive with development projects. As land in the county continues to develop, conserving an interconnected ecosystem is increasingly important.

**State and Federal Agencies** will be able to more clearly see the county's vision for a green infrastructure network and will be able to deliver their programs more readily in response to local needs and opportunities.

## A Funding Partnership

Too often, communities rely on limited state and federal sources to fund their green infrastructure projects. A successful green infrastructure funding equation would include contributions from all levels of government (local, county, state, federal), as well as from private partners such as landowners, developers and conservation organizations.

State and federal funding sources are a significant part of the equation but should not be depended upon to shoulder such a large portion of the funding. These programs simply do not have enough money available to fund every worthy application that they receive. In fact, for every dollar awarded under the state farmland protection program, four dollars go unfunded. In fiscal years 04-05 and



05-06, the New York State Farmland Protection Program received approximately \$130 million in requests for \$26 million in funds. A similar situation exists for federal funding sources.

Local governments are increasingly investing in green infrastructure projects. For example, in 2001, voters in the City of Saratoga Springs approved a 5 million dollar bond to invest in green infrastructure resources. These local funds are an important part of the equation, and help to leverage federal and state conservation dollars. Other communities have developed creative solutions to financing open space. For example, the Town of Clifton Park recently adopted open space incentive zoning, which provides a density bonus incentive to landowners in exchange for open space amenities. For single-family residential increases under the incentive zoning, each bonus dwelling unit requires the preservation of three acres of open space or payment of \$30,000.

Conservation organizations are also a primary partner in conservation financing. They provide invaluable assistance in working with landowners, developing grant applications, holding and monitoring easements, and long-term stewardship of the land. In order to build successful long-term projects, conservation organizations should be considered part of the project planning team from the start.

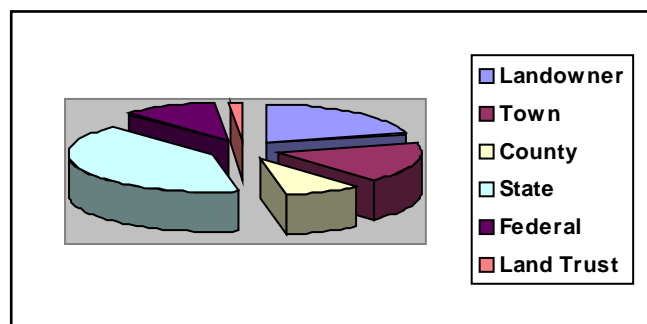
Landowners and developers are also important partners in conservation. For example, landowners can donate property or provide a bargain sale towards a conservation easement, which is factored into the financing equation. Developers can also help to achieve the green infrastructure vision by conserving quality open space, or by constructing desired trail connections on future projects.

This partnership of public and private investment can go a long way towards implementing the goals of this green infrastructure program. The collective partnership will no doubt achieve much more success, and in a quicker timeline, than the individual partners.

## An Example Funding Partnership

Following are two specific examples of funding strategies that were utilized in New York State, each one meeting the specific needs of the local community.

The first example, depicted in the pie chart at right, is the kind of partnership and mix of funding envisioned for the county's green infrastructure program. This is a farmland protection project in a western New York community, where the development rights for a large family-owned farm were purchased and a permanent conservation easement was placed on the farm. The landowner's share consisted of a bargain sale donation in which the price agreed to was somewhat less than the actual value of the development rights. The town's share came from proceeds of an open space bond. The county share came from a greenspace program financed with tobacco settlement funds. The state and federal shares came from a farmland protection grant program. Finally, the land trust share came from services provided.



Unfortunately, most large projects will not likely garner this level of funding—in particular from state and federal sources. These sources are highly competitive and there typically are far fewer dollars available for projects requested. A funding gap exists as the example following illustrates.

The second example is a 200-acre farmland protection project, with a conservation easement valued at \$7,000 per acre, which would have a cost of \$1.4 million. If there was no state funding available, and a federal grant of \$400,000 were available, there still would be funding gap of \$1.0 million. Now if the landowner took a bargain sale price at 80 cents on the dollar, the cost shortfall would be \$800,000. Other funding would be needed. Here is where the county and local community could step forward. If each contributed \$400,000, that would make for a viable project. If this funding came from a bond, the total annual cost to the town and county would be about \$60,000 at a 30-year term at five percent interest. This level of investment in green infrastructure is realistic and desirable to residents.

## Filling the Gap

The county is growing fast. Open land is being consumed as development continues. This is particularly poignant for farmland—which comprise some of the most threatened landscape in the county. Once it is gone to development, there is no turning back. Landowners who wish to cash in the equity in their land have few choices but to sell it outright. County farmers have described the land as their “401 k” or retirement fund. In most cases in the fast growing communities, open land that is sold is turned over to development. Currently, there are not many other options for land



*Farmland is often converted to development when landowners “cash in” on their retirement.*

owners, such as purchase of development rights programs. Monies for these programs simply are inadequate for demand. For example, in 2005, the county submitted 6 applications to the state for the farmland protection purchase of development rights program. Not one was funded. Further, land owners have voiced strong concern over the difficulty of keeping land open due to tax and other financial burdens of carrying the property.

Dollars are needed to implement the green infrastructure program in the manner that will achieve the goals set forth in this plan, which mirror the goals of Saratoga County’s

communities. County municipalities are encouraged to develop their own local funding sources, but not all of the municipalities in Saratoga County will be able to make such dedicated investments in open space. There is a legitimate gap in green infrastructure funding. It is recommended the county expand its funding to meet the growing needs and project opportunities—and to inspire additional support from individuals, and from the respective communities. While initially existing sources of revenue should be tapped, new revenue sources should be explored.

## An Action Program

This plan has provided a series of strategic recommendations for both specific projects and areas, as well as for policy and implementation of green infrastructure at the county level. This section provides a brief summary of how these recommendations can be accomplished.

### Immediate Actions:

- Distribute the materials in this plan (including the plan maps) to each community in Saratoga County; ensure that community planning departments, planning boards and other relevant parties have access to the data developed as part of this plan. This process will likely require additional conversation with each community to determine the best format for providing data (GIS, printed maps, etc.). One option is to incorporate the data into the county's existing online GIS mapping program.
- Develop a long-term financing strategy for increasing green infrastructure funds at the county and local level. This financing strategy should analyze the goals of this plan, as well as existing funding sources, and quantify the need and realistic goals for filling this need.
- Retain the capacity needed to implement the green infrastructure plan's recommendations. This will likely include designating a green infrastructure "point person," consultant assistance with detailed conservation planning, financing and project development, and expanded partnerships with land conservation organizations.

### Short-term Actions (1-2 years):

- Implement the program-specific recommendations of this plan (Chapter 5).
- Secure long-term funds to support expanded green infrastructure and farmland protection grant program (working off of the financing strategy recommended above).
- Select and sponsor a few good pilot projects and fund their planning and start-up. Work with existing groups such as the Heritage Trails Committee, the Friends of the Kayaderosseras Creek, Saratoga County Agricultural and Farmland Protection Board, Saratoga Springs Preservation Foundation, and Saratoga P.L.A.N. to refine and accomplish the needs and goals of the projects. A few recommended pilot projects are identified below and featured on the "Green Infrastructure Network Map."
  1. Kayaderosseras/Fish Creek Greenway
  2. Charlton/Galway Wetland Hub
  3. "Loop The Lake" (Sacandaga Lake Trail)
  4. Hudson Valley Farmland Core and West County Farmland Core
  5. Erie Canal-Champlain Greenway (Lakes to Locks Passage)
  6. Mid-county Trail System
  7. Community waterfront access to major waterbody (Hudson/Mohawk)
- Support efforts to generate greater state and federal farmland, historic preservation, and open space conservation funding to leverage local dollars.



## Long-term and Ongoing Actions (2-5 years+)

- Continue to implement the program-specific recommendations of this plan (Chapter 5).
- Continue to publicize and market green infrastructure resources. For example, create maps and guides to trails and publicly-accessible open spaces in the county; or partner with economic development entities to create agri-tourism, ecotourism, or other tourism and marketing materials.

## Conclusion

Completed green infrastructure projects throughout the county will be the defining element of the success of this initiative. The way to achieve the vision set forth in this plan is to continue to strengthen the working partnerships and financial resources of the individuals and organizations with a stake in the ecologic and economic future of Saratoga County.



*An example publication that promotes one of the many cultural and historic areas in Saratoga County.*  
Source: Saratoga P.L.A.N.

## Chapter 7: Local Guide to the Green Infrastructure Plan

### Introduction

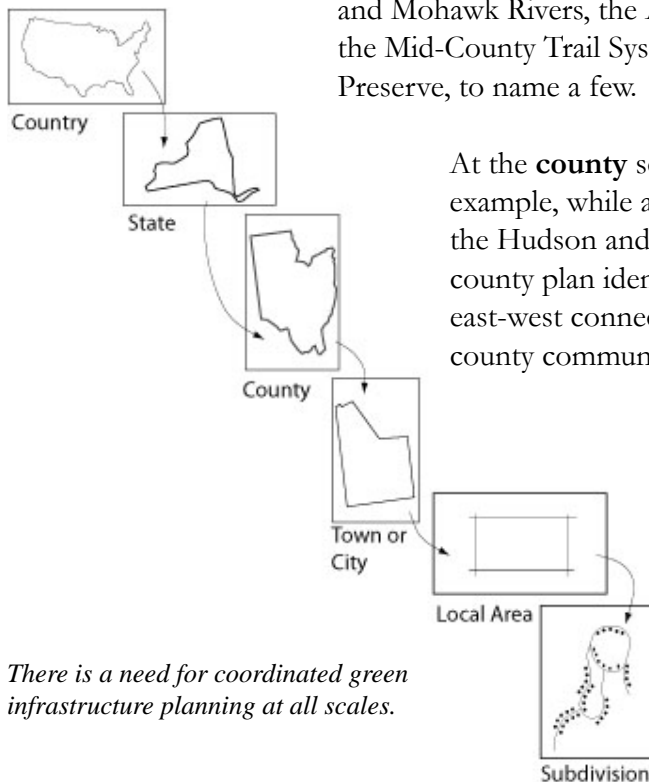
The communities in Saratoga County are as varied as their landscapes. They have different social and fiscal settings. Some communities in the county have completed open space plans or zoning revisions, others are in the process, and still others have yet to begin. For the most part, it is the faster-growing Northway communities that have been planning for open space conservation. However, most of the county's communities are still looking for guidance in green infrastructure planning initiatives, and all can benefit from understanding how their resources fit into the regional picture.

### Planning for Green Infrastructure Across Scales

There is need for planning for green infrastructure at many different scales. Plans are iterative, meaning that the resources carry through in each progressive scale. As the scale changes, the level of detail of the green infrastructure network increases.

In the United States, there are some green infrastructure plans that are based on **ecoregions** (or bioregions) – these are areas delineated by a natural community rather than a political boundary. Ecoregions typically share similar flora, fauna and other environmental characteristics and can be large enough to traverse several states.

There are also state green infrastructure or open space plans. At the **state** scale, open space plans often focus on larger areas of significant regional resources. For example, the *New York State Open Space Conservation Plan* focuses on regional initiatives along the Hudson and Mohawk Rivers, the Adirondack foothills, the Kayaderosseras Creek, the Mid-County Trail System, the Long Path, and the Wilton Wildlife Preserve, to name a few.



At the **county** scale, the resources become more detailed. For example, while a state plan identifies trail connections along the Hudson and Mohawk, and a Mid-County trail system, the county plan identifies links between all of these trails, making east-west connections through the county and linking all of the county communities together by a trail network.

At the **city, town, or village** level, a green infrastructure plan can get even more detailed. For example, it may identify connections between major trail corridors identified in the county plan, or even connections to neighborhoods, town centers, parks and other local destinations. Another example of how a local open space plan can become more specific is by identifying specific farmland parcels for conservation or

identify groups of buildings that link together thematically to create local historic districts.

Finer scales of green infrastructure planning include a **local area**, which may include several parcels, and might range in scale from several hundred to several thousand acres. At this scale, open space planning should be much more detailed and might include, for example, a detailed habitat survey and assessment to identify important conservation areas or analysis of soil resources to determine agricultural conservation areas. An example of an area plan is the 2004 *Saratoga National Historical Park General Management Plan* for the 3,200 acre park which provides a framework for conserving the natural, scenic, and cultural resources of the park. Planning for green infrastructure at this scale is illustrated in more detail in Appendix B: Visualizing Conservation Development in Saratoga County.

Finally, there is the scale of a **single development and/or conservation project** – typically a parcel of land. Ideally, planning for open space at this scale would include an evaluation of green infrastructure resources at all of the previous scales. In order to gain a full understanding of the resources on a site or parcel, it is critical to take a step back and examine the resources as they cross boundaries. For example, a small area of open land in the corner of a parcel may actually be part of a much larger critical grassland wildlife habitat that extends beyond the parcel. Perhaps conservation of this small area would help to maintain a habitat connection for grassland birds. Without looking beyond the parcel, this critical connection might not seem very important.

There is a need for coordinated green infrastructure planning at all of the above-mentioned scales. For example, many communities in New York State are adopting conservation subdivision ordinances, which require development projects of a certain acreage threshold to analyze open space resources and design subdivisions with these resources in mind, conserving a certain percentage of the land as permanently-protected open space in the process. Without a local (town, city, or village) open space plan, these conservation lands often become isolated islands of open space that do not provide substantial benefits to wildlife or humans. A local open space plan helps to identify important resources, and coordinate development projects to make the connections needed to sustain them.

In another example, a state or even a county green infrastructure plan may help to define core farming areas, such as the Hudson River Valley as identified in the state plan, and the four “core” farming areas identified in this plan. A local plan might take these core areas a step further and identify specific parcels desired for conservation, keeping in mind the desire to maintain the large blocks of “core” farmlands that were identified in the state and county plans. Once a community identifies parcels that are important to conserve, through their green infrastructure or open space planning process, they become much more competitive for federal and state matching grant funds because they can show a clear process of prioritization that considers county and state goals.



## How Can My Community Use This Plan?

Communities in the county can play an important role in helping to advance the green infrastructure plan. This plan provides the framework for regional connections and priorities. However, these regional priorities need local sponsorship in order to transform concepts into real, on-the-ground projects. Likewise, the county's efforts to coordinate green infrastructure data and information depend on the participation of local communities. Below are several actions that can be taken by local governments and their representatives, and other groups such as nonprofit advocacy groups, open space committees, and developers.

### Use This Plan as a Regional Framework for Local Projects

The maps in this plan serve as a framework for a regional open space system in Saratoga County. Through time, these maps are expected to change as communities' opportunities and priorities change. However, the maps can be used to help guide local projects to meet regional opportunities. For example, a town planning board can review the maps for a potential regional trail linkage as it is reviewing new projects. If a community is drafting an open space plan, comprehensive plan, or trail plan, the concepts in this plan can serve as the regional base, from which a community can delve deeper into its own resources. For example, the Town of Galway's Open Space Committee recently used the county green infrastructure maps and themes (natural systems, working landscapes, trails and recreation, and cultural landscapes) as the starting point for local open space planning workshops.

### Sponsor "Unadopted" County Green Infrastructure Resources

Many of the resources depicted in the county green infrastructure network map cross municipal borders. If a group of communities or advocates for each resource were to emerge and adopt each priority resource, this would help to advance much of the green infrastructure plan. The Friends of the Kayaderosseras Creek is an example of one such group that was formed around a shared resource, in this case the Kayaderosseras Creek and its watershed. Likewise, the "Old Saratoga" Local Waterfront Revitalization Program (LWRP) and other intermunicipal efforts are already underway in the county and many of the local green infrastructure resources, such as the Wilton Wildlife Preserve and Park and the Saratoga National Historical Park, are already "adopted." Yet many other resources, including the Alplaus Kill Greenway, the Horse Country Green Infrastructure Gateway, and the Greenway Convergence Natural Systems Hub, are in need of organized planning, advocacy and implementation sponsors.

### Refine County Green Infrastructure Concepts into Specific Projects (Project Planning)

As intermunicipal sponsorship groups emerge to adopt county green infrastructure concepts, they can begin to work together to develop concepts in this plan into concrete projects. This plan recommends that the county sponsor planning and public outreach, through its grant program, to help refine green infrastructure projects. A group such as The Friends of the Kayaderosseras Creek, for example, working in partnership with local communities, could apply for a county grant to help create a detailed plan for the Kayaderosseras Creek Greenway. It would be up to the local

communities and advocates, through the planning process, to define a vision and plan for the greenway. Another example might include a sponsorship group that emerges to develop the concept of heritage hubs and green infrastructure gateways into a county driving tour that is connected to an economic development strategy.

Below are a few examples of future planning projects that could be supported by county green infrastructure planning grants:

- Alplaus Kill Greenway Natural Systems Hub
- Galway/Charlton Wetland Natural Systems Hub
- Horse Country Green Infrastructure Gateway
- Hadley Hamlet Heritage Hub
- Greenway Convergence Natural Systems Hub
- Loop the Lake Trail
- Mid-County Heritage Trail
- County Habitat Mapping and Biodiversity Assessment
- Countywide Green Infrastructure Heritage Driving Tour
- Management, Research or Outreach/Education Plan for Existing Natural Systems Hub



*A loop trail around Sacanadaga Lake would be a beneficial county-scale project.*

### **Work with County, State, Federal and Nonprofit Partners to Create the Green Infrastructure Network (Project Implementation)**

Partnering with county, state, and federal agencies, communities can apply for or sponsor grants to implement the green infrastructure network. As projects become more defined through the planning stages, or through local open space planning efforts, communities can begin to work towards developing grant applications and other useful tools to implement the green infrastructure network. For example, a community could work with a landowner to protect a farm in one of the working landscape core areas, partnering with Saratoga County (through its grant program), New

York State (through the Department of Agriculture and Markets grant program), a nonprofit to hold and monitor the conservation easement, and the Federal Farmland and Ranchland Grant program. Likewise, a segment of the trail network could be built by a local community using the same model of broad partnership.

## **Share Your Local Experience and Resources**

Part of the county's future role is to provide a centralized source of information on green infrastructure planning and implementation. This important role includes serving as a central repository for GIS data, as well as for collecting and sharing innovative conservation tools, success stories and other useful information. Sharing your own local data, experience and tools with the county will help them to make a more complete and useful database.

## **What Additional Actions Can We Take Locally to Help Advance the Green Infrastructure Network?**

This plan's major focus is to identify a county green infrastructure network and strategies for the county to help achieve the network. The plan also highlights the need for partnership in this process. The section that follows provides a brief discussion of some of the ways in which the county's communities can proactively begin to plan for and implement green infrastructure networks, working with the county, state, landowners, conservation organizations, and other partners.

The most important step to take locally is to identify what the community, as a whole, wants to accomplish. This may take the shape of specific areas of town for conservation, or areas to focus growth, or a combination of both. Once the end goal is clear, the tools and actions needed to get there will be easy to articulate.

There are many creative tools available to help achieve your end goal. This section provides just a cursory review of some of these tools. The State of New York's *Local Open Space Planning Guide* provides much more detail on the open space planning process, state programs available to assist the process (technical and financial) and open space conservation tools. Additionally, the American Farmland Trust's *Guide to Local Planning for Agriculture in New York* provides specific guidance on tools and resources to help plan for agriculture at the local level.

## **Local Green Infrastructure/Open Space Plan**

A local green infrastructure plan identifies resources that are locally important and develops a vision and local strategies for their conservation. Local open space plans often result in the identification of areas or parcels for conservation, which have been identified through a rigorous set of criteria and with extensive public involvement. Once the desired open space lands are identified, there is often recognition that a local financing source will be necessary to achieve the goals of the plan. Creating this local financing source helps to make the community more competitive for county, state and federal grants.

## Local Natural, Cultural, Agricultural or Recreational Resource Plan

Some communities develop local plans to preserve a specific resource, or to help detail recreational opportunities. Local plans can be focused on conserving specific elements of green infrastructure, for example a watershed/water resources protection plan, a historic resources plan, and agricultural or farmland protection plan. They can also be focused on identifying recreational networks, for example a parks plan or a trails master plan. These focused plans are sometimes an implementation item of a detailed green infrastructure plan.



*An example Recreation and Open Space Vision Map  
from the Town of Milton.*

## Planning for Growth and Settlement

Many communities in the county are being confronted with growth and changes that threaten their open space resources and rural character. Planning for future growth comprehensively can help to ensure that the community achieves the right balance of development and open space. This is not only important for maintaining community character and natural systems benefits, but also for maintaining fiscal health.

Planning for settlement includes conducting planning processes to identify conservation and development areas and examining their fiscal impacts; it includes creating or updating planning documents (such as the comprehensive plan); it includes making revisions to zoning code and other land use controls. It also includes a suite of innovative and creative ways that landowners and the community can partner to create development that respects and enhances the open space vision. These processes and tools should be developed in a comprehensive manner with the open space conservation program. Community members should be active partners in the process.

## Zoning and Other Land-Use Tools

There are many ways to achieve open space goals in zoning and land-use tools. A **local zoning ordinance** can ensure that agricultural uses are allowed in various zoning districts and that allowed accessory uses provide flexibility for landowners. The American Farmland Trust's *Guide to Local Planning for Agriculture in New York* provides much more detail on planning and zoning for agriculture. As a first step, fill out the checklist located on page 10 of the guide, *"Is Your Town Planning a Future For Agriculture?"* The New York State Historic Preservation Office website includes model ordinances for preservation of cultural and historical resources.

A local community's subdivision regulations can also allow for creative conservation development of lands so that the natural resources and rural heritage are preserved to the maximum extent during development. The conservation analysis and design process requires landowners to analyze



the resources on the site before designing for houses, roads and lot lines. Many communities in Saratoga County have adopted **conservation subdivision regulations**.

**Design guidelines** for residential and other types of development (for example commercial corridor guidelines) can help landowners understand how to create development that enhances a community's open spaces and preserves natural connections, rural character, historic resources and other special character areas.

**Incentive zoning** is a creative mechanism to achieve open space and development goals. Incentive zoning allows a landowner or developer to work with a municipality to obtain specific incentives in exchange for providing desired community amenities such as open space conservation. Incentives may include modifications to density, allowed uses, setbacks, or other zoning controls. The landowner or developer may provide, in exchange, dedicated open space, trail access, park land or potentially cash (in lieu of land) to contribute to a purchase of development rights (PDR) program.

## Conclusion

This chapter helps to identify what municipalities in Saratoga County can do to help advance green infrastructure goals. Immediately, communities can use this green infrastructure plan as a framework for local planning, zoning and development decisions. They can also use it to help coordinate efforts with adjacent communities. In the long-term, communities can use this plan as a framework for more detailed planning, zoning and land-use activities that support green infrastructure resources that are important at the local level.

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## Chapter 8: Conclusion

Saratoga County has initiated this green infrastructure plan at a pivotal time in the county's growth and development. This plan helps balance and strengthen economic prosperity while advancing community goals toward the conservation of resources. Important open spaces including farmlands, wetlands and forests, are being fragmented and lost every day in the county. Protection of these irreplaceable resources helps to maintain clean air and water; reduces the impacts of flooding; and provides habitat for wildlife, among many other benefits. These resources are not only important for their environmental benefits - they provide people and communities with economic opportunities and contribute greatly to the quality of life that county residents have come to expect.

When the plan's vision is complete, Saratoga County, working together with other local, state, federal and private partners, will have:

- Retained and conserved the vast majority of its much-threatened farmland core areas, such as the Hudson River Valley farmlands from Moreau to Saratoga, and the west county farmlands in Charlton, Ballston, Milton and Galway
- Conserved important ecological areas within natural systems "hubs"
- Maintained important wildlife connections, such as mountain passes and river corridors
- Provided for recreational opportunities with an interconnected system of trails, parks, and water access areas
- Maintained and celebrated important cultural heritage "hubs" and corridors such as the Hadley Hamlet and the Champlain Canal
- Integrated all of these green infrastructure resources into its marketing, tourism and economic development strategies
- Enhanced property values and strengthened natural and cultural amenities important to commerce and sustaining the county economy

This vision for the future will take a long time to accomplish. The county is taking the lead in this effort by strengthening its partnership with local municipalities and expanding the scope of its open space and farmland protection grant program, among other implementation elements. By continuing to work together, with this vision as a guide, green infrastructure partners can continue to maintain the quality of life that we have all grown to appreciate in Saratoga County.

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## Terms and Definitions

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**Agricultural District.** Article 25-AA of the Agriculture and Markets Law is intended to conserve and protect agricultural land for agricultural production and as a valued natural and ecological resource. Under this statute, territory can be designated as an agricultural district. To be eligible for designation, an agricultural district must be certified at the county level for participation in the state program. Once a district is designated, participating farmers and farmland owners within it can receive reduced property assessments and relief from local nuisance claims and certain forms of local regulation. Farm operations within agricultural districts also enjoy a measure of protection from proposals by municipalities to construct infrastructure such as water and sewer systems, which are generally intended to serve non-farm structures and developments.

**Biodiversity.** The biological variety of plant and animal life in all forms, as well as their interactions with the non-living (abiotic) environment. Includes ecosystem diversity, species diversity, and genetic diversity.

**Buffer.** An area and/or a physical or visual feature that separates different land uses. The buffer may incorporate natural features such as woodlands, attractive fencing, stone walls, and hedgerows wherever feasible, or requires the creation of a planted landscape buffer where no natural features exists.

**Comprehensive Plan.** A document that is created and updated locally that helps to guide the long-term protection, enhancement, growth and development of a municipality. This plan includes text, maps, charts, reports and other materials that help to illustrate and describe the plan's goals and objectives, concepts, policies, guidelines, etc.

**Conservation.** The use of a resource while not diminishing or damaging its natural resource value. This implies knowing the particular values that the resource possesses and having a specific plan in place to ensure the balance of its use and protection.

**Conservation Subdivision.** A subdivision where a substantial portion of the open space resources are identified and set aside for conservation or recreation through a detailed site analysis process for open space resources.

**Conservation Easement.** A voluntary legal agreement between the landowner and the municipality, or a third party such as a land trust, to protect land from development by permanently restricting the use and development of the property, thereby preserving its natural or manmade features. The legally binding agreement is filed in the office of the county clerk in the same manner as a deed. The landowner retains ownership of the land, and all of the rights of ownership except the ability to develop the land. The specific restrictions are detailed in the easement agreement.

**Corridor.** A linear area of landscape or habitat type which connects one hub to another or stepping stones to a hub.

**Cultural Landscapes.** Historic areas; heritage sites; and scenic landscapes, vistas and roadways – key elements of rural character and tourism.

**Cultural Resources.** The cultural features of a community reflect the ways in which the people who have lived there have used their natural environment to suit their economic needs and social patterns, and may include such types of resources described as agricultural, institutional, historic, and

archeological, among others.

**Design Guidelines.** Often illustrated concepts that help to guide new development or reuse with respect to the natural and built resources that a community values and seeks to protect. Design guidelines can address topics such as site and landscape design, architecture, materials, colors and signs. They are generally informational and collaborative in nature, creating an opportunity for project sponsors to review the guidelines prior to designing a project with the advantage of understanding the goals of the community and the planning board.

**Farmland, Prime.** As defined by the National Resources Conservation Service (NRCS), prime farmland is “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water).”

**Farmland, Statewide Importance.** Lands with a good combination of physical and chemical features for the production of agricultural crops.

**Fiscal Impacts.** The costs and revenues that will result from a particular proposed project, program or plan.

**Green Infrastructure.** The interconnected system of natural lands, parks, waterways, farms and historic areas that sustain Saratoga County’s environmental health, economy, and quality of life.

**Growth Management.** The process of guiding development, through a system of land use techniques, in a direction that is environmentally and fiscally sound and that helps to preserve quality of life. The goals of growth management often include encouraging urban infill, reducing sprawl, and promoting economic development.

**Hamlet.** A cluster of dwelling and/or other uses, such as commercial and retail, often at a crossroads, that is much smaller in scale than a village or downtown.

**Hub.** A sizeable unfragmented area of a landscape or habitat type. This term may also refer to a concentrated area of resources such as historic and other cultural.

**Natural Systems.** Large, unfragmented areas of forests, stream corridors, and wetlands – lands that protect water quality and serve as primary wildlife corridors.

**Open Space.** Open space consists of farmland, woodland, and other ecological, recreational, and scenic land that helps to define the character of a community, and buffers residential and other land uses. Open space may be public or privately owned. Some open space is **permanently protected** from development such as parks, nature preserves, and wetlands while other parcels are subject to development. What land is defined as open space depends upon the surrounding area. Even a narrow pathway or a cemetery surrounded by development can constitute an open space resource in a community.

**Purchase of Development Rights (PDR)** A purchase of development-rights (PDR) program involves the purchase by a municipal or other government agency or private land conservation organization of development rights from private landowners whose land it seeks to preserve in its current state without further development. The PDR system can protect farmland as well as ecologically important lands or scenic parcels essential to rural character of the community. Under PDR, the land remains in private ownership and the government acquires non-agricultural development rights. These development rights once purchased by government (typically) or a land trust, are usually



extinguished. Landowners who participate receive payment equal to the development value of the property. In return, the property owner agrees to keep the land forever in forest, agriculture or other conservation-type use. The owner typically files property covenants similar to a conservation easement limiting the use of the property to conservation-based activities.

**Preservation.** An active process of stewardship with the goal of protection of a resource in its existing, natural or original state. An example is historic preservation of a building.

**Real Estate Transfer Tax.** A State or local tax paid when title passes from one owner to another.

**Recreation and Trails.** Land and water trails, parks, fishing and access areas – community connections to the landscape.

**Recreational Resources.** Recreational resources may be described as areas in which the following types of leisure activities may occur: existing or planned hiking, biking, and canoeing; ball fields, tennis courts, basketball courts, golf courses, skating rinks, ski slopes, and swimming pools; and waterfront activities such as boating and fishing. Recreational resources also include nature preserves, community gardens, and other outdoor areas for quiet public enjoyment.

**Scenic Corridor.** A scenic corridor is a viewshed that contains scenic vistas linking natural and cultural resources. Scenic corridors are passive recreational resources that add character to communities.

**Site Plan (Review).** Site Plan Review is part of the development review process by which the physical elements of a proposed use are reviewed to ensure that they are compatible with the physical characteristics of the site, as well as with the existing and potential uses of the surrounding area. A site plan provides detail on the future development of streets, parking areas, underground utilities, building “footprints”, sidewalks, landscaping, etc. through a scale drawing.

**Stepping Stones.** Smaller patches of a landscape or habitat type which serve as a means of connectivity for movement of animal species or seed and pollen dispersal between hubs.

**Subdivision Regulations.** A set of laws or regulations for the division of land, lot, or parcel into units for the purpose of development and/or sale.

**Term (Conservation) Easement.** A term conservation easement is a voluntary legal agreement between a landowner and the municipality that is written to last for a period of years, most commonly for 5 to 20 years. A term conservation easement is not a permanent easement, and thus does not guarantee long-term protection of resources.

**Wetlands.** Areas that are saturated by either fresh or salt water for at least a period of time during the growing season. In state regulations, they are defined chiefly by the forms of vegetation present. Wetlands provide a number of benefits to a community. Besides providing wildlife habitat, wetlands also provide habitat protection, recreational opportunities, water supply protection, and provide open space and scenic beauty that can enhance local property values.

**Wildlife Corridor.** A continuous area, often containing critical vegetated habitat or cover, that facilitates the movement of wildlife through an urban, suburban, or rural environment.

**Working Landscapes.** Farmlands, orchards and forests – lands that sustain us and contribute to economic productivity and agritourism.

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