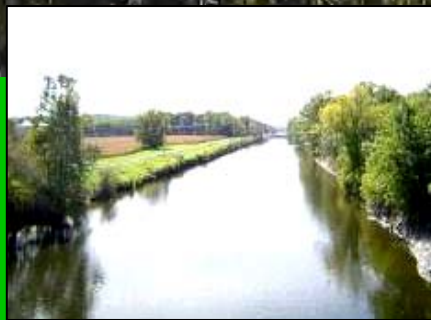
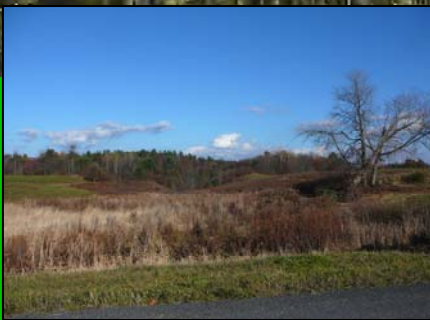


Town of Stillwater, New York

Stillwater Farmland Protection & Green Infrastructure Plan

December 2007

DRAFT



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
INTRODUCTION	1
Rethinking Agricultural Protection.....	1
What is Green Infrastructure Planning	3
Why Plan for Agricultural Protection & Green Infrastructure	4
THE PLANNING PROCESS	12
The Advisory Committee	12
Public Participation	13
RESOURCE INVENTORY.....	16
Existing Land Use.....	16
Agricultural Resources	17
Natural Resources	20
Cultural & Historic Resources	23
Recreational Resources	25
AGRICULTURE & GREEN INFRASTRUCTURE VISION	27
Part I: Creating the Agricultural & Green Infrastructure Vision Map.27	
Agricultural Resources Priorities Map	28
Natural Resources Priorities Map.....	28
Combined Priorities Map.....	29
Part II: Agricultural & Green Infrastructure Vision Map.....	29
Summary of Vision Map Components.....	30



RECOMMENDED TOOLS & TECHNIQUES.....	32
AGRICUTLURAL PROTECTION & GREEN INFRASTRUCTURE ACTION PLAN	47

LIST OF TABLES

Buildout Analysis & Projections.....	5
1996 & 2005 Stillwater Agricultural District Data.....	18
Summary of Town's Recreational Facilities	26

LIST OF FIGURES

Stillwater Land Use.....	17
Active Agricultural Inventory	19
DEC Stream Classifications	21
Conservation Subdivision.....	33

APPENDIX

Appendix A: Agriculture and Green Infrastructure Maps & Figures

Appendix B: Stillwater Buildout Analysis

Appendix C: Recreation Needs Assessment



Acknowledgments

The *Stillwater Farmland Protection & Green Infrastructure Plan* is the end product of nearly half a year of work by many individuals who worked cooperatively to help conserve Stillwater's natural, agricultural, and cultural resources. The following people contributed many hours of their personal time to the creation of the plan. Their energy, ideas, and dedication made this plan possible.

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Dave Anusesky
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Special Thanks

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Executive Summary

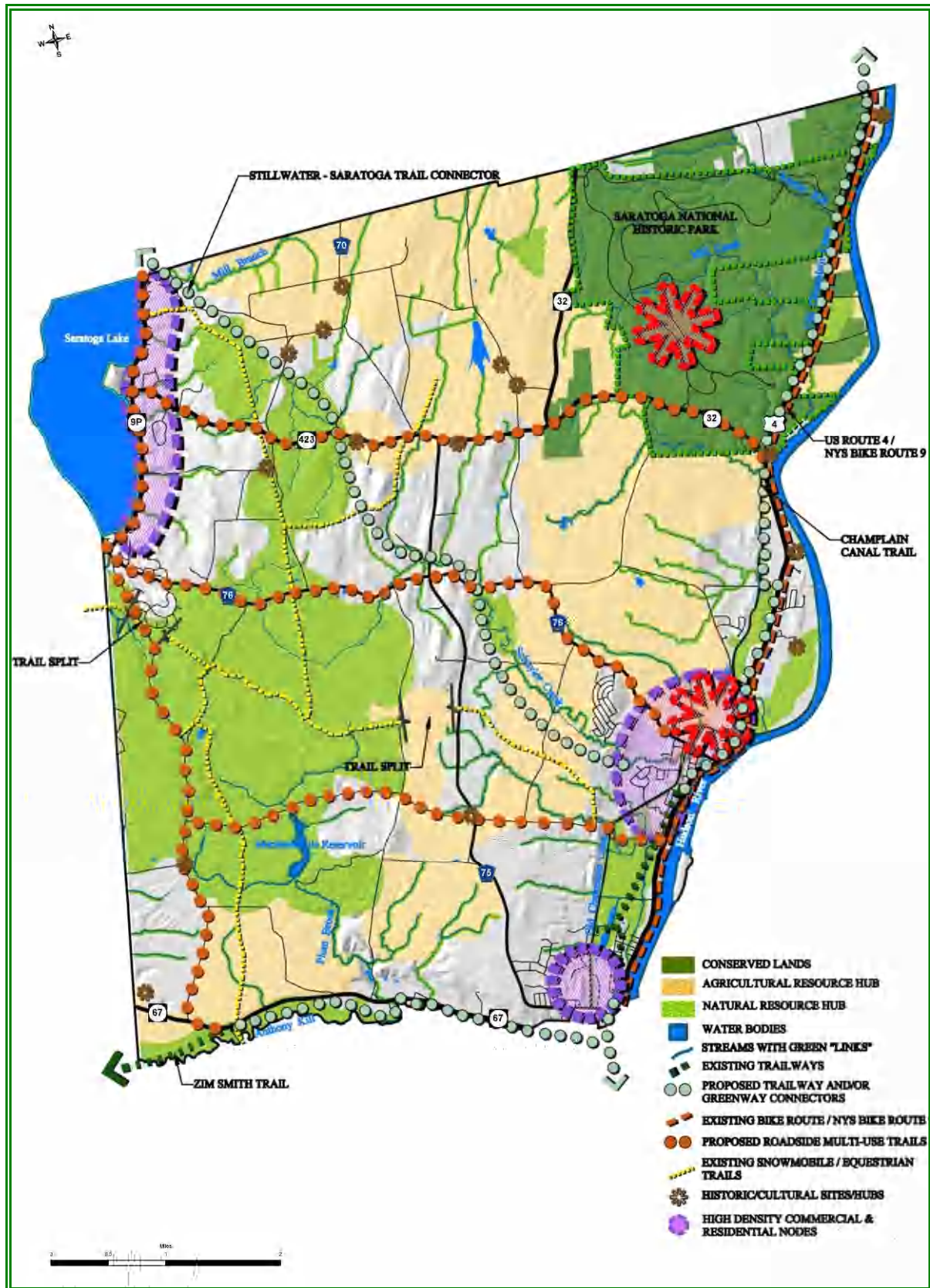
The Town of Stillwater is committed to its economic and environmental sustainability. The *Stillwater Farmland Protection & Green Infrastructure Plan* is an extension of that commitment. Stillwater recognizes that “where” and “how much” growth occurs in its future can affect not only its economic resources, but its agricultural and natural resources as well. This plan is part of Stillwater’s continued effort to “manage growth and change in a manner that protects and enhances the community’s historic and aesthetic attributes, improves community quality of life, stimulates economic activity, and supports social and civic institutions for this and future generations of Stillwater residents.”*

Stillwater’s “small hometown” is defined by its many agricultural, natural, and cultural resources – its farmland and forests, its small hamlets, Saratoga National Historical Park, the Hudson River, Saratoga Lake, and the beauty and quality of the natural environment. The *Stillwater Farmland Protection & Green Infrastructure Plan* seeks to preserve these resources and maintain a network of multi-functional open spaces, including parks, trails, forests, farmlands, waterways, wetlands, and habitat areas. However, unlike traditional open space planning, which can be undertaken in isolation from — or even in opposition to — development, this plan looks at conservation values and actions in concert with Stillwater’s future land development, growth, and built infrastructure (i.e. roads, sewers, utilities, etc).

The **Agricultural & Green Infrastructure Vision Map** (next page) is part of Stillwater’s first step towards identifying priority agricultural and natural resource areas, recreational opportunities, and cultural and historic sites that are important to its long-term social, economic, and environmental health. Similar to a carpenter using a set of blueprints to guide them in the construction of a home, the **Agricultural & Green Infrastructure Vision Map** is Stillwater’s “greenprint,” it is a template for future land use and zoning decisions and/or actions. The map identifies critical agricultural and green infrastructure resources, which should be used for prioritizing future conservation investments and/or strategies.

* *Stillwater Comprehensive Plan (2006)*





“There is no better time...”

Projects such as the Luther Forest Technology Campus are driving future growth throughout the Capital Region. In November of 2006, Saratoga County adopted the *Green Infrastructure Plan for Saratoga County*. It concluded that “there is no better time to plan for green infrastructure in Saratoga County than now.” By 2040, it is anticipated that there will be an additional 58,000 persons living Saratoga County. Stillwater, with its proximity to the Luther Forest Technology Campus, is at the center of this growth.

It is estimated that approximately 500-600 new single family homes and up to 150,000 square feet of new commercial, office, retail, and industrial space – encompassing 1,055 acres of land – could be constructed within Stillwater by 2017. Based on these projected growth rates, and the Town’s current zoning regulations, 92 percent of that growth would likely occur in the Town’s most fertile or forested areas. The loss and/or fragmentation of these resources would have a dramatic impact on both the community’s character and the environment.

The benefits are real...

It is often said that agricultural and green infrastructure protection will limit a municipality’s tax base. Additionally, preserving such resources is sometimes viewed as being in opposition to economic growth. However, Stillwater’s agricultural resources and green infrastructure offer **real financial and economic benefits**. For example, many “cost of community services” studies have demonstrated that for every dollar generated in property tax revenues in northeastern New York, farmland only requires \$0.21 in public services. Whereas residential development requires \$1.36 in services for each property tax dollar collected.*

Additionally, **local** and **sustainable** industries such as heritage tourism and the equine industry are some of Stillwater’s **major economic assets**, and are vital to Saratoga County’s and the Capital Region’s overall economy. Within Stillwater alone, there are over 770 assessed acres of horse farms, which have an estimated full market value of \$5.8 million. Furthermore, in 2003, over 100,000 people visited the Saratoga National Historical Park, spending on average \$62 per group, per day

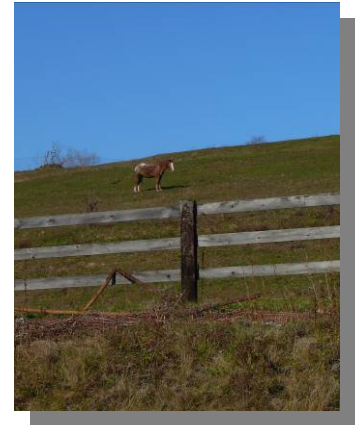
* Tom Daniels, *Holding Our Ground: Protecting America’s Farms and Farmland* (1997)



in the local area. In total, visitor spending was \$3.30 million dollars, “which supported a total of \$3.52 million in sales, \$1.20 million in personal income, 90 jobs, and \$1.91 million in value added.”*

The vision...

As the *Stillwater Comprehensive Plan* (2006) stated, “Stillwater bears greater resemblance to the rural communities bordering the Town to the north (Saratoga) and the east across the Hudson River (Schaghticoke) than it does to the Saratoga County communities bordering I-87 (Halfmoon, Malta, Clifton Park). This is displayed in its rural land use patterns, local economic influences, and demographics.” Preserving this traditional land use pattern is central to the *Stillwater Farmland Protection & Green Infrastructure Plan*.



Stillwater's pastoral settings are one of its most defining characteristics

Stillwater's built environment – the places where people live, work, shop, and play – has both direct and indirect effects on farmland the natural environment. The *Stillwater Farmland Protection & Green Infrastructure Plan* is part of a **long-term vision** that focuses on and identifies Stillwater's **inter-related**, environmental, economic and social needs. The emphasis of this plan is to preserve and enhance an **unfragmented** network of farmland, forests, wetlands, parks, and preserves, and to **encourage** future growth in already developed portion's the community. Finally, this plan **values** Stillwater's economic diversity and sustainability by focusing on its local agricultural, natural, historical and recreational resources as **economic asset**.

Recommended Tools & Techniques

The success of the *Stillwater Farmland Protection and Green Infrastructure Plan* will be highly dependent upon the level of participation from **willing** landowners. The implementation of each land use and zoning recommendation and/or consideration must be **well thought-out** – and will require **landowners' direct participation and/or collaboration**. It is strongly recommended that such participation become more formalized during the implementation of this plan. As part of this process, Stillwater should **facilitate public education opportunities**

* National Park Service, *Economic Impact of Visitors Spending by Parks* (2003)



that focus on the various recommendations and/or considerations presented below. This would include:

- The Agricultural and Farmland Protection Informational Workshop
(initiate within 3 months)
- Conservation Subdivision Informational Workshop (initiate within 3 months)

Town-wide Recommendations

- Create a standing Conservation Advisory Council.
(initiate within 6 months)
- Adopt the Stillwater Generic Environmental Impact Statement (GEIS) open space preservation mitigation fees. (initiate within 6 months)
- Adopt a town-wide conservation subdivision ordinance.
(initiate within 1 year)
- Create a local Purchase of Development Rights program. (initiate within 1 year)

Agricultural Resources Recommendations

Agricultural Resource Preservation Goals – The goal of the Stillwater *Farmland Protection and Green Infrastructure Plan* is to conserve an additional **1,500** acres of “high quality” farmland by 2017.

Agricultural Resource Conservation Recommendations

- Consider establishment of a Lease of Development Rights Program.
(initiate within 1 year)
- Create a Local Farmland Property Tax Reduction Program.
(initiate within 1 year)
- Promote agricultural economic development. (ongoing)
- Take part in regional farmland conservation efforts. (ongoing)

Zoning Considerations (initiate within 1 year) – The following are zoning **considerations**, not recommendations. Collectively, they represent several zoning alternatives that can complement a community’s overall farmland conservation effort. However, each consideration must be **well thought-out** – and should include **landowners’ direct participation and/or collaboration**. The focus of these zoning considerations should be to reduce the conflict between farmers and nonfarmers.

A. Agricultural Zoning District with Larger Minimum Lot Sizes.

B. Agricultural Zoning District with Sliding Scale Lot Sizes.



- C. Agricultural Zoning District that incorporates a Conservation Subdivision Ordinance.

Natural Resources Recommendations

Natural Resource Preservation Goals – In addition to preserving natural resources through various land use practices, the goal of the *Stillwater Farmland Protection and Green Infrastructure Plan* is to protect a minimum of **500** acres of “high quality” natural resource area by 2017.

Natural Resource Preservation Recommendations

- Create riparian buffer ordinance. (initiate within 1 year)
- Adopt green infrastructure design elements for subdivision regulations. (initiate within 1 year)
- Adopt an environmental overlay district. (initiate within 1 year)
- Create a local wetland protection ordinance. (initiate within 1 year)

Zoning Considerations (initiate within 1 year) – The following are zoning **considerations**, not recommendations. They are intended to conserve the natural resources that are within the Natural Resource Hub. However, each consideration must be **well thought-out** – and should include **landowners’ direct participation and/or collaboration**:

- A. Ordinance for protecting existing trees in new development
- B. Sliding Scale Zoning
- C. Conservation Subdivision

Cultural & Historic Resources Preservation Recommendations

- Create a scenic overlay district for the Saratoga Historical National Park viewshed. (initiate within 1 year)
- Adopt historic preservation ordinance that includes a Historic Preservation Commission. (initiate within 2 year)
- Coordinate historic preservation and heritage tourism efforts with Saratoga National Historical Park and the National Park Service. (ongoing)

Recreational Resources Recommendations

- Establish a Trials Subcommittees of the Conservation Advisory Council (initiate within 6 months)
- Seek State and Federal funds for multi-use trail and/or greenway connector development. (ongoing)



- Adopt a road improvement policy that includes trail development (ongoing)

Additional Recommendations

- Become a Hudson River Valley Greenway community. (initiate within 6 months)
- Actively participate in the Lakes to Locks Passage initiative (initiate within 6 months)
- Become more engaged in the New York State Heritage Area Program. (initiate within 6 months)
- Take part in the Erie Canalway National Heritage Corridor. (ongoing)
- Partner with local land trusts. (ongoing)

Leadership & Stewardship

Successful agricultural protection and green infrastructure planning requires continued, proactive planning, coordination, and implementation on the part of local officials and the community. Regardless of the details, the ultimate success of this preservation effort will depend on a motivated and informed community, willing landowners, and a dedication to good stewardship of the land – for this and all of Stillwater’s future generations.



Introduction: Farmland Protection & Green Infrastructure Planning

In November of 2006, Saratoga County adopted the *Green Infrastructure Plan for Saratoga County*. It concluded that “there is no better time to plan for green infrastructure in Saratoga County than now.” By 2040, it is anticipated that there will be an additional 58,000 persons living Saratoga County.

Recognizing the economic and ecological significance of green infrastructure resources – farmlands, waterways, forests, and historic resources – the *Green Infrastructure Plan for Saratoga County* is intended to safeguard an interconnected network of green space that conserves natural ecosystem functions and their associated benefits to the community. However, unlike conventional approaches to open space planning, which is typically undertaken in isolation from — or even in opposition to — development, the *Green Infrastructure Plan for Saratoga County* looks at conservation values and actions in concert with land development, growth, and built infrastructure (i.e. roads, sewers, utilities, etc).

Similar to Saratoga County’s plan, the *Stillwater Farmland Protection & Green Infrastructure Plan* recognizes the importance of interconnected natural systems, and is designed to coincide with future growth. The plan is part of Stillwater’s continued effort to “manage growth and change in a manner that protects and enhances the community’s historic and aesthetic attributes, improves community quality of life, stimulates economic activity, and supports social and civic institutions for this and future generations of Stillwater residents.”*

Rethinking Agricultural Protection

Agricultural protection is all too often lumped together in “open space” planning, and treated as something that is just “nice to look at.” The emphasis of this plan – regarding Stillwater’s agricultural resources – is on protecting farmland as an economic asset. Conventional approaches to farmland protection, such as large minimum-lot-size zoning, fail to understand and/or address the many issues farmers face in operating what is simultaneously a local business and a national industry.

* *Stillwater Comprehensive Plan (2006)*



Agricultural protection can take many forms, including: supporting local farmers markets; adopting local agricultural zoning that protects productive soils, separates farm operations from conflicting nonfarm uses, permits certain development, and accommodates local agricultural activity; and, provides real fiscal incentives for farmland preservation.



Preservation of farming, farmlands, and the rural landscape at the local level requires a multi-faceted approach; strategies include reducing the tax burden, providing a supportive business environment, active conservation programs, and promoting local laws and ordinances (zoning) that are supportive of agriculture and the environment

-Stillwater Comprehensive Plan

Successful agricultural protection requires continued, proactive planning, coordination, and implementation on the part of local officials and the greater agricultural community. This plan recognizes that there are a variety of agricultural practices and activity within Stillwater, all of which are important to the local economy. Ultimately, in order to maintain Stillwater's agricultural economy, the *Stillwater Farmland Protection & Green Infrastructure Plan* seeks to create a community vision that highlights the role of both farms and farmers.

Myths in Planning for Agriculture

1. Purchase of development rights is the only tool needed to support agriculture.

PDR will not solve all of the issues facing farming. Without supplementary planning measures, PDR-protected farms can become surrounded by housing developments making it more difficult for farmers to operate

2. Increasing the minimum lot size for new houses to five acres will help protect farmland.

The resulting lots are often too small for larger, commercial farm vehicles and too large for many homeowners to actively manage. ("Too big to mow, too small to farm")

3. By keeping farms in our town, we are limiting our tax base.

"Cows and corn don't go to school." This saying reflects the fact that while farmland pays less in property taxes than residences do, it requires significantly less in public services.

4. Farms may be pretty to look at, but they don't impact New York's economy.

New York farms generate over \$3.6 billion each year in farm sales and are directly linked to agricultural service-providers and food manufacturers that generate an additional \$27.8 billion each year.

Source: American Farmland Trust

Guide to Local Planning for Agriculture in New York



What is Green Infrastructure Planning

Stillwater's Green Infrastructure is the ecological framework needed for environmental, social and economic sustainability. More specifically, it is a network of multi-functional open spaces, including parks, trails, forests, farmlands, waterways, wetlands, and habitat areas.

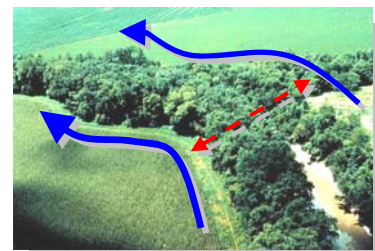
Like most communities, Stillwater has actively planned for – and developed – its built, or “gray,” infrastructure (i.e. roads, sewer system, water lines, utility lines, communications networks, schools, etc). The *Stillwater Farmland Protection & Green Infrastructure Plan* is intended to provide a conservation and ecological land-use planning template, one that integrates the Town's green and built infrastructure networks in a more effective, economic and sustainable manner.



Green Infrastructure encompasses a wide variety of natural and culturally significant features. These “Green Infrastructure Components” make up a system of “hubs” and “corridors.” When combined, these “Green Infrastructure Components” are able to function as an ecological whole, rather than as separate and unrelated parts.

Hubs are core cultural and/or ecological resource areas. They are often large, unfragmented areas of farmland, forests, wetlands, parks, or preserves. Hubs serve as “anchors” in a green infrastructure network, providing important habitat for wildlife and maintaining natural system functions. Hubs are often an important source of community identity.

Corridors, also referred to as “links,” are ecological conduits or landscapes that interconnect Hubs. Waterway and wetland “riparian zones,” habitat corridors, and recreational greenways allow for the exchange of wildlife and biomass between Hubs.



Ecologically based buffers ensure stream integrity and provide habitat corridors



Selected Sites & Trails includes important local landmarks and multi-modal (i.e. pedestrian, equestrian, bicycle, etc) trail networks. These features can be in and of themselves green infrastructure components or they can indirectly compliment them. Local landmarks and trails, for instance, can be part of an overall open space strategy (i.e. greenways, historic sites, pocket parks, etc). These features act as ecological links and/or “stepping stones” within a greater green infrastructure network, which in turn strengthens cultural and environmental connectivity.

Why Plan for Agricultural Protection & Green Infrastructure

The Town of Stillwater is committed to its economic and environmental sustainability. The *Stillwater Farmland Protection & Green Infrastructure Plan* is an extension of that commitment. Stillwater recognizes that “where” and “how much” growth occurs in its future can affect not only its economic resources, but its agricultural and natural resources as well.

In order to better understand Stillwater’s growth potential, a Geographic Information Systems (GIS) buildout analysis was conducted. A buildout analysis is an estimate of the overall development potential of a land area given a set of assumptions and constraints. Utilizing Stillwater’s zoning regulations, as well as environmental and regulatory constraints (i.e. wetlands, streams, steep slopes, etc), an estimate of the total number of residential dwellings units and the floor area of commercial/industrial space was calculated (See Table 1). Based on these calculations, it was determined that a total of 3,867 residential dwelling units and 3.8 million square feet of commercial Floor Area (FAR) could be constructed.

These figures then provided a basis for estimating the growth that will occur in Stillwater over the next ten (10) years. In developing the growth projections a number of factors were evaluated including local building permit trends, the inventory of approved subdivisions, and a discussion paper provided by the Capital District Regional Planning Commission (CDRPC) regarding regional growth rates. Based on this



Typical low density development patterns (above) have a far greater impact on natural resources and consume much more land compared to traditional neighborhood design (TND)



evaluation, it is estimated that approximately 500-600 new single family homes and up to 150,000 square feet of new commercial, office, retail, and industrial space could be constructed by 2017 (See Table 1). A complete discussion about the buildout analysis and growth projection calculations is included in Appendix B.

Table 1 – Buildout Analysis & Projections

Category	Buildout Potential	Estimated 10 Year Development 2007-2017
Residential	3,867 Units	500-600 Units
Commercial/Office/Retail	0.9-1.2 MSF	50,000 sq.ft.
Industrial	1.9-2.6 MSF	100,000 sq.ft.

MSF: Million Square Feet

The 10 year projection would equal 14.2 percent of Stillwater’s total potential residential buildout. If each new home built was a three (3) bedroom, single-family detached unit, it could generate an additional 1,836 new residents – which would equal a 22 percent increase population.* The majority of growth and development would likely occur in Stillwater’s Low Density Residential (LDR) and Rural Residential (R-R) Zoning Districts – areas that are primarily comprised of farmland and forests (See Appendix A for Stillwater Zoning and Buildout Analysis Map).

New York’s natural and cultural resources are finite; they are exhaustible and vulnerable. People have the power to conserve these resources or to destroy them. How well the residents of New York plan for and conserve open land while providing space for homes, commercial and industrial places and community transportation facilities, will have a profound impact on future generations. The community level is the most important place for open space planning to happen. If it isn’t done there, it may not be done at all.

*-New York State
Local Open Space Planning Guide*

From 1982 to 1997, over 425,000 acres of land in Upstate New York was converted from rural uses (mostly agricultural and forest land) to urban development. During that same period the number of acres in cultivated cropland declined by 20 percent, or roughly 675,000 acres. Remarkably, the Upstate population grew by only 2.6 percent – reflecting a 21 percent decline in residential density (i.e. larger housing lots).†

* Figures are based on Rutgers University, Center for Urban Policy Research “Residential Demographic Multipliers: Estimates of the Occupants of New Housing.”

† Rolf Pendall, “Sprawl Without Growth: The Upstate Paradox”



Mirroring these State-wide trends, nearly 19,000 acres of farmland was converted in Saratoga County from 1982 to 1997, which represents 20 percent of its active farmland.* In Stillwater, it is estimated that 1,055 acres of land could be developed by 2017. Based on Stillwater's projected growth rates and current zoning regulations, 92 percent of that growth would likely occur in the Town's most fertile or forested areas.

Stillwater's natural, agricultural, and cultural resources are vital to its "small hometown" identity. According to the Stillwater Comprehensive Plan, this identity is defined by "its large areas of open and agricultural lands, its compact Village and crossroads hamlets, the Saratoga Battlefield and Hudson River, and the beauty and quality of the natural environment." The loss and/or fragmentation of these resources would have a dramatic impact on both the community's character and the environment.

Aside from preserving and enhancing community character, maintaining and preserving agricultural and green infrastructure resources makes good social, economic, and ecological sense too. When we consider who directly benefits from agricultural protection and green infrastructure planning, farmers, fishermen, hunters, and hikers might be among the first to come to mind. However, all of us, either directly or indirectly, benefit from these essential resources. Below are just some of the major reasons why:

Stillwater's agricultural resources and green infrastructure provide community and region-wide social benefits.

- Agricultural and green infrastructure resources provide residents countless recreational opportunities (i.e. walking, running, biking, kayaking, horseback riding, cross-country skiing, snowmobiling, and hunting). Outdoor activities not only promote individual health, which in turn reduces stress, it reinforces friendships and communal bonds as well. Social organizations such as The County Trailblazers Inc. are certainly a testament to this.
- The pastoral settings and bucolic vistas found throughout Stillwater have a special ambiance that is spiritually engaging. Such natural resources have both personal and profound intrinsic values. Forests,

* *Green Infrastructure Plan for Saratoga County*



fields, streams, and historic sites offer a place for natural and personal exploration. In an increasingly connected and faster-paced world, agricultural and green infrastructure resources serve as timeless reminders of who we are and where we come from.

- Agricultural and green infrastructure resources offer invaluable educational opportunities. Good land stewardship is a societal value that is passed from one generation to the next. Active farms and functional ecosystems serve as “living” or “outdoor” classrooms for all of our community’s members. Whether on the farm or during a class fieldtrip, the natural world has been, and will continue to be, a source of edifying inspiration.



Overlooking the Hudson River, the 380 acre Saratoga Sod Farm is protected through conservation easements (Source: Open Space Institute)

- Local agricultural practices coupled with functional ecosystems can ensure local food security. According to the USDA's Community Food Security Initiative, food security depends on three elements: adequate food **availability**; increased **access** to local foods; and full **utilization** of food through adequate, balanced diet, safe water, sanitation, education, and health care. Rural development and the creation and enhancement of sustainable rural communities and small farms are key elements of ensuring long-term food security for the local, national, and global community. Farmland protection, enhancing local food systems and links between local producers and consumers helps promote the interest of both local and national agriculture.*

Stillwater’s agricultural resources and green infrastructure offer real financial and economic benefits

- It is often said that agricultural and green infrastructure protection will limit a municipality’s tax base. However, many “cost of community services” studies have demonstrated that such resources

* United States Department of Agriculture (www.fns.usda.gov)



generate more in real property tax revenue than they require in municipal benefits. According to the American Farmland Trust, for every dollar generated in property tax revenues in northeastern New York, farmland only requires \$0.21 in public services. Whereas residential development requires \$1.36 in services for each property tax dollar collected.*

- According to the USDA Forest Service Center: strategically placed trees save up to 56% on annual air-conditioning costs; evergreens that block winter winds can save 3% on heating, each large front yard tree adds 1% to the house sales price; and, large specimen trees can add 10% to property value. Additionally, one hundred (100) healthy trees over 40 years has a cost-benefits savings of \$232,000 to \$272,000, with the greatest benefits in energy saving and property values.

- The equine industry is a major agricultural resource within Stillwater, and is a vital component of Saratoga County's overall economy. There are an estimated 11,000 horses in the county, with a total value of \$250.5 million.† Within

Open lands are essential to maintaining the equine industry, which in turn helps to uphold Saratoga County's horse country appeal that attract hundreds of thousands of tourist each season.

-Green Infrastructure Plan for Saratoga County

Stillwater alone, there are over 770 assessed acres of horse farms, which have an estimated full market value of \$5.8 million. What is not included in this figure is the value of the equine local industry's ancillary services (i.e. feed production, tourism revenue, etc).

- According to one study found in the *Journal of Park and Recreation Administration*, owners of small companies ranked recreation/parks/open space as the highest priority in choosing a new location for their business.‡ In addition, a National Park Service study found that corporate CEOs say quality of life for employees is the third-most important factor in locating a business,

* Tom Daniels, *Holding Our Ground: Protecting America's Farms and Farmland* (1997)

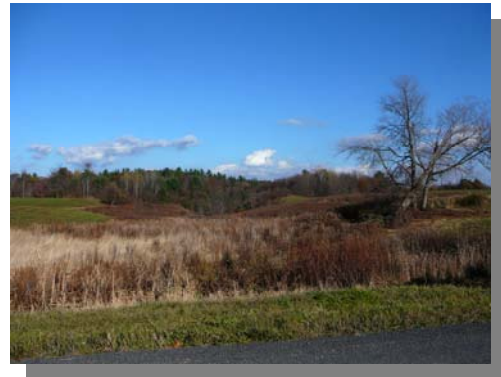
† USDA, NASS, New York Field Office, "Fact Finders for Agriculture: Saratoga Number One County for Equine"

‡ John L. Crompton, Lisa L. Love, and Thomas A. More, "An Empirical Study of the Role of Recreation, Parks and Open Space in Companies' (Re) Location Decisions,"



behind only access to domestic markets and availability of skilled labor.*

- Between 1990 and 1997, U.S. flooding caused \$4.2 billion in damages. Floodplain protection offers a cost-effective alternative to expensive flood-control measures.
- A study of 27 water suppliers conducted in 2002 by The Trust for Public Land and the American Water Works Association's Source Water Protection Committee found that for every 10 percent increase in forest cover in the water supply source area (up to about 60 percent forest cover), treatment and chemical costs decreased by approximately 20 percent, and that approximately 50 to 55 percent of the variation in operating treatment costs can be explained by the percent of forest cover in the water supply source area.
- According to The Center for Neighborhood Technology, incorporating green infrastructure design components such as rain gardens, native vegetative landscapes, increased tree cover, and drainage swales into a 40 acre, 20 unit subdivision design would decrease the total 30 year life cycle costs and increase benefits by \$978,567. Furthermore, this strategy would reduce peak discharge by 35 percent.†



A blend of Stillwater agricultural and natural resources

Stillwater's agricultural resources and green infrastructure ensure healthy and sustainable ecosystems.

- Nutrients are essential elements for aquatic ecosystems, but in excess amounts, nutrients can lead to many changes in the aquatic ecosystems and reduce the quality of water for human use. Lawn and crop fertilizers, sewage, and manure are major sources of

* The Trust for Public Land, *The Economic Benefits of Open Space*

† Figures are based on an average roof size area of 1,800 sq ft, 400 sq ft driveway area, 100 sq ft of patio and/or decking, and one (1) percent slope (<http://greenvalues.cnt.org/calculator>).



nutrients in surface waters. One of the most significant impacts of nutrients on streams is eutrophication, the excessive growth of algae and other aquatic plants in response to high levels of nutrient enrichment (i.e. nitrogen, nitrates, and phosphors). Forest riparian zones have been shown to reduce between 48 and 95 percent of nitrogen and/or nitrates from runoff, and remove 30 to 80 percent of phosphorus.

- Farmland and green infrastructure enhances groundwater recharge rates. According to the US EPA, the natural infiltration capability of open lands improves the rate at which groundwater aquifers are 'recharged' or replenished. This is significant because groundwater provides about 40% of the water needed to maintain normal base flow rates in our rivers and streams. Enhanced groundwater recharge can also boost the supply of drinking water for private and public uses.
- Farmland and green infrastructure components reduce stormwater runoff volumes, which in turn reduce peak flows by utilizing the natural retention and absorption capabilities of vegetation and soils. By increasing the amount of pervious ground cover, farmland and green infrastructure can increase stormwater infiltration rates, thereby reducing the volume of runoff entering our combined or separate sewer systems, and ultimately our lakes, rivers, and streams.
- The plants and soils that are part of farmland and green infrastructure components serve as sources of carbon sequestration, where carbon dioxide is captured and removed from the atmosphere via photosynthesis and other natural processes. For example, studies have shown that changes in cropping practices, such as from conventional to conservation tillage, have been shown to sequester about 0.1 – 0.3 metric tons of carbon per acre per year.
- All of Stillwater is within the Hudson River watershed, and portions of the Saratoga Lake watershed and the entire Mechanicsville Reservoir watershed are within Stillwater as well. Additionally, each waterway within Stillwater has its own sub-watershed.



Research has shown that watershed health begins to decline when impervious surface coverage exceeds 10 percent and becomes severely impaired if this number climbs beyond 30 percent of the total watershed area. Farmland and green infrastructure reduces runoff close to the source and helps to prevent pollutants from being transported to nearby surface waters. Once runoff is infiltrated into soils, plants and microbes can naturally filter and break down many common pollutants found in stormwater.



View of Saratoga Lake (source: www.saratogalake.org)



The Planning Process

Farmland protection and green infrastructure planning is about connecting the dots. Every community, including Stillwater, has a “*De Facto*” open space system.* The combination of existing public and private open spaces – parks, preserves, forests, wetlands, waterways, historic landmarks, trails – is the foundation for such a system. Green infrastructure planning is meant to identify these resources, and strengthen this system through strategic preservation, development, and resource management.

The same can be said about farmland protection. That is, there already exists a farmland system, or “agricultural core,” within Stillwater. Like green infrastructure resources, the forces that encourage farmland consumption are multifaceted and interrelated, as are the forces that facilitate farmland preservation. Finally, like green infrastructure, farmland protection requires a strategic and coordinated preservation effort that caters specifically to the needs of the agricultural community.

The Advisory Committee

The *Stillwater Farmland Protection & Green Infrastructure Plan* was created by an Advisory Committee that was comprised of local residents, members of the farming community, and representatives from the Stillwater Planning Board, the Saratoga County Planning Department, Saratoga PLAN, and the Saratoga National Historical Park, and planning consultants who specialize in environmental and community planning. The committee was tasked with developing a “conservation vision” for the Town of Stillwater.



The members of the Advisory Committee met regularly while developing the plan, and they drew upon a myriad of local, county, and state resources. The committee

* John Randolph, *Environmental Planning and Land Use Management* (2004)



consulted local historians, individuals from Saratoga County Real Property Services, Saratoga County Cornell Cooperative Extension, New York State Department of Agriculture and Markets, New York State Office of Parks Recreation and Historic Preservation, professional appraisers, local and regional non-profits, and the National Park Service.

Using the groundwork established in the *Saratoga County Green Infrastructure Plan*, the committee developed a three step planning process. The first step in the planning process was designed to *identify* agricultural and green infrastructure resources (**Resource Inventory**). The next step was designed to *assess* the role that each resource plays within the agricultural and green infrastructure network, their importance, vulnerabilities and/or strengths, and needs; and, based on this analysis, develop various preservation goals that reflect their multi-functional benefits (**Evaluation & Goal Setting**). The final part of the planning process was designed to create a package of economic and land use tools and recommendations, programmatically designed to protect farmland and conserve and enhance green infrastructure resources (**Protection & Management Strategies**).

Public Participation

Providing opportunities for Stillwater residents to take part in the planning process was a high priority for the *Stillwater Farmland Protection and Green Infrastructure Plan* Advisory Committee. Committee meeting minutes and information were posted on the Town's website regularly, and residents were encouraged to contact the committee with their ideas, question, comments, or concerns.



The Advisory Committee also held a public workshop September 18, 2007, which focused on inventorying agriculture and green infrastructure resources. Workshop attendees took part in a participatory mapping exercise – through which numerous resources were identified. During the mapping exercise, attendees were asked three questions:



- *What are the important categories of open space resource in Stillwater?*
- *What are Stillwater's "special places?"*
- *What are the opportunities for linking these resources, and connecting different parts of the town to one another, and to adjoining municipalities and trail systems?*

The workshop was an invaluable part of the planning process. Attendees identified numerous agricultural and green infrastructure resources. They discussed their ideas and concerns, and demonstrated a commitment to conserving Stillwater's agricultural and natural resources.

Cumulatively, through numerous phone and e-mail correspondences, the September public workshop, and an actively engaged Advisory Committee, the *Stillwater Farmland Protection & Green Infrastructure Plan* provided some opportunities for meaningful public participation – ensuring that *many* of the community's interests were either heard or represented.



Green Infrastructure Plan for Saratoga County

The Green Infrastructure Plan for Saratoga County's goal was to "identify a priority county-level green infrastructure network and develop a strategy for its conservation." For analysis purposes, the plan divided the many inventoried resources into four categories: Natural Systems, Working Landscapes, Recreation and Trails, and Cultural Landscapes.

Natural Systems

Large unfragmented areas of forest 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

Farmland, orchards and forests – lands that sustain us and contribute to economic productivity and agritourism.



Resource Inventory

No matter what the focus is, almost all community planning begins with an inventory process. For the *Stillwater Farmland Protection and Green Infrastructure Plan*, an inventory of the Town's existing land use and agricultural and natural resources was developed and mapped using Geographic Information Systems (GIS). GIS information regarding the location and extent of agricultural resources (i.e. prime and state wide important soils, agricultural districts, existing farms, etc) and green infrastructure resources (i.e. streams, wetlands, floodplains, historic sites, existing trails, parks, etc) was obtained from numerous local, state, and federal sources, or was created specifically for the plan. In turn, many maps were generated for analysis.

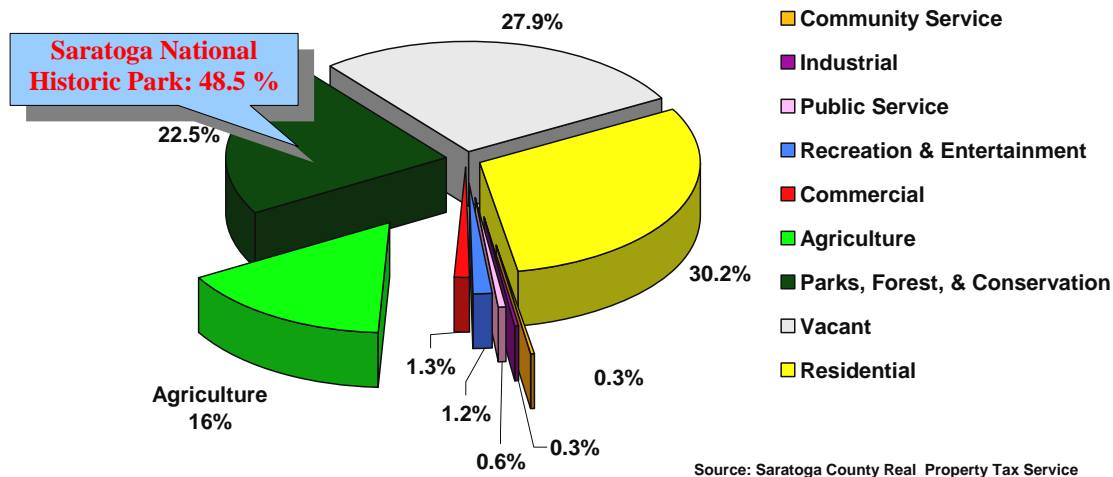
As was the case in developing the *Green Infrastructure Plan for Saratoga County*, the Advisory Committee found it useful to “identify” and “separate” individual resource themes to help organize and understand them better. The Advisory Committee ultimately selected four (4) thematic resource groups during the inventory process: **Agricultural Resources**, **Natural Resources**, **Recreational Resources** and **Cultural & Historic Resources**. Additional information regarding each of these resource groups, including maps, can be found in Appendix A.

Existing Land Use

According to Saratoga County Real Property Tax Services data (2007), 16 percent of Stillwater's land use is agricultural and 22.5 percent is parks, forests, and conservation lands. It is important to note that nearly half of the parks, forests, and conservation lands are encompassed by Saratoga National Historical Park's (SNHP) Fee Boundary.

As the *Stillwater Comprehensive Plan* (2006) stated, “Stillwater bears greater resemblance to the rural communities bordering the Town to the north (Saratoga) and the east across the Hudson River (Schaghticoke) than it does to the Saratoga County communities bordering I-87 (Halfmoon, Malta, Clifton Park). This is displayed in its rural land use patterns, local economic influences, and demographics.” Preserving this traditional land use pattern is a central feature of this plan.



Figure 1: Stillwater Land Use

Agricultural Resources

Stillwater is a “Right-to-Farm” community. According to the American Farmland Trust, “town right-to-farm laws are aimed at maintaining a supportive operating environment for farmers by limiting farm/non-farm neighbor conflicts.” However, protecting farmers and farmland requires a more proactive approach, and no single tool will suffice. Rather, a package of protection tools and techniques – specifically designed for each community – is needed to conserve and protect farmland and agricultural resources. In order to develop such a package a community needs to have a clear understanding of what agricultural resources and activities are present. Below is a discussion of Stillwater’s various agricultural resources.

Farmland Soils

Prime Soils is a designation that is assigned by the United States Department of Agriculture, Natural Resource Conservation Service. Prime soils are well-drained soils that have a gentle slope and require a minimum of conservation practices. The criteria for identifying prime soils are entirely related to soil characteristics and other physical criteria. In general, soils Statewide Important are defined as soils that are similar to prime soils but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Stillwater has over 7,400 acres of prime soils and 8,000 acres of statewide important soils, which together equal over half of



Stillwater's total land area. The preservation of these soils types is an essential part of any successful farmland protection program. As one would assume, the location of these soil types largely coincides with much the Town's existing farmlands.

Agricultural Districts

New York State's Agricultural Districts Law was enacted in 1971. The intent of this law is to encourage the continued use of farmland for agricultural production. An agricultural district can be created by a group of interested landowners "who collectively own at least 500 acres." Enrolled agricultural district land owners benefit from several protective measures, which can include: protection from "unreasonably restrictive" local laws; a Notice of Intent requirement (NOI) for public projects that may impact farms (that includes an agricultural impact statement); some limited protection from private nuisance actions; and a property sale disclosure notice informing potential buyers that they are within an agricultural district.

Saratoga County's Agricultural District #4 was established in 1979. In 1988, 1,050 acres was added to the district. Today, Stillwater is part of Saratoga County Consolidated Agricultural District #1, which encompasses over 35,050 acres of land, including areas of the Town of Saratoga and Moreau. As of 2005, there were 36 parcels – totaling 3,263 acres – enrolled in Stillwater's 15,740 (+/-) acre portion of the agricultural district. By comparison, in 1996, there were 85 participating parcels, which totaled 7,251 acres. Table 2 provides a breakdown by agricultural activity of these properties.

Table 2 – 1996 & 2005 Stillwater Agricultural District Data

Agricultural Activity	1996 # Parcels	2005 # Parcels	1996 Acres	2005 Acres
Vacant Agricultural Land (Productive)	18	7	1,187	536
Livestock and Products	40	17	4,010	1,672
Field Crops	25	10	2,000	956
Nursery & Greenhouse	2	1	52	25
Specialty	NA	1	NA	75
Total	85	36	7,251	3,263

Source: Saratoga County Planning Department



Active Agriculture

In an effort to inventory the county's agricultural lands for the *Green Infrastructure Plan for Saratoga County*, property data and information was obtained from a variety of sources (i.e. tax assessment data, GIS data, local residents, etc). The county's planning team and their consultants identified 109 agricultural parcels within the Town of Stillwater – totaling 6,344 (+/-) acres.

A common understanding of agricultural issues should be at the core of town policies. This understanding of and appreciation for the role of farms in the community does not happen automatically. It must be actively sought and reaffirmed on a regular basis. Communities should educate themselves about the economic, property tax, environmental, historical and quality of life benefits provided by local farms.

-American Farmland Trust

For the *Stillwater Agricultural Protection and Green Infrastructure Plan*, several steps were taken to inventory the Town's agricultural lands more accurately (including both enrolled and non-enrolled Agricultural District properties). The Advisory Committee first began by reviewing Saratoga County Real Property Tax Services data. According to the tax data there were 76 agricultural parcels. This figure included productive agricultural land, lands used for livestock (i.e. poultry, dairy, horse farms, etc), other field crops, specialty farms (i.e. aquatic, fur products, etc.), and residential properties that were also used for agricultural production.

Committee members then conferred with local farmers, the Saratoga County Planning Department, Saratoga County Cornell Cooperative Extension, and New York State Department of Agriculture and Markets. A draft "Agricultural Resource" map was used to pinpoint the location of additional agricultural parcels. During the September public workshop, participants further identified agricultural parcels. Throughout October of 2007, the farmland inventory was verified through a

Figure 2 – Active Agricultural Inventory



comprehensive windshield survey and GIS cross-referencing (i.e. NYS orthographic imagery, USGS-NLCD land cover data, etc).

The results of the inventory singled out field crops and other agriculturally productive lands as the prominent agricultural land use within Stillwater (3,105 (+/-) acres). Livestock, such as equestrian and dairy, and residential properties with agriculture activity accounted for nearly 50 percent of the farming, while “Specialty Farms” (mostly sod production) accounted for four (4) percent of agricultural land. The inventory also indicated that approximately 890 acres of land that was thought to be agriculturally active either lay fallow or had been developed for housing.

Natural Resources

The preservation of natural resources such as wetlands, streams, rivers, lakes, ponds, meadows, and forests are essential to a community’s environmental and economic sustainability. Traditionally, protecting and planning for these resources was an afterthought. However, as the awareness of their fiscal and ecological benefits has grown, people now more readily view such conservation as an integral part of the land development process and as a growth management strategy. The return on investment from such thinking is evident with cleaner water, reduced infrastructure costs, and healthier communities.

Wetlands



Stillwater has over 2,500 acres of NYS Department of Environmental Conservation (DEC) and National Wetland Inventory (NWI) wetlands. Wetlands are vital to any ecological network. Wetlands reduce flood damage by acting as a natural “sponge,” storing water and slowly releasing it. They help to control shoreline erosion by dissipating wave energy and they filter pollutants and sediment from surface water runoff. Wetlands serve as an important interface between surface and groundwater, helping to recharge aquifers. They act as “carbon sinks,” promote biodiversity, and fishery health.



Floodplains & Riparian Buffers

Floodplains are low-lying areas that are adjacent to wetlands, streams, rivers and lakes that are often inundated with water during peak periods of snowmelt and/or heavy rains. Floodplains are nature's built-in "flood control" mechanism. They allow floodwaters to be temporarily stored during peak flows, often mitigating downriver impacts. Additionally, floodplains can offer open space and critical habitat areas. According to digitized FEMA Flood Insurance Rate Maps and Flood Hazard Boundary Maps, there are approximately 2,240 acres of land within 100-year flood elevations in Stillwater. Most floodplains adjoin the Hudson River, Saratoga Lake, or the Anthony Kill.

Riparian buffers, like floodplains, are found alongside waterbodies. A healthy riparian area consists of native trees, shrubs, and grasses. Riparian buffers "intercept" contaminants and sediment from stormwater runoff (i.e. nonpoint source pollution). In addition, they enhance habitat connections, steady natural water temperatures, and stabilize stream banks – enhancing ecological functions and landscape conditions.* Using New York State Department of Environmental Conservation (DEC) GIS data, a 100 foot buffer was assigned to Stillwater's wetlands, streams, and waterbodies. Based on this analysis, there are approximately 4,201 acres of existing and/or potential riparian buffers, which includes 1,485 acres of DEC wetland buffers.

Surface Water (Streams, Rivers, Ponds, and Lakes)

The quality and condition of Stillwater's surface water resources are inextricably linked with its present and future drinking water quality and/or availability, ecological health, biodiversity, and economic and environmental sustainability. Surface waters, like wetlands, are part of a greater hydrological system, where the health and/or the impairment of one part can have system-wide implications.

There are over 81 miles of DEC classified streams within Stillwater. Under New York State Public Health Law, all waters within the state are given a classification by the DEC which is based on the best usage of the waters. The classifications range from AA to D. A and AA class waters are suitable for drinking, while class D waters are suitable for secondary contact recreation (i.e. boating). Some streams are

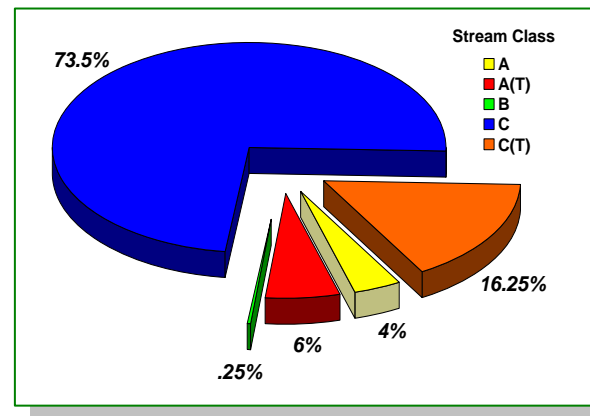
* Randolph (2004)



given a sub-classification of (t) or (ts), indicating whether the waters can support trout or trout spawning, respectively. Over 88 percents of the streams within Stillwater are designated either class C or C(t) – a designation for water that is suitable for fish propagation. Ten percent of the streams (8.2 miles) are designated A or A(T).

All of Stillwater's A and A(t) designated waters are within the 2,858 acre Plum Brook watershed, which includes the Mechanicville Reservoir, and is also a sub-watershed of the Anthony Kill. The Plum Brook watershed is one of three significant watersheds that Stillwater is part of. Approximately 4,640 acres of Stillwater is within the Saratoga Lake watershed, while all of Stillwater is within the Hudson River watershed.

Figure 3 – DEC Stream Classifications



Forest Lands

Based on USGS National Atlas Forest Fragmentation Census data, National Land Cover Database information, and New York State orthographic imagery, there are over 17,000 acres of unfragmented forests within Stillwater. The majority of these lands are within the Plum Brook and Saratoga Lake watersheds, and Saratoga National Historical Park. According to Saratoga County Real Property Tax Service (2007) data, there are over 3,316 acres of land that are taxed under Section 480-a of the Real Property Tax Law. Section 480-a of the Real Property allows landowners, with parcels at least fifty acres in size, to apply for up to and 80 percent tax exemption by committing their forest land to a DEC approved forest management plan.

These forest lands provide a variety of functions, such as erosion control, stormwater mitigation, steep slope stabilization, carbon sequestering and atmospheric purification, and wildlife habitat. Forests also enhance a community's quality of life and provide forest products, recreational opportunities, reduce winds, and provide large areas of shade.



Cultural & Historic Resources

Preserving the rich, historical resources of Stillwater is an integral feature for any farmland protection and green infrastructure planning effort. Many of Stillwater's historical resources are associated with significant open spaces and/or natural resources, such as the Saratoga National Historical Park. However, smaller sites and landmarks can act as ecological links and/or “stepping stones” within a greater green infrastructure network as well. For example, moving from one historic site to another along New York State's Route 32 could be part of a multi-modal trail that offers multiple recreational opportunities (i.e. bicycle, equestrian, walking, etc) and incorporates environmentally friendly design elements (i.e. pervious surfaces, stormwater management features, habitat links, etc), thereby creating a green infrastructure “link” and/or “corridor.”

State & National Registers of Historic Places



Cannon on Bemis Heights overlooks the Hudson River Valley (Source: www.nps.gov)

According to the Office of Parks, Recreation and Historic Preservation's (OPRHP) State Preservation Historical Information Network Exchange (SPHINX), two Stillwater locations are listed on the State/National Register of Historic Places (NRHP) – the Saratoga National Historical Park (SNHP) and the Champlain Canal. Both of these historic sites/features played a pivotal role in early American history. The SNHP preserves the sites associated with a significant American military victory during the American Revolution, the Battle of Saratoga. Whereas, the Champlain Canal, which was opened in 1823, linking the Hudson River to Lake Champlain at Whitehall (The Birthplace of the United States Navy), was once a bustling commercial corridor that spawned early American settlement and economic development.

Archaeological Sites, Historic Buildings, and Unique Sites

In addition to the above NRHP sites, the OPRHP SPHINX database identifies 37 Archeological Sites within Stillwater. Of the 37 Archeological Sites nine (9) are Historic Sites, (two of which had prehistoric artifacts), six (6) are Prehistoric, and seven (7) are Precontact. Of these sites, only one has been designated “not eligible”



for NRHP status. There are nine (9) buildings and/or structures identified by the OPRHP SPHINX database as well, all of which have been determined not eligible for listing on the NRHP. The OPRHP SPHINX database also lists an additional nine (9) Unique Site Numbers (USN). Local landmarks such as the Bolton Manor/Mancuis House, Big Trolley Bridge, Brooking Residence, and the White Sulphur Spring and Hotel Site are listed in the OPRHP SPHINX database as well.

Archeological Sensitive Area

The New York State Historic Preservation Office (SHPO) Archeological Sensitivity Maps for New York State are, “defined areas within the state where the discovery of archeological sites is predicted” In addition, these areas include the locations of all known sites that are in the SHPO Archeological Site files and the New York State Museum Archeological Site files. In accordance with Section 304 (16 USC 4702-3) of the National Historic Preservation Act of 1966 and Section 427.8 of the State Historic Preservation Act of 1980, the exact locations of sites are not displayed since they are protected from disclosure. Archeological sites are overlaid and protected by randomly placed buffer zones. SHPO bases their recommendations to state and federal agencies – regarding the need for archeological surveys – on a particular projects proximity to these buffer Zones.

According to SHPO Archeological Sensitivity Maps, over 14,300 (+/-) acres are within archeological sensitive areas, which is approximately 56 percent of the Town’s overall land area. Most Archeological Sensitive Areas coincide with Stillwater’s historical development patterns. This includes development around Saratoga Lake and along the Hudson River and Champlain Canal Corridor.

Local Inventory

In order capture all of Stillwater historic and cultural resources, the Stillwater Historian and the Curator of the Stillwater Blockhouse Museum were asked to pinpoint important local landmarks within the Town. They provided an inventory of historically significant sites and/or features. In addition, they helped to locate and map many of the local



Fort Ingoldsby: Built during Queen Anne's War in 1709 by Col. Schuyler
(Source: www.dmna.state.ny.us)



landmarks. In all, 49 local landmarks were identified, and 31 locations were mapped. The inventory consisted of historically significant sites, cemeteries, churches, bridges, homesteads, and buildings.

Recreational Resources

In an effort to mitigate the impacts of projected growth and development, the Town of Stillwater has developed a Generic Environmental Impact Statement (GEIS). The Town's GEIS included a *Recreation Needs Assessment*. The purpose of the evaluation was to define the current and future demands for recreational facilities within the Town, and help plan for their construction and/or implementation.

Several methods were used in an effort to gain an understanding of the Town's current and future recreational needs and the condition and level of use of existing facilities. Utilizing the inventory of facilities included in the *Stillwater Comprehensive Plan*, all park and recreation facilities were first inspected. The Town then established a working group of citizen representatives knowledgeable about local facilities and needs and programming of recreational activities. A roundtable discussion was conducted and issues concerning existing facilities, current usage, known deficiencies, and anticipated demands were identified. Additionally, interviews were conducted with the Director of Building Planning and Development, the Town's Committee for Parks & Recreation, and the athletic director for Stillwater Central School, as well as various representatives of non-scholastic teams and sports clubs.



The Recreation Needs Assessment inventoried existing recreation facilities, planned recreation facilities, and organized and non-organized recreational activities. Table 3 (next page) provides a summary of Stillwater's existing recreational facilities. A copy of the Stillwater *Recreation Needs Assessment* can be found in Appendix C.



Table 3 - Summary of Town's Recreational Facilities

Location	Size*	Notes	Facilities					
*Acres			Baseball	Basketball	Football	Play-ground	Soccer	Volleyball
Existing Facilities								
American Legion		Multi-Use field needs renovation. Lacks parking and changing facilities	1		1		1	
Cambridge Court	6	New		2.5			1/2	1
Community Center	2.5	Indoor facilities		1	1	1		
Gurba North	4	Facilities degraded, property partially reverting to wetlands		1				
Riverside Veterans Park	2.5	Playground is new. Basketball and softball field need renovation. Additional parking is proposed.		1		1		

For the *Stillwater Farmland Protection and Green Infrastructure Plan*, the Advisory Committee, along with public workshop participants, identified existing and proposed multi-use trails and/or greenway connection opportunities throughout the Town. In all, there were 25 miles of existing bicycle, equestrian, and snowmobile trails identified. This includes: all 8.5 miles of U.S. Route 4 that passes through the Town and Village of Stillwater, which is a designated NYS Scenic Byway and state bicycle route; the 2 mile Historic Stillwater Multi-Use Trail, adjacent to the Riverside neighborhood; and, approximately 15 miles of snowmobile/equestrian trails managed by The County Trailblazers, Inc. (a local snowmobile club dedicated to trail development and management). In addition to these, there are 14 miles of mixed-use trails and a ten (10) mile tour road (with an adjoining multi-use pathway) within Saratoga National Historical Park. Furthermore, Saratoga National Historical Park offers Stillwater residents and visitors alike multiple picnicking locations and countless birding opportunities.*

Regarding multi-use trails and greenway opportunities, through the planning process, many miles of potential multi-use trails and greenway locations were highlighted as well. Such a system of manmade or naturally connected open spaces (i.e. stream corridors, road rights-of-way, old canals, abandoned railways, etc) can offer greater recreational, habitat, and scenic value than isolated parcels of land.

* Saratoga National Historical Park is a New York Audubon designated "Important Bird Area" and a federally-recognized "Watchable Wildlife" area.



Agriculture & Green Infrastructure Vision

Creating a vision map for Stillwater's Agriculture & Green Infrastructure resources is an essential part to the planning process. It is the community's first step towards identifying priority agricultural and natural resource areas, recreational opportunities, and cultural and historic sites that are important to the community's long-term social, economic, and environmental health.

Part I: Creating the Agricultural & Green Infrastructure Vision Map

The **Agricultural & Green Infrastructure Vision Map** was created by overlaying a series of agricultural and green infrastructure resource maps. Using Geographic Information Systems (GIS) site-suitability analysis procedures, inventory data was entered into individual maps, which were then overlaid and analyzed to reveal clusters of significant resources. Locations where multiple resources were present received a high rank (i.e. darker color). Areas received a lower rank when the presence of multiple resources was less (i.e. lighter colors).

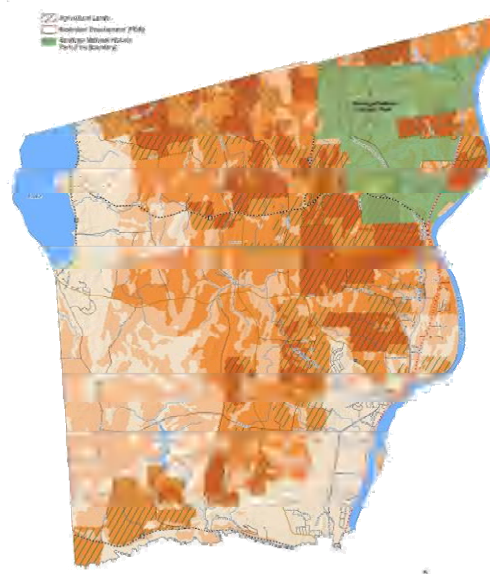
The benefit of using such a procedure is that it offers a farmland protection and green infrastructure vision that is more ecologically accurate and agriculturally applicable. That is to say, traditional open space planning is sometimes viewed as a subjective exercise. It is often said that "open space" can have a different meaning for everyone. By incorporating resources that – together – have an array of perceptible and multifaceted benefits, the rationale for preserving them is more greatly understood and acceptable.

The results of the site suitability analysis are presented on the following pages:



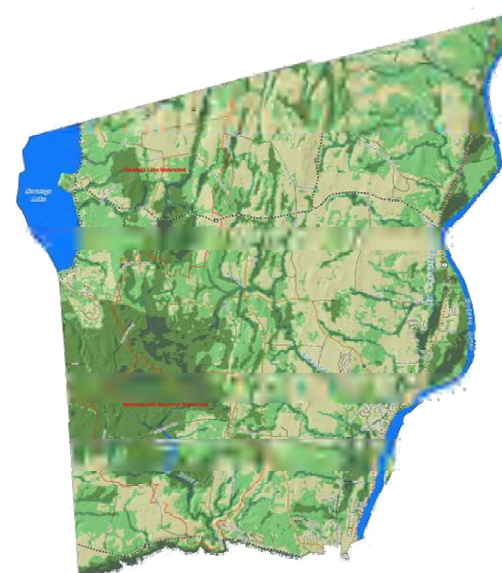
Agricultural Resources Priorities Map

The “Agricultural Resources Priorities Map” was created by overlaying USDA-NRCS Prime and Statewide important Soils, Agriculture District Boundaries, and existing agricultural uses. The darkest colors represent the areas that ranked the highest. Large agricultural parcels in the Agricultural Districts with excellent soils that are not within existing sewer and water districts generally ranked the highest.



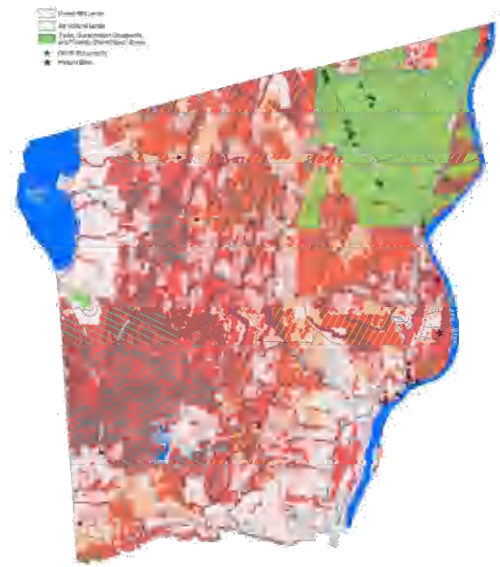
Natural Resources Priorities Map

The “Natural Resources Priorities Map” was developed by overlaying wetlands, floodplains, riparian corridors, streams, water bodies, hydric soils, and large, unfragmented forest lands. The darkest colors represent the highest rank.



Combined Priorities Map

The “Combined Priorities Map” was created by combining the Natural Systems Priorities Map and the Agricultural Resources Priorities Map. The output provided a basis for developing the “Agricultural & Green Infrastructure Vision Map.” The darkest colors represent the highest ranked area.



Part II: Agricultural & Green Infrastructure Vision Map

Similar to a builder using a set of blueprints to guide them in the construction of a home, the Agricultural & Green Infrastructure Vision Map is Stillwater’s “greenprint,” it is a template for future land use and zoning decisions and/or actions. The map identifies critical agricultural and green infrastructure resources, which can then be utilized for prioritizing preservation investments.

As the buildout analysis suggests, Stillwater and the Capital Region will continue to grow. Projects such as the Luther Forest Technology Campus will certainly increase development pressures as well. This plan identifies a network of resources where agricultural and green infrastructure preservation, funding, and partnering needs to focus. However, it would be a mistake to interpret the gray areas of the map as areas where high density development should take place. In fact, areas that are within the Saratoga Lake watershed, for example, may require additional intermunicipal study in order to identify appropriate locations for development. Furthermore, areas that border “agricultural resource hubs” should be considered as agricultural buffer areas, where development is designed to reduce farm and nonfarm use conflicts.

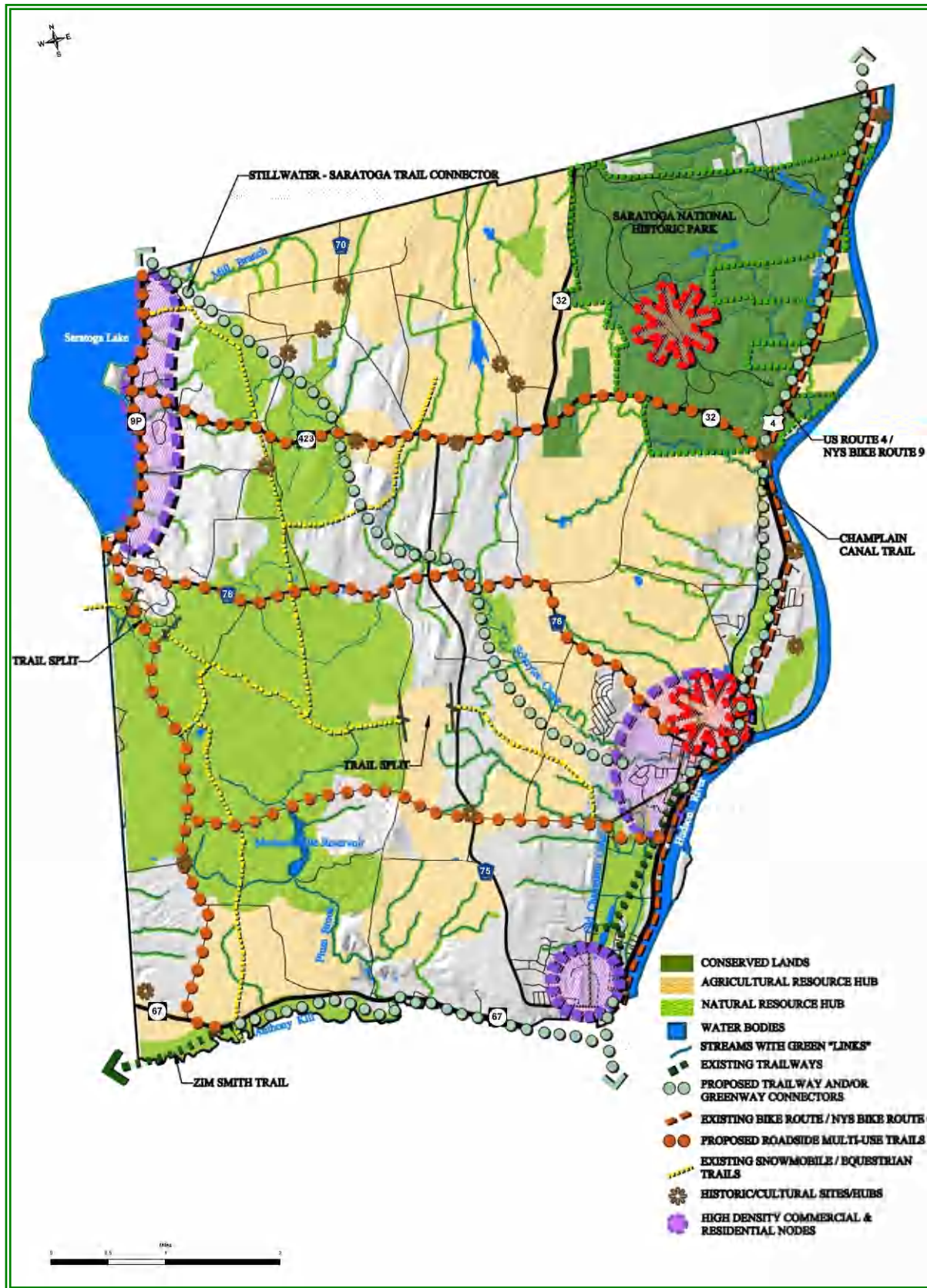


Summary of Vision Map Components

The Agricultural & Green Infrastructure Vision Map is located on the following page. It consists of several different components. A brief description of the key components is presented below:

- Conserved Lands: are areas that are already protected. This includes properties from which the development rights have been purchased and parkland (i.e. Saratoga National Historical Park).
- Agricultural Resource Hub: is the area of core farmland and/or agricultural resources. It includes large, contiguous agriculturally used parcels, and concentrations of prime and statewide important soils. Much of the Agricultural Resource Hub is located within Saratoga County Consolidated Agricultural District #1; however, there are additional areas of core farmland in the southern portion of the town that are not within the agricultural district.
- Natural Resource Hub: is the primary natural resource area. It includes forested lands, habitat areas, wetlands, waterbodies, and the like. These areas provide very real and important ecological and fiscal benefits.
- Streams with Green Links: serve as riparian buffers and habitat corridors. They connect, or “link” natural and agricultural resource hubs.
- Proposed Trail and/or Greenway Connectors: are conceptual locations where greenway opportunities exist (i.e. along the Champlain Canal, Anthony Kill, and the abandoned railroad right-of-way).
- Proposed Roadside Multi-Use Trails: are conceptual locations where multi-use trail opportunities exist. These are trails that could include equestrian, bicycle, walking, running, and snowmobiling opportunities, which would depend on land owner participation and/or road right-of-way capacity/design.
- Historical/Cultural Sites/Hubs: identify the location of historically and/or culturally significant sites and/or areas.
- High Density Commercial & Residential Nodes: identify areas that have existing commercial and/or residential development.





Recommended Tools & Techniques

During public workshops and Advisory Committee meetings, landowners expressed their concerns about the potential impact to Stillwater's farmlands and green infrastructure resources from future growth and development. However, there was equal concern regarding individual property rights and the need for continued public participation in future conservation actions.

The success of the *Stillwater Farmland Protection and Green Infrastructure Plan* will be highly dependent upon the level of participation from willing landowners. The implementation of each land use and zoning recommendation must be **carefully considered** – and will require **landowners' direct participation and/or collaboration**. It is strongly recommended that such participation become more formalized during the implementation of this plan. This could include:

- An organization/committee charged with overseeing plan and/or conservation implementation.
- Develop plan implementation guidelines and conservation criteria that are based on a list of "priority" parcels to ensure that funding and preservation decisions are made equitably.
- Develop a formalized landowner participation process, and work directly with landowners on conservation projects.

Town-wide Recommendations

Consider creation of a standing Conservation Advisory Council. Pursuant to New York State enabling statutes, Conservation Advisory Councils (CACs) are created by local town, city or village action. CACs advise a municipality on natural resource related issues, and they are authorized to prepare an open space inventory and map for adoption by the Town Board. As of 2004, there were 300 CACs in New York State. CACs can have the authority to: provide input, assistance, comments and recommendations regarding environmental assessments and environmental impact statements for proposed actions; conduct studies, surveys, and inventories of the natural and physical features within a municipality; maintain an up-to-date inventory or index of all open spaces in public or private ownership within the municipality, including but not limited to natural landmarks, streams, floodplains, wetlands, unique habitat communities, and scenic and other open areas of natural or ecological value. In addition, CACs can present ideas regarding the use of open



areas, thereby providing a base of information for recommendations by the Town Board when making land use decisions.

A Stillwater Conservation Advisory Council could assist with the local planning board review process, primarily on any actions that might impact agriculture and green infrastructure resources. Furthermore, a Stillwater CAC could champion the agriculture and green infrastructure vision put forth in this plan. An alternative to a Conservation Advisory Council would be a less formal standing committee that could be established by the Town Board.

Adopt a town-wide conservation subdivision ordinance. Under the Town's existing regulations, the density of development is controlled by mandating that every house be placed on a housing lot of some minimum area. For example, a hypothetical zoning district might require that each new home be placed on a lot with a minimum size of 2 acres. An owner of 100 acres of perfectly buildable land who wishes to maximize the development value of this land would therefore divide the entire 100 acres into 50, 2-acre building lots (note: this example is simplified for illustrative purposes). Without changing the number of homes that could be built, the Town could instead say that

Figure 4 – Conservation Subdivision



A comparison of a conventional subdivision (left) with a conservation subdivision (right). In both cases, a total of 16 residential lots are being created

the permitted density cannot exceed 1 home per 2 acres, but the minimum lot size can be much smaller as conditions allow. Using the simplified example above, the owner could still create no more than 50 building lots on the 100 acres; however, the lots could vary in size as conditions and the imagination allow. By separating the issue of lot size from the issue of density, the developer is no longer required to divide the entire original parcel into residential housing lots in order to maximize development potential and profits. Instead, the owner could achieve the maximum



allowed density while creating lots of various sizes and preserving exceptional features of the landscape or preserving agricultural lands through creative design.

The Town should consider adopting a conservation subdivision ordinance utilizing the methodology described below:

Conservation Subdivision Design is a type of clustering that addresses the form of development. In addition to the environmental and viewshed benefits of allowing homes to be situated in a creative manner, a network of conserved open lands can be created in the process. These conserved lands, for example, might function as wildlife corridors or create buffers between residential areas and preserved agricultural lands. In addition, the conserved lands could provide benefits related to stormwater management. This type of benefit is increasingly important as the Town is required to address the Phase II Stormwater Regulations required by the NYSDEC.

The Conservation Subdivision Design approach begins with the identification of open space resources present on the site to be developed (environmentally constrained land, significant habitats, agricultural land, historic or scenic views, significant woodlots, etc.). The number of permitted dwelling units within the subdivision is determined by subtracting areas of constrained land (wetlands, wetland buffers, watercourses, steep slopes, floodplains, etc.) from the gross lot area and dividing that number by the allowable density for the zoning district. Homes (the number based on allowable density for the zoning district) are then designed into the development areas of the site in a creative fashion. Flexible lot sizes and area and bulk standards facilitate this creativity. Identifying road and trail alignments and lot lines are the final steps in the Conservation Subdivision Design process.

A required open space set aside should also be established. The minimum open space set aside would ensure meaningful open space conservation, and still allow creative subdivision design.

In all cases, a conservation easement will be the legally binding mechanism for ensuring that the open space set aside as part of a conservation subdivision cannot be further developed or subdivided in the future. In most cases it is recommended that a private landowner, or several landowners, in the new subdivision retain



ownership of the land under easement. For larger subdivisions, a homeowner's association may sometimes retain ownership of the open lands. In rare cases, the town or a land trust may become the owner of the open lands.

Adopt Stillwater Generic Environmental Impact Statement (GEIS) open space preservation mitigation fee. The New York State Environmental Quality Review Act (SEQRA) was enacted in 1975. Patterned after the National Environmental Policy Act of 1969, SEQRA seeks to strike a balance between social and economic goals and concerns about the environment. The Environmental Impact Statement is a key part of the SEQRA process, and state statute determines how it is prepared. The GEIS is a tool provided by SEQR to evaluate development issues within a defined geographic area that may impact land use and the environment.

The primary purpose of Stillwater's GEIS was to identify the potential impacts that projected growth and/or development may have on the community's resources, and appropriate mitigation measures which may be necessary to minimize those impacts. One of the benefits of preparing a Town-wide GEIS is the ability to identify capital improvements necessary to serve anticipated future growth and to distribute the cost of those improvements equitably among all future development within the town. The SEQR process allows the collection of funds associated with the cost of mitigating the impacts of development.

While developing both this plan and the Stillwater GEIS, open space mitigation fees were calculated using the town-wide buildout analysis and the *Stillwater Farmland Protection and Green Infrastructure Plan* preservation goals (preservation goals for agricultural and green infrastructure resources are provided below). It is anticipated that the mitigation fees derived from Stillwater's GEIS will be



collected at the issuance of each building permit. An alternative approach is to divide the collection of funds into thirds: one third at stamping of final plans; one third at the first building permit; and one third at the first issuance of Certificate of Occupancy. By adopting these fees, Stillwater would be able to generate part of the



necessary cost for strategic land acquisition (i.e. Purchase of Development Rights or *Fee and Simple* land acquisitions). Stillwater should consider certain actions exempt from mitigation fees, including affordable housing projects and family member uses (see Agricultural Resource Conservation Recommendations below).

Create a local Purchase of Development Rights program. Purchase of Development Rights (PDR) is an increasingly popular tool that is used for farmland conservation. When willing landowners sell their development rights to a local or state government, or non-for-profit, they give up the right to develop their land. However, they retain all other property rights that are associated with owning land (i.e. use of the land for agriculture or other specified purpose, right to prevent trespass, right to sell, etc). The value of a property's development rights is determined by calculating the difference between the fair market value and the agricultural value. Stillwater could finance much of the public's share of a local PDR program through municipal bonds and/or a dedicated tax, such as a real estate transfer tax or a nominal property tax. For example, if Stillwater were to annually budget \$500,000 for a local PDR program, it would cost approximately \$0.08 per \$1,000 of assessed value; or, \$9.10 a year for a \$120,000 home. The remaining finances could then be obtained from future development mitigation fees.

Once a local municipality has set up a PDR program there are typically five (5) steps to the process: (1) landowner applies for PDR program; (2) the application is reviewed by a selected local, or state board that uses a set of established criteria to prioritize applications; (3) an appraiser calculates the value of the property's development rights; (4) the appraisal value is negotiated (this phase can include additional appraisals); (5) the landowner and the board sign a "deed of easement" which remains with the property's deed. In a well developed PDR program, the entire process should take approximately one year from start to finish. Currently, the Saratoga County PDR program has been viewed by some local farmers as too long a process.

Agricultural Resources

Agricultural Resource Preservation Goals

In the last 10 years, approximately 850 acres of land has been preserved in Stillwater through the Purchase of Development Rights. The goal of the Stillwater



Farmland Protection and Green Infrastructure Plan is to protect an additional **1,500** acres of “priority” farmland by 2017. Priority farmland shall be defined as agricultural lands that are within the Agricultural Resource Hub as identified by the **Agriculture and Green Infrastructure Vision Map**. The success of this preservation effort will depend upon the level of participation of willing landowners.

Agricultural Resource Conservation Recommendations

Establish a Lease of Development Rights Program. A Lease of Development Rights (LDR) program reduces tax assessments for farmers that are willing to sign five (5) to 25 year deed restriction. A municipality establishes its own LDR program eligibility and minimum acreage requirements. In addition to these eligibility requirements, some communities have developed a “rolling” LDR program, whereby participating farmers’ length of term continues to “roll forward” until they decide to withdraw. Other programs require that the local municipality receive a “right of first refusal” on properties enrolled in its LDR program.* However, because LDR programs do not provide permanent farmland protection, this should be understood as a temporary conservation solution.

Create a Local Farmland Property Tax Reduction Program. New York State offers many farmland preferential and deferred taxation programs for farmland (i.e. school tax credits, farm building exceptions, etc). However, local property tax reduction programs can supplement state tax relief programs. Local programs can simply provide information and technical assistance for farmers applying for state tax reduction programs, or they can focus on providing reduced and/or more appropriate assessment for farms and their accessory structures (i.e. barns, stables, etc). One simple suggestion the American Farmland Trust offers is that local assessors attend special training on how to properly assess farm structures to ensure that assessments are fair and accurate.† Regardless of strategy, local tax reduction programs can be an important way to support farm operations and protect farmland.

Recognize local agriculture as an economic asset and actively promote it. It has been said that “if farmland is to be protected, it must first be profitable to

* AFT, *Guide to Local Planning for Agriculture in New York*

† American Farmland Trust, *Guide to Local Planning for Agriculture in New York*



operate a farm.”* Farming is a business first and foremost. For farmers to remain competitive, they need to have the ability to grow and adapt their operations based on market trends. When making land use and economic development decisions, a local municipality must take into consideration what kinds of agricultural practices exist within the community, and be careful not to alienate or hinder those operations. Furthermore, there are many opportunities for local municipalities to promote



The City of Kingston Farmers Market is a popular event – supporting regional farms and promoting economic development (source: www.ci.kingston.ny.us)

their agricultural resources, such as: directly market and promote local agricultural products; develop and facilitate local farmers markets; support and facilitate Community Supported Agriculture (CSA) projects; and, actively pursue, or provide technical assistance to those who are pursuing, agricultural grant opportunities.

Take part in regional farmland conservation efforts. Throughout the Capital Region and Saratoga County there have been continued and growing efforts to conserve the area’s agricultural resources. The issues that farmers and farms face are not town specific. Therefore local conservation requires regional cooperation and coordination. For example, Saratoga County’s Farmland/Open Space Preservation Program awards more points to grant applications that have “Intermunicipal benefits.”

Zoning Considerations – The following are zoning **considerations**, not recommendations. Collectively, they represent several zoning alternatives that can complement a community’s overall farmland conservation effort. When nonfarm neighbors move into agricultural areas, many issues can arise. For example, the expansion of sewer and water services into farmlands can place extreme development pressure on farmland, and can be a catalyst for farmland conversion. Additionally, many farming practices require what most residential neighbors would consider nuisances (i.e. chemical sprays, dust, noise, etc). Nonfarm residents can often impede agricultural practices (i.e. trespassing, theft, litter, and vandalism). These zoning tools do not prohibit farmland conversion, but rather they provide a land use template that reduces the conflict between farmers and

* Tom Daniels, “Holding Our Ground: Protecting America’s Farms and Farmland”



nonfarmers. Additionally, any agricultural zoning should accommodate certain family uses (i.e. construction of family housing on properties within an agricultural zoning district) and streamline the permit process for certain actions that are necessary for farming operations (e.g. barn repairs and/or construction).

- **Large Minimum Lot Size zoning** refers to a minimum area of land on which a new dwelling may be built. Size may vary, however, five (5) and ten (10) acre lots can encourage development that is “Too big to mow, too small to farm.” Therefore, lot sizes should be based on the minimum viable farm size.
- **Sliding Scale zoning** allows landowners to develop their property, however, the number of nonfarm houses per acre decreases as the size of the farm increases. Therefore, smaller parcels with less agricultural potential are developable at a higher density.
- **Conservation Subdivision** requirements within and around an agricultural zoning district would include provisions to ensure that open spaces that are used to buffer neighboring farms, preserve prime and statewide important soils, and existing farmland.

Natural Resources

Natural Resource Preservation Goals

In addition to preserving natural resources through various land use practices, the goal of the *Stillwater Farmland Protection and Green Infrastructure Plan* is to protect **500** acres of “priority” natural resource area by 2017. Priority natural resource areas shall be defined as the areas that are within the Natural Resource Hub, or Green Links, as they are identified on the **Agriculture and Green Infrastructure Vision Map**. The focus of this effort should be twofold: preserving large, core areas of habitat (i.e. forests, wetlands, etc) and preventing wildlife corridor and/or riparian buffer fragmentation. Both large and small landowners can take part in this effort through appropriate landscape design, tree plantings, and well thought-out site plans that focus on preserving natural features.



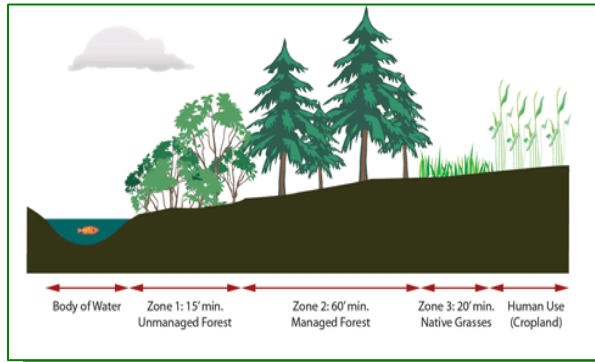
Continuous corridors are better than fragmented corridors (source: www.usda.gov)



Natural Resource Preservation Recommendations

Create riparian buffer ordinance. The term riparian buffer is used to describe lands adjacent to streams where vegetation is strongly influenced by the presence of water. By slowing down rainwater runoff, the riparian vegetation allows water to soak into the ground and recharge groundwater and reduces sediment, nitrogen, phosphorus, pesticides and other pollutants from reaching a stream. Riparian buffers also provide valuable habitat for wildlife. In addition to providing food and cover they are an important corridor or travel way for a variety of wildlife.

It is recommended that the Town of Stillwater develop a riparian buffer ordinance to improve water quality and to preserve and enhance flora and fauna habitat. The



USDA three zone riparian buffer example (source: www.usda.gov)

Town will need to consider which stream corridors the ordinance should apply to and appropriate buffer widths. The Town may wish to consider a three-zone buffer system (streamside zone, middle zone and outer zone) which would provide strict use regulations alongside the stream itself and lesser restrictions as the distance from the stream bank increases.

Adopt “green” stormwater management design elements for subdivision regulations. Compliance with federal, state, and local stormwater programs revolves around the use of “Best Management Practices,” or BMPs, to manage stormwater. By amending the Town’s subdivision regulations to include green infrastructure BMPs, developers will be entering the land development review process with the understanding that the Town prefers and encourages more innovative and more environmentally conscious methods of stormwater management. BMPs that should be considered include the use of rain gardens, bioretention, porous pavement, vegetative swales, and the like. From a fiscal perspective, green infrastructure usually costs less to install and maintain when compared to traditional forms of infrastructure.

Adopt an environmental overlay district. It is recommended that Stillwater develop an environmental overlay district that encompasses such natural resources



as streams, wetlands, ponds, lakes, floodplains, and steep slopes. The environmental overlay district would sit on top of underlying zoning districts, applying a common set of additional standards that are designed to protect the abovementioned resources. Because these natural resources do not necessarily follow political, zoning, or parcel boundaries, an environmental overlay district would cut across the Town's various underlying zoning districts.

Fortunately, Stillwater already has some experience with overlay districts. The Mechanicville Reservoir Watershed Overlay district helps protect the drinking water resources of the Mechanicville Reservoir by limiting certain land use practices that could threaten water quality (i.e. underground fuel and chemical storage, etc). The ultimate goal of the environmental overlay district would be to mitigate the impact of stormwater runoff and to protect important natural ecosystem and green infrastructure resources.

Overlay zoning in general offers a municipality another layer of review for projects that might impact certain natural resources. It does not prohibit development, but rather provides an opportunity for a local planning board to administer additional design standards and/or requirements that are specifically intended to mitigate the impact of proposed development near these resources

Create a local wetland protection ordinance. In most of New York, wetlands of 12.4 acres, plus an additional 100-foot buffer, are protected by the New York State Freshwater Wetlands Act. However, recognizing their ecological significance, many towns throughout the state have adopted local ordinances for wetlands that are less than 12.4 acres. It is recommended that Stillwater adopt a local wetlands ordinance that offers smaller wetlands the same protections that State regulated wetlands receive.

Engage in intermunicipal watershed planning efforts. Locally-led watershed partnerships can be very effective in improving water quality. Partnerships are the easiest way to develop and implement a successful watershed management plan. Additionally, partnerships often result in a more efficient use of financial resources. The goal of watershed management planning is to work towards an environmentally and economically healthy watershed that benefits all.



As water resource experts and environmental agencies have increasingly recognized the limitations of point discharge controls (i.e. State Pollutant Discharge Elimination System) and other conventional approaches to water quality and quantity management, it has become more apparent that protecting a community's water resources requires managing the land that drains into it.

Other Considerations – The majority of the **Natural Resource Hub** is located in the western region of the Town. Much of this area can be defined by large tracts of forested land and wetlands. Commonly referred to as Luther Forest, this area is one of the largest tracts of forest in Saratoga County outside of the Adirondack Park. Urban forest, such as Luther Forest, accounts for approximately 25 percent of the U.S. forest canopy. The following are zoning and/or land use **considerations**, not recommendations, and are intended to conserve the natural resources that are within the Natural Resource Hub:

- **Conservation Subdivision** design and open space requirements should focus on forest cover and habitat connectivity. Open Space should include wetlands, riparian buffers, natural vegetation, etc.
- **Sliding Scale Zoning**, like conservation subdivisions, does not prohibit development. However, the number of houses per acre would decrease as the size of the parcel increased.
- **Ordinance for protecting existing trees in new development.** The early part of the site design process should include a site and tree evaluation to identify trees to save, remove, and transplant. Second, site development plans should include existing native vegetation and focus on preserving groups of trees. Stillwater could. Stillwater may want to consider adopting such regulations for larger development projects only (e.g. major subdivisions).

Cultural & Historic Resources Preservation Recommendations

Consider adoption of an historic preservation ordinance that includes a Historic Preservation Commission. New York State enabling legislation allows local municipalities to protect historic properties through purchasing, restoring, operating, regulating and establishing historic preservation commissions. Local historic preservation laws generally include: a provision that provides for the designation of landmarks and/or historic districts; the establishment of an historic preservation commission that is charged with administering the law; and, a review process for projects that might impact designated landmarks.



Historic preservation commissions are often given the authority to designate sites as historic landmarks and/or historic districts. The power of the historic preservation commission can vary, but in most circumstances, local laws require projects that might affect a community's cultural and/or historic resources to be referred to the historic preservation commission. It is recommended that Stillwater consider adopting an historic preservation ordinance, and designate all 49 local landmarks as historic sites.



The historic Champlain Canal is listed on the State & National Registers of Historic Places

Furthermore, New York's State Historic Preservation Office (SHPO) could assist Stillwater in identifying and evaluating additional historic, archeological, and cultural resources. The SHPO can offer such additional benefits to Stillwater as technical assistance and funding through the Certified Local Government program, the state historic preservation grants program, and the federal historic rehabilitation tax credit.

Coordinate historic preservation and heritage tourism efforts with Saratoga National Historical Park and the National Park Service. The Saratoga National Historical Park is one of Stillwater's greatest assets. In 2003, over 100,000 people visited the park, spending on average \$62 per group, per day in the local area. In total, visitor spending was \$3.30 million, "which supported a total of \$3.52 million in sales, \$1.20 million in personal income, 90 jobs, and \$1.91 million in value added."*

It is recommended that Stillwater work more closely with the **National Park Service**. In doing so, the Town of Stillwater and the National Park Service can coordinate their shared historic preservation vision and/or goals (see "scenic overlay district" recommendation below). Furthermore, a strong partnership between Stillwater and the National Park Service can have strong and lasting synergies with respect to marketing of heritage tourism, economic development, and local recreational opportunities, which could also include the **Lakes to Locks National Scenic Byway** and the **Erie Canalway National Heritage Corridor** funding opportunities and/or technical assistance.

* National Park Service, *Economic Impact of Visitors Spending by Parks* (2003)



Additionally, the National Park Service offers specific program areas that extend beyond the Saratoga National Historical Park's boundary. For example, the American Battlefield Protection Program provides "seed money" for projects that lead directly to the identification, preservation and interpretation of battlefield landscapes and/or sites associated with battlefields.* Another National Parks Service program, the Rivers, Trails, and Conservation Assistance Program (RTCA), could provide Stillwater with technical assistance for river conservation, open space preservation, and trails/greenway development programs.†

Create a scenic overlay district for Stillwater's portion of the Saratoga National Historical Park's viewshed. Saratoga PLAN is currently in the process of drafting the *Battles of Saratoga Preservation and Viewshed Protection Plan*. Funded by the National Parks Service's American Battlefield Protection Program (ABPP), the plan seeks to preserve Saratoga National Historical Park's scenic and historic resources. Much of what defines the park are its unspoiled vistas – preserving the historical context of the setting in which this important battle took place.

Protecting the Park's resources, including its scenic resources, is an important component to the *Stillwater Farmland Protection and Green Infrastructure Plan*. The preservation and promotion of Saratoga National Historical Park and heritage tourism – a growing market for tourism that encourages historic preservation, interpretation, economic revitalization, and sustainability – has many ancillary benefits from increased visitation. These benefits include: preservation and protection of resources; new monies and increased tax revenues; new jobs, businesses and attractions; increased community amenities; more opportunities for partnerships; more visitors who are interested in history and preservation; preservation of local traditions and culture; and, enhanced community image and pride.‡

Because Saratoga National Historical Park is such an important historic, economic, and natural resource, it is recommended that Stillwater develop a scenic overlay district that is based on the Saratoga PLAN's viewshed analysis. The overlay should include site design standards that minimize the visual impact of development on

* National Park Service (www.mps.gov/history/hps/abpp)

† National Park Service (www.nps.gov/nrcr/programs/rtca)

‡ Texas Historical Commission, *Heritage Tourism Guidebook* (2002)



the Park's scenic resources. These standards could include: tree planting and/or screening design and requirements; locating proposed projects appropriately so as to limit their visibility; and architectural design requirements, such as lower visibility building and/or roofing materials.

Recreational Resources Recommendations

Create a local trails advocacy group. The *Stillwater U.S. Route 4 Corridor Study* recommends that the town “nurture the establishment of a local trails advocacy group willing to work over the long-term to develop and maintain trails in Stillwater.” Throughout the planning process, snowmobile enthusiasts, equestrian riders, runners, and bicyclists expressed a need for trail and/or shared road improvements (i.e. bike lanes, multi-use paths, etc). Groups such as the County Trailblazers have lost nearly 75 percent of their trails in the last five (5) years, which is primarily the result of development.* Equestrian riders have expressed the same sense of loss. Such a group could serve as a subcommittee to the Conservation Advisory Council (or a similar group established by the Town Board).

The **Agriculture and Green Infrastructure Vision Map** highlights many miles of trails and/or greenway opportunities. In order to implement this vision it will require further study and analysis, as well as a dedicated group of local trail advocates. Stillwater should help coordinate these efforts, and work with non-for-profit groups, such as Parks & Trails New York, as well as the region's designated Metropolitan Planning Organization (MPO), the Capital District Transportation Committee, and the Hudson River Valley Greenway.

Seek State and Federal funds for multi-use trail and/or greenway connector development. Stillwater and/or a local trail advocacy group will need to find additional funding sources to implement the trail network that is highlighted in the **Agriculture and Green Infrastructure Vision Map**. There are many trail funding resources at the State and Federal level. It would be useful early in a trail advocacy group's existence to assign responsibility to an interested and/or able member for taking the lead in fundraising and/or applying for grants. Some possible funding sources include: the 1996 Clean Water / Clean Air Bond Act, the Environmental Protection Fund, the National Recreational Trails Program, and the

* Times Union, “Snowmobilers have fewer miles to go” December 2, 2007



Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Transportation Enhancement funds. Many of these opportunities have an annual call for proposals. Some programs provide capital construction costs only, other help fund recreational improvements and public access to waterfront, while others assist with land acquisition. Many grants are administered through the New York State Office of Parks, Recreation and Historic Preservation, the Department of State, and the New York State Department of Transportation.



Adopt a road improvement policy that includes trail development. As Stillwater routinely improves its roadways, it is recommended, at a minimum, that it place “shared roadway” signage and expand the road shoulder to allow for safer bicycle/pedestrian travel. However, the town should seek additional funding to study, design, and construct the “greenway connectors” and/or roadside multi-use trails. The proposed trail network should include the following design considerations: unpaved equestrian sections, bicycle lanes and signage, parking and access opportunities, BMP and green design stormwater management controls, and leisurely recreation opportunities. There are many good examples of such trail networks throughout Saratoga County and the Capital Region (e.g. Malta’s Dunning Road and trails in Clifton Park).

General Recommendations

Become a Hudson River Valley Greenway community. On July 18, 2007, an executive order was signed that expanded the boundaries of the Hudson River Valley Greenway to include all municipalities in Saratoga County. The Hudson River Valley Greenway is a State program within the Executive Department, established by the Greenway Act of 1991, designed to encourage Hudson River Valley communities to develop projects and initiatives related to the criteria of natural and cultural resource protection, regional and local planning, economic development, public access to the Hudson River, and heritage and environmental education.

The Hudson River Valley Greenway provides technical assistance and small grants for planning, capital projects, and water trails and land based trails that reinforce greenway criteria. Participation of municipalities in Greenway programs and



projects is entirely voluntary. By passing a resolution of support, Stillwater can take advantage of the Hudson River Valley Greenway's programs, technical assistance, an additional grant opportunities.

Actively participate in the Lakes to Locks Passage National Scenic Byway initiative. The Lakes to Locks Passage is a travel route that features the interconnected waterways of the Upper Hudson River/Champlain Canal, Lake George, Lake Champlain, and the Richelieu River/Chambly Canal in Quebec. The effort seeks to coordinate local initiatives and plans, through the partnership of public, private and non-profit organizations, to foster tourism, recreation, and economic development.

The Lakes to Locks Passage, Inc., is a 501(c)(3) not-for-profit corporation that was established in 2002 by the New York State Legislature as a New York State Scenic Byway. That same year, it was designated an All-American Road by the Federal Highway Administration. There are only 25 such routes Nationally. By more actively participating in the Lakes to Locks Passage, Stillwater would become more eligible for technical and financial assistance in promoting and protecting its historic and/or cultural resources.

Take part in the Erie Canalway National Heritage Corridor. The Erie Canalway National Heritage Corridor is one of 37 federally designated National Heritage Areas administered by the National Park Service. Its goal is to help communities preserve and interpret the historical, natural, scenic, and recreational resources that reflect the Erie Canal's national significance and to help foster local revitalization. It encompasses the 234 diverse New York communities that adjoin the waterways associated with the State's Canal System, which includes Stillwater. The Erie Canalway National Heritage Corridor Commission is headed by a 27-member, community-based federal commission appointed by the U.S. Secretary of the Interior, the Governor of New York, and the Corridor's Congressional delegation.



Through financial and technical assistance from federal, state, and local agencies, non-profit organizations, businesses, institutions of higher learning, and many others, the Erie Canalway National Heritage Corridor helps Erie Canal corridor



communities coordinate and fund revitalization and/or preservation efforts. Grant opportunities range from the Farmers' Market Grant Program to Shared Municipal Services Incentive Grant Programs.

Become more engaged in the New York State Heritage Area Program. All of Stillwater is within the Mohawk Valley Heritage Corridor. The program was created by state legislation in 1982 and is administered by the NYS Office of Parks, Recreation and Historic Preservation (OPRHP). The Heritage Area System is a state-local partnership established to preserve and enhance areas that have special cultural and historic significance to New York State. Heritage Areas are “places where unique qualities of geography, history and culture create a distinctive identity that becomes the focus of the four heritage goals:”*

- **Preservation** of significant resources
- **Education** that interprets lessons from the past
- **Recreation** and leisure activities
- **Economic Revitalization** for sustainable communities

The Mohawk Valley Heritage Corridor includes the following counties: Oneida, Herkimer, Fulton, Montgomery, Schoharie, Schenectady, Saratoga, and Albany. The Mohawk Valley Heritage Corridor Commission was established by state legislation in 1997, and is charged with implementing the Mohawk Valley Management Plan. The commission works with local municipalities, state agencies, and non-for-profits. In addition to their many services, the Mohawk Valley Heritage Corridor Commission provides grants and technical services to communities for “major community redevelopment projects.”†

Partner with local land trusts. Land trusts operate as 501(c)(3) not-for-profit organizations whose primary purpose is the direct protection of farms and other open spaces. Local land trusts, such as Saratoga PLAN, can purchase land for permanent protection, accept land donations, or acquire conservation easements, which permanently limit the type and scope of activities that can take place on the land. Land trusts work with landowners who are interested in conserving



* New York State Office of Parks, Recreation and Historic Preservation, *Heritage Development Resource Guide*

† New York State OPRHP, *Heritage Development Resource Guide*



open space, and often work cooperatively with government agencies by acquiring or managing land and by researching open space needs.

In the last 10 years, approximately 850 acres of land has been preserved in Stillwater through the Purchase of Development Rights. To date, most of this preservation has occurred on properties that are in close proximity, or adjacent to, Saratoga National Historical Park. By partnering with groups like Saratoga PLAN and the Open Space Institute, Stillwater can extend this effort to many agricultural and green infrastructure resources that are highlighted in the Agricultural & Green Infrastructure Vision Map and this plan.








Stillwater Agricultural Protection & Green Infrastructure Action Plan

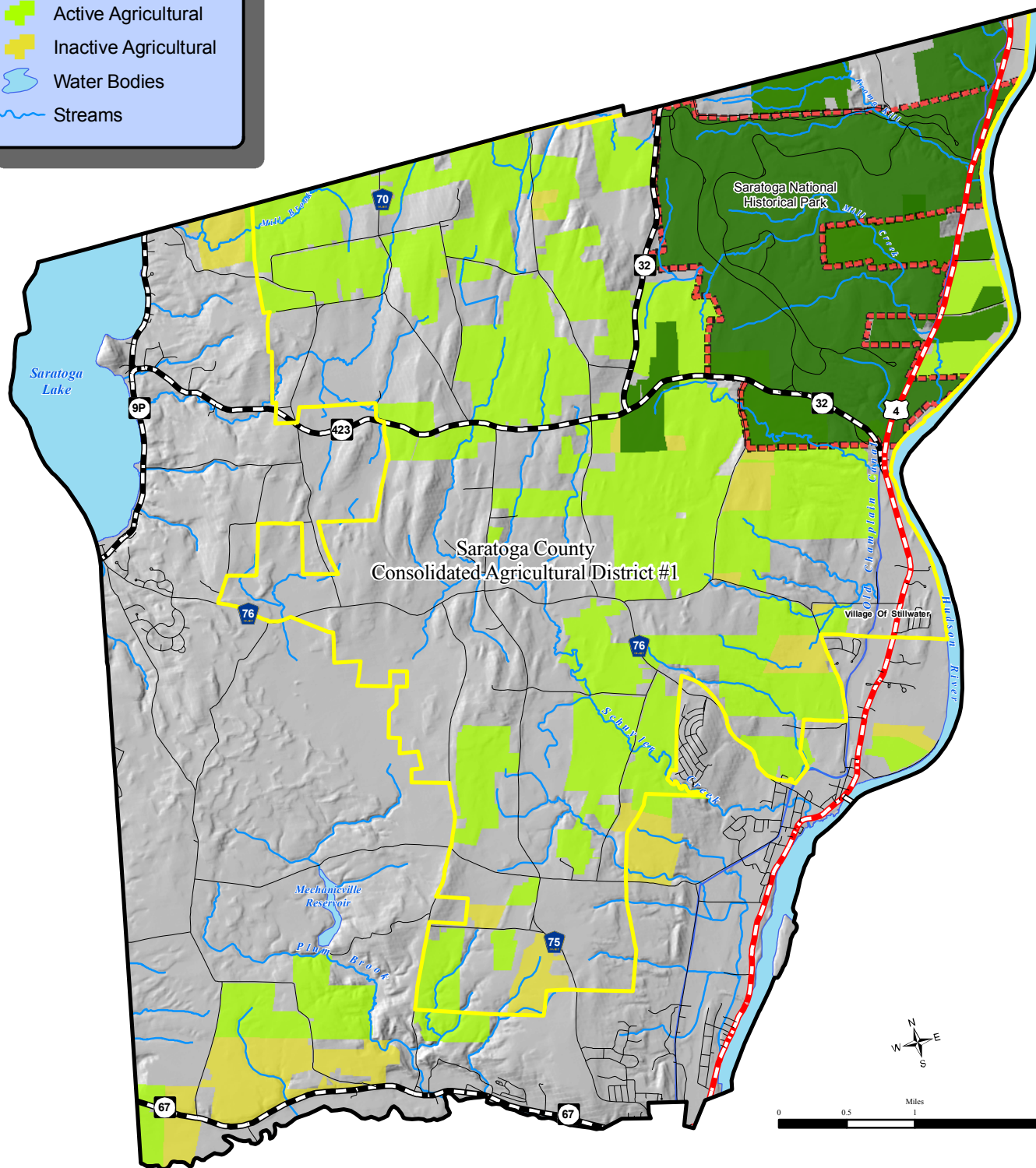
Priority Level	Recommendation	Leadership	Potential Cost
Immediate <i>(initiate within 6 months)</i>	➤ Adopt this plan	➤ Town Board	➤ None
	➤ Formalize relationships with regional partners – Hudson River Valley Greenway, Lakes to Locks Passage National Scenic Byway, etc.	➤ Town Board	➤ None
	➤ Create a standing committee (Conservation Advisory Council or similar) to implement this plan	➤ Town Board establishes and charges the committee	➤ Small budget for administrative costs
	➤ Continue Public Education process: <ul style="list-style-type: none"> ○ Agriculture and Farmland Protection Informational Workshop ○ Conservation Subdivision Informational Workshop (with Randall Arendt) 	➤ Committee	➤ Approx. \$5,000 for publicity, refreshments, and speaker fee (Arendt)
	➤ Establish Trails Subcommittee of the Conservation Advisory Council	➤ Committee	➤ Begin with technical assistance from Saratoga County Planning (Zim Smith extension), and Lakes to Locks Passage (Champlain Trail)
	➤ Adopt GEIS including open space mitigation fees	➤ Town Board	➤ Already budgeted

<p>Short Term (initiate within 1 year)</p>	<ul style="list-style-type: none"> ➤ Amend local land use regulations (zoning and subdivision) – incorporate techniques recommended in this plan, such as: <ul style="list-style-type: none"> ○ Conservation subdivision design ○ Riparian buffers ○ Environmental overlay district ○ Updated stormwater management ○ Local wetland protection regulations ○ Scenic overlay for viewshed of Saratoga National Historical Park <p>Consider incorporation of other techniques described in this plan, such as:</p> <ul style="list-style-type: none"> ○ Sliding scale density regulation ○ Agricultural zoning ○ Tree clearing regulations for new development ➤ Develop a local Purchase of Development Rights (PDR) Program <ul style="list-style-type: none"> ○ Establish criteria for evaluating proposals from willing landowners ○ Explore funding options to supplement the open space mitigation fees established through the GEIS ○ Identify sources of grant funding ➤ Consider establishment of a Lease of Development Rights (LDR) Program <ul style="list-style-type: none"> ○ Develop sliding scale for tax abatement based on length of the term easement ○ Establish criteria for evaluating proposals from willing landowners ➤ Work with local tax assessor to consider assessment procedures for farmland and open space 	<ul style="list-style-type: none"> ➤ Town Board initiates – establishes temporary zoning committee to oversee this work. Town Board ultimately responsible for adoption. ➤ Committee develops the program for Town Board approval ➤ Committee develops the program for Town Board approval ➤ Town Board, Committee, and local assessor 	<ul style="list-style-type: none"> ➤ Budget for consultant services (approx. \$30,000 to \$50,000 depending on scope of work) ➤ Budget for consultant services to assist committee and/or request technical services from Saratoga County Planning Department or other ➤ Local examples exist and could be utilized by committee - perhaps request technical services from Saratoga County Planning Department or other ➤ Perhaps small budget for continuing education
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Medium Term (initiate within 2 years)	<ul style="list-style-type: none">➤ Establish Historic Preservation Commission (or similar) and develop a local historic preservation ordinance	<ul style="list-style-type: none">➤ Committee assists Town Board to initiate this effort	<ul style="list-style-type: none">➤ Small budget to support public information process related to this effort
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Appendix A: Agriculture and Green Infrastructure Resource Maps & Figures

-  Conserved Lands
-  Active Agricultural
-  Inactive Agricultural
-  Water Bodies
-  Streams



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Stillwater Farmland Protection and Green Infrastructure Plan

Agricultural Resources Map

Town of Stillwater
Saratoga County, New York

Drawn:

PWC

Date:

12/01/2007

Scale:






1" equals 5,800'

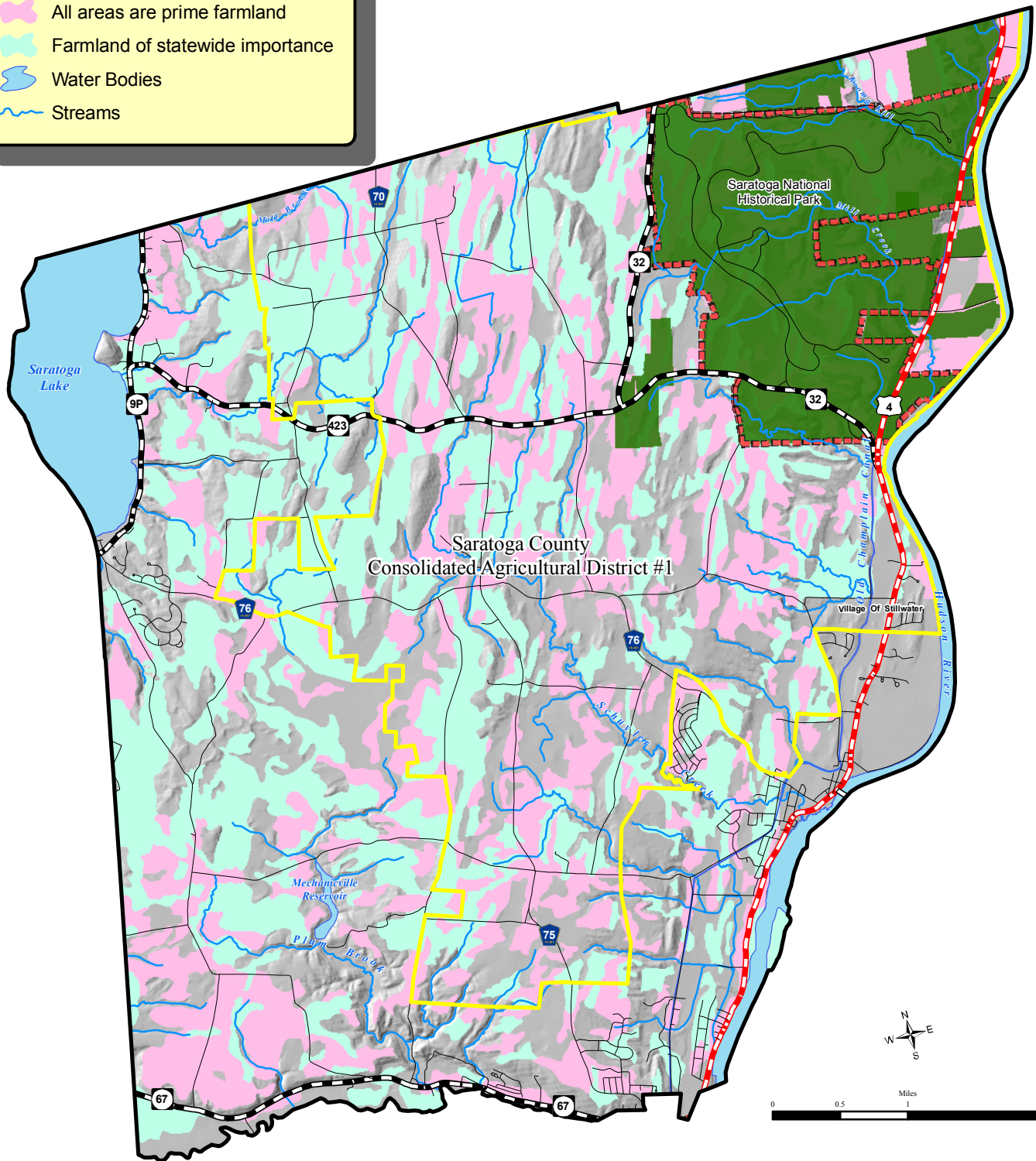
Project:

30601.17

Figure:

A-1A

-  Conserved Lands
-  All areas are prime farmland
-  Farmland of statewide importance
-  Water Bodies
-  Streams



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Saratoga County, New York

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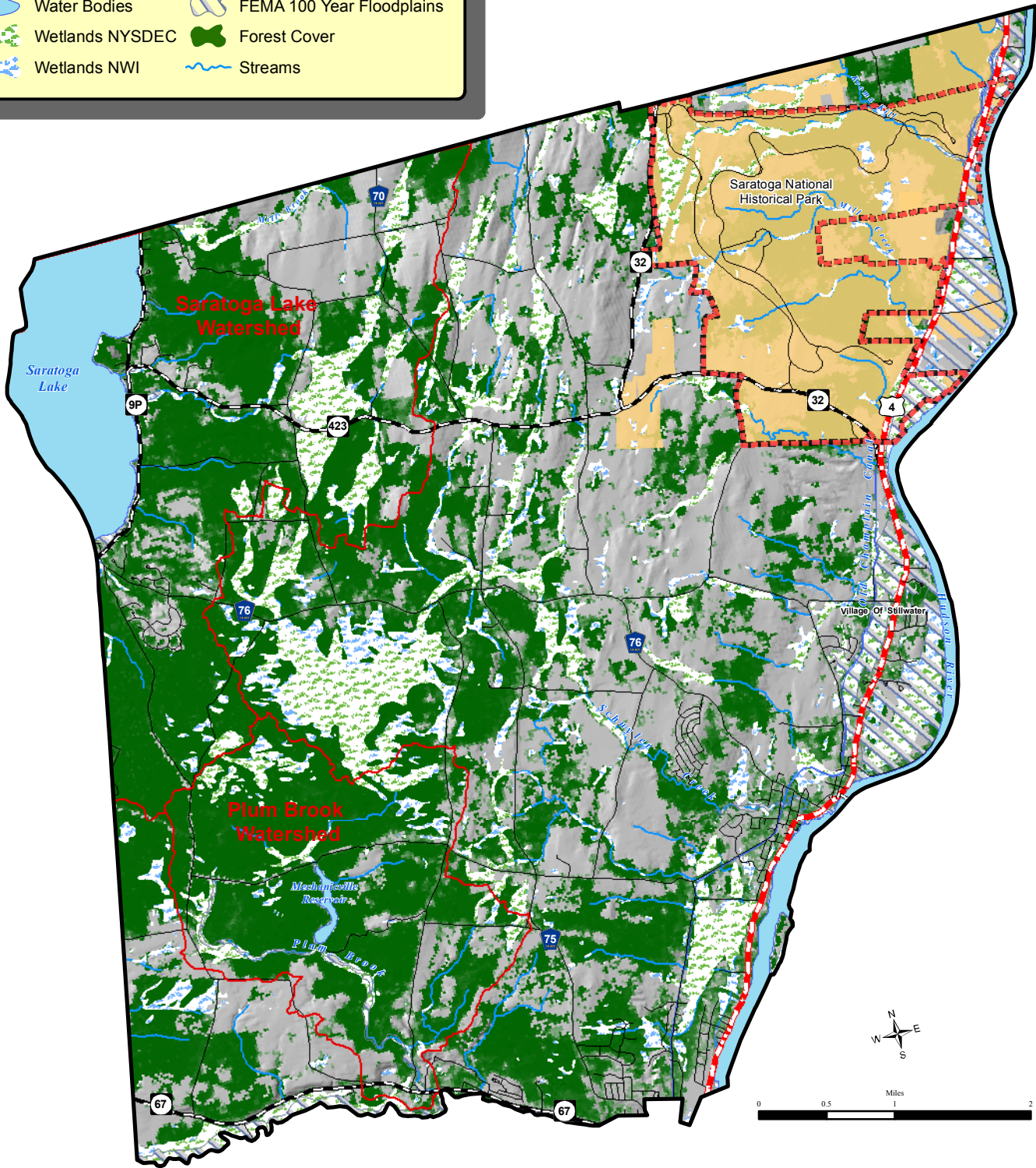
Project:

30601.17

Figure:

A-1B

	Conserved Lands		watershed_machresevior
	Water Bodies		FEMA 100 Year Floodplains
	Wetlands NYSDEC		Forest Cover
	Wetlands NWI		Streams



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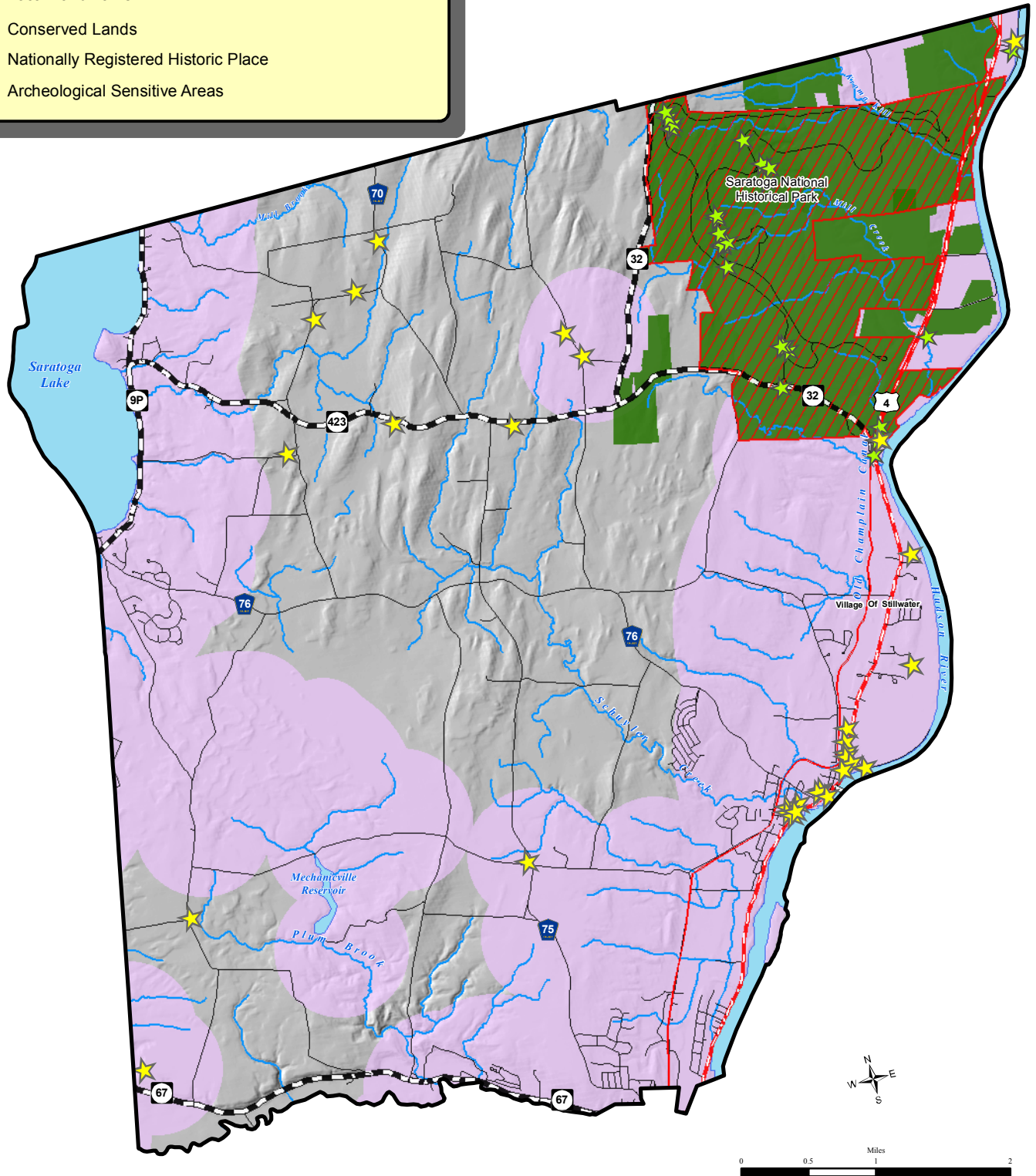
Stillwater Farmland Protection and Green Infrastructure Plan

Natural Resources Map

Town of Stillwater
Saratoga County, New York

Drawn:	PWC
Date:	12/01/2007
Scale:	1" equals 5,800'
Project:	30601.17
Figure:	A-2

- ★ SNHP Monuments
- ★ Local Landmarks
- Conserved Lands
- ▨ Nationally Registered Historic Place
- Archeological Sensitive Areas
- Water Bodies
- Streams



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Stillwater Farmland Protection and Green Infrastructure Plan

Cultural & Historic Resources

Town of Stillwater
Saratoga County, New York

Drawn:

PWC

Date:

12/01/2007

Scale:

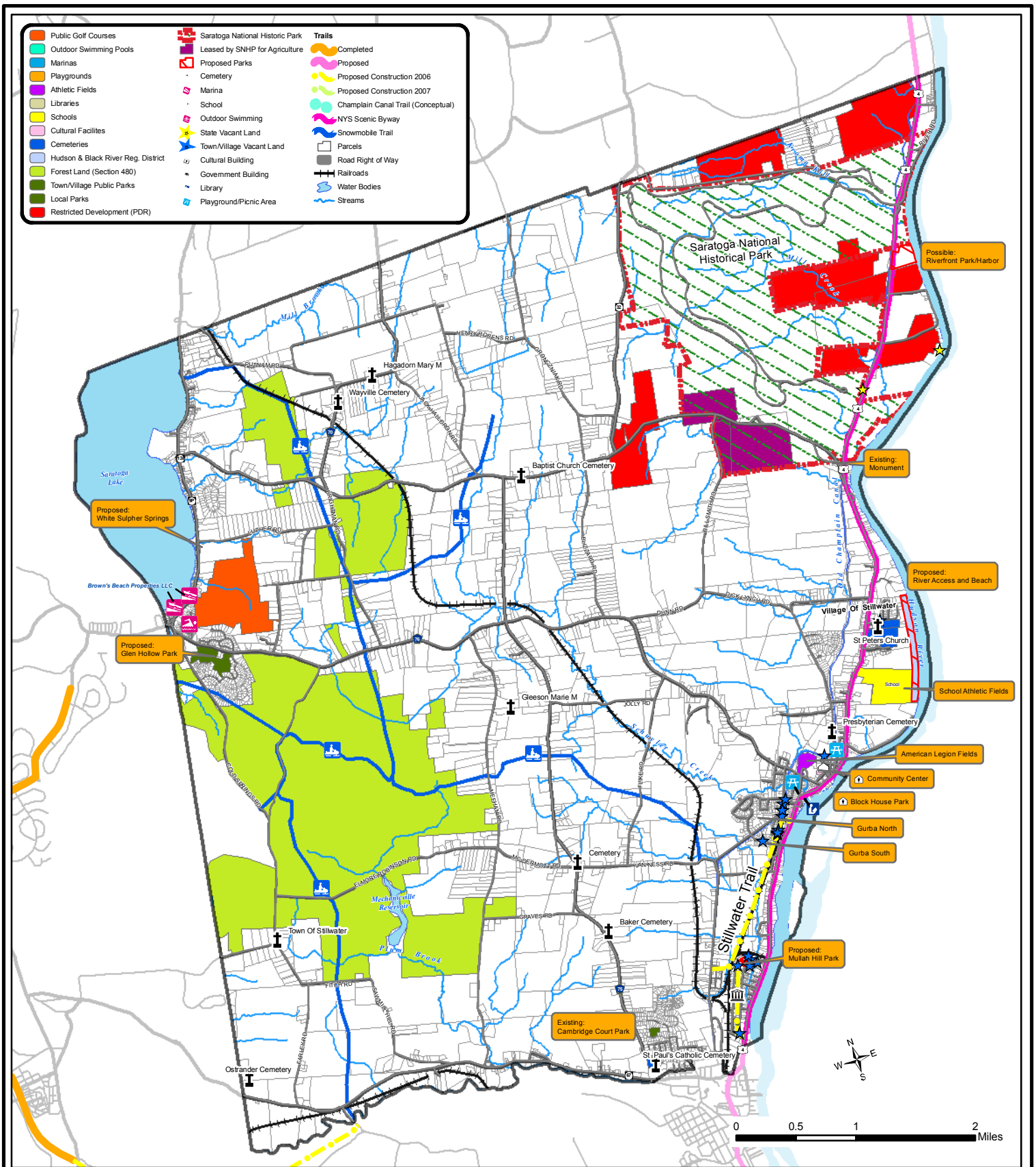
1" equals 5,800'

Project:

30601.17

Figure:

A-3



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Stillwater Farmland Protection and Green Infrastructure Plan

Recreational Resources

Town of Stillwater
Saratoga County, New York

Drawn:

PWC

Date:

12/10/2007

Scale:

1" equals 5,800'

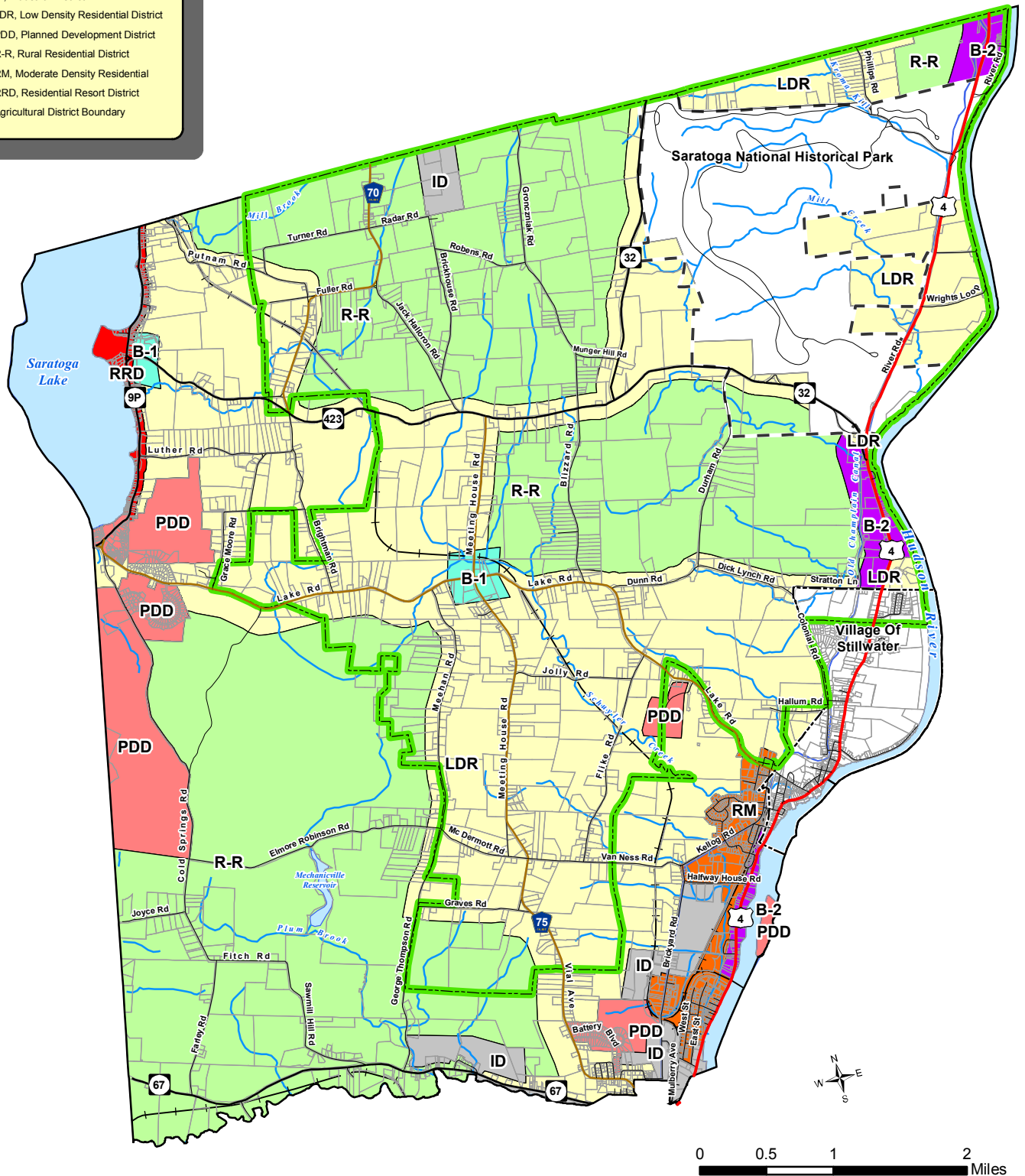
Project:

30601.17

Figure:

A-4

- B-1, Neighborhood Business District
- B-2, General Business District
- ID, Industrial District
- LDR, Low Density Residential District
- PDD, Planned Development District
- R-R, Rural Residential District
- RM, Moderate Density Residential
- RRD, Residential Resort District
- Agricultural District Boundary



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Stillwater Farmland and Green Infrastructure Plan

Existing Zoning Map

Town of Stillwater
Saratoga County, New York

Drawn:

PWC

Date:

12/10/2007

Scale:

1" equals 5,800'

Project:

30601.17

Figure:

A-5

Dot Density Of Potential Dwelling Units

1 Dot = 1 Potential Dwelling Unit

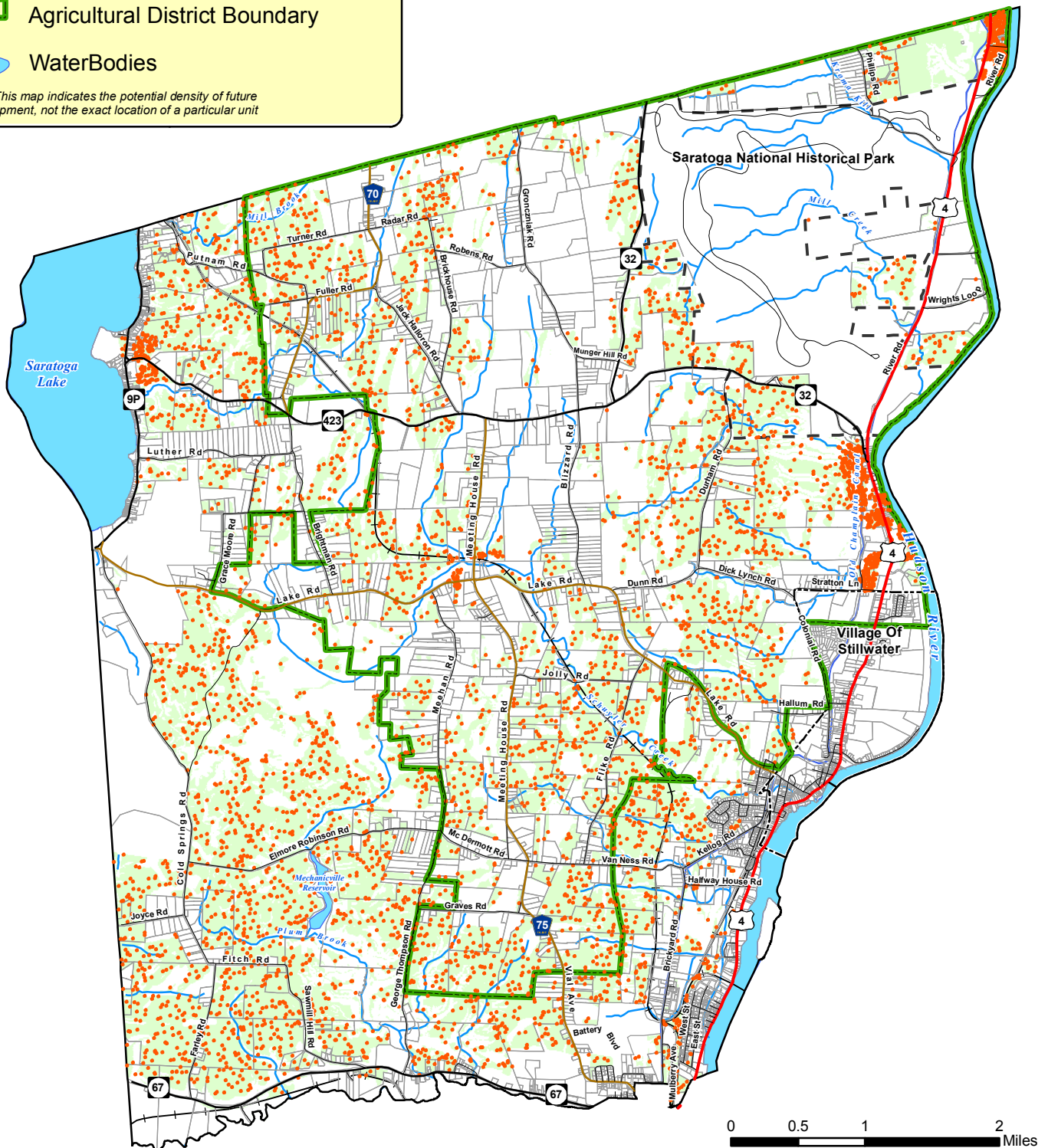


Agricultural District Boundary



WaterBodies

Note: This map indicates the potential density of future development, not the exact location of a particular unit



0 0.5 1 2 Miles

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Stillwater Farmland Protection and Green Infrastructure Plan

Buildout Analysis Map

Town of Stillwater
Saratoga County, New York

Drawn:

PWC

Date:

12/10/2007

Scale:

1" equals 5,800'

Project:

30601.17

Figure:

A-6

Appendix B: Stillwater Buildout Analysis

Buildout Analysis

Introduction

A buildout analysis is an estimate of the overall development potential of a land area given a set of assumptions and constraints. The analysis in this case is the buildout potential of the entire Town of Stillwater. The buildout estimates will provide the basis for estimating growth that will occur in the Town over a ten (10) year period (2007-2017).

Utilizing the Town's zoning regulations, as well as environmental and regulatory constraints an estimate of the total number of residential dwelling units and the floor area of commercial/industrial space was prepared.

The analysis was performed utilizing ArcGIS (geographic information software) and data supplied by the Town, Saratoga County and the NYS GIS Clearinghouse. It should be understood that the data available for this analysis is not detailed enough to allow parcel specific estimates but is suitable for preparing this landscape level estimate.

Zoning

The Town is divided into eight (8) zoning districts with varying permissible densities. A copy of the Town's zoning map is attached as Figure 1. Residential development is allowed in five (5) of the eight districts and the balance of the zones allow commercial, office, or industrial development. A list of the districts is presented in Table 1 and a summary of the allowed uses follows.

Table 1: Zoning Districts

District Code	District Name
RR	Rural Density Residential District
LDR	Low Density Residential District
RM	Moderate Density Residential District
RRD	Residential Resort District
B-1	Neighborhood Business District
B-2	General Business District
ID	Industrial District
PDD	Planned Development District

Permissible Uses by District

Rural Density Residential District (RR) – Single and two-family dwellings, farm worker housing, mobile homes, bed and breakfasts, agricultural uses, animal harboring, mobile homes, and home occupations, public and semi-public uses, small animal hospital or kennel, sand/gravel/soil removal and processing, and commercial greenhouses.

Low Density Residential District (LDR) – Single and two-family dwellings, farm worker housing, bed and breakfasts, commercial greenhouses, farms, animal harboring, and home occupations, boarding houses, public and semi-public uses, sand/gravel/soil removal and processing, and small animal hospital or kennel.

Moderate Density Residential District (RM) – Single family, two-family dwellings, three and four family dwellings, home occupations, boarding houses, and public and semi-public uses.

Residential Resort District (RRD) – Single family dwelling, bed and breakfasts, restaurants, taverns, seasonal dwelling, parks, private recreational areas, and places of worship. Minimum lot size is 21,750 square feet.

Neighborhood Business (B-1) – Retail stores, personal services, offices, banks, gasoline stations, shopping plazas, studios, enclosed entertainment facilities, restaurants, taverns, commercial garages, public and semi-public uses, funeral homes, and single or two-family homes.

General Business (B-2) – Non-residential uses permitted in B-1, movie theaters, amusement uses, motor vehicle service and sales, bed and breakfasts, commercial greenhouses, convenience stores, day care centers, farm and construction equipment sales, commercial garages and carwashes, fast food restaurants, funeral homes, galleries, hotels and motels, social clubs and organizations, and wholesale businesses and storage.

Industrial District (ID) – Auto body shops, asphalt plants, bulk storage, freight or trucking terminals, heavy and light industrial manufacturing or processing, research and development, sand/gravel/soil removal and processing, warehousing, bulk fuel storage, adult uses, contractors yards, and junkyards. Uses that exceed environmental contamination thresholds established in the performance standards are prohibited.

Planned Development District (PDD) – This district requires rezoning by the Town Board and enables land use to be more flexible and permits a greater mix of uses, primarily to enable a higher density of structures on the property in order to provide larger green space in the remaining portions of the property. However, uses may include residential, commercial and industrial; design requirements are intended to provide a unique and beneficial development community.

Table 2 presents the permitted density in each of the Town's zoning districts. Density for the residential districts is expressed as minimum lot size and dwelling unity per acre. Commercial and industrial densities are expressed as floor area ratio.

Table 2 Zoning Districts & Permissible Densities

Symbol	Zoning District	Minimum Lot Size/ Land Area Per DU.	Residential Density (DU/Acre)	Commercial FAR
B-1	Neighborhood Business District	10,000 ft. ²	4.356	0.4
B-2	General Business District	6,000 ft. ²	7.26	0.4
ID	Industrial District	1 acre	1	0.4
LDR	Low Density Residential District	--		
	No Water + No Sewer	2 acres	0.5	--
	Water + Sewer	1 acre	1	--
	Water Or Sewer	1.5 acres	0.666	--
PDD	Planned Development District	Flexible	--	--
RM	Moderate Density Residential District			
	No Water + No Sewer	1 acre	1	--
	With Water And Sewer	10,000 ft. ²	4.356	--
	With Water Or Sewer	20,000 ft. ²	2.178	--
R-R	Rural Residential District	2 acres	0.5	--
RRD	Residential Resort District	21,750 ft. ²	2.002	--

DU: Dwelling Unit

FAR: Floor Area Ratio

The LDR and RM zones allow for increased development with the addition of public water or sewer facilities. This is important to note because the extension of water and/or sewer may occur in certain areas of the Town during the evaluation period contemplated in this GEIS. To address this issue two (2) buildout scenarios are to be completed:

- **Scenario A-** The Baseline buildout (no extension of infrastructure).
- **Scenario B-** Allowing for expanded water/sewer service areas.

Development Assumptions

For the purpose of the buildout analysis the following assumptions were utilized:

- Certain lands were excluded from future development based on current use or ownership. This information was collected from the real property assessment tax roll property classification. Examples include cemeteries, landfills, public parks, and lands protected by conservation easements.

- Lands where development is currently proposed or approved were excluded. This includes projects approved but not built and projects currently under the review of the Planning Board. The Luther Forest Technology Campus (LFTC) was excluded under this category. A summary of projects in the “Development Pipeline” is presented in the Growth Projections section of this analysis. The buildout and growth projections will utilize the actual number of units proposed or approved.
- Certain residential lands, already developed to some extent, may be available for future development. Lands located in residential zones already occupied by a residence (or farm) are considered underdeveloped or underutilized if the area of the parcel exceeds five (5) times the minimum lot size after allocating land for the existing residence.
- Lands located in commercial zones that is already developed or occupied by a commercial development were evaluated on a parcel by parcel basis. The assumption is that in an active development climate, underutilized commercial properties will be redeveloped and trend toward maximum utilization.

Regulatory/Environmental Constraints

Certain environmental and regulatory constraints reduce density or effectively restrict development from occurring. The following environmental/regulatory constraints were applied to lands that were vacant or considered underutilized:

- Slopes greater than 15%,
- NYSDEC wetlands and 100 foot buffer (upland area),
- National Wetland Inventory (NWI) wetlands,
- 100-Year FEMA floodplains,
- Regulated streams including a 50 foot buffer,
- Areas outside of existing sewer districts where depth to bedrock is <26 inches.

A composite of the environmental constraints is presented as Figure 2. The resultant land areas available for development are presented in Table 3.

Table 3: Unconstrained Land by Zoning District

Symbol	Zoning District	Total Area (Acres)	Unconstrained Area Available for Development (Acres)
B-1	Neighborhood Business District	125	44
B-2	General Business District	367	55
ID	Industrial District	523	194
LDR	Low Density Residential District	8,362	4,668
	With Water And Sewer	93	48
	With Water OR Sewer	1,059	693
PDD	Planned Development District	1,282	0
RM	Moderate Density Residential District	44	20
	With Water And Sewer	143	95
	With Water OR Sewer	243	55
R-R	Rural Residential District	10,484	4913
RRD	Residential Resort District	140	39
Total		22,865.32	10,824

Residential Results

The potential for residential development was then calculated utilizing the permissible densities (as identified in Table 2) after allowing the following land areas for roads and utilities.

- If the unconstrained land is >20 acres, then reduce the unconstrained land by 10% to account for roads & utilities.
- If the unconstrained land is 5 - 20 acres, then reduce the unconstrained land by 15% for roads & utilities
- If the unconstrained land is <5 acres, then there are no reductions to the unconstrained land.

A summary of the results is provided in Table 4.

Table 4: Potential Residential Units - Scenario A

Zoning Symbol	Zoning District	Total Potential Residential Dwelling Units
LDR	Low Density Residential District	1,488.5
	With Water And Sewer	12.8
	With Water OR Sewer	303.0
RM	Moderate Density Residential District	4.7
	With Water And Sewer	60.3
	With Water OR Sewer	52.1
R-R	Rural Residential District	1,933.7
RRD	Residential Resort District	12.6
Total		3,867.8

A dot density map schematically illustration the potential residential development is presented as Figure 3. A total of 3,867 residential dwelling units could be constructed under the baseline scenario. This estimate does not include projects already approved or under review of the Planning Board.

As noted previously water and sewer services are likely to be expanded during the study period. The planned expanded services areas were identified in the associated water and sewer planning studies. Utilizing this information an additional 200 homes could be built under Scenario B.

Commercial/Industrial Results

The Town's zoning ordinance regulates density in the business and industrial districts with the use of Lot Coverage, Building Height and Floor Area Ratio (FAR) requirements. FAR is defined as the relationship (ratio) of the total floor area of a building to lot size. Lot Coverage is generally defined as all areas covered by buildings, pavement, and other non-permeable surfaces and is also regulated as a permissible ratio of non-permeable area to lot size. Building height affects density indirectly by restricting the number of floors that may be constructed in a commercial structure.

The Town's zoning regulations limit the FAR to 0.4 (or 40%). From a practical standpoint, after deducting the environmentally constrained areas and applying the height restrictions (35 feet or 3 stories) in the B1 & B2 districts; it is difficult to exceed a FAR of 0.3 while supporting all site requirements (i.e., parking, greenspace, stormwater management, etc.) Similarly, a FAR of 0.4 is difficult to achieve in the industrial zone. For the purpose of the estimate, a FAR of 0.3 and 0.4 were utilized with the thought the actual FAR will be closer to the 0.3 figure.

An estimate of the commercial and industrial development potential was calculated by applying the noted Floor Area Ratio to the unconstrained lands in the non-residential districts. A summary of the results is presented in Table 5.

Table 5 Commercial/Industrial Results

Zone	Land Area		Unconstrained Area available for Development		Potential Floor Area (sq. ft.)	
	Acres	sq. ft.	Acres	sq. ft.	FAR 0.3	FAR 0.4
B-1	124.8	5,436,260.25	27.6	1,201,365.46	358,933.64	479,070.19
B-2	367	15,983,155.84	41.4	1,801,609.14	540,482.74	720,643.66
ID	522.5	22,762,702.14	171.3	7,462,457.73	1,932,109.75	2,613,126.61
Total					2,831,526.13	3,812,840.46

As presented in the table approximately 359,000-479,000 square feet of commercial space could be constructed in the Town's B-1 District. The B-2 District would allow somewhere between 540,000 to 720,000 square feet of commercial space. The Town's Industrial District has the capacity for 1.9 to 2.6 million square feet of development.

Growth Projections

Introduction

As discussed, the buildout analysis is an estimate of the total potential for development; it does not reflect the rate or location of growth that could occur. The growth projection utilizes the buildout estimate as the starting point for estimating the growth rate. In developing the growth projections a number of factors are to be evaluated including local building permit trends, the inventory of approved subdivisions, and a discussion paper provided by the Capital District Regional Planning Commission (CDRPC) regarding regional growth rates.

For this evaluation a ten (10) year term (2007-2017) has been selected as the basis for analysis. Ten years coincides nicely with the planned buildout of the first pod of the LFTC. Given the uncertain nature of the development of the Campus and the changing nature of the local real estate market; a longer term forecast becomes increasingly more speculative.

Building Permit Activity

The Town of Stillwater tracks building permit construction and reports information to the US Census. Building permits issued for the years 1990-2006 for single family homes/multi-family home is presented in Table 6.

Table 6 Summary of Building Permits 1990-2006

Year	No. of Dwelling Units
1990	44
1991	59
1992	17
1993	44
1994	64
1995	35
1996	23
1997	25
1998	53
1999	27
2000	40
2001	35
2002	38
2003	36
2004	62
2005	70
2006	50
Total	722
Average	42

Construction during this time period consisted overwhelmingly of single family homes. Only 14 of the 635 dwelling units reported were constructed as part of duplex or multi-family projects. On average the Town issued 37 building permits per year with a peak of 64 Single Family permits issued in 1994. Data prior to this time was not consistently reported however, a record of 76 single family permits was issued in 1989. The Town's permit records do not include a breakdown of commercial/industrial space constructed during this period.

Projects in the Review Pipeline

Another factor influencing the rate of residential growth is the available inventory of approved residential subdivision lots. Several residential subdivision projects have been approved in recent years but have not yet been fully constructed. A summary of the projects and their status is presented as Table 7. A total of 427 units of Single family housing have been approved or are pending approval.

Table 7 Projects in the Development Pipeline

Project	Category	No. of Lots	Status
Battle Ridge	SFR	7	Approved
Brown's Beach Resort ⁽¹⁾	PDD	--	Pending
Grozniak	SFR	12	Approved
Luther Forest Technology Campus ⁽¹⁾	PDD	30	Pending
Revolutionary Heights	SFR	160	Proposed
Saratoga Glen Hollow	PDD	21	Approved
Saratoga Lake Cluster	SFR	29	Application Pending
Stillwater Woods	SFR	47	Approved
Stonybrook	SFR	12	Pending
Turning Point PDD	PDD	80	Pending
White Sulphur Springs	SFR	29	Approval Spring 2007
Total	--	427	

SFR: Single Family Residential

PDD: Planned Development District

(1) Site specific estimates for development and associated traffic studies have been prepared.

CDRPC Growth Projections

The Capital District Regional Planning Commission (CDRPC) prepares population projections for the Capital District area on a regular basis. The CDRPC 40 year (2000-2040) population projections were included in the Town's 2006 Comprehensive Plan.

The CDRPC utilizes a two step process to prepare its population estimates. The first quantitative stage involves the use of a log-linear regression projection based on historic Census data and U.S. Census Bureau estimates; and a qualitative second stage using judgments of the likelihood and extent of future population change within particular jurisdictions.

According to the CDRPC estimates, Stillwater's population is expected to grow by 1,476 people from 7,522 (2000 Census) to 8,998 over the next 40 years. This represents a 19

percent increase or <0.5% per year. From 1990-2000 Stillwater's population increased at a similar rate (<0.45 % per year).

CDRPC Alternative Development Scenarios

The CDRPC working with the Capital District Transportation Committee (CDTC) and the Center for Economic Growth (CEG) recently assisted in the preparation of "*Effects of Alternative Development Scenarios in the Capital District*" ("Alternative Development Report") The Alternative Development Report, issued as a draft September 2006, was prepared in part to assess the impacts of new growth that could occur in the Capital District as a result of a project such as the Luther Forest Technology Campus (LFTC).

The Alternative Development Report presents four (4) development scenarios for discussion. They are:

- **Scenario 1 - Status Quo Trend-** The baseline scenario is based on the CDRPCs 2040 population projections. This scenario assumes growth will occur consistent with local historic trends and patterns.
- **Scenario 2 - Concentrated Growth** – This scenario utilizes the 2040 population projections however growth is distributed/allocated to a locale in proportion to its current population.
- **Scenario 3 - Trend Hyper-Growth** - This scenario assumes that growth in the Capital District will occur at a rate equal to the overall U.S. rate of growth. Growth is distributed consistent with the baseline scenario methodology. .
- **Scenario 4 - Concentrated Hyper-Growth** – Utilizing the Scenario 3 growth rates growth is allocated to locale based on current population centers (similar to Scenario 2.)

As noted, the 'Trend' growth scenarios (Scenario 1 & 3) assume the location of new development will occur consistent with the sprawling pattern of the last several decades. Contrarily, the concentrated growth scenarios (Scenario 2 & 4) assume a change of the historical pattern and a move toward 'Smart Growth' with growth taking place in the region's population centers and limited growth occurring in rural areas.

Growth rates for each time period under each scenario are as follows:

Table 8: CDRPC Growth Rates

Time Period	Scenario 1 & 2	Scenario 3 & 4
2000-2010	3.934 %	9.5%
2010-2020	2.6684%	8.7%

The growth rates for Scenario 1 and 2 represent a slowing of the rate of growth based on the CDRPC analysis of current trends. The rate of growth under Scenarios 3 & 4 represents an increase over historical rates. The Alternative Development Report speculates that for growth to occur at a rate equal to that of the U.S. Growth Rate (i.e., the Hyper-Growth scenario) *“there would need to be more successes in the various economic development efforts to attract and nurture new employers.”*²⁷ The report further suggests that growth at these rates might possibly occur in the event the LFTC campus were to approach buildout.

The population projections for 2010 and 2020 from the Alternative Development Report are presented in Table 9. We note that although the CDRPC prepared 40 year projections; we have chosen to limit our presentation to the 2000-2020 period. The actual population projections differ from the projected rate of growth because the growth rates were developed on a county-wide basis and other factors not described here (such as the availability of land).

**Table 9 Alternative Growth Scenarios
Population Projections 2010 & 2020**

	2010		2020	
	Population	Net Increase	Population	Net Increase
Scenario 1	7920	4.6%	8303	4.8%
Scenario 2	7823	4.0%	8031	2.6%
Scenario 3	8992	19.5%	10911	21.3%
Scenario 4	8338	10.8%	9256	11.0%

Stillwater's 2000 Population: 7522

The CDRPC did not prepare estimates of housing growth by municipality; they did prepare projections of households. The number of housing units can be extrapolated from the household projections by dividing the number of households by a housing unit vacancy rate. Housing vacancy for Stillwater was reported at 91% in the 2000 Census- and the NYS average was reported at 92%.

We calculated this equivalent housing unit (EHU) from the household projections utilizing the 92% vacancy rate. The number of new housing units is presented as change in the number of units over the past reported figure. The results are presented in Table 10.

²⁷ The Effects of Alternative Development Scenarios in the Capital District- A discussion document prepared for the Capital District Committee's Quality Region Taskforce Working Group A" page 33

**Table 10 Alternative Growth Scenarios
Household Projections & Equivalent Housing Units 2010 & 2020**

Scenario	2010				2020				New Homes (2007-2017)
	HH	EHU	Change	Increase	HH	EHU	Change	Increase	
1	3046	3311	257 (77.1)	8.4%	3295	3581	270 (189)	7.5%	266.1
2	3008	3270	216 (64.8)	7.0%	3187	3464	194 (135.8)	5.6%	200.6
3	3458	3759	705 (211.5)	23.0%	4331	4708	949 (664)	20.2%	875.5
4	3206	3485	431 (129.3)	14.1%	3674	3993	508 (355)	12.7%	484.3

HH: Households

EHU: Equivalent Housing Units

Notes:

1. Stillwater Census 2000: 3054 Housing Units
2. Number presented in parentheses represents the increase in EHUs that may occur during the study period (2007-2017).
3. Household projections were prepared by the CDRPC for the *Effects of Alternative Development Scenarios in the Capital District* and adapted for this effort.

Under the Hyper-Growth Scenario (Scenario 3) 705 new dwelling units (70 per year) are projected to be constructed for the 2000-2010 term and 949 dwelling units (94.9 per year) for the 2010-2020 term. Assuming growth would occur at equal increments throughout the term; we calculated the number of housing units that would be constructed during the study period by simple proration: 30% of the 2000-2010 growth would occur during 2007-2010 and 70% of the 2010-2020 growth would occur from 2010-2017. This figure is presented in the last column of the table ("New Homes 2007-2017")

The projected number of new homes contrasts with 308 new single family home constructed 1980-'90 and 391 units constructed 1990-2000. The Hyper-growth scenario would double or triple the number of housing units constructed in Stillwater. To date approximately 244 Single Family building permits have been issued (2000-2006).

Conclusions

A total of 3868 units of single family housing could be constructed in the Town under the current zoning regulations and the assumptions and constraints utilized. Based on the anticipated expansion of water and sewer services this number increases to 4,071. Similarly up to 1.2 million square feet of commercial/retail space and 2.6 million square feet of industrial square feet could be constructed in the Town.

Historically, the Town has issued an average of 42 single family permits per year over the last 16 years. There are 427 pending/approved subdivision lots in the 'available residential inventory'.

The CDRPC indicates growth rates of the Capital District could double or triple (approaching 8 to 9%) over a ten year period- mirroring the overall growth rate of the U.S. This growth is predicated on the success of projects like the LFTC. Utilizing the CDRPC projections; 70 to 95 homes per year could be constructed in Stillwater during 2000-2020. Extrapolating these figures, it is estimated 875 new homes could be constructed from 2007 -2017.

A summary of the various growth projections is presented as Table 11. Analyzing the various projections the Town's Technical team believes approximately 60 to 70 homes/year could be constructed in any given year and 500-600 residential units could be constructed over the next 10 years.

Table 11 Summary of Residential Projections

CDRPC Alternative Development Scenarios		Average Year x 10	Best Year x 10	Estimated 10 Year Development (2007-2017)
Scenarios 1 & 2	Scenarios 3 & 4			
200-266 D.U.	484-875 D.U.	420	760	500-600

Historically, commercial/industrial growth within the Town has been negligible. The Town's residents generally travel to adjacent communities for its primary shopping needs. Demand for retail and commercial service will grow with population. Residents will continue to seek local services and shopping opportunities out of convenience. Therefore it is anticipated that up to 50,000 square feet of retail/commercial space will be constructed during the study period. Demand for industrial space/facilities will be spurred by the demand for support services for the first and subsequent phases of LFTC. It is anticipated that up to 100,000 square feet of industrial space will be constructed during the same period.

Table 12 Summary of Commercial/Industrial Projections

Category	Buildout Potential	Estimated 10 Year Development 2007-2017
Commercial/ Office/Retail	0.9-1.2 MSF	50,000 SF
Industrial	1.9-2.6 MSF	100,000 SF

MSF: Million Square Feet

Appendix C: Stillwater Recreation Needs Assessment

INTRODUCTION/PURPOSE

The 2006 Stillwater Comprehensive Plan identified a lack of improved recreational facilities within the Town that are readily accessible to all, conveniently located, and serving the broad variety of needs of its residents. The purpose of this evaluation is to define the current and future demands for recreational facilities and plan for their construction/implementation.

The 2006 Comprehensive Plan gives the population of the Town at just over 7,000. The Buildout/Growth Projection completed as a component of the Town's Generic Environmental Impact Statement (GEIS) estimates that the Town could add 600 new homes over the 2007-2017 planning period. Population could grow by as much as 2400 over this same time period. Long term the Town has the development potential for over 5900 new homes. These numbers were used to theorize future need for recreation in the Town.

Several methods were utilized in an effort to gain an understanding of: the Town's current and future needs, condition and level of use of existing facilities, the quality/deficiencies of the existing facilities, and the current and future demand (or need) for new facilities. Utilizing the inventory of facilities included in the Town's Comprehensive Plan, all park and recreation facilities were first inspected and existing improvements was completed. The Town then established a working group of citizen representatives knowledgeable of local facilities and needs and programming of recreational activities. A roundtable discussion was conducted and issues concerning existing facilities, current usage, known deficiencies, and anticipated demands were identified. Additionally, interviews were conducted with the Director of Building Planning and Development, the Town's Committee for Parks & Recreation, and the athletic director for Stillwater Central School, as well as various representatives of non-scholastic teams and sports clubs.

The needs of scholastic teams and the conditions of the school's facilities are not included in this report. It has been determined that school facilities are generally available only to scholastic teams. Additionally, there are other important recreational activities not covered in this report as they are the focus of the Farmland and Open Space Preservation Report. Recreation covered in that report includes bike, snowmobile and equestrian trails and passive open space recreation.

RECREATIONAL FACILITIES

Existing Recreational Facilities

A composite map, titled Existing and Proposed Recreation Facilities Figure, identifies the location of current and proposed recreational facilities. Following is a description of these facilities.

American Legion

The American Legion owns one multi-use field located at American Legion Road. The facilities are owned and managed by the American Legion and are used for a variety of sports throughout the year including football, soccer, baseball and softball. The condition of the field is poor. The facility also lacks parking and changing facilities.

Cambridge Court

Cambridge Court is a newly built neighborhood park completed in 2007 and is located on Cambridge Court. The site is approximately 6 acres and includes the following amenities: two (2) half-court basketball courts, one (1) half-field soccer field, one (1) sand volley ball court and a playground equipment with swings and slides. The park serves the neighborhood in which it is located. It is not an adequate facility for organized team sports.

Gurba North

The site is located at Gurba Drive North and is approximately 4.06 acres in area some of which is wetland. There is a basketball court in poor condition on the site. The site is not large enough for adding facilities for team sports.

Riverside Veteran's Park

Riverside Veteran's Park is located on East Street in the Town of Stillwater. It is approximately 2.5 acres in area and consists of a playground with multi use jungle gym (including swings and a slide), a softball field, a basketball court and a Veteran's monument/memorial.

The playground was recently refurbished with new children's play equipment, benches and picnic tables. The parking area has been expanded and paved. An irrigation system has been added to a portion of the park. The softball field and basketball court are still in poor condition. The softball field is used by the girls' softball league for practices.

This park could be improved by refurbishing the softball field and adding irrigation. If the basketball court is not used, this would also be a good location for a tennis court given that there is parking and residents throughout the Town can use the park. A comfort station is also needed at this facility.

Adjacent Town Site

The Town owns 1.23 acres of land known as "Boiler House" located directly east of Riverside Veteran's Park. The Town has received funds from the New York State Environmental Restoration Program (ERP) (a.k.a. Brownfields Program) and has completed site clean-up activities. The administrative closeout through the NYSDEC

program is being processed. The Town desires to convert the site to a park to support activities in the Riverside Veteran's Park. Facilities would include public restrooms and a parking area. Visitor information would be dispensed for the *Lakes to Locks* passage which runs along scenic by-way Route 4. The Town has sought public funding through the Office of Parks, Recreation and Historic Preservation.

Stillwater Community Center

The Community Center is located on Palmer Street on a 2.52 acre parcel. The Center is housed in the former Stillwater Elementary building and is operated by an independent not-for-profit organization. The Center is home to many community based organizations and activities including after school sports. A new playground has been added in front of the Center. A field in back of the Center is used for "Battle" football. However, the field is in poor condition. An indoor basketball court is used in the winter.

Planned Recreational Facilities

Glen Hollow Park

Glen Hollow Park is an undeveloped 6 acre property owned by the Town on Lake Road. Once built, it would be the only park facility on the west side of Town. Proposed facilities are a playground for ages 2-5 and another for ages 5-12, a basketball court, and a volleyball court. Parking and a comfort station are also proposed.

The park would most likely be used by the surrounding neighborhoods. Since there will be parking, people may come from other areas in the Town to use the playgrounds.

Town Property with Potential for Recreation

Gurba South

This site is approximately 1.1 acres and is currently vacant with an existing retention pond. It is located on Gurba Drive South. The site experiences regular flooding and has limited development potential for meeting recreational needs. The surround neighborhood is lacking a playground. This site could possibly be large enough for a small neighborhood playground.

Mullah Hill

The Town owns this 6.6 acre parcel at the end of East Street. The site is currently vacant with a level area at the end of East Street sloping steeply down to the railroad tracks. It is possible that wetlands are adjacent to the railroad tracks. The Town is currently using the site for brush disposal.

The flat section of the site could possibly be used as a temporary multi-use field to fill some of the immediate needs not being met by other fields in Town. It could also be designed to be a neighborhood playground or possibly a tennis court. Because of the slope and wetlands, the site has limited possibilities to meet the long-term recreational needs of organized sports.

Riverfront Park

The Town recently purchased 18 acres of land in the northern part of Town near the Saratoga National Historical Park. One idea for this property is to create the Stillwater Riverfront Park. A concept plan developed for the site includes a boat launch and marina. The Town has entertained discussions with the SNHP regarding potential development of the site.

Hudson River Access and Beach

The site is currently owned by the Canal Corporation. It is vacant woodland sloping to a narrow natural beach at the Hudson River. It has potential to be used as a beach for swimming and fishing and a small boat access to the river for fishing and recreation.

Table 1 - Summary of Town's Facilities

Location	Size (acres)	Notes	Baseball	Basketball	Football	Playground	Soccer	Volleyball
Existing Facilities								
American Legion		Multi-Use field needs renovation. Lacks parking and changing facilities	1		1		1	
Cambridge Court	6	New		2.5 (1)			½ (2)	1 (3)
Community Center	2.5	Indoor Facilities		1	1	1		
Gurba North	4	Facilities degraded, property partially reverting to wetlands		1				
Riverside Veterans Park	2.5	Playground is new. Basketball and softball field need renovation. Additional parking is proposed.		1		1		
Proposed Facilities								
Glen Hollow Park	6			1		1		1

Table 2 - Property with Potential for Recreational Use

Property	Size (acres)	Notes	Potential Use
Gurba South	1.1	Partially wetlands and partially mowed grass.	Possible use as a neighborhood playground. Wetlands limit use.
Mullah Hill	6.6	A flat area at the end of East Street with a steep slope down to the railroad rails. Town is currently using as a brush disposal area.	Possible use as a multi-use field or neighborhood playground. Steep slope limits use.
Riverfront Park	18	A piece of property adjacent to the Hudson River and Saratoga National Historic park.	Possible use as a harbor/marina.
Hudson River Access	Un-known	Woodland sloping to a narrow natural beach at the Hudson River	Possible boat and fishing access.

RECREATIONAL ACTIVITIES

Current Organized Recreational Activities

Organized/Team sports are popular recreational choices for individuals of all ages and especially youth. Programmed activities account for the greatest demands on facilities and are the easiest to ascertain. In addition to the players, parents provide active support as coaches, drivers and spectators. Referees add to the numbers of people involved in every game. When identifying overall facility needs it's important to account for all supporting individuals (referees, parents, spectators).

Based on the results of the roundtable discussions and outreach efforts to organizations and individuals programming recreational activities; the lack of facilities is a clear constraint to participation and expansion of programs to meet current and future needs. All of the participants contacted said that the numbers of teams and players in the various sports were limited by the available facilities. A brief outline of each of the sporting programs, participation levels and available facilities follows.

Baseball

Youth baseball programs are provided by Stillwater Little League including T-ball teams. The program includes children from both Mechanicville and Stillwater. There are currently 245 players (ages 5 to 12). Practice takes place at the American Legion Field in Stillwater and the Little League fields in Mechanicville. Because of the poor quality of the fields in Stillwater, all games are played in Mechanicville.

As the population grows, it's possible the two Towns could have their own leagues. Additional fields as well as improvements to existing facilities would be required.

Basketball

Youth basketball is played as an indoor sport during the winter months. Local programs include an AAU league (ages x to y) and a youth program (z to a). Practices and games are played at the Stillwater Community Center. There are 220 players and 22 teams.

Football

Youth football is presented by Northeast Youth Football League. The league is divided into flag football for the younger ages and tackle football for the older ages. A total of 6 teams and 100 players are involved. In addition, there is a cheerleading team with about 30 participants.

Football practices and games are conducted at the Stillwater American Legion fields and behind the Stillwater Community Center September through November. League representatives indicated fields are in poor condition. There is inadequate parking and no concession, restroom or locker (changing) facilities.

Soccer

Soccer continues to gain tremendous popularity. Soccer is played as both an indoor and outdoor sport. Mechanicville-Stillwater United Soccer Club (MSUSC) programs soccer locally. The indoor season runs from October thru March. In 2006 there were 268 players, 12 coaches, 6 assistant coaches, and 20+ volunteers. Players are ages 6 to 19. Teams currently use facilities located in Malta and Halfmoon. Practice times are limited and are reportedly expensive. The Club director reports that the numbers of teams are limited by the availability of facilities.

The outdoor season runs from April through June. Numbers of participants are similar to indoor soccer. Teams use the American Legion field for practice. Outdoor games are not played locally (all games are played away) because of the poor quality of the field.

As with indoor soccer, current facilities limit the number of teams for practice and play. To host a tournament a club needs at least three full size regulation soccer fields and two modified fields with facilities to meet the needs of players, coaches, referees and spectators. Tournaments can benefit local businesses by bringing in customers needing accommodation, food, gas, and other services.

Softball

Softball is another sport gaining in popularity. In 2006 there were approximately 165 players. Practices are held at the American Legion Field, Riverside Veteran's Park and the Decrescente Fields in Mechanicville. Games are all played in Mechanicville due to the poor condition of the fields and facilities in Stillwater.

Adult softball is also a reported popular activity. The level of adult interest in softball in the Town is unknown at this time.

Volleyball

Volleyball is a popular indoor sport for children and adults. The Community Center has a volleyball court used in the winter for AAU Volleyball. There are approximately 72 players ages 18 and under. Adult volleyball is not an organized sport at this time.

Team/ Programmed Activities Not Currently Provided

Some team sports are not currently played in the Town. However, these sports are gaining popularity in adjacent areas of New York. It can be anticipated that there will be future interest in these sports.

Ice Hockey/Skating

Hockey is a popular sport in the region and within the Town. There are no current teams or facilities in the Town. Youth interested in the sport use rink/facilities in Clifton Park. Participation levels were not available. Likewise, there are no recreational ice skating facilities in the Town.

Lacrosse

There are no existing organized lacrosse teams in Town. Based on communications with stakeholders interest in this sport is high and growing in the state and is expected to grow in Stillwater in the near future. Locally, scholastic lacrosse is played in the spring and could share a multi-purpose field with football and soccer.

Swimming

Swimming continues to be popular as a team sport. However, there are no public swimming pools or beaches in Town and consequently, no swim teams. Stillwater Central School does not have a swimming pool.

Other Recreational Activities

Citizens engage in other recreational activities within the Town and there are additional opportunities for recreation that could be developed.

Boating/Fishing

Historically, boating and fishing were popular recreational activities in the Town. However, current facilities limit this activity. On the Hudson River, there is a private marina with a boat ramp. There are no public boat launches in the Town. Boat access to Saratoga Lake was historically provided at Brown's Beach. This facility is currently closed.

With the increasing popularity of kayaking and canoeing, public access to both the Hudson River and Saratoga Lake would be beneficial. Citizens also indicated the potential for rowing (crew) teams on the Hudson and the stretch of river along Stillwater would be an ideal location.

Playgrounds

Playgrounds are an important recreational outlet. Small neighborhood playgrounds that can be walked to provide children and parents needed exercise and play. Larger regional playgrounds provide more opportunity for varied play equipment and interaction. Stillwater has several small neighborhood playgrounds but is lacking a large playground. Town's people travel to Clifton Park to utilize the large playground there.

Swimming

Swimming is popular for general recreation. However, there are no public swimming pools or beaches in Town. Recreational swimming used to be available at Brown's Beach on Saratoga Lake. As noted previously, that facility is currently closed.

Tennis

Tennis remains a popular recreational sport, although, there are no teams or public tennis courts in the Town.

Projected Growth of Participation in Team Recreational Activities

Table 3 shows the current level of participation in team sports, the existing facilities used by those teams and the anticipated growth of those teams due to increased population or increased interest in the sport.

Table 3 - Participant Level by Sport/Activity

Activity	Age	Participants Current	Participants Projected (1)	Active Months	Existing Facilities
Baseball	5-14	245	319	March-July	1 diamond (American Legion)
Basketball	8-16	220	286	Winter	1 indoor court (Community Center)
Football	5-12	130	169	Sept-Nov	1 fields (American Legion and Community Center)
Hockey	5+	--	Unknown	Winter	None
Lacrosse	13-18	0	Unknown	Spring	None
Swimming (Teams)	10-18	--	--	September - March	None
Soccer	6-19	268	348	April-June	1 field (American Legion)
Softball	10-16	165	215	April-June	1 field (Riverside Veterans Park)
Volleyballs (team)	18 and under	72	94	Winter	1 indoor court (Community Center)

(1) Anticipated participation generated by current participation level increased by 30% over the next 10 years due to anticipated 30% increase in population.

CONCLUSIONS

Existing facilities generally do not meet acceptable standards and are lacking in number to meet current needs. Inadequate outdoor facilities include: softball fields, baseball fields, soccer fields, football fields, lacrosse fields, tennis courts, swimming pool, boat launch, and a large playground. Existing facilities also lack adequate accessory facilities including bleachers, restrooms, locker/changing rooms and adequate parking. The

Town also lacks sufficient indoor public facilities including: indoor soccer courts, basketball courts, volleyball courts, swimming pool, and hockey/skating rink.

RECOMMENDATIONS

Many municipalities in upstate New York are building centrally located multi-use indoor/outdoor recreational facilities as a means to address a variety of needs. The consolidation of recreational facilities on a central site allows for efficient use of land and supporting facilities. Parking areas can be scaled appropriately to handle the numbers of people attracted to the facility. Centrally located and shared changing facilities and restrooms can conserve space. Scheduling of fields and courts can take place in one location and facilities can be expanded as needed. A large, centrally located multi-use indoor/outdoor facility in the Town of Stillwater would provide space for all the current and future recreational needs. Generally, the amount of land needed for this type of facility would be between 20 and 50 acres. A central, easy to access location in the Town would be desirable.

Outdoor facilities needed to meet current needs include at least three (3) multi-use fields which would include football, soccer, and lacrosse, three baseball/softball fields, tennis courts and a large playground. An outdoor swimming pool would be a welcome addition to the Town.

Indoor facilities needed to meet current needs include two multi-use courts for basketball, volleyball, and indoor soccer. A swimming pool and ice rink for hockey and recreational skating could be added as needed.

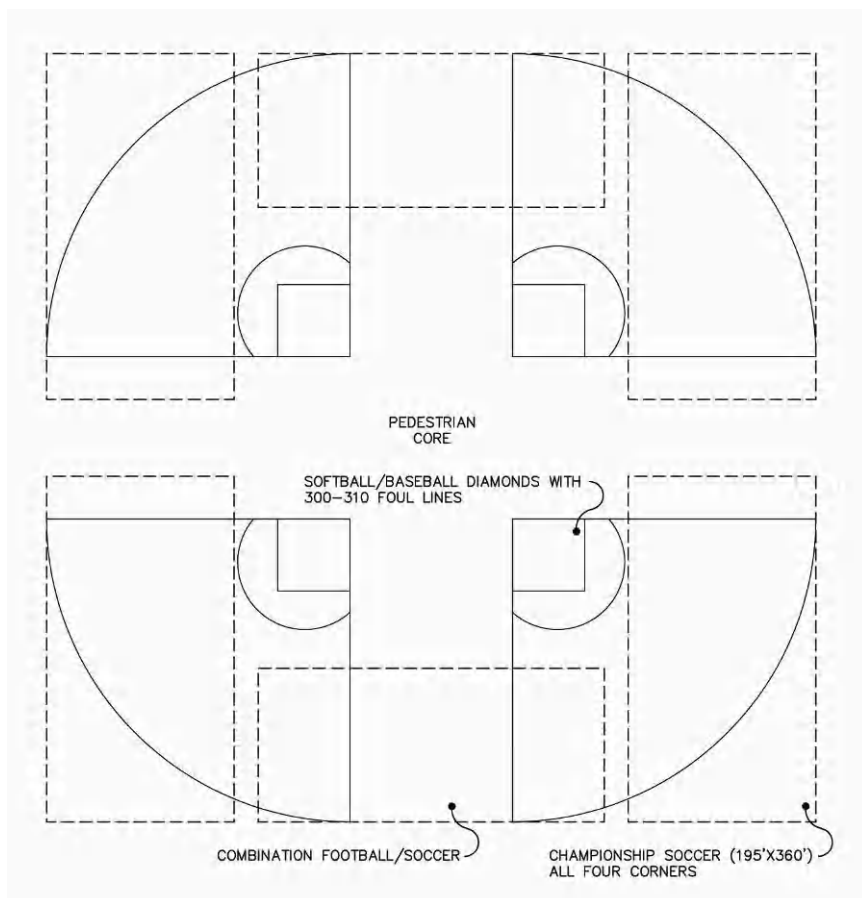
For the purpose of this evaluation and in an effort to establish a base (or benchmark) cost estimate, a simple and compact arrangement of multi-use fields has been developed and is shown below in Figure 1. This illustration shows an 800' by 800' area divided into 4 softball/baseball fields, 4 championship soccer fields and two football or soccer fields with room for spectators. This arrangement requires 15 acres for the fields plus 3-5 acres for parking, circulation and accessory structures.

An order of magnitude cost estimate for this type of facility is as follows:

Table 4 - Cost Estimates

Land Acquisition 20 acres at say \$6,000/acre	\$120,000
Building the basic fields	\$240,000
Parking and Circulation	\$210,000
Changing Rooms/Restrooms	\$200,000
Allowance for lighting, possible irrigation and field underdrains	\$200,000
Total	\$970,000

Figure 1: Compact Layout for Multi-use Fields



Additional facilities could be added to the above basic fields as needed. Following are current order of magnitude cost estimates for these facilities:

Table 5 - Costs for Outdoor Courts, Field and Facilities

Basketball Court	\$25,000
Multi-Use fields (soccer, football, lacrosse)	\$33,000
Playground (2-5 yrs)	\$30,000
Playground (5-12 yrs)	\$40,000
Outdoor Swimming Pool	\$200,000
Tennis Courts	\$30,000
Volleyball	\$4,000
Picnic Pavilion	\$25,000
Bleachers	\$8,000