



The Sterling Nature Center

Functional Management Plan

2016 – 2025



ACKNOWLEDGEMENTS

The Sterling Nature Center staff would like to thank all of the individuals and organizations that contributed their time, effort, and input to this Plan update, as well as to the original 2005 Plan.

CAYUGA COUNTY LEGISLATURE

Keith Batman, Chair

Terrance Baxter

Joseph Bennett

Joe DeForest

Andrew C. Dennison

Michael Didio

Mark Farrell

Ryan Foley

Timothy Lattimore

Patrick Mahunik

Aileen McNabb-Coleman

Paul Pinckney

Frank Reginelli

Benjamin Vitale

Tucker Whitman

CAYUGA COUNTY PLANNING DEPARTMENT

Nick Colas, Principal GIS Analyst

Amy D'Angelo, Planner

Steve Lynch, Director

David Nelson, Planner

CAYUGA COUNTY PARKS AND TRAILS

Jim D'Angelo, Sterling Nature Center Director

Gary Duckett, Superintendent of Buildings and Grounds

Friends of Sterling Nature Center

CAYUGA COUNTY PARKS COMMISSION

Table of Contents



Section 1: Introduction	1
About This Plan	1
Overview	1
Vision and Goals	3
History of the Site	5
Trends and Analysis	8
Survey Results	11



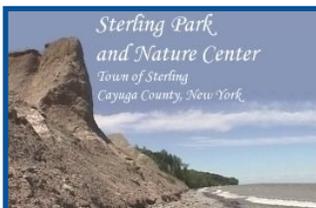
Section 2: Conservation Easements	13
Easement Area "A", Freshwater Wetlands	13
Easement Area "B", Suitable for Recreational Development	14
Easement Area "C", Remaining Parkland	15



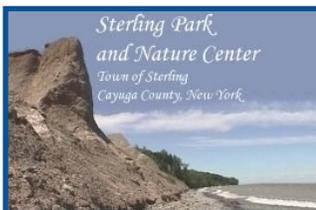
Section 3: Habitats and Environmental Concerns	17
Habitats	17
Invasive Species	21
Aesthetics	22
Topography	24



Section 4: Management Plan for Sterling Preserve	27
Infrastructure	27
Permitted Uses	37
Programming	46



Section 5: Management Plan for Sterling Conservation Area	47
Infrastructure	47
Permitted Uses	49



Section 6: Organizational Stability **51**

Staffing 51

Funding 52

Marketing 53

Section 7: Priority Projects and Strategies Matrix **55**

Habitats 55

Sterling Preserve Infrastructure 56

Sterling Preserve Permitted Uses 57

Sterling Conservation Area 59

Organizational Stability 59

Maps

Map 1: Sterling Nature Center 2

Map 2: Conservation Easements 16

Map 3: Habitats 20

Map 4: Viewsheds 23

Map 5: Topography 25

Map 6: Sterling Preserve 28

Map 7: Structure Locations 32

Map 8: Trail System 39

Map 9: Proposed Trails 40

Map 10: Potential Blueway Trail 43

Map 11: Potential Campsite Locations 45

Map 12: Sterling Conservation Area 48

Executive Summary

- Numerous projects have been completed since the adoption of the first Functional Management Plan nearly ten years ago. These accomplishments include:
 1. Construction of the Dragonfly Pond Observation Deck,
 2. Construction of the Astronomy Observation Platform,
 3. Development and naming of more than nine miles of trails,
 4. Established annual “water chestnut pull” program to control invasive aquatic species along Sterling Creek,
 5. Development of numerous educational and cultural programs.
- Sterling Nature Center contains rare and significant natural resources. The great blue heron rookery is, by far, the most popular attraction, rivaled in the region by only the Montezuma Wildlife Refuge. Views from the shoreline bluffs are unrivaled in Cayuga County and most of Central New York. The 1.9 miles of public shoreline is one of the longest contiguous stretches along Lake Ontario.
- Sterling Nature Center has a loyal following and an expanding visitor base. A user input survey conducted this spring drew 105 responses, many expressing excitement and offering encouraging feedback. Overall visitation of Sterling Nature Center has increased by more than 50% in the past ten years.
- Low staff levels and inadequate operational space are the biggest threats to the Nature Center. These limitations challenge the Center’s ability to attract new visitors and encourage return visits. Furthermore, a continued increase in visitation will place additional stress on the existing staff and infrastructure resources of the Nature Center.
- Thirty-two (32) projects have been identified and prioritized in this Plan. These projects are based on four goal themes: preservation, recreation, environmental education, and organizational sustainability. The goals and associated implementation strategies are discussed in Section 7 of the Plan.

- Five projects have been identified as initiatives to be pursued immediately. They are:
 1. Continue to manage invasive species,
 2. Pursue replacement of the Interpretive Building,
 3. Add interpretive signage at key locations in the Preserve,
 4. Record Wetland 9 into Easement Area "A", and
 5. Establish a master plan for the developable section of the Sterling Conservation Area.

- Replacing the Interpretive Building with a modern, "green" building will allow the Nature Center to expand programming, remain competitive with other nature centers, and become a leader in environmental sustainability.

- Environmentally sustainable, or "green", architecture will also reduce maintenance costs. Components of green architecture may include: solar energy, orientation of windows to maximize natural lighting and natural heating and cooling, rainwater harvesting, and the use of recycled materials.

- Expanding the offerings of the Nature Center can increase the number of visitors and, in turn, interest in volunteering and the amount of donations to Friends of Sterling Nature Center. The feasibility of new activities such as camping and group kayaking will be explored as part of the implementation of this Plan.

Section 1: Introduction

ABOUT THIS PLAN

The Sterling Nature Center Functional Management Plan provides a framework for the management of one of the most unique landscapes in Cayuga County. This plan focuses on promoting continued environmental stewardship and appropriate growth at the site over the next ten years. Building off of the foundation of the original Functional Management Plan, completed in 2005, this Plan also seeks to educate the community about the opportunities and challenges of the Nature Center and to improve awareness among decision-makers and the general public, of its achievements, opportunities, and goals.

OVERVIEW

Cayuga County owns 1,428 acres of land in the northernmost section of the county within the Town of Sterling. The majority of this land (1,316 acres) is subject to conservation easements that the County has with New York State Office of Parks Recreation and Historic Preservation (NYS OPRHP). The remaining 112 acres is land that the county has retained for future utility use or other development as may be deemed appropriate.

For the purpose of this Plan, the entire 1,428 acre property is called The Sterling Nature Center. Aside from the aforementioned land, the Sterling Nature Center has been divided into two areas, the Sterling Preserve and the Sterling Conservation Area (See Figure 1-1 on the following page).

The **Sterling Preserve (SP)** contains approximately 728 acres, with 156 acres of wetland, and is designated as a nature preserve that provides trails, an interpretive building, programs, exhibits, and access to more than one mile of Lake Ontario shoreline.

The **Sterling Conservation Area (SCA)** contains 700 acres of land, with 87 acres of wetland. This area is focused on environmental conservation by providing an area for hunting, fishing, and conservation-focused habitat management as well as protecting the entire 10,000 feet of Lake Ontario shoreline along the Nature Center property.

The land that is outside of the conservation easements has been retained by the County and has not yet been designated as part of the park. This plan includes recommendations for all county-owned land at this Site, but any activities proposed to take place in the non-easement areas must receive permission of Cayuga County Parks and Trails. The Cayuga County Parks and Trails Department falls under the supervision of the Parks Commission, the Public Works Committee, and ultimately the Cayuga County Legislature.

The Director of the Sterling Nature Center is charged with the management of the Preserve and the Conservation Area. In order to effectively manage the 1,428 acre site it was deemed necessary to develop a Functional Management Plan. Additionally, this Plan was devised to also ensure that the site is developed in a responsible manner consistent with the Conservation Easement Agreement. The first Functional Management Plan was completed in 2005 with revisions in 2007. The purpose of this current revision is to update existing conditions and reevaluate and prioritize projects and objectives.

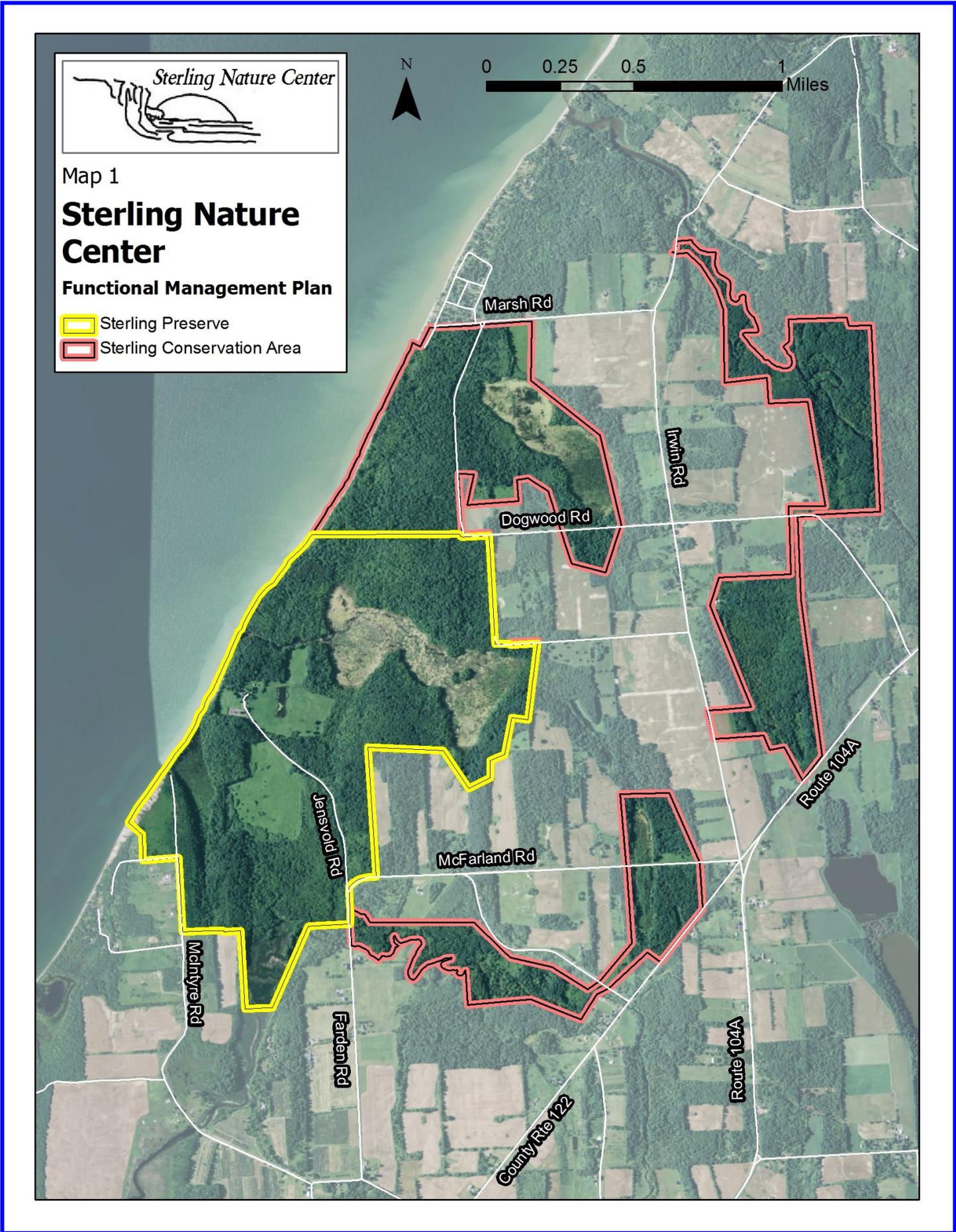
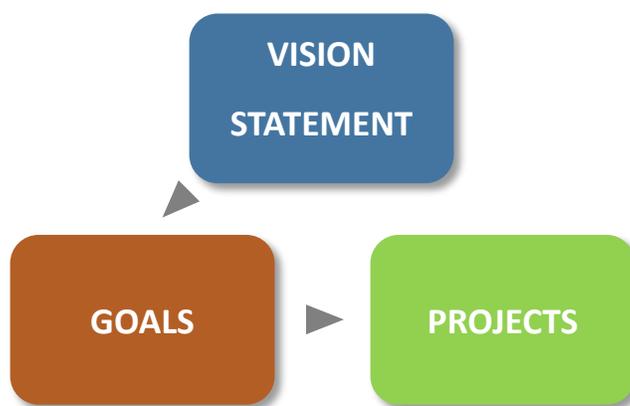


Figure 1-1: Delineation of Sterling Nature Center: Preserve and Conservation Area.

This plan is designed to guide site management and development over the next ten years. Coordinated, planned development is important for any facility to make smooth transitions between staff changes, to ensure coordination between volunteers and staff, and to better justify projects when seeking grant funds.

VISION AND GOALS

The development of the original Plan relied on an extensive visioning process conducted over five meetings in the Spring of 2005. A total of 56 members of the public participated in this process with 32 of them (57%) attending more than one meeting. These meetings focused on developing a Vision Statement, goal statements that supported the Vision Statement, and recommendations of projects to implement the goal statements. Staff from the Sterling Nature Center, Cayuga County Parks and Trails, and Cayuga County Planning reviewed the visioning process results as well as other information to construct the Functional Management Plan.



This update of the Functional Management Plan reviews the goal statements and associated project recommendations and strengthens the linkages between them. These linkages are important in understanding the purpose of individual projects and how they achieve a portion of the larger Vision Statement. The linkages consist of four overarching themes of the goal statements that reflect the intent of the Vision Statement. These themes are:

-  Recreation,
-  Preservation,
-  Environmental Education, and
-  Organizational Sustainability.

The Goal Statements, and their relevant themes, are listed on the following page.

When individual projects are launched, it is expected that due diligence in the form of additional site analysis and operational design will occur prior to action on the ground. Additionally, the implementation of any recommended project should include plans for monitoring the effects of that change, so that subsequent modifications can be made to ensure compatibility with the goals and Vision Statement of the Sterling Nature Center.

VISION STATEMENT

The Sterling Nature Center Preserve and Conservation Area, located on the shore of Lake Ontario, provides 1,428 acres of diverse habitat, offering opportunities for all to experience and learn about nature through a variety of activities and programs.

Goal #	Description	Goal Themes			
		Recreation	Preservation	Environmental Education	Organizational Stability
Goal #1	Provide and maintain a multi-use facility that offers a variety of outdoor recreational opportunities.				
Goal #2	Provide environmental, conservation, and nature education to schools, the community, and visitors to the Nature Center.				
Goal #3	Provide an interpretive center for displays, exhibits, staff, and other resources.				
Goal #4	Protect the land by managing for habitat and wildlife diversity and by controlling invasive species.				
Goal #5	Develop and maintain trails to enhance access to, and enjoyment of, the Nature Center.				
Goal #6	Become financially viable through program offerings and use of volunteers to maintain free access to the Nature Center.				
Goal #7	Host compatible cultural events that enhance a visit to the Nature Center, while combining nature with the arts.				
Goal #8	Prioritize green infrastructure as a primary investment and promote green planning and policy throughout the Nature Center.				

As part of the 2016 plan update, the individual projects accomplishing these goals have been revisited. Projects that have been completed or are no longer relevant have been removed; new projects have been added. In order to establish a strategic path forward, all projects have been prioritized based on their importance and feasibility. Project listings and priorities are discussed in their corresponding chapters.

HISTORY OF THE SITE

1. Early Years

In the late 1770s the land that the County now owns was formally part of Town lots 4, 5 and 6, which were created as Revolutionary War Military Tracts. The property had a number of owners, and was subsequently divided into smaller parcels. The parcel that contains the Jensvold House (now the Interpretive Building) was purchased by Moses Bridges and resold to his son Edmund Bridges in the 1860s. The area around this parcel was developed into similar homesteads and small farms. This area remained a very active agricultural community for the next century.

In 1933 the Jensvold House was sold to Christopher and Anne Jensvold. Mr. Jensvold served in the Spanish-American War and later served as a lieutenant in the US Army at Fort Ontario in Oswego. As a civilian Mr. Jensvold owned and operated the Aluminum Container Corp in Fulton, NY.

Mr. Jensvold and his wife divorced and he retained the house where he lived out the rest of his days. He died in the house in March of 1959. His body was cremated and his remains were scattered on the property. From the late 1950s to the early 1970s the Jensvold property, as well as other properties in the area, went through a number of property transfers and management changes.

2. Rochester Gas and Electric

In 1971 Rochester Gas and Electric (RG&E) began investigating the area for suitability of locating two coal-fired electric generating units. Over the next six years, RG&E purchased 2,800 acres that was composed of 28 adjacent parcels of land (including the Jensvold Property) for \$28 million. During that time, they applied to the Atomic Energy Commission to construct a 1150 Megawatt Nuclear Power Plant on the property. The plant was approved in 1976.



Figure 1-2: Jensvold house, 1973, under ownership of RG&E.

Due to public opposition, the plant was scrapped in 1980. In 1982, the New York State Department of Environmental Conservation (DEC) proposed the development of a low-level radioactive waste storage facility on the site. However, the complex geology of the property caused the proposal to be withdrawn. Similarly, in 1989, a regional landfill serving Central and Western New York was proposed. This, too, met strong public opposition. From this proposal, a concerned citizens group, the Sterling Site Task Force, was formed and eventually the proposal failed.

In 1990 the Sterling Task Force received a grant of Federal funds to develop a feasibility study of the 2,800 acres owned by RG&E. The feasibility study, completed in 1992, recommended government purchase of the land, preserving approximately 1,350 acres for conservation and park land, and returning the remaining land to the tax rolls for private development.

3. Cayuga County Ownership

In 1994 Cayuga County, with the assistance of the Trust for Public Lands, negotiated an agreement with RG&E to acquire the property for \$2.8 million. The following year, Cayuga County and the Town of Sterling entered into an Intermunicipal Agreement wherein the Town agreed to contribute \$500,000 to Cayuga County for the cost of the purchase of the Sterling property. Furthermore, the Agreement stipulated that a Commission be formed consisting of seven members: five appointed by the County which would include the Legislator for the District, and two appointed by the Town.

Soon after the County purchased the property, they entered into negotiations with the New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) to create conservation easements that would cover 1,316 of the 2,800 acres. The proposed easements would maintain a large natural area for the people of New York State for various recreational and educational pursuits.

The County decided to retain approximately 200 additional acres of land to use for future utility development if needed. The remaining 1,300 acres was deemed surplus property and was to be sold to private owners in order to recoup the money spent to purchase the property from RG&E. In 1995 the Sterling Site Commission was formed to oversee the sale of the 1,300-acre surplus property. In the spring of 2005 the surplus land was sold to Mr. Lamar Witmer for a little over \$1 million. In November of 2005 the county passed Resolution #468-05 accepting an additional 28.5 acres of wetlands south of, and adjacent to, The Sterling Preserve. For this plan the property is included as part of The Sterling Preserve although it is noted that it has not yet been designated as parkland or placed under easement.

In 1997 The Friends of Sterling Nature Center, a not-for-profit group of volunteers, was founded to help the county manage the retained lands as a Nature Center. John Weeks was hired as a consultant by the Sterling Site Commission to begin the development of the site as a Nature Center, and to work with the Friends group to start the implementation of the process.

The easements that the County negotiated with NYS OPRHP were approved in 1998. The County received \$938,000 from NYS OPRHP to permanently protect two miles of Lake Ontario shoreline, bluffs, wetlands, and other ecologically sensitive areas. In 2000, the County officially designated the area within these conservation easements as a County Park.

In 2005 the County developed a Functional Management Plan for the site. Since then, the Plan has led numerous infrastructure improvements, including:

Buildings

- Rehabilitation of the Jensvold House to support the functions of the Nature Center, though more improvements need to be made,
- Installation of lighting on the sun porch,
- Construction of the open air picnic pavilion,
- Construction of the Dragonfly Pond Observation Deck,
- Construction of the Astronomy Observation Platform.

Trails

- Development and naming of more than nine miles of trails,
- Installation of trail signage, maps, and numerous trail head signs,
- Construction of welcome kiosk at main parking lot to welcome and inform visitors,
- Development of trail map handout,
- Installation of seven benches along the most heavily used trails.

Habitats

- Completed warm-season grassland improvement project near Dragonfly Pond.
- Released beetles to control the invasive species purple loosestrife in wetlands,
- Established annual “water chestnut pull” program to control invasive aquatic species along Sterling Creek,
- Established bird nesting box program.

Other

- Installation of seasonal porta-john near picnic pavilion,
- Established snow removal program to allow parking of 25 cars for winter visitors,
- Closure of a portion of McIntyre Road to decrease the amount of after-hour parties and litter in that area of the Nature Center,
- Development of five parking areas,
- Development of numerous educational and cultural programs,
- Restoration of some of Mr. Jensvold’s gardens near his house,
- Establishment of 25 car overflow parking area for use during high visitation periods.

TRENDS AND ANALYSIS

1. Activity Usage Over Time

Since the first Functional Management Plan was completed in 2005, the Nature Center has seen a steady increase in overall estimated attendance, from 22,860 in 2005 to 34,513 in 2014 (See Figure 1-3).

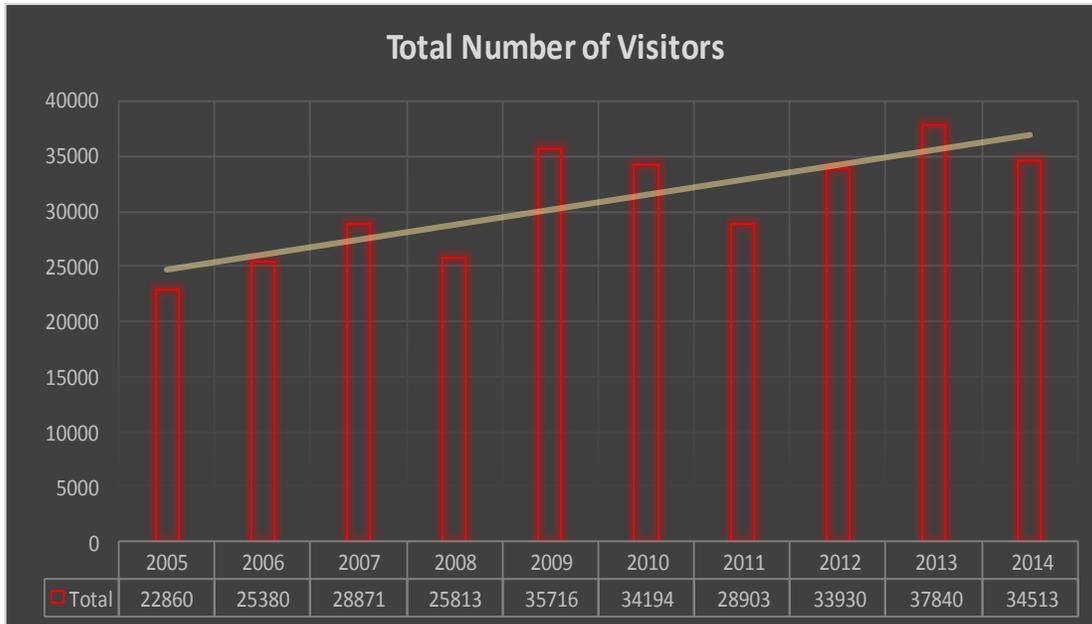


Figure 1-3: Total number of estimated yearly visitors to the Sterling Nature Center.

Over the course of the 15 years since the park’s inception, the recorded yearly trail use (i.e. the number of hikers who sign the guestbook) has nearly doubled, as illustrated in the chart below. This is attributed to expansions of the trail system and increased awareness and knowledge of the facility. Though it is difficult to know what percentage of total trail users sign the guestbook, trail use is clearly on the rise.*

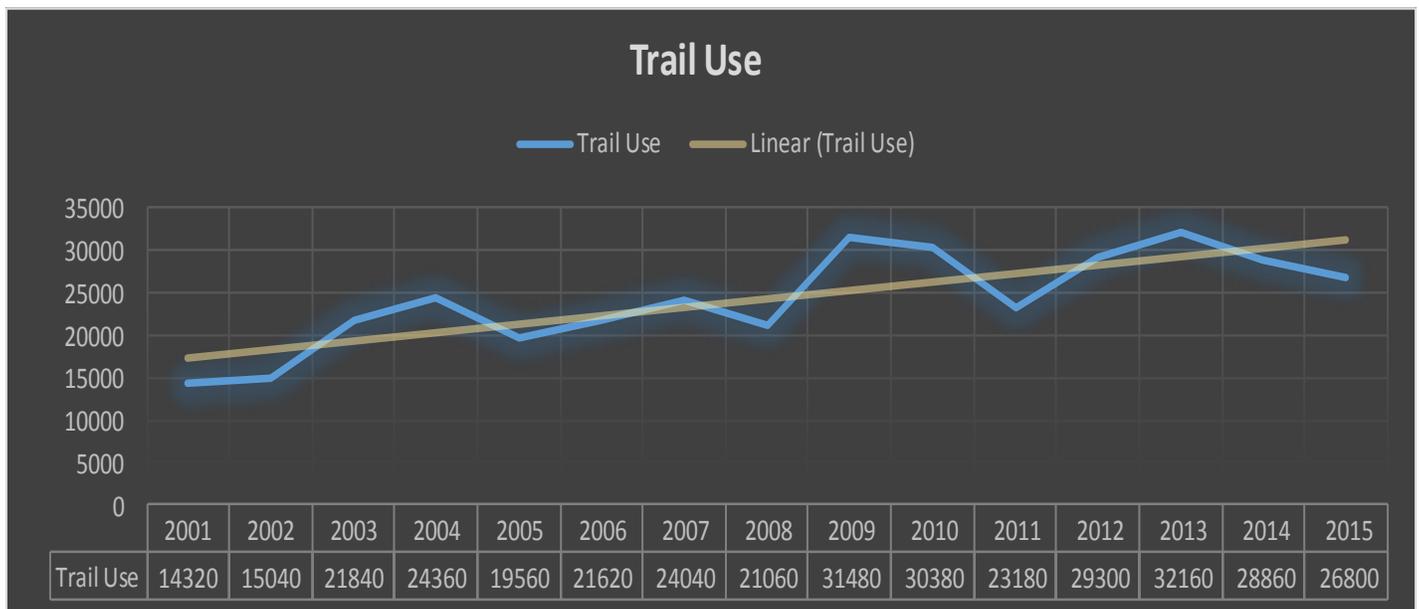


Figure 1-4: Trail usage, estimate based on visitors that register at the Interpretive Building.

* Overall trail use was calculated by assuming that guestbook sign-ins accounted for 5% of total trail users. Though this is simply an estimate, the calculation has been applied consistently over the past 15 years, ensuring that while the data may not be complete, the trend analysis is accurate.

Snowmobile and sportsmen (hunting and fishing) usage is even more difficult to track. Accurate snowmobile figures would require traffic counter tubes or cameras at the two entry points along the Dogwood Trail Extension (the only trail snowmobiles are permitted on). While similar techniques can be applied at certain parking lots to estimate the number of anglers and hunters, there are numerous access points along roadways throughout and adjacent to the Nature Center which makes accurate counts virtually impossible.

These limitations reduce much of the non-programmed visitor counts to inexact estimates based on observation. While this method is far from preferable, it does allow for anecdotal evidence that provides insight on usage trends and tendencies. Observations have concluded a general increase in snowmobile activity, with natural variation based on weather conditions. A range of 1,000 to 1,500 between 2006 – 2010 was eclipsed by a range of 2,000 to 2,500 in the years since (2012 was an outlier with 1,250 due to an unusually mild winter). Sportsmen usage, also based on observations, is estimated to have increased by approximately 100% (150 to 300 cars accessing Conservation Area parking lots) in the same timeframe.

Data for programming and events, which is the most accurate, paints a different picture. With staffing levels consistent, and available gathering space unchanged, the amount of programming possible has generally reached its capacity. This is evident in Figure 1-7. Without facility or staff expansion, these figures are unlikely to change significantly in the near future. The Great Recession’s (2007 – 2009) impact on programming and attendance is also recognizable in this chart, illustrated by a significant drop in total programming and event attendance in 2009 and 2010, and subsequent recovery.

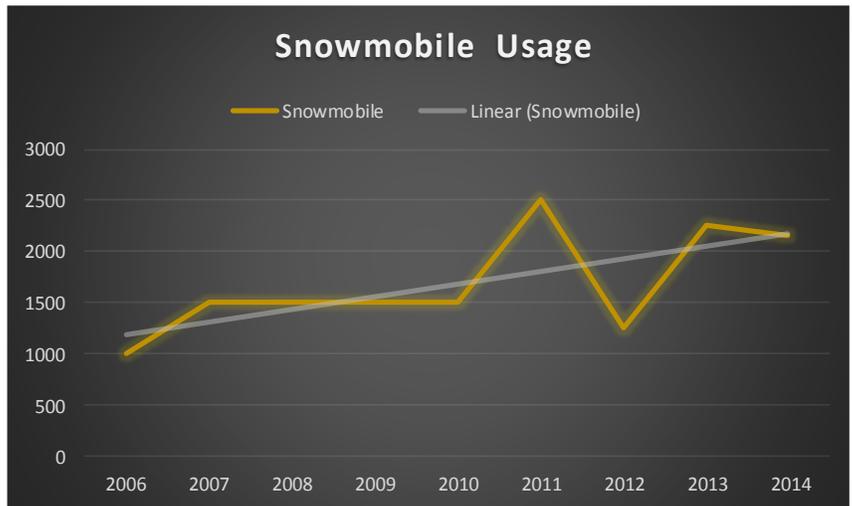


Figure 1-5: Snowmobile Usage, based on observations of trips along the Dogwood Extension.

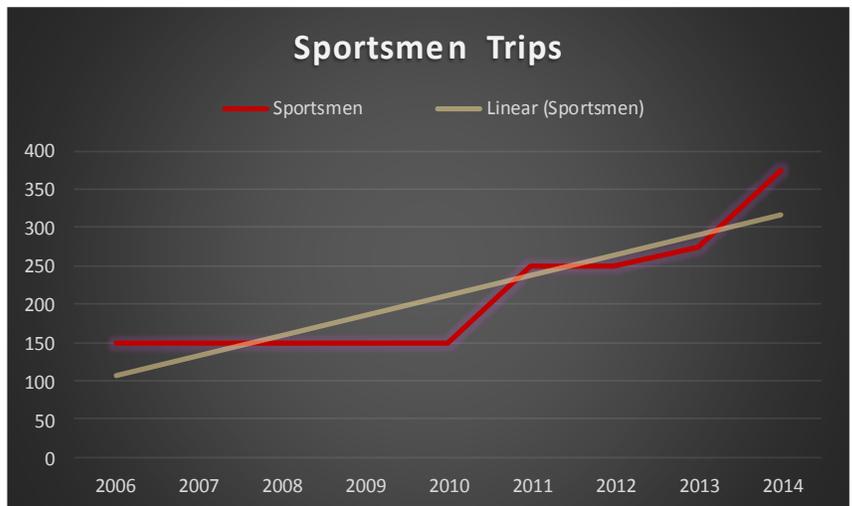


Figure 1-6: Sportsmen Trips, based on observations of parking lot use.

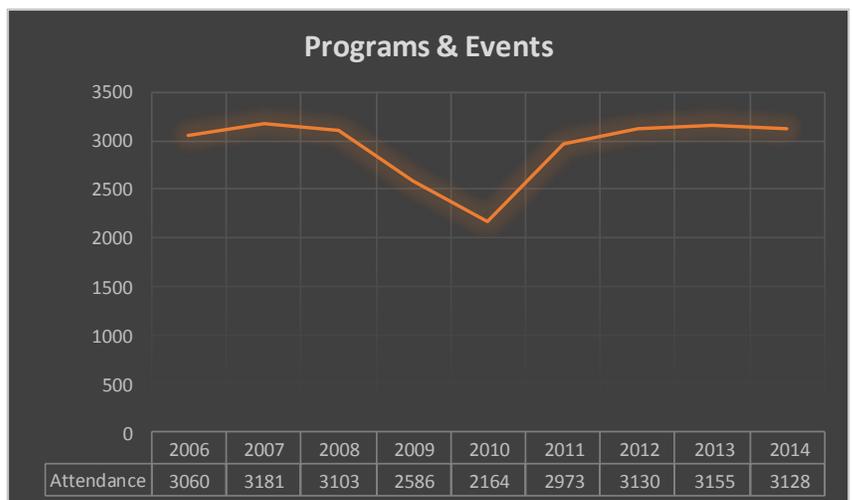


Figure 1-7: Attendance at Programs and Events since 2006.

2. Comparing Activities

Overall, it is clear that trail usage is the most predominant activity within the Nature Center. Estimating that only ten percent of trail users register at the Interpretive Building results in the following breakdown of Nature Center usage over the past ten years: Trail usage, despite its overall increase, has leveled out at approximately 83% of all visitors; Program and Event attendance, similarly, has decreased slightly relative to other uses (12% to just under 10%); Snowmobiling and Sportsmen visits have experienced modest relative increases (4% to 7% and <1% to >1%, respectively). While this shows that usage trends have not shifted dramatically, it does underscore the fact that programs and events are more difficult to expand given the current staffing and facility levels.

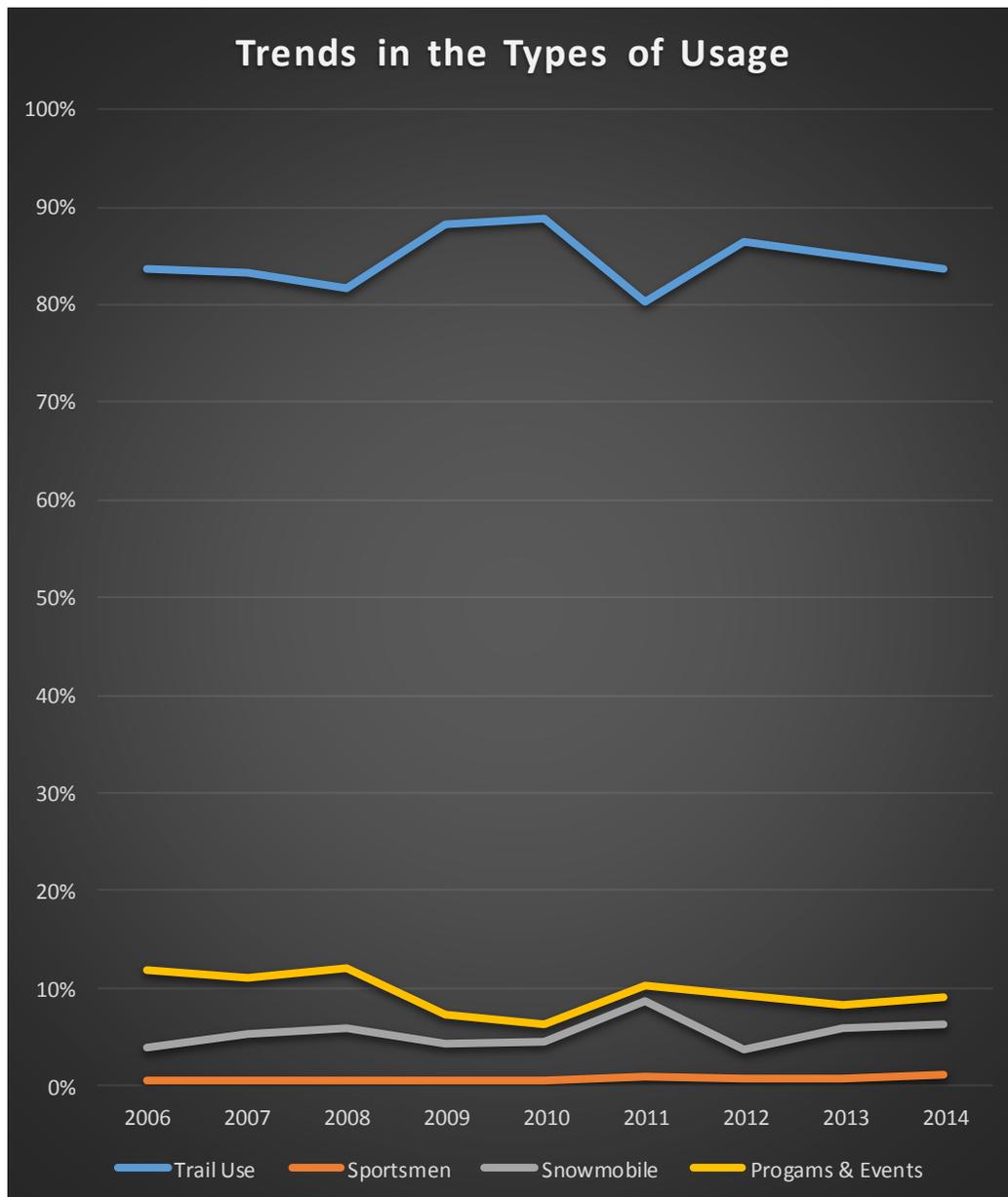


Figure 1-8: Amount of Usage among Types relative to other uses.

3. Summary

This analysis provides direction for the Functional Management Plan. Management practices must adjust to these trends to ensure that usage is in harmony with all goals of the Vision Statement, and compatible with the objectives of the State-imposed easements. The preceding analysis also emphasizes the importance of reliable, accurate, and thorough data in crafting an effective and realistic Functional Management Plan.

Furthermore, it is important to keep in mind how this analysis reveals the limits of this Plan: without additional investment in facilities and personnel, the Vision Statement cannot be fully accomplished. If the expansion of facilities and personnel does not keep pace with increases in visitation, unbearable stress will be placed on the existing resources of the Nature Center.

“If the expansion of facilities & personnel does not keep pace with increases in visitation, unbearable stress will be placed on the existing resources of the Nature Center.”

SURVEY RESULTS

An online and paper survey was conducted in Spring 2016 to gather input from users of the Sterling Nature Center. This initiative represented the first public input exercise since the original Functional Management Plan in 2005. A total of 105 responses were received and provided valuable insight into visitor habits and preferences. Highlights include:

- Despite its relatively remote location, many respondents are frequent visitors to Sterling Nature Center. The vast majority of respondents (77%) access Sterling Nature Center at least three times per year; more than half (51%) go at least six times per year.
- Nearly all respondents (89%) visit the Nature Center to enjoy its robust bird and wildlife communities. Wildlife viewing was the most common activity, topping walking / hiking (81%) and nature study (53%).
- Facebook is a successful and powerful marketing tool for the Nature Center. Eighty-six percent of respondents learn about programs and events through this interface. One respondent has never visited the Nature Center but follows on Facebook to appreciate all the shared wildlife photography.
- There is a strong appetite for expanded offerings. Sixty-three percent would like to see more educational programs and 52% would like to see more events. Forty-seven percent would attend live animal programs, such as reptiles or raptor, if offered.
- There is a latent interest in canoeing and kayaking at the Nature Center. While only 13% of visitors currently use the site for watercraft recreation, 30% expressed interest in organized group canoeing / kayaking. A lack of familiarity with the waterways and lack of knowledge of its navigable extent may partially explain these figures.

Full survey results are presented in Appendix B.

This page intentionally left blank.

Section 2: Conservation Easements

The Conservation Easement agreements that Cayuga County has with New York State Office of Parks Recreation and Historic Preservation (NYS OPRHP) are critical when considering how to manage the Site. The easements discuss the site as having three different types of areas based on the habitats and identified resources at the time they were written. These easements represent the parameters in which Cayuga County Parks and Trail can develop and program different sections of the Nature Center. The easements are designated as Easement Areas "A", "B" and "C."

This section will highlight the characteristics of each of the easement areas and detail permitted uses and activities in each area as defined within the easement. A complete copy of the easement is available in Appendix "A" of this report. The maps included in the easement agreements, and Figures #2-1, 2-2, and 2-3 show the areas subject to these easements.

EASEMENT AREA "A" – FRESHWATER WETLANDS

Area A is characterized as freshwater wetlands. These areas have the most restrictions with the focus being on protection of the wetlands from developmental pressures. Seven locations totaling 343 acres have been identified and set aside within the Nature Center. The only permitted uses / activities identified in these areas are:

- Property must remain open to the public.
- Renovation, repair, maintenance, or removal of existing roads. (All highway rights-of-way shall measure no less than 49.5 feet in width, whether improved to that width or not.)
- Renovation, repair, maintenance, or removal of stone walls and fences.
- Renovation, repair, maintenance, or removal of utility corridors or rights of way, including lines for electricity, natural gas, water, sewer, and telecommunication transmission within highway rights of way.
- Construction, installation and maintenance of a trail system with related facilities, such as trailhead parking areas.
- Construction, installation, and maintenance of ancillary improvements, including, but not limited to, utilities, lighting, benches, shelters, restrooms, storage facilities, and informational and directional signs which are reasonably necessary to the use and enjoyment of the premises as a public park.
- Construction, installation and maintenance of additional recreational, cultural and support facilities consistent with the use and enjoyment of the Protected Property as a public park as may be requested by the Grantors and approved by the Grantees, as evidenced by a letter signed by the Commissioner or their delegate.
- Manage and improve the land and vegetation by landscaping, including planting, cultivation, trimming and removal of grass, trees, shrubs and flowers for the purpose of enhancing the Protected Property as a public park.

Furthermore, the construction, repair, and maintenance of any permitted improvement shall be undertaken in a way that mitigates, to the greatest extent practicable, any effects on any stream, wetland, pond, lake or other body of water located within 100 feet of such improvement.

EASEMENT AREA “B” – SUITABLE FOR RECREATIONAL DEVELOPMENT

Area B is characterized as areas that are suitable for recreational development. These areas, totaling 277 acres, are the most permissive with a focus of providing recreational opportunities that are in keeping with the development of the site as a nature recreation area. Area B is limited to the area near the main entrance at the end of Jensvold Road and a small area providing lake access off of Dogwood Road. The permitted uses / activities identified in Area B are:

- Property must remain open to the public.
- Renovation, repair, maintenance, or removal of existing roads. (All highway rights-of-way shall measure no less than 49.5 feet in width, whether improved to that width or not.)
- Renovation, repair, maintenance, or removal of existing structure on Jensvold Road.
- Renovation, repair, maintenance, or removal of stone walls and fences.
- Renovation, repair, maintenance, or removal of utility corridors or rights of way, including lines for electricity, natural gas, water, sewer, and telecommunication transmission through the area.
- Construction, installation, and maintenance of a nature study center with related facilities such as a parking lot and shelter.
- Construction, installation, and maintenance of a campground and related facilities such as amphitheatres, stages, R-V hook-ups, and docks.
- Expansion and maintenance of the trail system with related facilities, such as trailhead parking areas.
- Construction, installation, and maintenance of access roads and parking areas.
- Construction, installation, and maintenance of ancillary improvements, including, but not limited to, utilities, lighting, benches, shelters, restrooms, storage facilities, and informational and directional signs which are reasonably necessary to the use and enjoyment of the premises as a public park.
- Construction, installation, and maintenance of additional recreational, cultural, and support facilities consistent with the use and enjoyment of the protected property as a public park as may be requested by the Grantors and approved by the Grantees, as evidenced by a letter signed by the Commissioner or their delegate.
- Management and improvement of the land and vegetation by landscaping, including planting, cultivation, trimming, and removal of grass, trees, shrubs, and flowers for the purpose of enhancing the Protected Property as a public park.
- Entering into license agreements for concession facilities.

Furthermore, the construction, repair and maintenance of any Permitted Improvement shall be undertaken in a way that mitigates, to the greatest extent practicable, any effects on any stream, wetland, pond, lake, or other body of water located within 100 feet of such improvement.

EASEMENT AREA “C” – REMAINING PARKLAND

Area C is remaining parkland that does not fit the required characteristics of Areas A and B. These areas comprise the largest component of the Nature Center, totaling more than half the total acreage at 705 acres. The purpose of these areas is to provide buffers around the freshwater wetlands and stream corridors from adjacent property development. The only permitted uses / activities identified in these areas are the same as those for Area A and are listed on the following page:

- Property must remain open to the public.
- Renovation, repair, maintenance, or removal of existing roads. (All highway rights-of-way shall measure no less than 49.5 feet in width, whether improved to that width or not.)
- Renovation, repair, maintenance, or removal of stone walls and fences.

Renovation, repair, maintenance, or removal of utility corridors or rights of way, including lines for electricity, natural gas, water, sewer, and telecommunication transmission within highway rights-of-way. Expansion and maintenance of a trail system with related facilities, such as trailhead parking areas.

- Construction, installation, and maintenance of ancillary improvements, including, but not limited to, utilities, lighting, benches, shelters, restrooms, storage facilities, and informational and directional signs which are reasonably necessary to the use and enjoyment of the premises as a public park.
- Construction, installation, and maintenance of additional recreational, cultural and support facilities consistent with the use and enjoyment of the Protected Property as a public park as may be requested by the Grantors and approved by the Grantees, as evidenced by a letter signed by the Commissioner or their delegate.
- Management and improvement of the land and vegetation by landscaping, including planting, cultivation, trimming and removal of grass, trees, shrubs, and flowers for the purpose of enhancing the Protected Property as a public park.

Furthermore, the construction, repair, and maintenance of any permitted improvement shall be undertaken in a way that mitigates, to the greatest extent practicable, any effects on streams, wetlands, ponds, lakes, or any other body of water located within 100 feet of such improvement.

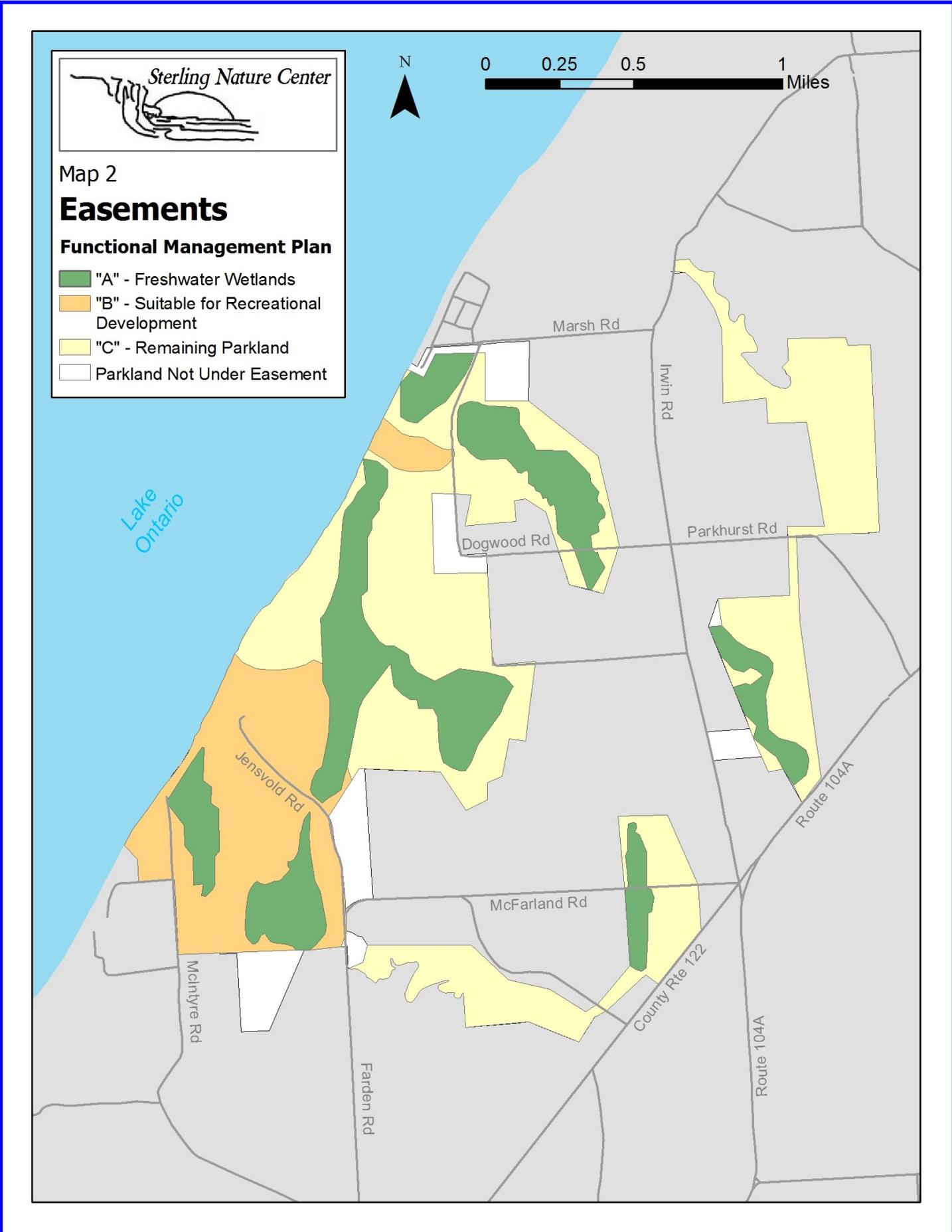


Figure 2-1: Delineation of Easement Areas

Section 3: Habitats and Environmental Concerns

HABITATS

The Sterling Nature Center contains a variety of habitats including wetlands, shoreline, forested areas, Sterling Creek, Nine Mile Creek, and open areas, as illustrated in Figure 3-4 on page 24. Each of these habitats will be discussed in more detail in the chapter.

A 1991 study focusing on the bird fauna of the area concluded that the Sterling Nature Center is a crucial resource to a large number of migrating bird species. Maintaining this resource through proper habitat management is an integral task in fulfilling the preservation objectives detailed in Goal #4. Supporting species of importance, such as bluebirds, great blue herons, osprey, and bald eagles is another key objective for the Preserve. Habitats in the Sterling Conservation Area, however, should be maintained to support game species of concern, such as, turkey, grouse, and pheasant. Special attention, however, should also be given to the white-tailed deer, prone to overpopulation. Protocol should be developed to recognize early signs of overpopulation.

1. Wetlands

There are approximately 239 acres of wetland within the Sterling Nature Center; 156 acres within the Preserve and 87 acres within the Conservation Area. These wetlands are located in nine areas, and are numbered in the order that they were recorded.

Wetland 1 (W1), also called the Beaver Wetland, is the largest wetland on site at approximately 79 acres in size. W1 is the most visited, and the wetland with the most educational potential. It is located in the heart of the Sterling Preserve, north of the Jensvold Interpretive Building. Beavers damming the outlet of a forest swamp led to the creation of W1 in the 1990s, and now the wetland contains a great blue heron rookery. The number of nests in the rookery have fluctuated over the years; currently there are approximately 25 nests. The rookery was threatened in the summer of 2013 when heavy rains washed out the beaver dam. Fortunately, beavers constructed a new dam in September of that year, but recovery has been slow. Great horned owls have also nested in the wetland, using one of the heron nests. There is also a bald eagle nest located on the southeastern edge of the wetland, approximately 3,000 feet east of the Beaver Wetland observation platform.



Figure 3-1: The Blue Heron Rookery in the Beaver Wetland (W1), photo courtesy of Mike Greenlar.



Figure 3-2: A bald eagle nesting near the Beaver Wetland, photo courtesy of Jim D'Angelo.

Wetland 2 (W2), also known as the Buttonbush Wetland, is the impounded wetland bordered by the Buttonbush Trail and Lake Ontario. This wetland is approximately 30 acres in size and is characterized by buttonbush shrubs and a tree covered lakeshore dike. The Friends of Sterling Nature Center are currently planning the construction of an observation deck along the adjacent Buttonbush Trail.



Figure 3-3: Fruit from a buttonbush shrub.

Wetland 3 (W3) is located north of Sterling Creek and west of Farden Road. This wetland is 28 acres and is characterized by trees, specifically silver maple, red maple and green ash.

Wetlands 4, 5, 6, and 7 are located within the Conservation Area. Wetland 4 (W4) is east of Dogwood Road and contains approximately 5 acres. Wetland 5 (W5) is an extension of Wetland 4, separated by Dogwood Road. It is a mixed wetland located between Dogwood, Marsh, and Irwin roads. This wetland is approximately 40 acres in size and is characterized by a red maple swamp and mix of snags, cattails, rushes, and sedges.

Wetland 6 (W6) is located east of Irwin Road and south of Parkhurst Road. This wetland is approximately 24 acres and is characterized by wetland tree species, including silver maple, red maple, and green ash.

Wetland 7 (W7) straddles McFarland Road. This wetland was a former muck farm, having been previously drained of water and used for agricultural activity. It is approximately 26 acres of swamp, characterized by cattails, rushes, and small trees.

Wetland 8 (W8) also called the Dragonfly Pond, was created in 2000 through a United States Fish & Wildlife wetland restoration project. It is the smallest wetland at approximately 4 acres in size and is characterized by a cattail edge and open water.

Wetland 9 (W9) is a natural wetland formed by Sterling Creek. In 2005, the County acquired a parcel to the south of the Preserve, totaling 28.5 acres and consisting mainly of this wetland. Currently, this parcel has not been assigned to the either the Preserve or the Conservation Area. Designating this parcel as parkland and adopting it under one of the easements may translate into an additional payment from NYS OPRHP.

There are also an undetermined number of small vernal pools and wet meadows scattered throughout the site. A beaver dam has recently caused the impoundment of water near the bluffs in the northern section of the Sterling Conservation Area. These areas should be monitored and their locations identified and mapped.

2. Forests and Shrub

The vast majority of the Nature Center, approximately 1,055 acres, is covered in forests and shrub. This abundance of forest cover is along a major avian migration route, underscoring that the Nature Center is an important resource to birds that follow the Lake Ontario shoreline to northern breeding areas.

Since this site was primarily used for agriculture throughout the past two centuries, most of the forests within the Nature Center are approximately 50 years old with only small fragmented patches of older, mature forest. Most of the young forest contains species such as aspens and cottonwoods, while the more mature sections exhibit northeast hardwood such as sugar maple, black cherry, white ash, and hemlock. There are also scatterings of red oak, tulip trees, and black birch.

3. Sterling Creek

Nearly two miles of the East Branch of Sterling Creek is located along the southern border of the Nature Center. Wetlands #3 and 9 drain into Sterling Creek. This creek has a canoe launch located near the Farden Road stream culvert. With a short portage over McIntyre Road or, if water level allows travel through a low culvert, it is possible to paddle from the Nature Center canoe launch on Farden Road to Fair Haven Beach State Park, which is the closest public canoe launch site. It is approximately a five-mile one-way trip. The creek also offers fishing opportunities with northern pike, crappie, and brown bullhead catfish present. Additionally, the New York State Department of Environmental Conservation stocks Sterling Creek with freshwater rainbow trout.

4. Nine Mile Creek

A 2.5 mile segment of Nine Mile Creek is located in the northeast corner of the Nature Center, entirely within the Conservation Area. From Irwin Road, the journey downstream to the Lake Ontario shoreline and most of the length within the Conservation Area appears navigable by canoe or kayak. Additionally, the creek provides fishing and hunting opportunities.

5. Open Fields and Brush Lands

There are two large open fields at the Sterling Preserve. The first (F1) is south of Jensvold Road and is approximately 67 acres in size. The second (F2) is on the North side of Jensvold Road and is approximately 50 acres. This field contains a man-made wetland (Wetland 8) that was constructed as a result of a wetland restoration project. The open space around the Interpretive Building and parking lot (F3) is approximately 6 acres. A rotational mowing plan and habitat improvement project is currently in practice in order to keep these areas open.

Open fields and brush land areas are more limited in the Sterling Conservation Area (SCA). Totaling approximately 55 acres, most of the individual open fields and brush lands are scattered throughout the SCA and are less than five acres in size. These fields are on the edges of the farmland that the County sold back into private ownership as surplus property. There are three areas that would be conducive to expansion of these habitats:

- F4: the property in the northwest corner near Wetland 5,
- F5: the area on the east side of Irwin Road,
- F6: and the area east of Wetland 7 on McFarland Road.

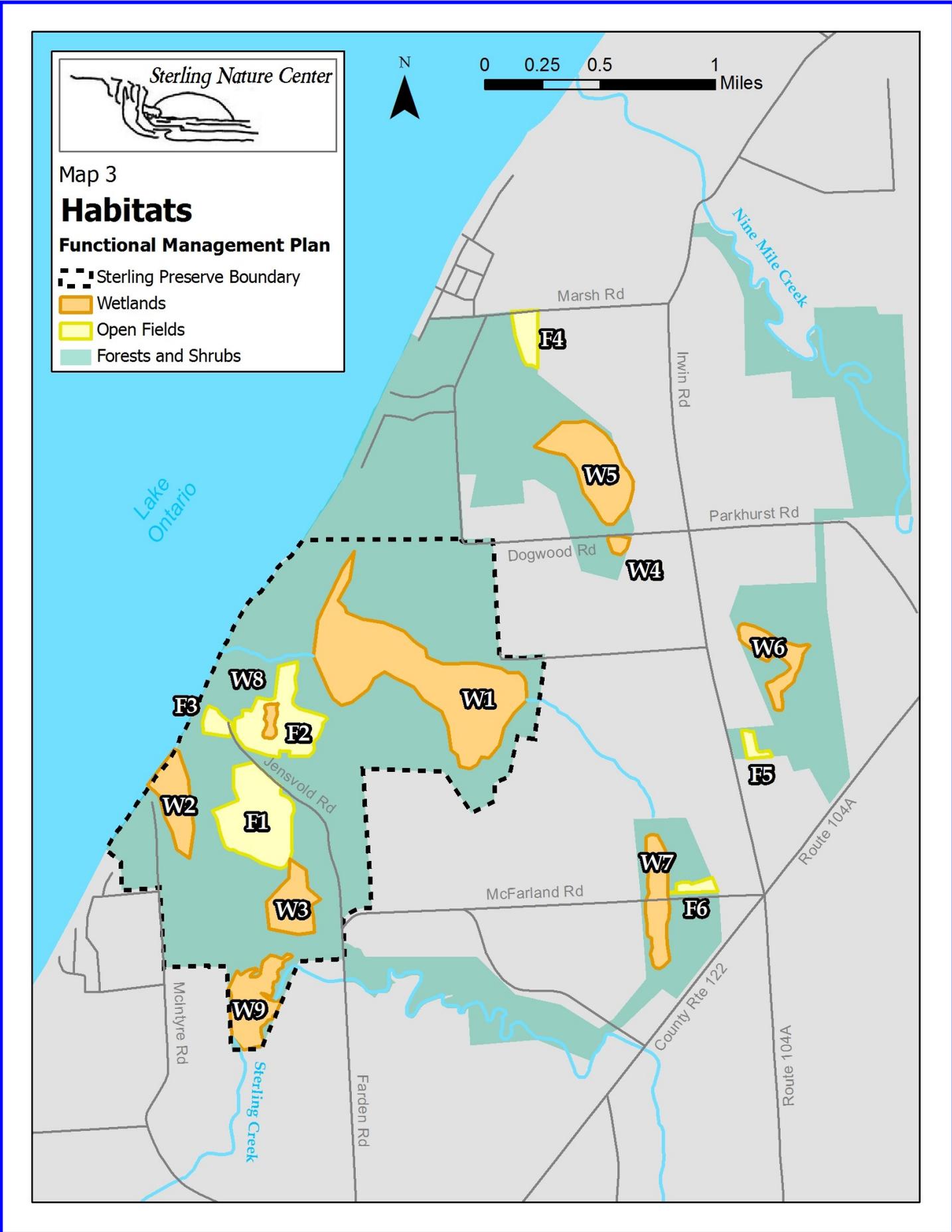


Figure 3-4: Habitats of Sterling Nature Center.

INVASIVE SPECIES

An important aspect of habitat management is the control of invasive species. Invasive species are plants and animals that are not native to a particular ecosystem. These species often threaten biodiversity and impair the ecological health of areas they infiltrate. An inventory of invasive species observed within the Sterling Preserve has been developed. Determining the extent to which each species may impact ecosystems has resulted in the identification of the following eradication priorities:

Priority 1:

- Purple loosestrife – Found in wet areas, infestations of this plant can cause significant disruption to water flow and diminish biodiversity by “choking out” other native plants.
- Pale swallowwort – This environmental nuisance has been spreading through abandoned farm fields in upstate New York for at least 20 years and it is a serious threat to plant biodiversity.
- Water chestnut – This invasive plant can form thick floating mats that limit light penetration into rivers and lakes, impairing the growth of native aquatic vegetation beneath the surface. These clusters can also be problematic to boaters and other watercraft users.



Figure 3-5: Purple loosestrife.



Figure 3-6: Pale swallowwort.

Priority 2:

- Giant hogweed – Though this plant can dominate open fields and diminish plant biodiversity, the greater threat is to human health. Skin contact with giant hogweed sap can result in severe rashes, blisters, and prolonged sensitivity of the affected areas to sunlight.
- Garlic mustard - This invasive plant can affect forest plant diversity.
- Phragmites – Commonly seen in roadside ditches, phragmites can dominate wetlands, creating monocultures and imperiling hydrology.
- Japanese knotweed – This invasive plant can spread rapidly along disturbed areas such as stream banks and old farm fields. Thickets of Japanese knotweed can shade out native plants, resulting in mostly bare soil beneath that is susceptible to erosion along stream banks.



Figure 3-7: Water chestnut.

Areas containing invasive species should be rehabilitated with native vegetation. This is a high-labor, long-term undertaking which is severely limited by current staffing levels. Volunteers are utilized when and where appropriate.



Figure 3-8: Giant hogweed.



Figure 3-9: Garlic mustard.



Figure 3-10: Phragmites.



Figure 3-11: Japanese knotweed.

AESTHETICS

Scenic views and view sheds are among the most precious and irreplaceable resources at the Sterling Nature Center (see Figure 3-14 on the following page). Sweeping views of Lake Ontario from atop bluffs and along the pebbled shoreline create scenic opportunities that are not available at other nature centers in Central New York. The natural resources that provide for this unique experience should be protected as icons of the nature center.

One of the most remarkable views is from McIntyre Bluff in the southwest corner of the Nature Center. This area is also one of the most delicate geological features. The constant erosion of a drumlin into Lake Ontario from waves, rain, snowmelt, and groundwater create these unique bluff formations, but also wear them away. Over time, the shoreline has receded hundreds of feet. Monitoring of the bluffs is critical to preserving their beauty and ensuring visitor safety.

Other significant views include the observation platforms overlooking Lake Ontario, the Dragonfly Pond, and the Blue Heron Rookery. The Bluff Trail offers numerous views across Lake Ontario, and the Vernal Pool Trail provides a sight line to the Bald Eagle Nest located on the southern edge of the Beaver Wetland. Sterling Nature Center, with vast stretches of Lake Ontario to the northwest, is also a prime location for viewing aurora borealis, the northern lights. The absence of ambient light from cities also makes it ideal for astronomy programs.

All of these view sheds at the Sterling Nature Center enhance visitor experience and should be preserved. Selective vegetative removal, particularly in the tree understory, should be employed on an as-needed basis to preserve specific viewsheds.

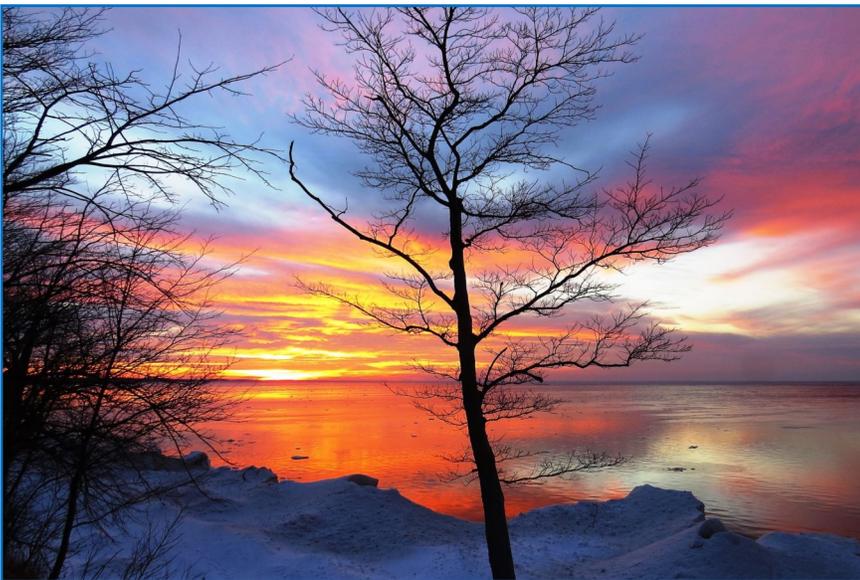


Figure 3-12: Sunset view from the Lake Ontario Deck, photo courtesy of Jim D'Angelo.

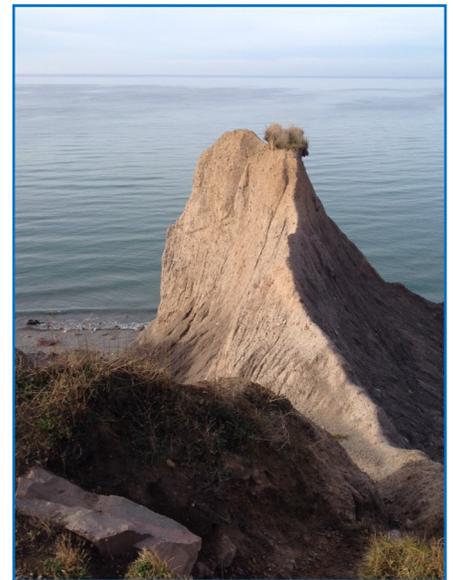


Figure 3-13: View from McIntyre Bluff, photo courtesy of Planning Dept.

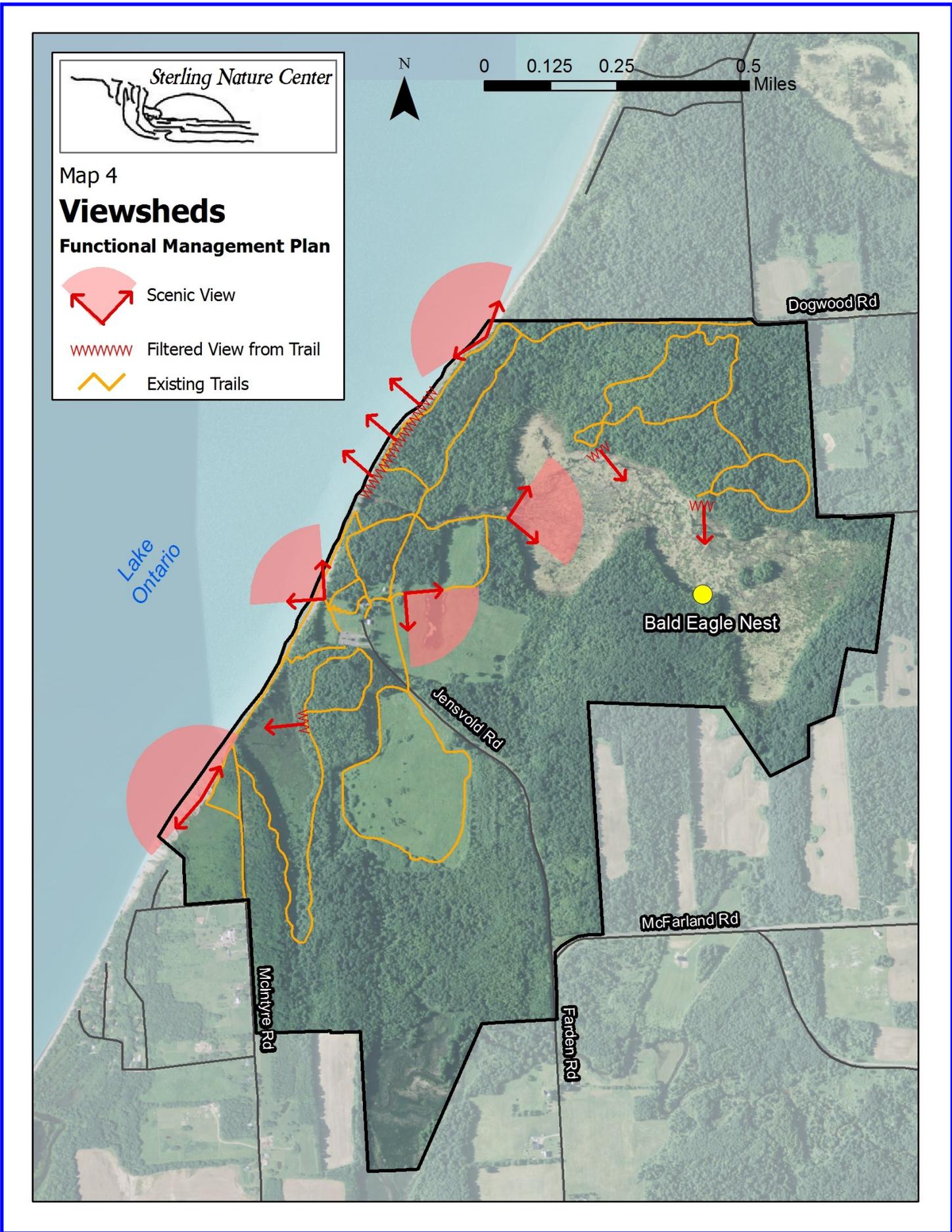


Figure 3-14: Illustration of Scenic Views and View sheds at Sterling Preserve.

TOPOGRAPHY

The Sterling Nature Center is characterized by a variety of topographical features. The land rises gradually from the southeast shore of Lake Ontario. Numerous hills, the product of glacial deposition, can be found on the site, interspersed with wetlands and vernal pools. The drainage from the site is typically in a north and northwest direction with the streams winding around the hills in their course to Lake Ontario.

The highest points within the Sterling Nature Center have an elevation of around 376 feet above sea level. These two locations are found just south of McIntyre Bluff and along Dogwood Road just north of the parking area. The hills are elliptical in shape and are typically classified as drumlins.

The lowest points are approximately 248 feet above sea level, located along the Lake Ontario shoreline and Beaver Wetland, Buttonbush Wetland, and Wetlands #3 and 9.

Some slopes within the Nature Center are moderately steep. These slopes are found mostly within the Conservation Area or far away from hiking trails; erosion is not an issue along these slopes. Erosion, however, is a continual issue along the shoreline. With bluffs as high as 96 feet, the shoreline is constantly changing shape. Tides and ice flows are slowly eating away at the bluffs and land behind them. This results in unstable slopes and edges. Disturbance to these areas should be minimized for both erosion control and visitor safety. Shoreline access points should be limited as well, and visitors should be warned of the dangers of approaching the edges of the bluffs.

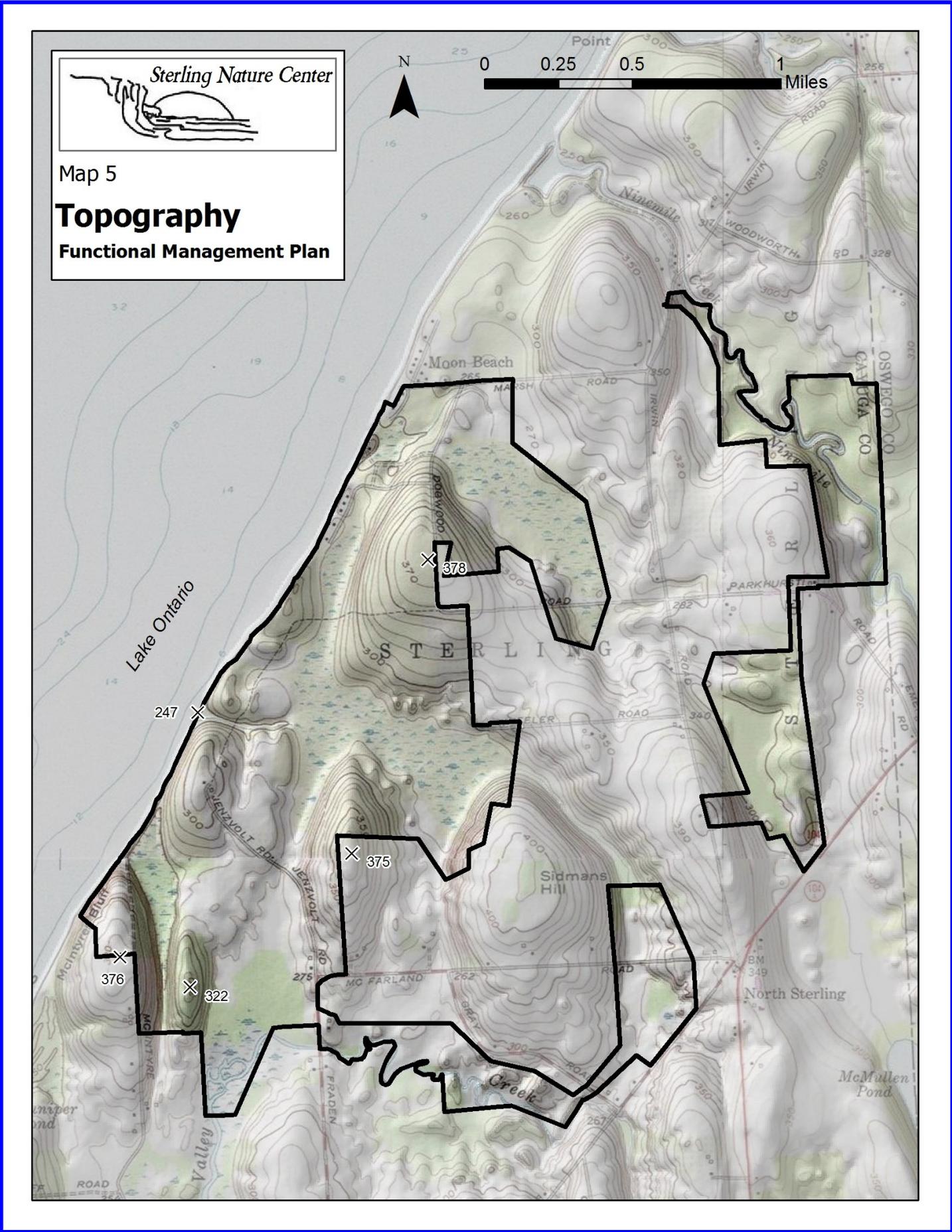


Image 3-15: Topography of Sterling Nature Center and surrounding area.

This page intentionally left blank.

Section 4: Management Plan for Sterling Preserve

The Sterling Preserve (SP) allows for the use of visitors engaged in nature related activities. Centrally located among the Sterling Nature Center lands, this area encompasses approximately 700 contiguous acres that contain diverse habitats and various natural and recreational resources.

The Sterling Preserve is the most visited, programmed, and developed portion of the Nature Center. As such, the Preserve must rely on detailed planning of its various needs and operations. This chapter discusses those issues and establishes corresponding priority projects and strategies.

INFRASTRUCTURE

The infrastructure of the Sterling Preserve is comprised of buildings, parking, signage, and other ancillary items. While these features do not directly contribute value to the visitor experience, they are essential to ensuring visitors are able to safely access the Preserve and engage in their desired activities. The design of infrastructure elements should take landscape context into account and make every effort to conform to the natural surroundings. Proposed improvements should be as unobtrusive as possible so as not to disrupt the natural environment. Additionally, materials that are durable and minimize need for maintenance are preferable. Infrastructure conditions and needs are discussed in this section.

1. Buildings and Structures

Description

The only buildings currently on the property are the Jensvold House Interpretive Building and the equipment storage garage. The Jensvold House was built in the early 1800s and was used as a family residence for 130 years until shortly before Cayuga County purchased the property from Rochester Gas & Electric in 1993. In 1997 the house was partially restored by the Friends of Sterling Nature Center and became the main office for Nature Center operations. An equipment storage garage was built 175 feet to the rear of the Jensvold House in 2002.

At approximately 3,600 square feet, the Jensvold House Interpretive Building contains the office for the Director of Sterling Nature Center and an office for the Friends of Sterling Nature Center. The Building also provides restrooms, a gift shop, a viewing porch to see the lake and bird feeding station, storage, and space for programs, meetings, exhibits, and displays.

Issues

Due to the age and limited budget, the Jensvold House has fallen into disrepair and has numerous outstanding issues. The roof is in need of replacement as leaks are a regular occurrence. Asbestos shingles comprise the exterior siding, making maintenance nearly impossible. Lack of an accessible route to the upstairs precludes that space from being used for public programming. The lack of a large gathering room restricts the level of indoor programming that can occur at the Preserve. Capacity inside the largest meeting room is 25 to 30 persons. Programs that frequently attract more attendees, or need ample staging space, such as those involving live animals or birds of prey, must therefore be turned down.

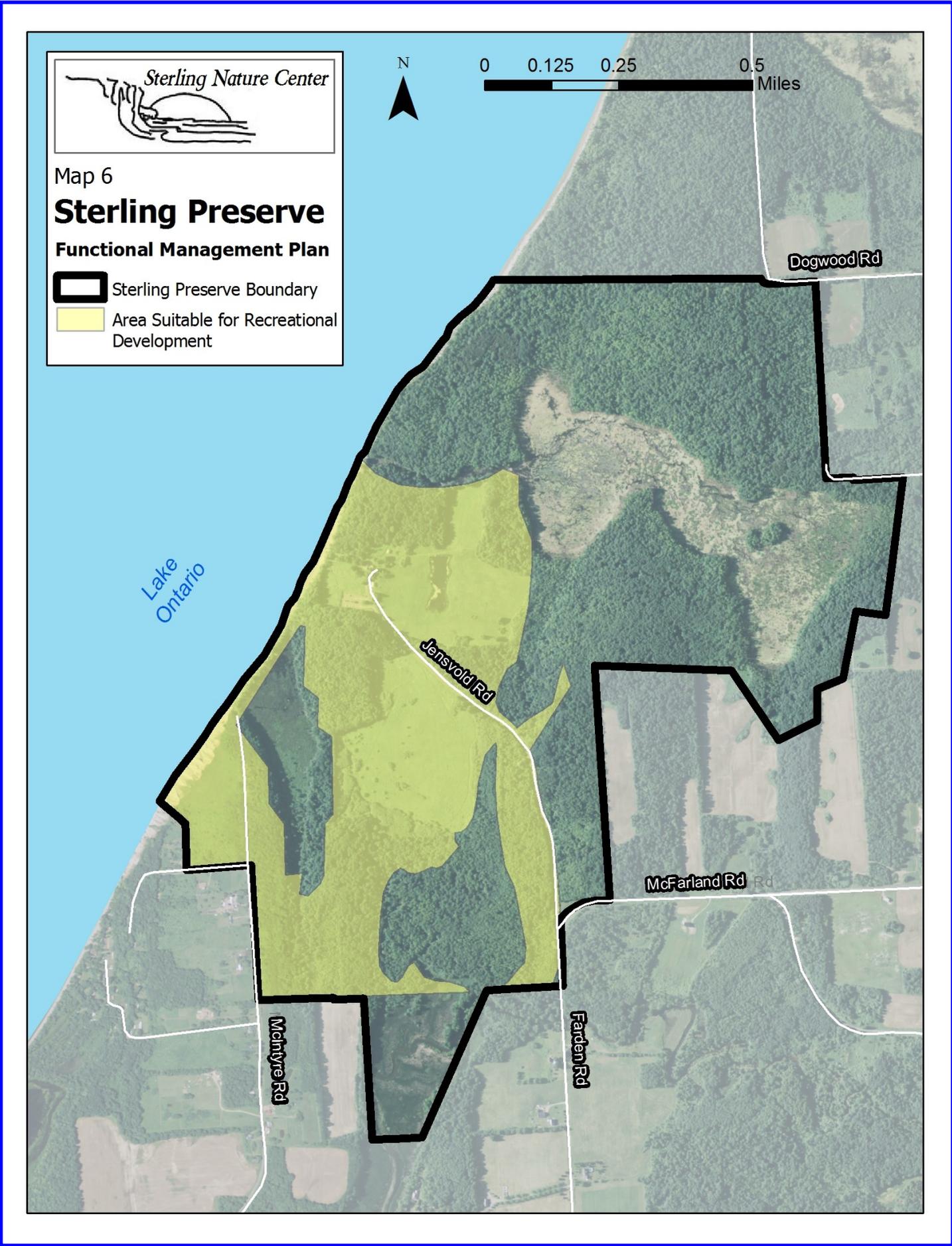


Figure 4-1: Delineation of the Sterling Preserve.

The Sterling Preserve also suffers from a limited water supply. Currently, the Interpretive Building is supplied by well water but expansion of well water resources has proved futile. A test well was drilled in the past but the available supply was deemed inadequate. In 2015, the Town of Sterling and Onondaga County Water Agency established a water district that serves residential areas approximately two miles north of the Preserve. Inclusion in this water district should be pursued as a necessary component of the expansion of the Preserve's infrastructure.



Figure 4-2: Jensvold Interpretive Building in January 2016; a roof patch is visible by the darker shingles located just below the left chimney. Photo courtesy of Cayuga County Planning.

Modern Building

Overall, the current condition and limitations of the Jensvold Interpretive Building severely hinder the ability of the Nature Center to offer the breadth of programming that other facilities offer. The construction of a modern 4,000 to 5,000 square foot Interpretive Building is therefore critical to the continued relevance of the Sterling Preserve. A modern facility will allow for the expansion and improvement of educational programming offered on site and allow the Sterling Preserve to be competitive with other nature centers in the Upstate area and attract new visitors. In order to meet the needs and objectives of the Sterling Preserve, a modern building should include the following components:

- Office space for at least three staff members, including a conference room
- Classroom with a capacity of at least 100 people
- Exhibits room
- Observation deck
- Gift shop
- Kitchen
- Restrooms
- Storage space.

Implementing green building design and initiatives would allow for the Sterling Nature Center to reduce long-term maintenance costs and promote itself as a leader in environmental sustainability. The new Interpretive Building should incorporate the following initiatives:

- Solar Energy: The building's energy consumption should be mitigated by the installation of solar panels, and orientation of the building should be taken into account in order to maximize the contribution of solar energy.

- “Greenhouse” Energy: Large south-facing windows and concrete flooring will allow the building to absorb sunlight and release a “thermal mass” that will help to warm the room.
- Daylighting: An extensive system of exterior and interior windows allows for natural light to replace electrical lights in many situations.
- Energy-Efficient Lighting: LED (light-emitting diodes) lighting should be used whenever possible. Among the most energy efficient lighting technology available, LEDs are considered many times more efficient than incandescent bulbs and compact fluorescent lights.
- Motion Sensor Lighting: Using modern motion sensor lighting will eliminate wasteful energy consumption by switching off lights when the room is not being used.
- Water Efficiency: Given the limited water supply to the site, optimizing water efficiency is essential. Rainwater harvesting and ultra-low flush toilets should be employed to reduce the consumption of this limited resource.
- Geo-Thermal Heating System: Ground temperatures that remain constant year-round should be utilized to heat the building in the winter and cool it in the summer.
- Recycled Materials: Recycled materials should be incorporated into the design and furnishing wherever possible. Second-use items might include decking, siding material, insulation, office furniture, and carpeting.

Funding

Funding for a modern facility should be pursued through grant opportunities. Local funding “match” contributions may be provided through the Nature Center’s Capital H fund. A portion of these funds may also be used to hire an architect to explore the feasibility of a new interpretive building.



Figure 4-3: Example of a Nature Center using solar paneling and daylighting to reduce energy costs; Hartley Nature Center, Duluth, MN.



Figure 4-4: Example of a Nature Center using daylighting and natural ventilation to reduce energy costs; Environmental Nature Center, Newport Beach, CA.

Other Structures

In order to better accommodate outdoor programs and events, the Nature Center budget for 2006 allowed for the construction of an open-air pavilion near the employee parking area. This structure serves a need by providing shelter for users of the site when the Interpretive Building is closed and by providing a space for cultural events and programs. The pavilion, however, is in need of removable side panels facing Lake Ontario. This would allow for events to be held without interference from wind gusts coming off the lake. As activity at the Preserve increases, additional pavilions may be considered as well. Currently, the Preserve supplies porta-johns from mid-April to mid-November for patron use when the Interpretive Building is closed. A long-term goal is to provide a permanent waterless toilet room on the grounds. Such a facility should include space for storage as well and could be added on to one end of the open-air pavilion.

Other ancillary structures on site include:

- A deck overlooking Lake Ontario along the Lakeview Trail
- Another deck along the Lakeview Trail, closer to the main parking lot, for astronomy programs
- An elevated deck overlooking the Dragonfly Pond along the Heron Trail
- A surface-level viewing platform on the edge of the Dragonfly Pond
- An viewing platform with benches at the Beaver Wetland.

An additional viewing platform or elevated deck along the Buttonbush Wetland will provide an additional attraction and educational opportunity to visitors of the Preserve. This platform will be located along the eastern side of the wetland and should include interpretive signage.

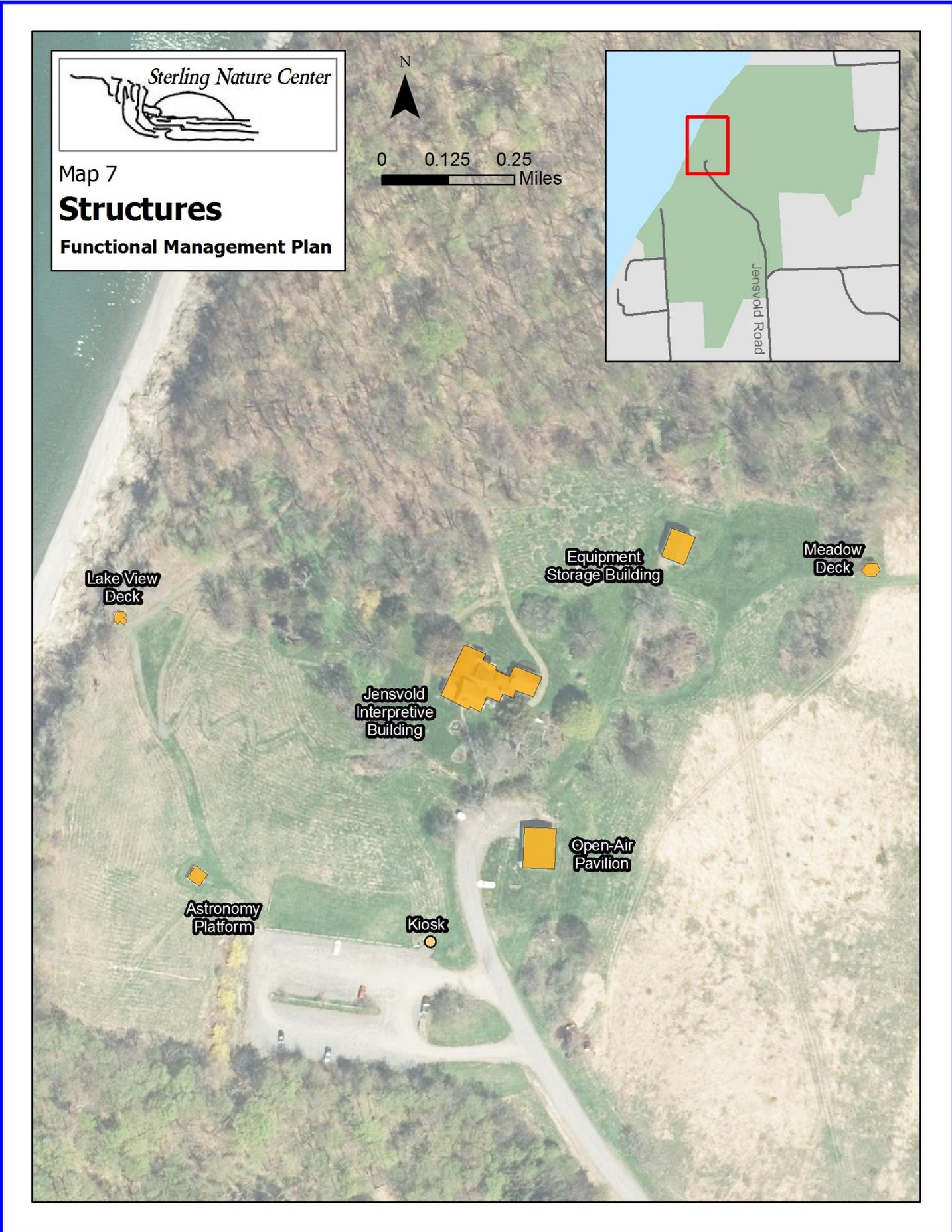


Figure 4-5: Location of structures centrally located in the Sterling Nature Preserve.

2. Parking

There are currently five parking lots within the Sterling Nature Center Preserve. None of the parking lots are striped, so capacity is determined based on parking area size rather than fixed number of spaces.

The main parking lot is located near the end of Jensvold Road. This parking lot can accommodate 50 cars. The second lot is the employee and handicapped parking lot. This lot is also at the end of Jensvold Road, but is closer to the Interpretive Building. This lot can accommodate 10 cars. There is a parking lot at the trailhead at the end of McIntyre Road, and another at the trailhead on Dogwood Road. Both of these are small, cleared areas on the shoulder of the road and can accommodate five cars at a maximum. The final parking lot is adjacent to the canoe launch, off of Farden Rd. This lot can accommodate approximately 10 cars as well. Hunters accessing the Conservation Area are allowed to park in the canoe launch parking lot to access the hunting area beside the launch. No hunting or loaded guns are allowed in the parking area.

This parking configuration allows for a total capacity of 80 cars, 60 near the Interpretive Building. At high-attendance events, such as the annual pork roast or peak summer visitation, the field area between the main parking lot and Interpretive Building serves a valuable function as overflow parking.

The blacktopping of the main parking lot and the Sterling Creek canoe launch parking lot would eliminate maintenance issues with these heavily-used lots. Porous pavement should be explored as a potential material for these improvements as it would minimize stormwater runoff and ice accumulation.

3. Signage

There are many different types of signage at the Nature Center. Each type and the recommendations for improvement are reviewed below.

Entrance Signage

There is a large sign at the intersection of Farden, McFarland, and Jensvold Roads welcoming visitors to the Nature Center. There is also a small sign near the main parking lot that denotes that visitors have arrived at the Nature Center.

There are smaller signs at the McIntyre Road and Dogwood Road parking areas listing the Nature Center rules. A sign was constructed and installed in 2006 at the canoe launch parking area stating "Sterling Nature Center Canoe Launch."

Posted Signs

The boundary of the Sterling Preserve is legally and clearly posted to prohibit hunters from inadvertently entering the preserve areas and visitors from entering the Conservation Area.

Informational Signage

A kiosk that welcomes and orients visitors to the site should be provided at each parking area. Only the main parking lot off of Jensvold Road is currently equipped with this accommodation.

These kiosks could also provide a place for a sign-in book for visitors, brochures, information on upcoming events, rules of the site, and a list of the permitted uses. Maps could be provided to show where those uses are permitted.

Trail Directional Signage

Trail signage, or internal wayfinding signage, is limited. Improved signage is needed on most of the trails to assist in navigation. This includes both a sign to welcome the user to the trail and to orient the user along the trail. Trails have been named and identified with unique color blazes, but some trail junctions are confusing and disorienting. Whereas most junctions provide some trail signage, the addition of a detailed map with a “you are here” symbol are necessary to help re-orientate visitors.

Ideally, trail signage should be consistent and unobtrusive, so as to clearly communicate information without distracting users. This could be achieved by using a simple 2”x4” or 4”x4” treated wood post with a 8½”x11” wood backing as sign face installed at 36” height. A trail map with a “you are here” symbol can be affixed to the backing and covered in clear plastic to prevent weather damage. This method is preferable to metal pole signage with arrows that can be unclear or easily manipulated. Full trail maps also provide the unfamiliar visitor with the ability to plan for farther down the path and identify additional trails to access and alternate routes of egress. Trail users often prefer loop trails to dead-end trails that require them to retrace their steps. Complete trail maps at trail junctions enhance the ability of the user to develop preferred routes, leading to a more enjoyable and enlightening experience.



Figure 4-6: Example of trail directional signage currently used at Sterling Preserve.



Figure 4-7: Example of preferred trail directional signage with trail map on angled sign face.

Roadside Directional Signage

Roadside directional signage assists motorists in finding the Nature Center. Most motorists are traveling to the Sterling Preserve from Fair Haven, Fulton, Oswego, and sparsely populated sections of Cayuga and Oswego Counties within a 30 mile radius. Distance is a barrier to attracting visitors from other population centers (Auburn and Syracuse are nearly an hour away), but expanding opportunities at the Preserve can only help to attract these visitors. Therefore, consideration should also be given to visitors coming from Syracuse, Auburn, and the New York State Thruway. The primary routes of travel can be assumed to be the following:

- From Fair Haven: Northeast on Old State Road (County Route 122)
- From Oswego: Southwest on State Route 104A and Old State Road (County Route 122)
- From Fulton and Syracuse: West and northwest on State Routes 3 and 104A
- From Auburn: North on State Routes 38 and 104A
- From New York State Thruway: North on State Route 34, then west on County Route 370, and north on State Routes 38 and 104A.

Directional signage is present at the point of departure from the following thoroughfares and onto local roads:

- Old State Road (County Route 122)
- State Route 104A (in both directions)
- State Route 38
- State Route 3

There is also directional signage present on the following local roads: Center Road, MacNeil Road, and McFarland Road.

In 2013, the Cayuga County Office of Tourism adopted a wayfinding system designed to assist navigation to regional attractions through a unified, themed signage plan. The project proposed two community wayfinding signs listing the Nature Center. These signs will be located on 104A near the State Route 38 and State Route 3 intersections.

Signage is absent, however, from the more distant State Routes 34 and 370, and the New York State Thruway. Therefore, the primary gap in directional signage affects those motorists traveling from other parts of the State via the New York State Thruway. Though attracting these visitors may be an attainable goal in the future, the Preserve currently does not have the means to effectively do so.



*Figure 4-8:
Cayuga County
Community
Wayfinding
Example.*

Interpretive Signage

Signage that provides educational information on important environmental features and issues should also be installed throughout the Preserve. Potential topics for interpretive signs include:

- Biodiversity
- Wetland habitats
- Bird migration patterns
- Glacial impacts
- Grassland succession.



Figure 4-9: An example of Interpretive Signage, Times Beach Nature Preserve, Buffalo.

4. Benches

Benches are an important part of the Nature Preserve’s circulation pattern, providing seating opportunities along hiking trails, at significant vantage points, and at designated gathering areas. Benches have been installed at the following locations:

- Dragonfly Pond Observation Deck
- Beaver Wetland Observation Platform
- Meadow Observation Deck
- Lake View Observation Deck
- Along portions of the Heron, Forest Ecology, Lake View, and Lake Trails (6 benches total).

5. Habitats

Cayuga County acquired 27 acres of freshwater wetland along the southern boundary of the nature center in 2006. This property has never been formally adopted into either the Preserve or the Conservation Area. Given its high environmental quality as a wetland, the property should be brought under the Easement Area “A” – Freshwater Wetlands and officially adopted as an expansion of the Sterling Preserve.

PERMITTED USES

The permitted uses for this area are activities that are consistent with the recorded conservation easements and fit within the following categories:

1. Hiking (includes snowshoeing, cross-country skiing, and similar)
2. Nature Study (includes photography, journaling, painting, field identification, and similar)
3. Wildlife Viewing / Bird Watching
4. Bicycling (only on the Dogwood Extension trail)
5. Horseback Riding (only on the Dogwood Extension)
6. Snowmobiling (only on the Dogwood Extension trail)
7. Canoeing / Kayaking
8. Sunbathing (along Lake Ontario)
9. School and Public Programs
10. Events and Fundraisers
11. Astronomy Study
12. Gardening (in designated locations)
13. Fishing (along Sterling Creek, Nine Mile Creek, and Lake Ontario)
14. Picnicking
15. Rental of facilities for private events (birthdays, weddings, reunions, meetings etc.)

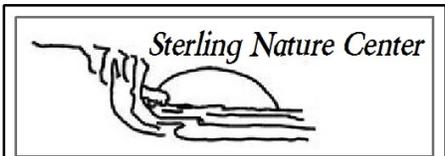
Since the Nature Preserve's inception, camping has been considered a potential, compatible use. However, with the absence of a designated campsite and adequate facilities, it is currently prohibited without the permission of the Nature Center director. The potential development of a camping area will also be discussed in this section.

The accommodation of these permitted uses has been achieved through the development of facilities such as trails and observation areas. Facilities were designed to enhance the overall visitor experience without compromising the natural characteristics of the site. These facilities and associated activities are discussed in the following sections.

1. Trails

The Preserve currently offers a trail network consisting of more than nine miles of trails and access to a great variety of habitats and ecosystems. These trails are depicted in Figure 4-2, which is available as a trail guide to visitors of the Preserve. The trails are summarized on the following page.

1. Meadow Loop: A 1.6 mile trail running through meadows. This trail provides access to the birds, butterflies, dragonflies, and flora of the different field ecosystems.
2. Bluff Trail: A one-mile trail along the top of the lake bluff and through the lakeshore woodlands. This trail features several vistas of Lake Ontario along its path.
3. Lake Trail: At three-quarters of a mile, this loop provides a stroll along the Lake Ontario shoreline, as well as access to the shoreline from the parking lot and the Heron Trail.
4. Vernal Pool Trail: This trail threads through mature woods with vernal pools scattered throughout, some retaining water until midsummer. At the bottom, a short spur off the main trail leads to an observation point on the edge of the 80-acre Beaver Wetland. The trail is 0.7 miles in length.
5. Two-Tail Trail: The historic use of this area as a farm homestead has affected the ecology of its woodlands and wetland. The 0.8 mile trail covers an abandoned farm site with orchard, evergreen plantation, and old fields. Two spurs lead to the Beaver Wetland for a look into its shallow part.
6. Heron Trail: Woodlands, meadows, beaver-created wetland, a man-made wetland, vernal pools, streams, and Lake Ontario are a few of the habitats along this trail. A short spur leads to the Beaver Wetland that includes a great blue heron rookery. This trail is 0.8 miles in length.
7. Forest Ecology Trail: At 0.6 miles, this trail circles through several contrasting forest types – a conifer plantation, northern hardwood sugar maple, and a beech-hemlock lowland forest on the edge of a buttonbush wetland.
8. Lakeview Trail: A 0.4 mile trail that follows a meandering path around the Jensvold Interpretive Building and through native woodland, meadow, and historic formal gardens, contrasted by a section left to nature's own devices. This trail could be converted to an ADA-accessible trail.
9. Dogwood Extension: At 1.1 miles, this trail acts like the spine of the trail system. It is an old camp road that leads through the heart of the lakeshore woodlands and provides a connection to several of the other trails. This is also the only trail open to horseback riding, bicycling, and snowmobiling.
10. Buttonbush Trail: This one mile trail encircles a lake-created wetland dominated by buttonbush shrubs. It skirts the sides of two drumlins through hemlock woodlands and traverses the wave-created berm along the lakeshore.
11. Eagle's View Trail: At 0.6 miles, this trail takes the visitor to an eagle's view of Lake Ontario from the top of McIntyre Bluff. The trail can be accessed from the lakeshore, the Buttonbush Trail, or by parking at the end of McIntyre Road.



Map 8
Trail System
Functional Management Plan



0 0.125 0.25 0.5 Miles

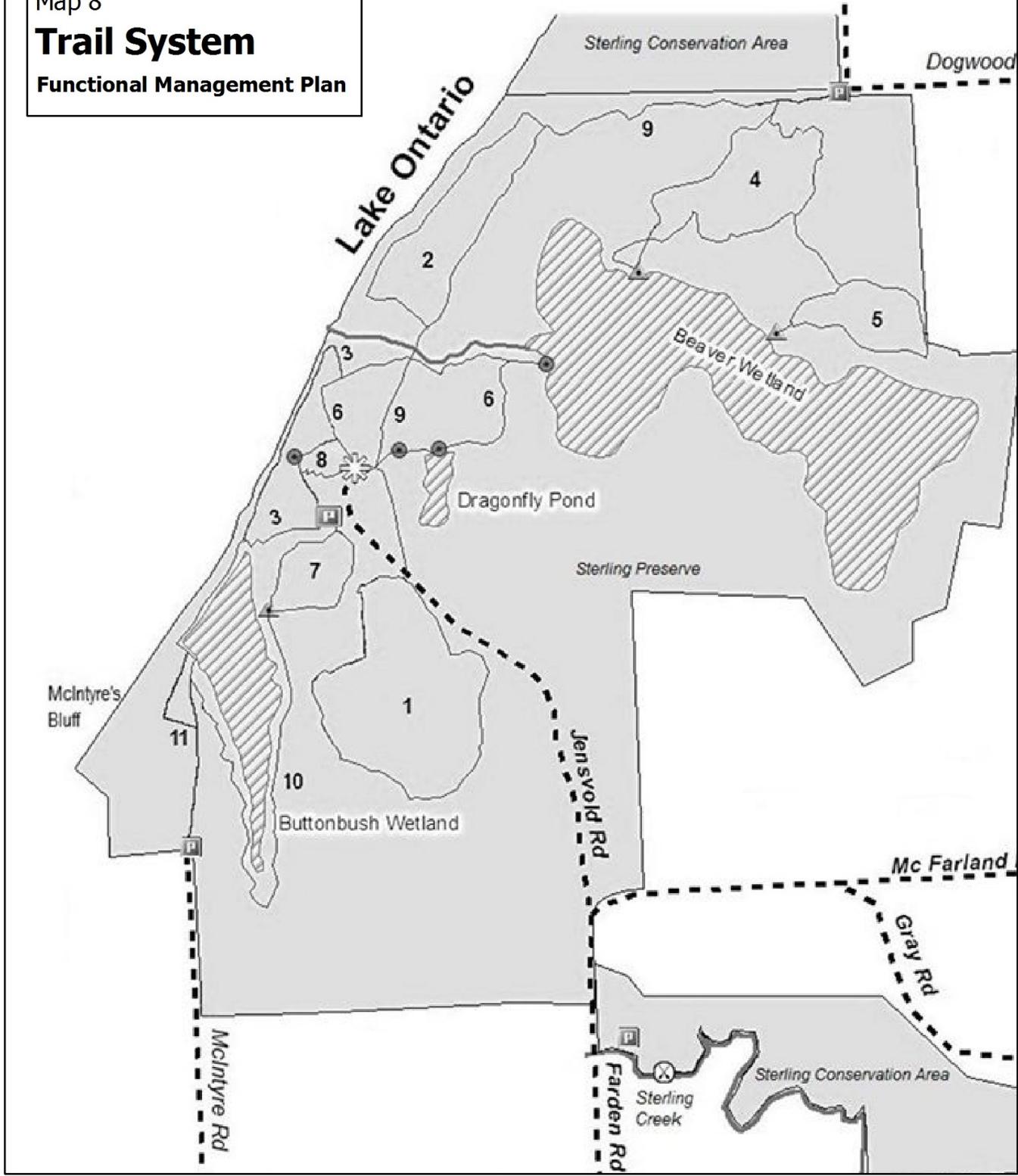


Figure 4-10: Current Trail Map for Sterling Preserve.

Currently, all trails have a natural surface. However, a hard surface, such as asphalt, may be necessary to convert the Lakeview Trail to an ADA-accessible path. Trails vary in width from 2 feet to 10 feet depending on their surroundings and intended use. Each trail has been identified by a unique name and trail blaze. Blazes have been applied to trees along trail lengths to allow for navigation along natural trail surfaces that are not always easily distinguished from non-trail areas. This practice should continue in order to aide in navigation. Standardizing trail surfaces and edging would also improve navigation, as would the installation of detailed trailside maps at the beginning and midpoint of each trail.

Though the Preserve's originally-envisioned trail system is mostly built-out, a few additional trails would improve access to the Preserve and enhance visitors' experiences:

1. East Meadow Loop Trail:

Developing a loop trail along the meadow and woodland to the east of the Interpretive Building would provide visitors with a longer hiking trail through different and diverse habitats. This expansion would add approximately 1.2 miles to the trail network.

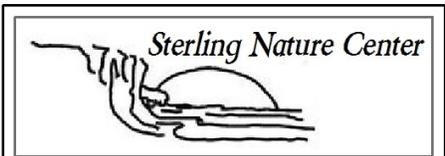
2. Complete Dogwood Extension:

Extending the Dogwood Extension Trail southward from the Jensvold Interpretive Building to the southern edge of the Preserve would potentially allow for connecting to external trail systems and would greatly improve accessibility to the Preserve. This would ensure a contiguous trail network that serves all modes of permitted uses (including horseback riding, snowmobiling, and bicycling) into and through the Preserve. The trail would utilize the Meadow Loop Trail until entering the forest in the southwest corner of the open field. From here, the trail would move southward along a ridgeline to the Preserve boundary. The completion of the Dogwood Extension would add approximately 0.4 miles to the trail network.

The next step would be to extend the trail beyond the Sterling Nature Center and establish a regional connection with the Village of Fair Haven. An external trail connection would require crossing approximately 1.5 miles of private land or public right-of-way to connect with Fair Haven State Park. From there, connection to the Cato-Fair Haven Trail (14.5 miles long) is a short distance along Main Street in Fair Haven.

Making these connections would result in an impressive regional trail system. Perhaps most importantly, the trail system would provide an alternative transportation mode between the Preserve and its closest population center: the Village of Fair Haven.

In trying to maintain the delicate balance between undisturbed natural parkland and visitor access and enjoyment, it is important to take into consideration the amount of Preserve land devoted to trails. Adequate buffers between parallel sections of trails help to reduce navigation confusion and ensure immersion in the natural landscape. This balance is especially important in a passive setting such as a nature preserve, where the primary purpose of the trail network is enjoyment rather than access to other amenities. Additionally, sensitive natural areas such as wetlands may be avoided altogether, further limiting the trail mileage deemed appropriate for a park. In this regard, each park should be considered individually in determining the extent of trail network that is sustainable and appropriate.



Map 9

Proposed Trails

Functional Management Plan

 Proposed Trail Additions



0 0.125 0.25 0.5 Miles

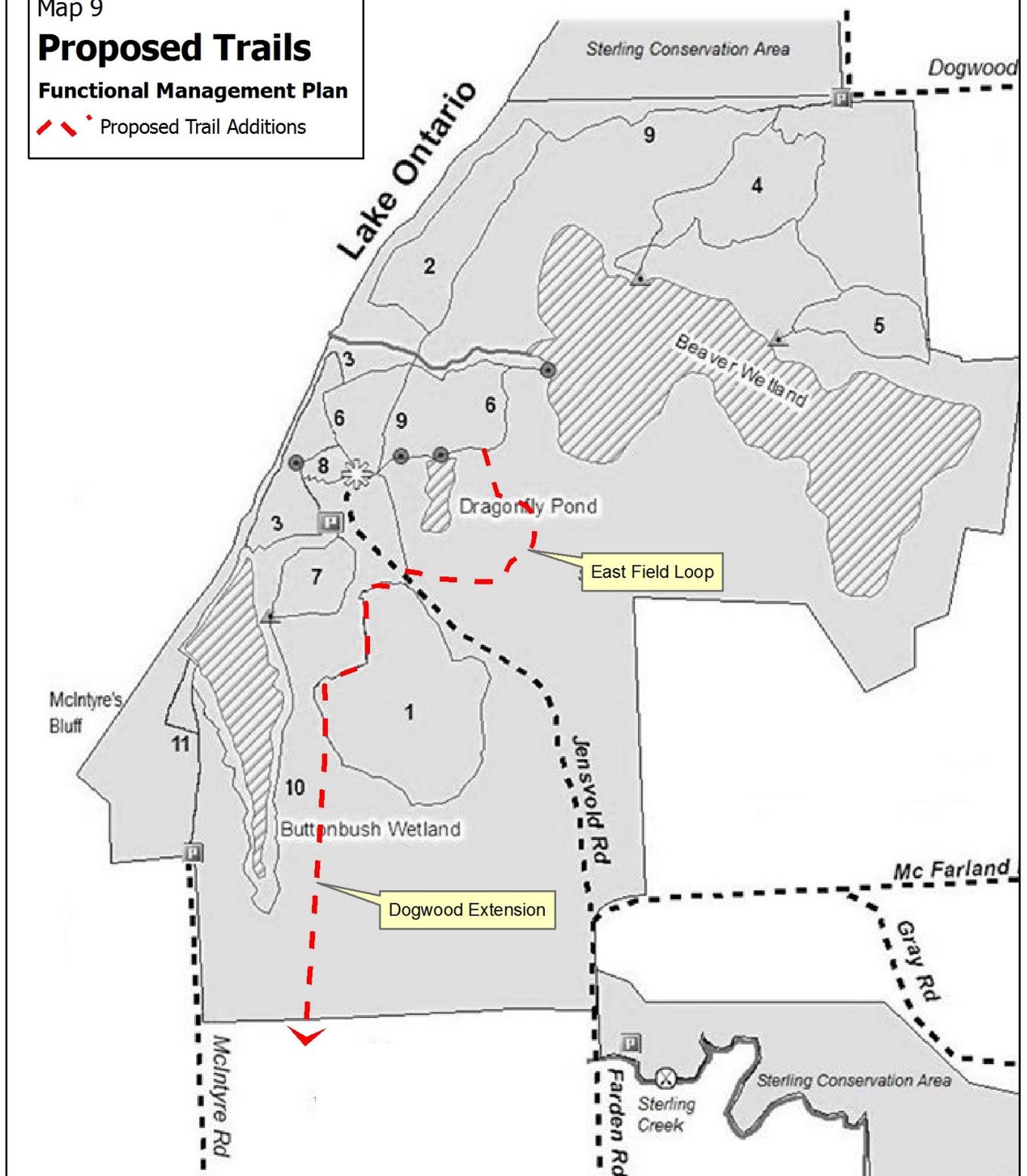


Figure 4-11: Proposed Trail Additions to Sterling Preserve.

Nonetheless, the following chart provides a reference as to the amount of trail mileage in relation to overall park size for a number of similar facilities in the Upstate New York area:

<u>Park Facility</u>	<u>Trail miles / 100 acres</u>
Spencer Crest Nature Center, Steuben County	2.80 miles / 100 acres
Lime Hollow Nature Center, Cortland County	2.79 miles / 100 acres
Baltimore Woods, Onondaga County	2.58 miles / 100 acres
Cayuga Nature Center, Tompkins County	2.14 miles / 100 acres
Indian Creek Nature Center, St. Lawrence County	1.94 miles / 100 acres
Tifft Nature Preserve, Erie County	1.89 miles / 100 acres
<i>Average of Reviewed Nature Centers</i>	<i>1.72 miles / 100 acres</i>
Beaver Lake Nature Center, Onondaga County	1.47 miles / 100 acres
Tanglewood Nature Center, Chemung County	1.47 miles / 100 acres
Pfeiffer Nature Center, Cattaraugus County	1.39 miles / 100 acres
Sterling Nature Center, Cayuga County	1.34 miles / 100 acres
Rogers Environmental Center, Chenango County	1.17 miles / 100 acres

The addition of the Dogwood Extension and Eastern Meadow Loop Trail to the Sterling Preserve trail network would raise the trail mileage per 100 acres to approximately 1.5, making it still well within the lower range of nature centers in the area.

2. Canoeing / Kayaking

The canoe access at the Farden Road parking lot offers visitors an opportunity to explore miles of the East Branch of Sterling Creek. Fair Haven State Park is located approximately five miles downstream, with a short portage necessary over McIntyre Road or, if water level allows, traveling through a low culvert.

Given the abundance of recreational areas along the Lake Ontario shoreline in Fair Haven, a more extensive Blueway Trail should be explored. Ensuring and promoting multiple water access points and on-land destinations will increase recreational opportunities as well as recognition of the Sterling Preserve.

Figure 4-12 on the following page outlines a potential 16.1 mile Blueway Trail that would link numerous regional attractions and destinations. The Blueway would also encompass a variety of settings, including the Lake Ontario shoreline, Blind Sodus and Little Sodus bays, and two branches of Sterling Creek. Aside from the aforementioned portage at McIntyre Road, a fully-realized Blueway would allow for uninterrupted passage to eight launch or landing sites (five public and three private). The only other road crossing, Old State Road (County Route 122), should have adequate space for passage under the bridge. Additional investigation into the feasibility and partner interest in this endeavor is recommended.

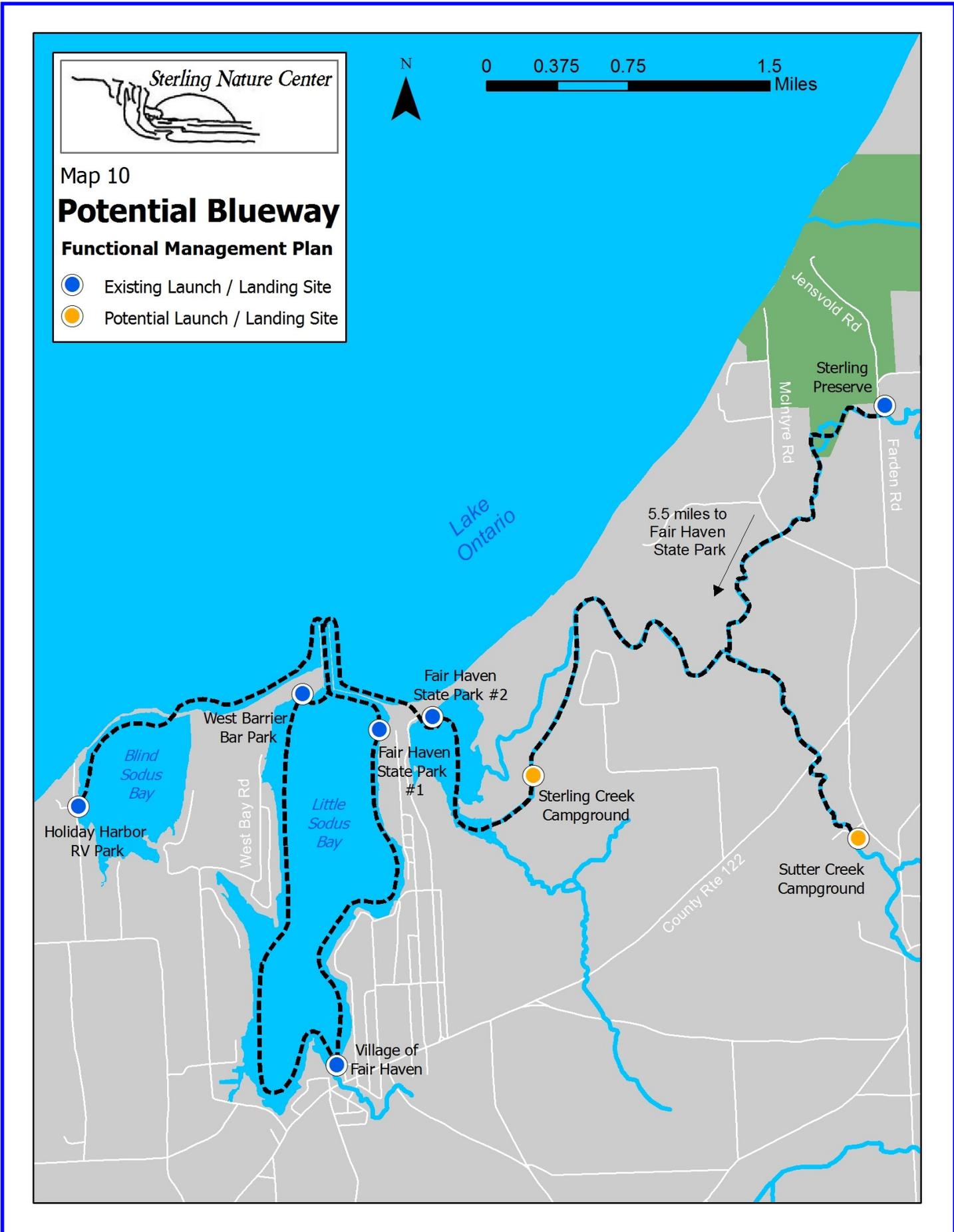


Figure 4-12: Potential Blueway Trail connecting the Sterling Nature Center with destinations along the Lake Ontario shoreline.

3. Picnic Sites

It is anticipated that smaller picnic events consisting of a few visitors will occur at high quality locations throughout the Preserve, such as the observation deck for Lake Ontario, the observation deck for the Dragonfly Pond, and the observation platform for the Heron Rookery. While these are appropriate locations for this type of activity, it should continue to be emphasized that the Preserve is a carry-in / carry-out park.

4. Campground / Primitive Camping

Establishing a designated campground area has been a goal of the Management Plan since its inception in 2005. At the time, it was determined to be a lower priority than trail development and, therefore, has been deferred to a later time. With the trail network mostly built out, the time is right to identify a location for a campground within the Preserve. An appropriate campground location would include consideration of the following criteria to limit impacts on other activities and to the Preserve overall:

1. Disturbance to Wildlife: Minimizing disturbance to wildlife, particularly in the vicinity of the Beaver Wetland, is essential to the overall Vision Statement. For this reason, it is recommended that the campground does not encroach within 500 feet of the Beaver Wetland, Dragonfly Pond, or any other identified wetland area.
2. Accessibility: Providing easy access to and from parking areas will ensure the largest number of interested users as possible. Wide, firm, and stable pathways, such as the Dogwood Extension, are necessary supporting infrastructure to an accessible campground.
3. Sizing: Limiting the number of individual campsites and ensuring minimum spacing between campsites will result in a pleasant experience that embodies the natural character of the Preserve. Campsites that are too close to one another will detract from the experience of a natural setting. Conversely, campsites that are too dispersed will extend disturbance into, and fragmentation of, natural areas. In reviewing standards for outdoor recreational areas, the American Planning Association set a range of 2.5 to 10 campsites per acre as appropriate. Given that camping is a minor use that is subordinate to the goal of preserving natural areas for wildlife, the lower end of the range, a maximum of 2.5 campsites per acre, is recommended for the Preserve. Furthermore, a maximum of 7.5 acres is recommended to be set aside for a campground (15 campsites).

Given this cursory review, four general locations have been identified as appropriate for development of a campground (as shown on Figure 4-5 on the following page):

1. The northeast corner of the Preserve, just south of the Dogwood Road parking area.
2. North of the Bluff Trail where it parallels the Beaver Wetland outlet.
3. The wooded area across Jensvold Road from the Meadow Loop Trail.
4. The wooded area south of the F1 meadow and along the future Dogwood Extension trail.

These areas are currently not ready for use as a campground and would require carefully planned improvements to ensure compatibility with the rest of the Preserve. Improvements may include selective clearing, signage indicating the campground and individual camp site boundaries, and possibly an

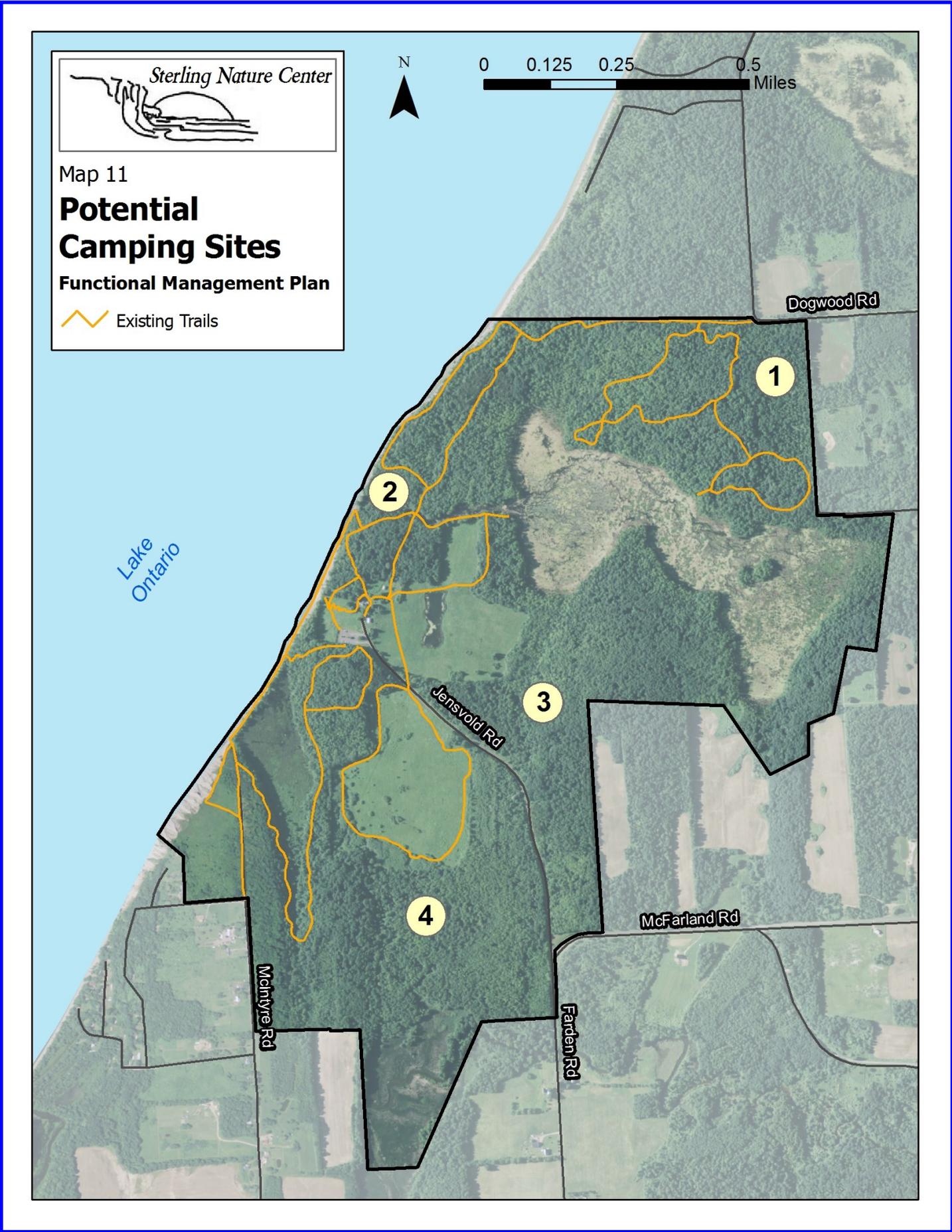


Figure 4-13: Potential Campsites in the Sterling Preserve.

outhouse. Due to the lack of potable water on site, campground use would be limited to primitive camping. The campground should not contain any permanent structures. Use of the campground will require registration at the Jensvold Interpretive Building. Further investigation into the feasibility of these specific locations is recommended.

PROGRAMMING

The Sterling Preserve offers a number of programs and exhibits throughout the year. Some of the programs are presented by Nature Center staff, such as local ecosystem presentations, educational hikes, or composting workshops. Guest speakers, authors, and musicians are also invited on a regular basis and provide a wide variety of programming in both environmental education and arts and culture. This variety of programs addresses a large part of the Vision Statement and directly fulfills Goals #2, 3, and 7. The expansion of program offerings would further fulfill these objectives and help to “spread the word” about the Nature Center. Additional programming should focus on the following components:

- Providing public and school programs both on-site and off-site. Programs in schools would increase awareness of the Preserve and have the incidental benefit of free advertising.
- Expanding program offerings by bringing in guest speakers to present programs on particular topics of interest.
- Offering the Volunteer Naturalist Program every fall and spring to train volunteers in the skills they need to assist with program offerings and volunteerism on the Site.
- Developing a children’s summer nature day camp to provide an opportunity for youth in the community to have an extended opportunity to learn about nature in a structured setting. This type of program could also provide revenue for the Nature Center.
- Developing an astronomy program. The Sterling Nature Center could possibly offer this in conjunction with the meteorological school at SUNY Oswego.
- Accommodating the community’s need by providing a place for suitable cultural events.
- Developing educational exhibits, both on the grounds, and within the Interpretive Building. These exhibits could be permanent or changing based on seasons or topics.



Figure 4-14: Apple press exhibit and program at the Sterling Preserve, photo courtesy of Jim D’Angelo.



Figure 4-15: Nature Center staff lead a program exploring vernal pools; photo courtesy of The Auburn Citizen.

Section 5: Management Plan for Sterling Conservation Area

The Sterling Conservation Area (SCA) allows for the use of visitors that are engaged in conservation activities. This area encompasses approximately 700 acres of county-owned land and contains a diversity of habitats. The Conservation Area is distributed over three noncontiguous segments, spanning a vast area that provides abundant hunting and fishing opportunities. Contrary to the Sterling Preserve, the majority of the land in the Conservation Area is designated Easement Area “A” (Freshwater Wetlands), or the almost equally restrictive Easement Area “C” (Remaining Parkland). This ensures that the land remains undeveloped and natural. In accordance with the conservation easements, motor vehicles are not allowed in the Conservation Area, other than along Dogwood Road and designated parking areas. This restriction applies to cars, trucks, snowmobiles, and ATVs. A small section of the Conservation Area along Dogwood Road is designated Easement Area “B” (Suitable for Recreational Development) as depicted in the map on the following page.

INFRASTRUCTURE

1. Buildings

There are currently no buildings within the Conservation Area. At some point in the future, it might be in the interest of the Nature Center to construct a building on a portion of the Easement Area “B” (Suitable for Recreational Development) in the SCA. This building could be used for conservation education programs and competitions. There is a need in the community to have a place for conservation-minded youth to practice their skills and learn. Easement Area “B” offers an ideal location due to its proximity to the abandoned Andrews and Dogwoods roads. In addition to providing access, the existing road surface may be used for parking. Until the time a building is constructed, the Jensvold Interpretive Building should be made available for meetings and trainings, provided that no firearms are allowed in this section of the Nature Center.

2. Parking

Each of the three segments of Sterling Conservation Area can be accessed by a parking area. The easternmost segment can be accessed near Wetland 6 east of Irwin Road. This parking lot is currently maintained by the Poor Folks Snowmobile Club, which has their meeting building adjacent to the property. Hunters are also allowed to park in the canoe launch parking lot to access the southernmost segment behind the launch. The northernmost segment can be accessed along Dogwood Road and other roadways within the SCA. No hunting or loaded guns are allowed in any of the parking areas.

3. Signage

There is currently no signage in the Conservation Area. Opportunities for signage include installing informational kiosks at three main entry points: the area near the snowmobile club meeting building, the parking area off of Dogwood Road, and the Sterling Creek canoe launch parking area on Farden Road. Additionally, it would be helpful to add signs along the lakeshore, above the high-water line, that welcome paddle visitors as they enter the SCA and thank them for visiting as they leave.

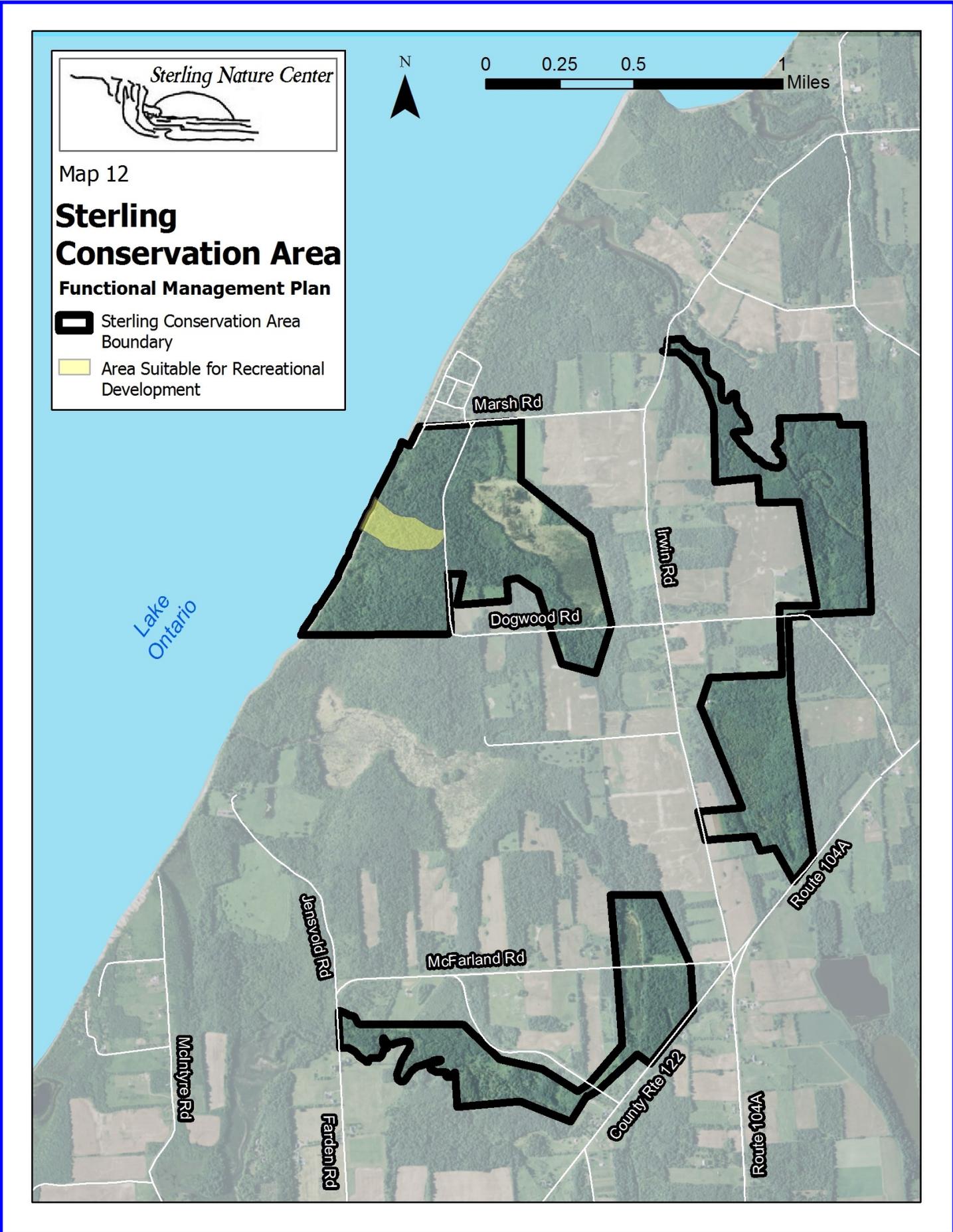


Figure 5-1: Delineation of Sterling Conservation Area.

PERMITTED USES

Activity in the Sterling Conservation Area is more restricted than in the Preserve. Because the stated objective of the SCA is environmental conservation, some permitted uses are more appropriate than others. The preferred uses for this area are:

- Hunting (All DEC rules and regulations apply)
- Fishing (All DEC rules and regulations apply)
- Conservation Habitat Management

Other uses are permitted, but not encouraged in the SCA. These include:

- Nature Study (such as photography, journaling, painting, field identification, and similar)
- Wildlife Viewing
- Events and Fundraisers
- Hiking (including Snowshoeing, Cross-Country Skiing, and similar)
- Canoeing / Kayaking

Because there is sufficient space in the Preserve area, the preference is for these activities to occur in the Sterling Preserve.

1. Hunting

Hunting is the most common activity in the SCA, so it is strongly recommended that all visitors (hunter and non-hunters), wear hunter orange. Hunter orange has been proven to drastically reduce hunting accidents. Because motor vehicles are not allowed in the Conservation Area, any game taken must be dragged or carried out without the assistance of motorized equipment.

Hunting is permitted throughout the SCA year-round and in accordance with all Department of Environmental Conservation (DEC) regulations including regulation of seasons, protective measures such as apparel, and safety distances to residences. No special permits are required for this use other than those required by DEC regulations. Blinds are permitted in the SCA as long as they are not built as permanent structures, are removed daily, and do not violate the conservation easements. Permanent tree stands, tree spikes, screws, nails, and other devices that would damage trees are prohibited. Hunters are reminded that this is public land that is open to non-hunters and it is extremely important that hunters use caution before shooting.

If hunting opportunities were to be expanded to include individuals with disabilities, an ADA-compliant hunting area could be developed on the portion of Easement Area B (Suitable for Recreational Development) that is located within the SCA. The abandoned Andrews and Williams roads provide access to this space. ADA-accessible blinds could be constructed in a few locations.

2. Fishing

Fishing is also permitted in the SCA in accordance with all rules enforced by DEC, including the need to have a fishing license and observation of the seasons and limits.

As previously mentioned, the Conservation Area contains the two main tributaries that run through the Nature Center: Sterling Creek and Nine Mile Creek. While Sterling Creek currently has a canoe launch, improvements such as a fisherman's access trail could enhance the fishing experience along the creek. Similarly, access to Nine Mile Creek, which currently has none, should be explored for both canoe launching and fishing. The logical access points would be either where Irwin Road crosses Nine Mile Creek in the northeastern corner of the Conservation Area, or the Conservation Area access along Parkhurst Road.

3. Conservation Habitat Management

Conservation Habitat Management can be conducted throughout this area in order to improve conservation-based activities in the SCA. All habitat management projects must be done in accordance with the conservation easements and with the written permission of the Sterling Nature Center Director.

4. Trails

Nature Center staff has abandoned trails in the SCA. Any trails in this area will not be advertised for activities. Trails should only be used for hunting and fishing. Minimizing the use of these trails will allow for a more pleasurable hunting experience. Once again, it is recommended that anyone entering this area, for any purpose, wear hunter orange.

Section 6: Organizational Stability

STAFFING

The Nature Center is currently staffed by only a part-time Nature Center Director and a part time Site Manager. A number of staff needs have been identified in order to continue with the positive development of the Nature Center. The following five staff positions have been identified as necessary to provide a more inclusive set hours of operation and accomplish a number of the projects and objectives set forth in the Vision Statement:

1. Full-time Director
2. Full-time Naturalist / Environmental Educator: This position would conduct on-site programs and outreach programs (such as presentations in schools). Currently, these tasks are completed by the Nature Center Director.
3. Grant Writer: In the absence of this position being filled, Cayuga County Planning & Economic Development staff can provide assistance in grant writing.
4. Full-time Site Manager: Currently a part-time position charged with managing and maintaining the site and trails. Development of warm season grasslands could be pursued with this position filled.
5. Full-time Clerk
6. Volunteer Coordinator: Responsibilities would include maintaining the volunteer database and the maintenance projects database, as well as coordinator volunteers and volunteer recognition events.

While some events, such as the annual Pork Roast or Fall Jamboree, are fee-based, additional efforts need to be made to increase revenue from Nature Center events in order to provide funding for these positions. There is also a greater need for volunteers at the Sterling Preserve. The following volunteer positions have been identified as necessary:

- Volunteer Naturalists
- House-sitters
- Gift Shop Attendants
- Event Staff
- Trail Maintenance
- Gardeners
- Fundraisers
- Volunteer Coordinator
- Membership Secretary
- Building Maintenance
- Carpenters
- Publicity / Public Relations

In order to increase volunteer activity at the site, volunteer recruiting needs to be done. Additionally, providing incentives, such as credit toward college courses, and recognition for volunteering can help to encourage participation.

FUNDING

Funding of operations and projects is always a concern. As a component of the Cayuga County Parks and Trails system, the Sterling Nature Center receives operational monies from the general fund. These funds, however, are limited and insufficient. Other revenue sources must be explored and implemented to continue with the positive developments of the Nature Center.

The Friends of Sterling Nature Center (FSNC) is a not-for-profit 501(c)-3 organization that provides financial and operational assistance through memberships, events, and volunteers. This organization is vital to the continued success of the Nature Center. Donations of money and materials can be accepted through this organization and funneled to specific projects in the Nature Center. A Memorandum of Understanding (MOU) between Cayuga County and the Friends of Sterling Nature Center defines the respective roles of each organization and outlines procedures. A review and update of the MOU should be undertaken to strengthen the relationship between the County and the FSNC to ensure the needs and objectives of both organizations are being met. A copy of the MOU is included in the appendix of this Plan.

There are also a number of grants that either Cayuga County or the Friends of Sterling Nature Center can apply for to fund specific projects. These tend to be larger projects that serve many users or have a significant positive impact on the site. Examples may include design and construction of a new interpretive building, installation of ADA-accessible features, and wildlife habitat development in areas open to hunting. Many grants require a match by the grantee. These matches often consist of financial contributions, but could also take the form of staff support or direct labor. When pursuing a grant opportunity, coordination with the Friends of Sterling Nature Center is critical in order to ensure a sufficient and appropriate match is identified. Grant fund sources may include:

- New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP)
- New York State Department of Transportation Recreational Trail Program (particularly for issues of connectivity)
- Great Lakes Restoration Initiative (EPA program)
- National Environmental Education Foundation (NEEF)
- Fund for Wild Nature

Identifying and pursuing grant funding opportunities is a task that demands diligence. A grant writer, even in a part-time capacity, is, therefore, an essential component to the financial viability of the Nature Center.

As mentioned previously, officially recording Wetland #9 in Conservation Easement "A" with New York State would result in a payment by the State. Other supplemental revenue sources could include donations to the Nature Center for the privilege of dedicating a bench or observation platform. The Friends of Sterling Nature Center are currently reviewing the latter opportunity.

MARKETING

The Sterling Preserve is a tourism-based facility. As such, the fate of the facility is tied very closely with public perception and awareness. Therefore, the Sterling Preserve needs to actively promote the virtues and opportunities of the site. In addition to the programs and event offerings, some of the unique characteristics of the site that should be promoted are:

- Nearly two miles of Lake Ontario shoreline,
- Free access and free parking,
- Largest nature preserve in the nine county DEC region,
- Heron rookery,
- Bald Eagle nest,
- Bluffs that offer spectacular views,
- Location along the Seaway Trail,
- Over nine miles of trails.



Figure 6-3: The great blue heron rookery is an unrivaled attraction of the Preserve and a centerpiece of promotion; photo courtesy of Mike Greenlar.

With limited funds, innovative strategies for marketing and promotion must be developed. If implemented, the following strategies can be used to improve the Sterling Preserve's visibility in the region:

1. Social media provides an inexpensive method of marketing and advertising. The Sterling Nature Center has been successful in taking advantage of this opportunity, maintaining a presence on Facebook with regular updates and notifications of programs and events. At the time of this publication, the Nature Center has more than 2,000 followers. Photo updates from page followers and staff is another powerful tool to display the myriad offerings of the Sterling Nature Center.
2. The annual photo contest serves to promote the Preserve and spread the word on the stunning natural features and animal observation opportunities. Expanding the photo contests to a seasonal event would increase awareness of the year-round opportunities at the Preserve.
3. Hosting an annual "State of the Nature Center" meeting could be an efficient promotional effort as well. This meeting could be used to inform the community of the projects that have been completed in the past year as well as the Preserve's direction for the next year. This "big picture" meeting could be tailored to draw interest from the press, and perhaps be a place for directors of other nature centers to meet and collaborate.
4. Being a part of a larger Blueway Trail will provide greater visibility at nearby venues that offer similar environmental education and recreational activities, such as campgrounds and the Fair Haven State Park.
5. Sterling Nature Center has a number of partners in the area that share the objective of promoting environmental education, recreation, and tourism. Continued coordination with these partners, such as the Cayuga County Office of Tourism and the Seaway Trail, is important for elevating recognition of the Nature Center as a regional destination.

This page intentionally left blank.

Section 7: Priority Projects and Strategies Matrix

The following is a summary of the priority projects and the strategies for implementation over the course of the ten-year Functional Management Plan Update. Implementation strategies are identified where appropriate. High Priority projects should be pursued in years 1 through 3; Medium Priority projects in years 4 through 6; Low Priority projects in years 7 through 10. Asterisks indicate projects to be pursued immediately.

HABITAT MANAGEMENT

Project	Priority	Implementation Strategies	Goal Themes
1. Manage Invasive Species by identifying occurrences and rehabilitating areas with Native Vegetation.	HIGH 	This project is ongoing. Nature Center staff will continue to pursue this goal through strategies such as beetle releases and water chestnut pulls.	
2. Develop a Wildlife Diversity Inventory and Identify Management Policies for Species of Concern.	MEDIUM	This project is ongoing and essential to realizing the overall Vision Statement. Nature Center staff will continue to pursue this goal.	
3. Create a Diverse Garden Development Plan	LOW	Nature Center Staff should work with volunteers to outline the type and location of gardens around the Interpretive Building.	 



= Preservation



= Recreation



= Environmental Education



= Organizational Stability

STERLING PRESERVE INFRASTRUCTURE

Project	Priority	Implementation Strategies	Goal Themes
1. Begin Process of Replacing Jensvold Interpretive Building with new 5,000 sqft Green Building.	HIGH 	Funds from the Friends of Sterling Nature Center and Capital "H" account should be leveraged in the pursuit of grant monies to achieve this initiative. First steps include initiating a RFQ to identify a list of qualified architects to provide schematic design and cost estimates. County Planning staff can manage this process with involvement from SNC staff and Friends of Sterling Nature Center.	 
2. Add Interpretive Signage at key locations.	HIGH 	Friends of Sterling Nature Center, Nature Center staff, and County Planning staff should coordinate to develop content. Interpretive signage should consist of professionally manufactured panels.	 
3. Officially Place Wetland Property along the southern boundary of the Nature Center into Conservation Easement Area "A."	HIGH 	The County Department of Planning & Economic Development should coordinate with NYSOPRHP to record this easement.	
4. Develop Standardized Trail Junction Maps with "You are Here" Arrow	HIGH	Cayuga County Planning and GIS staff can provide assistance in the development of these maps. Volunteers can install.	
5. Resurface Employee / Accessible Parking Lot and Canoe Launch Parking Lot.	MEDIUM	Funds from Friends of Sterling Nature Center should be used to fund this project.	
6. Construct a Permanent Bathroom Addition on to the Open-Air Pavilion.	MEDIUM	Funds from Friends of Sterling Nature Center and Capital "H" account should be leveraged in the pursuit of grant monies to achieve this initiative.	
7. Construct Buttonbush Wetland Viewing Platform.	MEDIUM	Friends of Sterling Nature Center have agreed to fund this project.	
8. Stripe Main Parking Lot to Optimize Capacity.	MEDIUM	Funds from Friends of Sterling Nature Center and Capital "H" account should be used to fund this project.	



= Preservation



= Recreation



= Environmental Education



= Organizational Stability

Project	Priority	Implementation Strategies	Goal Themes
9. Add Removable Side Panels to the Pavilion.	LOW	Funds from Friends of Sterling Nature Center should be used to fund this project.	
10. Construct Additional Open-Air Pavilions as needed.	LOW	There is no current need for additional open-air pavilions at this time. Nature Center staff will continue to monitor use.	
11. Add Additional Roadside Directional Signs near Major Intersections.	LOW	The County Department of Planning & Economic Development should coordinate with the State Department of Transportation.	

STERLING PRESERVE PERMITTED USES

Project	Priority	Implementation Strategies	Goal Themes
1. Develop ADA Accessible Trail Near the Interpretive Building	HIGH	Previously, a grant was secured to complete this initiative but the funding award lapsed due to insufficient staff. Additional grant monies should be identified and pursued, with administrative support from Cayuga County Planning Staff.	
2. Develop Self-Guided Wayside Exhibits along some Trails	HIGH	Wayside exhibits should consist of small signage with a brief explanation of the significance of the exhibit and possibly an app link for additional information.	
3. Explore Feasibility of Blueway Concept	HIGH	A coordination committee should be established to explore the interest and feasibility of this concept. Once a project extent has been defined, grant opportunities for implementation can be explored.	
4. Complete Dogwood Extension Trail and Cato-Fair Haven Trail Connection	HIGH	Coordination of connection to the Cato-Fair Haven trail should be revisited with the Village of Fair Haven and State of New York. Grant opportunities should be explored to facilitate the development of the extension of this trail. Volunteer labor should be utilized to develop the remainder of the Dogwood Extension on County-owned property.	



= Preservation



= Recreation



= Environmental Education



= Organizational Stability

Project	Priority	Implementation Strategies	Goal Themes
5. Establish a Campground	MEDIUM	Further investigation into the feasibility of the four potential locations identified in this plan is warranted. A final Recommendation Report should be produced for review by the County Parks and Trail Department and County Legislature.	
6. Construct East Meadow Loop Trail	MEDIUM	Volunteer labor should be used to establish a level and clear trail. The trail should be staked out prior to construction and areas requiring boardwalk should be avoided to the greatest extent possible.	
7. Standardize Trail Conditions	LOW	Trails most in need of this improvement should be identified as a priority. Advanced volunteer assistance, such as establishing an Eagle Scout service project, could be utilized to implement sections.	
8. Improve Trail Map to make it more User-Friendly	LOW	The trail map is currently well-received. Staff should be vigilant in recognizing opportunities to improve this document and respond to suggestions from visitors. Updates made as needed.	
9. Label Species of Interest along certain Trails	LOW	This initiative has been accomplished but staff should continue to look to identify opportunities for expansion.	
10. Install Benches in strategic locations along Trails	LOW	A few benches have been located along the trails. More will be added when / if need arises.	



= Preservation



= Recreation



= Environmental Education



= Organizational Stability

STERLING CONSERVATION AREA

Project	Priority	Implementation Strategies	Goal Themes
1. Develop Master Plan for Easement Area "B" portion as a Meeting Facility for Conservation Activities.	HIGH 	The Cayuga County Department of Planning & Economic Development should facilitate this process in coordination with nature center staff and Friends of Sterling Nature Center.	
2. Expand Warm Season Grasslands.	MEDIUM	This project is ongoing. Nature Center staff will continue to pursue this goal.	
3. Construct Fisherman's Access Trail along Sterling Creek.	MEDIUM	Volunteer labor should be used to establish a level and clear trail. Signage and parking is existing.	
4. Install Kiosks at the two Entry Points to the SCA (Dogwood Road and Poor Folks Snowmobile Club).	MEDIUM	Advanced volunteer assistance, such as establishing an Eagle Scout service project, could be utilized to install the kiosks.	
5. Create Fisherman's Access Trail along Nine Mile Creek.	LOW	Volunteer labor should be used to establish a level and clear trail.	
6. Install Signage along the Lakeshore.	LOW	Funds from Friends of Sterling Nature Center should be used to fund this project.	

ORGANIZATIONAL STABILITY

Project	Priority	Implementation Strategies	Goal Themes
1. Expand Nature Center Director role to full-time position.	HIGH	The Nature Center budget must be expanded to enable this to happen.	
2. Market and Promote the Nature Center	MEDIUM	This project is ongoing. Innovative tactics such as social media should be continued and expanded.	



= Preservation



= Recreation



= Environmental Education



= Organizational Stability



Sterling Nature Center