

**Draft Master Plan for  
Sampson State Park  
Draft Environmental Impact Statement  
Seneca County, Town of Romulus New York  
Date of Draft 10/13/2015**



**Parks, Recreation  
and Historic Preservation**

## SEQR Notice of Public Hearing

This Notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

**Location and Description of Action:** Sampson State Park is in the Town of Romulus in Seneca County. This SEQR Type I action involves **Adoption and Implementation of a Master Plan for Sampson State Park**. A Draft Environmental Impact Statement (DEIS) has been prepared and accepted by the lead agency, the NYS Office of Parks, Recreation, & Historic Preservation (OPRHP).

**Description of Action:** The action involves adoption and implementation of a Master Plan for Sampson State Park. The draft plan includes the potential for enhancement of the public marina through a Request for Proposal (RFP) seeking improvements to and the operation of the marina in the park. Independent of the RFP, improvements to the boat launch will enhance recreational boating access to Seneca Lake. Additional outdoor recreational opportunities include the construction of multi-use trails, cycling, and pedestrian access paths, expanded seasonal camping and overnight cottage rentals, improved access for hunting and fishing, and minor improvements to current outdoor recreation amenities. New infrastructure includes a reconfigured road system, construction of a solar panel array that will offset energy consumed in the park, a four-bay RV dump station, upgraded electric and water systems in the current campground and also park-wide, updated comfort stations, and improved access to park amenities and recreational programs for people of all abilities. Regional events and visitors will enjoy new indoor and outdoor spaces – a lakeside pavilion, and the picnicking area will further connect the park with Seneca Lake. Additional planning will guide the management of invasive species documented in the park, and management of locally important habitat for wildlife. The Draft Plan/DEIS describes potential environmental impacts and mitigation of those that may be adverse. Areas that have been evaluated with respect to impacts include: soil erosion and water quality, threatened and endangered species, wildlife, historic and archeological resources, and sustainability.

A public hearing will be held on **Tuesday, October, 27 2015**, at 6:00 PM at **Sampson State Park, 6096 NY-96A, Romulus, New York**. Persons may provide comments at the hearing or in writing no later than the **end of the comment period – December 4, 2015**. All comments should be sent to one of the agency contact persons:

**CONTACTS:** Fred Bonn, Regional Director, Finger Lakes Region, NYS OPRHP, 2221 Taughannock Road, Trumansburg, NY 14886 (607) 387-7041 and Diana Carter, Director, Planning Bureau, NYS Office of Parks, Recreation and Historic Preservation, 625 Broadway, Albany, NY 12207 (518) 474-0456. E-mail comments to: [Sampson.Plan@parks.ny.gov](mailto:Sampson.Plan@parks.ny.gov)

**Availability of Draft Plan/DEIS:** Copies of the Draft Plan/DEIS are available for review at the Park Office, at the offices of the agency contacts and at the Edith B. Ford Memorial Library, 7169 N Main St. The online version of the DEIS/FEIS is available at the following publically accessible web site: <http://nysparks.com/inside-our-agency/master-plans.aspx>

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## Abbreviations Used

ADA	Americans with Disabilities Act
DEC	New York State Department of Environmental Conservation
EAWPP	Emergency Action Written Preparedness Plan
ESD	New York State Empire State Development
EMB	Environmental Management Bureau of OPRHP
DEIS	Draft Environmental Impact Statement
FSB	OPRHP Field Services Bureau
IBS	National Audubon designated Important Bird Area
MGM2	National Park Service’s Money Generation Model 2
NYNHP	New York Natural Heritage Program
NPS	National Park Service
NWI	National Wetlands Inventory
NYSEG	New York State Electric and Gas
NYS	New York State
OPRHP	New York State Office of Parks, Recreation and Historic Preservation
PERI	Political Economy Research Institute
PTNY	Parks & Trails New York
RIN	Relative Index of Needs
RV	Recreational Vehicle
SEQR	State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SSP	Sampson State Park
UD	Universal Design
VUF	Vehicle Use Fee

## Executive Summary

### Planning and Environmental Review

The environmental review of proposed master plans for state park facilities is conducted in accordance with the State Environmental Quality Review Act (SEQR). Under SEQR, agencies consider environmental impacts along with social and economic factors early in the decision-making and planning/project design process. Land use or resource management plans are considered Type I actions under SEQR, that is, they are likely to have a significant impact on the environment and, therefore, require preparation of an Environmental Impact Statement (EIS). OPRHP fully integrates the planning and environmental review processes.

### Guiding Principles and Policies

Overarching OPRHP program principles, policies, and goals and objectives provide a foundation for planning, development, operation, and management decisions made during the master plan process. The following sections summarize current directives considered throughout the planning process for Sampson State Park.

The OPRHP planning process adheres to three basic principles:

- Planning must be coordinated and provide for public participation: cooperation among appropriate government organizations, the public at large, special interest groups and the private sector is not only desirable but necessary.
- Planning is a continuous process: assumptions for the classification and management of park resources must be constantly reevaluated in light of new information, changing needs and priorities, and resource character.
- Planning must be comprehensive: the information base, and additional pertinent research, should support the planning process and should encompass relevant social, economic and physical factors relating to the management and operation of the park and its resources.

OPRHP has developed a number of agency-wide policies to address management issues commonly faced by the park system. Policies cover topics such as the management of trees and other vegetation, pesticide use, wildfire and controlled burns, oil, gas and mineral rights, wildlife management, and native plants. Please visit our website to view our Agency policies – <http://nysparks.com/inside-our-agency/public-documents.aspx>.

### Land and Water Conservation Fund

The park has received funding from the National Park Services' Land and Water Conservation Fund. Acceptance of this federal funding includes a requirement that these facilities remain in public outdoor recreational use in perpetuity. Any proposals for uses other than public outdoor recreation require the prior approval of the National Park Service to lift the use restriction through a process known as "conversion." Please visit

the following website for more information. <http://www.nps.gov/ncrc/programs/lwcf/manual/lwcf.pdf>

## **Location and Access**

Sampson State Park is located on the eastern shore of Seneca Lake on NY 96A. The park lies in the Town of Romulus, Seneca County.

The park is easily accessed off of the NYS Thruway from major cities such as Buffalo, Rochester, and Syracuse. Other cities such as Auburn, Geneva, and Ithaca are within a reasonable driving distance of the park. (Figure 1)

## **Economic Contribution**

For the Finger Lakes park region (Sampson SP is one of 32 facilities) estimated annual economic output figures are \$141 million and 1,776 jobs created. Visitor expenditures for the region in the 2007-2008 season (last season this information is available) were estimated to be between \$50.5 million and \$103.5 million. The total effects of recent visitor spending (FY2014-2015) in the community equates to just under \$4.2 million in economic output and 59 jobs.

Attendance figures show that Sampson State Park received 173,305 visitors between April 1, 2014, and March 31, 2015 (FY 2014-15). This number includes 109,735 campers, 46,197 vehicle (day) users, 12,265 marina users, and 5,108 other.

## **Recreation Needs Assessment**

The master plan identifies the counties of Cayuga, Ontario, Schuyler, Seneca, and Tompkins, Wayne, and Yates as the service area of the park. In this service area recreational needs that equal or exceed the State average are swimming, golfing, walking or jogging, tennis, court games (e.g. basketball, racket ball), camping, fishing, local winter (e.g. ice skating, sledding), cross-country skiing, downhill skiing and snowmobiling.

## **Park Boundaries**

The boundaries of the park are shown in Figure 2.

## **Adjacent Land Uses**

The surrounding land uses are predominated by agriculture, vacant, and rural residential classifications. (Figure 3)

## **Legal Considerations**

There is an existing easement granted to the New York State Electric & Gas Corporation (NYSEG) for distribution lines, a sub-station, and electric service to the park manager's residence in the park. There are no known inholdings in the park.

## **Programs and Partnerships**

The Friends of Sampson State Park, founded in 1997, have assisted with providing funding and other resources for several much-appreciated projects in the park, including the marina, and the museum.

The Military Museum at the park is managed in partnership with Navy and Air Force WWII veterans. OPRHP provides staffing, and the partners provide interpretive services, programming, and some maintenance.

## **Physical Resources**

### ***Geology and Topography***

The topography of the area is typical of the Finger Lakes region with gently rolling inter-lake hills and steeper gorges running perpendicular to the lake. The park has five small gorges or ravines, which were carved by streams flowing east to west from the uplands east of Seneca Lake. (Figure 4)

The Finger Lakes region was significantly altered by the last glacial episode that included the Wisconsin ice sheet. River valleys were formed and later became what are now the Finger Lakes after the glaciers retreated. Bedrock in the vicinity of the park consists entirely of the Ludlowville formation, a formation consisting of shale with some limestone.

### ***Soils***

The soil in Sampson SP is predominantly made up of loam derived from shale, limestone, sandstone, and siltstone as parent material. The depth to the water table ranges from 6 to 24 inches and depth to bedrock is generally over 80 inches. Descriptions of the Soils and their limitations for certain kinds of development are detailed in Appendix C (Figure 6)

### ***Water, Watersheds, and Wetlands***

The park is in the Oswego River/Finger Lakes Watershed. Water resources in the park include Seneca Lake, several streams and wetlands. The park is located along the east shore of Seneca Lake. The waters of Seneca Lake are a source of drinking water and suitable for trout spawning. Several small wetland complexes are in the park, and although not mapped as New York State DEC regulated wetlands they are mapped as federally regulated wetlands under the National Wetlands Inventory (NWI) program. (Figure 5)

## **Natural Resources**

The is one of the Finger Lakes region's largest State Parks, providing significant acreage of natural cover dominated by fields, shrubland, and woodlands. The New York Natural Heritage Program (NYNHP) documented 14 distinct ecological community types within the park which are typical of the Finger Lakes region (Figure 7) (Lundgren, 2014-A). Of particular note are the locally significant maple-basswood rich mesic forest in the ravines which harbor mature trees and a diverse flora. Two rare species are known in

the park (Lundgren, 2014). The mix of community types present in the park provides habitat for a variety of fauna that is typical in the Finger Lakes. Game species such as white-tailed deer, wild turkey, and American woodcock are present in the park. Other small mammals, migratory birds, reptiles, and amphibians use the variety of habitats provided at the park.

For lists of Flora and Fauna documented in the park see Appendix D.

## **Cultural Resources**

Native Americans occupied the lands near Sampson SP and settled in the Finger Lakes region for more than 10,000 years. The Iroquois were the last in a series of Indian cultures to have lived here, and two of the six Iroquois Nations were in the vicinity of the park.

European settlers settled the area from 1790-1850. The settlers depended on farming and logging-related industries for their livelihoods. The landscape transformed from forests to cultivated fields and pastures. The area experienced a period of decline in the late 1800's, after deforestation and depleted soils encouraged settlers to relocate to western states with more attractive undeveloped lands.

By the early 1900's more than half of the farms in the area had been abandoned; remaining families struggled to survive. Federal agencies began buying up farms allowing families to relocate to more productive lands.

## **Scenic Resources**

Seneca Lake is the premier scenic resource of the park. Visitors take in views of the lake and its surrounding rural landscape while enjoying activities like swimming, picnicking, or camping at the park. The forested ravines are also very scenic.

## **Recreational Resources/Activities**

Sampson SP offers many distinct recreational resources. The various activities one may enjoy while visiting the park include hunting, fishing, boating, camping, picnicking, and wildlife viewing, plus resources like pavilions and trails. The current Lake Shore Trail and park roads are open year-round and accommodate snowshoeing and cross-country skiing under winter conditions; the trail and roads accommodate walking and bicycling the rest of the year. (Figure 8)

The park offers three interpretive routes along existing roads that many enjoy while bicycling. Natural, historical, and regional information is provided by scripts that one can listen to using one's mobile phone. Stops are identified on maps and in the field with trail symbols.

## **Operations and Maintenance Overview**

Sampson SP is open year-round. Certain areas may be inaccessible in winter since snow plowing occurs only on core access roads. The campground is open for camping

seasonally from the beginning of May through the beginning of November. The marina and boat launch are open year-round as conditions permit.

The water supply for Sampson SP comes from Seneca County Water District No. 1. The district purchases water from the Village of Waterloo via the Seneca Lake Water District.

Seneca County Water and Sewer District No.1 provides wastewater and sewer service for the park. The campground bathhouses, park office, and military museum use the municipal system. The park's maintenance shop and regional maintenance/navigational aids facilities have septic tanks and leach fields.

Park and regional maintenance crews maintain the park's buildings and infrastructure. Contractors are called in for routine maintenance projects when specialized equipment or skills are required.

The park has a written Emergency Action Plan. The plan provides details about park staff roles and responsibilities, evacuations and responses to emergencies. Park Police and other local law enforcement agencies respond to emergencies. Ambulance and fire service is provided by neighboring towns responding to medical or fire emergencies.

## **Development of Alternatives**

This chapter contains an analysis of the alternatives being considered and is divided into three parts – natural and cultural resource protection, recreational resource development, and operations facilities. The alternatives and preferred alternative for each plan element are described in narrative form. A complete description of the plan that results from the preferred alternatives is found in the master plan document.

### ***Natural Resource Protection Strategies***

#### ***Invasive Species Management Plan (ISMP)***

An ISMP will expand on current invasive species management protocols using new techniques and strategies.

#### ***Natural Resources Management Plan (NRMP)***

An NRMP will identify science-based natural resources projects that promote healthy forests and habitats for a variety of wildlife.

### ***Recreational Resource Development***

#### ***Camping***

A new campground loop with full hookup service will be constructed east of the current camping loops along a reconfigured main park road. Sites in the existing campground will be improved with upgraded electric and water service, site modifications to improve access and drainage, and universally accessible amenities in several sites and the bathhouses. Campground loop roads will be paved.

The energy demands for one of the campground loops will be met by using renewable solar energy. A new solar array will be constructed between loops 3 & 4 in the existing campground.

#### *Cottages*

15 contemporary cottages will be constructed along the lakeshore near campground loop 5. Cottages will have running water, electric, kitchen and bathroom facilities, and a source of heat suitable for three-season rental. Some cottages will comply with universal design and ADA guidelines.

Up to 20 family/group-oriented cottages will be constructed at preferred locations identified in the park. Cottages will have room for 8-12 people and have amenities similar to the lakefront cottages. Cottages will be built in phases dependent on ongoing analysis of need and demand.

#### *Waterfront*

The waterfront will have a total redesign. The sandy beach will be expanded to allow more room for patrons. A new grassy terraced seating area will be placed near the playground and expanded beach areas. Modification of the breakwater will allow better views of the lake. There will be a new pavilion, accessible pathways and parking, and new area with seating that can be used for picnics or relaxing near the lake.

#### *Marina*

OPRHP will solicit proposals<sup>1</sup> from concessionaires to rebuild and run a marina at the park. If no suitable proposal is received from a concessionaire, then OPRHP will decommission the marina, build a redesigned boat launch facility, and provide boat slips for short-term use.

#### *Park Office/Recreation Wing*

The recreation wing of the park office will be improved, and new indoor recreation opportunities will be provided. The space will also double as an indoor venue to host regional tourism events.

#### *Athletic Courts*

The existing tennis and basketball courts will be improved. A new beach volleyball court will be included as part of the waterfront redevelopment work.

#### *Trails*

A new network of bike paths, multi-use trails, and connector pathways will be constructed throughout the park. Wayfinding materials and interpretive signage for the cultural, natural, and historic resources of the park will be developed. The waterfront Lake Shore Trail will be improved by constructing a new holding tank bathroom facility.

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<sup>1</sup> OPRHP issued a Request for Proposal (RFP) for the park's marina in August 2015

## ***Operations, Infrastructure, and Facilities***

### *Internet Connectivity*

The network will be upgraded in the park. The new network will support park operations, and a public wireless network will be available in select areas of the park.

### *Comfort Stations*

Comfort stations at the park will be upgraded and use modern energy- and water-efficient fixtures. Work will include making all comfort stations and bathhouses in the park compliant with universal design and ADA guidelines.

### *Dump Station*

The existing dump station will be replaced with a new four-bay dump station.

### *Park Office*

The park office will receive interior and exterior updates. Energy- and water-efficient fixtures will replace old, inefficient ones, windows will be replaced, and additional insulation will be installed. The park office will offer a small seating area and updated customer service counter. Universal design and ADA guidelines will be followed to improve accessibility in the building.

### *Park Water System*

The aging water system in the park will be replaced. New water distribution lines, filters, and service pumps will replace the old system.

### *Park Roads*

Roads will be reconfigured in the park. Some roads will be part of a new main park road that will connect the park entrance with new and existing park facilities. Roads not used will have sections of asphalt removed and be allowed to revert to nature. Campground loops will be paved.

### *Structures in the Park*

Several structures in the park that are unused and in disrepair will be removed as resources permit. The water tower and accessory building are considered priorities and removal are scheduled early in the implementation schedule of the plan.

### *Firing Range*

The firing range in the park will be maintained for Park Police training only.

## **Selection of the Preferred Alternative**

### ***Identification of the Preferred Alternative***

The two alternatives considered are the Status Quo and the Master Plan. The preferred alternative is the master plan alternative as described in the accompanying document.

### ***Rationale for Selection***

The park is not meeting the expectations and needs of the population within its service area. The Agency developed a new vision and goals for the park to guide this planning effort. The preferred alternative is the master plan alternative described in the accompanying document.

### **Environmental Impacts and Mitigation**

The master plan for Sampson SP seeks to offer recommendations for more recreational opportunities, and for strategies for improving and protecting natural resources in the park. The planning team used a holistic approach when considering site environmental conditions for locations of proposed new or expanded recreational resources.

Previously disturbed areas and areas that allow a buffer of locally significant natural communities were considered when selecting the preferred alternative.

Native flora and fauna will benefit from the natural resource strategies outlined by this plan including development and implementation of an invasive species management plan and careful design of recreational resources to avoid sensitive and rare species and natural areas. The natural communities and the native flora and wildlife in the park (including resident and migratory species) will benefit from the development and implementation of a natural resource management plan.

The master plan proposes some entirely new facilities while in other places only recommends an expansion of existing facilities. There will be some physical changes to the land where cottages, trails, or campground loops are constructed. The preferred locations described in these proposals are primarily previously disturbed areas in the park and will require minor ground disturbance.

The master plan will not result in any significant adverse impacts on scenic resources in the park or within the Seneca Lake view shed of the park.

Implementation of the master plan will have minimal impact on water resources. Negative impacts will be mitigated through facility design and stormwater management best practices.

Health and safety are an important element in park operations. New facilities proposed by the master plan will meet applicable health and safety codes, including the use of universal design and compliance with the Americans with Disabilities Act.

The implementation of the master plan will have some negative and positive impacts on the natural environment, including upland, wetland, aquatic, scenic, and other resources.

## **Chapter 1 – Environmental Setting**

### ***Location and Access***

Sampson State Park is located on the eastern shore of Seneca Lake on NY 96A approximately 7 miles northwest of Ovid in the Town of Romulus, Seneca County.

The park is accessible by motor vehicle using the main entrance located on NY 96A. There are no public bus routes from nearby metro areas that access the park. Pedestrians and bicyclists may enter the park using the main entrance located on NY 96A or any of several other gated access points where interior park roads meet local residential roads. There are no public foot or snowmobile trails that connect to Sampson SP.

The park is easily accessed off of the NYS Thruway from the major cities of Buffalo, Rochester, and Syracuse. The cities of Auburn, Geneva, and Ithaca are within a reasonable driving distance of the park. (Figure 1)

For more information about getting to the park, please visit the following Web page: <http://nysparks.com/parks/154/getting-there.aspx>

### ***Economic Contribution***

#### **Background**

State parks, while not traditionally created as economic drivers, have been found to create significant economic impacts in the host region. To quantify the effects of New York state parks, a study was prepared for Parks & Trails New York (PTNY) in March 2009 by the Political Economy Research Institute (PERI), University of Massachusetts-Amherst. The report, titled *The New York State Park System: An Economic Asset to the Empire State*, found that state and visitor spending at New York state parks created \$1.9 billion in economic output and up to 20,000 jobs. In the Finger Lakes Region, between \$50.5 million and \$103.5 million in visitor expenditures yielded \$141 million in economic output along with 1,776 jobs (Heintz, Pollin, & Peltier-Garrett, 2009).

When possible, OPRHP supplements the PERI report with an internal analysis on a park-specific level using attendance figures from the park and spending profiles from the most recent visitor survey in the National Park Service's (NPS) Money Generation Model 2 (MGM2) to generate economic impacts. Although the NPS is no longer using this model, industry data from 2013 was provided to OPRHP by New York State Empire State Development (ESD) to allow continued valid use of the MGM2.

#### **Current Contribution**

Attendance figures state that Sampson State Park received 173,305 visitors between April 1, 2014 and March 31, 2015 (FY 2014-15). This number includes 109,735 campers, 46,197 vehicle (day) users, 12,265 marina users, and 5,108 other users. A

survey conducted in August-September 2014 of past and present campers at Sampson indicated that 17% were local, meaning that they lived less than 30 miles from the park.

This same survey was used to collect spending information from campers. Because only campers were surveyed, the default spending information was used for the other user groups. The survey found that, as expected, patrons were traveling to other destinations during their stay at Sampson. Wine trails were the most popular destinations among patrons visiting tourist destinations in the Finger Lakes, where an average of \$134 per party was spent. The Waterloo Outlet Mall attracted 23% of those patrons who visited other destinations; on average, patrons spent \$213 on their trips to the mall. Not surprisingly, parties spent the most on clothing when making purchases in the local community. The average was \$221 per party. The total sum of this spending in all eleven categories by non-locals in the community comes to just under \$4.2 million in economic output and 59 jobs. The full impacts and the Camper Survey can be found in Appendix A.

### **Effect of Additional Camping**

This plan suggests the addition of 50 new campsites and 20 cottages. Assuming that annual camping attendance and occupancy rate remain consistent with the three-year average, the 70 new sites would deliver an increase of roughly 23,000 campers. All things being equal, the effects of adding these additional sites would yield \$400,000 more in economic output. Other planned improvements for the park (e.g. trails and other infrastructure) should likewise increase visitation and have positive effects on the region. However, there is not enough information available to predict how large that impact might be.

### **Proposed Casino**

Lago Resort and Casino received a recommendation by the NY Gaming Facility Location Board in late December for licensing by the NY Gaming Commission. The proposed resort and casino would be located off of the Thruway and Route 414 in the town of Tyre, NY, roughly 20 miles from Sampson State Park. According to its website, the resort is estimated to attract 3.4 million visitors each year. Additionally, Lago expects this new venture to bring an additional \$62.3 million in output to the region. The casino operations are projected to create 1,250 to 1,500 direct jobs, but no further impacts were calculated from operations. It is speculated that the casino will also prove to be beneficial to Sampson, especially if a shuttle route between the two locations is established. There is not enough information at this time to make a determination of the extent of the casino's impact on the park.

The Report and Finding of the New York Gaming Facility Location Board can be found at the following

URL: <http://www.gaming.ny.gov/pdf/02.27.15.GFLBFinalAppendicesWebSmall.pdf>

### ***Recreational Needs Assessment***

**Definition of Facility Service Area.** The master plan identifies Cayuga, Ontario, Schuyler, Seneca, and Tompkins, Wayne, and Yates counties as the service area of the

park. It is common practice in recreation planning to identify a service area from which the facility draws approximately 75% of its users (Haas, Wells, & Welch, 2007). Sampson State Park is also a popular regional park that serves the public from neighboring counties, including the cities of Buffalo, Rochester, and Syracuse.

**Determining the Relative Index of Needs.** The Relative Index of Needs (RIN) is a method for comparing the demand for a particular recreational activity in the service area with the statewide demand for that activity. RIN is expressed on a numerical scale; 10 being the highest relative level of need and one the least. Five is considered the statewide average in the current year (in this case the most recent numbers available are for 2014). (NYS Office of Parks, Recreation and Historic Preservation, 2014)

**The RIN for each New York State county was determined using a statewide survey.** The values for the seven counties in the service area are presented in Table 1. The index of need over the entire service area was calculated using a weighted average of the seven counties based on population. The resulting figure (also included in Table 1) expresses demand for a particular activity within the service area.

Table 1 Relative Index of Recreational Needs  
(Activities with weighted averages of 5 or greater are in bold)

Activity	Cayuga	Ontario	Schuyler	Seneca	Tompkins	Wayne	Yates	Weighted Average
Day Use	5	5	4	4	3	6	4	4.6
<b>Swimming</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>5.1</b>
Biking	5	4	4	4	4	5	4	4.4
<b>Golfing</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>5.4</b>
<b>Walking/Jogging</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>5.0</b>
<b>Tennis</b>	<b>8</b>	<b>10</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>8.6</b>
<b>Court Games</b>	<b>8</b>	<b>10</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>8.6</b>
Field Games	5	5	4	4	4	6	6	4.9
<b>Camping</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5.5</b>
Boating	5	4	5	5	4	5	4	4.5
<b>Fishing</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5.5</b>
<b>Local Winter</b>	<b>10</b>	<b>8</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>6.9</b>
<b>X-Country Skiing</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5.8</b>
<b>Downhill Skiing</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5.8</b>
<b>Snowmobiling</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>5.3</b>

Source: 2014-2019 Statewide Comprehensive Outdoor Recreation Plan (OPRHP 2014)

## Park Boundaries

Sampson SP lies on the eastern shore of Seneca Lake. To the east, the boundary of this 2000+ acre park follows NY96A in the Town of Romulus. The Sampson Veterans Memorial Cemetery bounds the park to the south, and Lakeshore Landing, a residential community, bounds the park to the north. (Figure 2)

## Adjacent Land Uses

Agriculture is a major use of lands surrounding Sampson SP, followed by rural residential. The Memorial Cemetery borders the park to the south, but road and trail

connections exist between the park and the residential areas to the north and south. (Figure 3)

### ***Legal Considerations***

There is an existing easement granted to the New York State Electric & Gas Corporation (NYSEG) for distribution lines running through the park, a sub-station near the military museum, and electric service to the park manager's residence. There are no known inholdings within the park.

### ***Programs and Partnerships***

The Friends of Sampson State Park, founded in 1997, have assisted with providing funding and other resources for several much-appreciated projects in the park, the marina, and the museum.

The Military Museum at the park is managed in partnership with Navy and Air Force WWII veterans. OPRHP provides staffing, and the partners provide interpretive services, programming, and some maintenance.

### ***Land and Water Conservation Fund***

Sampson State Park has received funding from the National Park Service Land and Water Conservation Fund. Acceptance of this federal funding includes a requirement that these facilities remain in public outdoor recreational use in perpetuity. Any proposals for uses other than public outdoor recreation require the prior approval of the National Park Service to lift the use restriction through a process known as "conversion". (National Park Service, 2008)

### ***Physical Resources***

#### **Geology**

The Wisconsin ice sheet advanced through the region approximately 25,000 to 21,000 years ago and had a dramatic effect on shaping the landscape. The Finger Lakes region was significantly altered by this last glacial episode. River valleys were carved out and later became lakes after the glaciers retreated. The soils in the area were also affected as till was deposited during the glacial retreat.

The bedrock of the area consists entirely of the Ludlowville Formation, a shale with some limestone. The surficial geology (Figure 4) consists of till deposited underneath the glaciers consisting of a poorly sorted sand-rich diamict (sediment that consists of a wide range of non-sorted to poorly sorted terrigenous sediment, i.e. sand or larger size particles that are suspended in a mud matrix) of variable texture from boulders to silt.

#### **Topography**

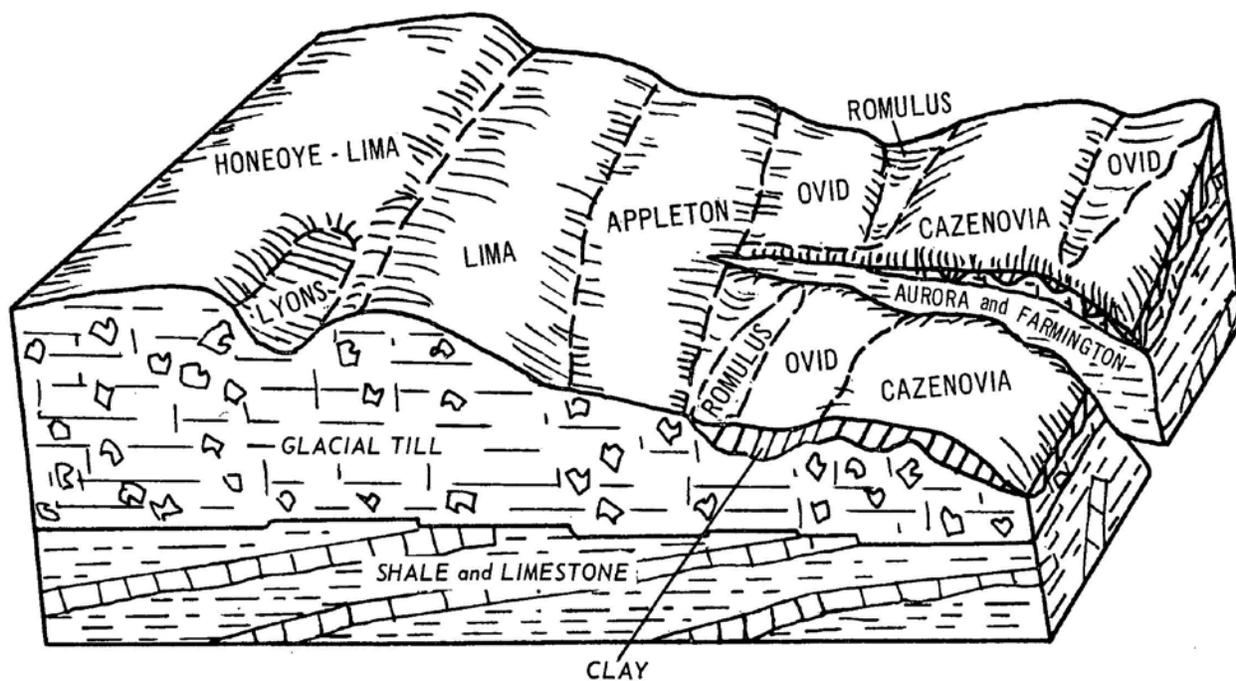
The topography (Figure 2) of the area is typical of the Finger Lakes region with gently rolling inter-lake hills and steeper gorges running perpendicular to the lake. These gorges are attributed to the glaciers that moved through the area. Upon their retreat,

glacial meltwater flowed down and eroded the softer stone to create these spectacular gorges. The meltwater in some cases eroded gorges that stretch back miles from their point of origin near the lake. The many gorges in the area have caused some to coin the phrase “Ithaca is Gorges” referring to a popular small city in the area. There are dozens of gorges scattered through the landscape. There are five smaller gorges, known locally as ravines, in the park carved by streams flowing East to West from the uplands to Seneca Lake.

## Soils

Weathered stone is the parent material for the soils found throughout the area. The soils in the park are primarily silt loams derived from glacial till. (Figure 1-1) A complete listing of the soil types found in the park, their characteristics and limitations is found in Appendix C (NRCS, 2015)

Figure 1-0-1 - Seneca County Geological Cross Section



Source: United States Department of Agriculture – Soil Survey of Seneca County, 1972

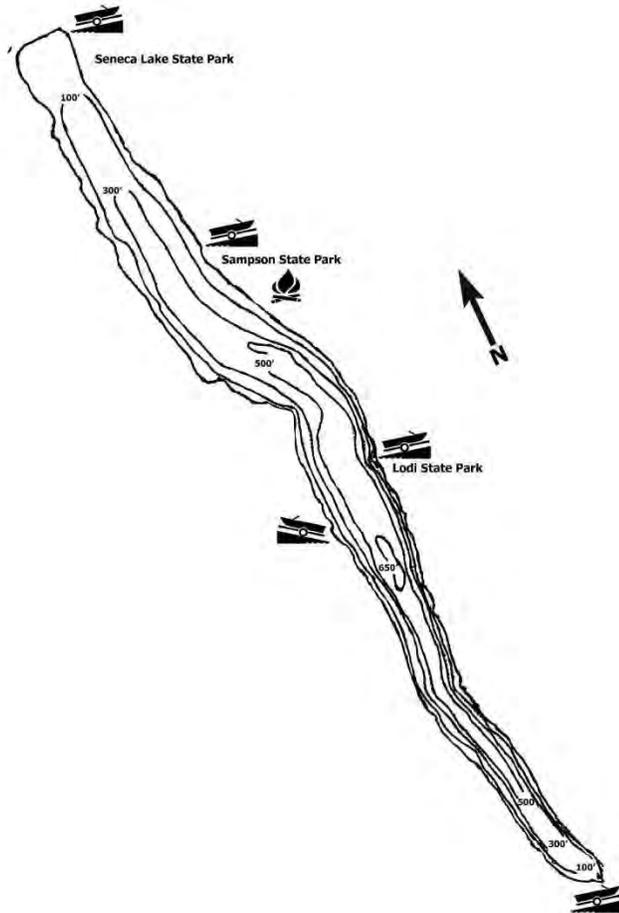
## **Water, Watersheds and Wetlands** (Figure 5)

### Lakes and Ponds

Seneca Lake is the most prominent water feature of the park. At 38 miles long, it is the second longest of the Finger Lakes. It has a surface area of 42,800 acres and a maximum depth of 618 feet. The lake is known to support a healthy fishery. Lake trout is one of its most popular game species. The lake is classified as AA(TS) by the DEC indicating that its waters are suitable as a source of drinking water, for swimming, for fishing, and possibly for trout spawning. The park has approximately three miles of

shoreline on the lake including a full-service marina, a boat launch, and a swimming beach.

**Contour Map for Seneca Lake**



Source: NYS DEC, Division of Fish, Wildlife and Marine Resources – Lake Map Series

**Streams**

There are four streams located in Sampson SP. Two of these streams originate from the watershed in the uplands to the east of the park, and two originate within the eastern uplands of the park. All four streams flow to Seneca Lake. Three have a “C” classification from the Department of Environmental Conservation (DEC), and the most northern one has a C(TS) standard. The “C” classification designates streams where the best usage is for fishing. The C(TS) standard means that the stream is likely to support trout spawning. (<http://www.dec.ny.gov/imsmaps/ERM/viewer.htm>)

## **Watersheds**

The park is part of the Oswego River/Finger Lakes Watershed. This is one of the largest watersheds in NYS and includes all of Seneca County and most of the Finger Lakes. This watershed includes 8,896 miles of rivers and streams and 76 significant freshwater lakes (including Seneca Lake) and covers 5,070 square miles of land area entirely in New York State. The watershed feeds the Oswego River and empties into Lake Ontario.

The park is in the Seneca Lake Watershed portion of the larger watershed. The Southern Tier Central Regional Planning & Development Board is developing a Seneca Lake Watershed Management Plan. The executive summary of the draft plan can be downloaded from the internet:

[http://www.stcplanning.org/usr/Program\\_Areas/Water\\_Resources/Seneca\\_Lake\\_Plan/DraftExecSummary090514.pdf](http://www.stcplanning.org/usr/Program_Areas/Water_Resources/Seneca_Lake_Plan/DraftExecSummary090514.pdf).

## **Wetlands**

There are no DEC-regulated wetlands in the park. The federal National Wetlands Inventory identifies several wetlands in the park. (Figure 5) Additional wetland areas may be present in the park as described by NYNHP (Lundgren, 2014-A) and a 1994 biological survey (Phenix Environmental Inc., 1994).

## **Air Quality**

The air quality at the park is typical for the central Finger Lakes. No monitoring station exists at the park or in Seneca County. High 8-hour ozone values were noted several times in 2014 nearby in Monroe, Wayne and Steuben counties (<http://www.dec.ny.gov/chemical/38377.html>).

The air quality monitoring in DEC Region 8 noted no contravention of NYS/Federal Ambient Air Quality Standards in 2013 (<http://www.dec.ny.gov/chemical/29318.html>).

## **Climate**

The Finger Lakes region has a humid climate with a warm summer season and a long, cold winter season. The region's lakes store heat, which makes spring and fall temperatures milder. The frost-free season at Sampson SP is about 160 to 180 days. Precipitation averages 35 inches per year with periods of more rain during the summer months. Snowfall in the region averages 67 inches per year, with snow cover common from December through March. (<http://www.nrcc.cornell.edu/>)

Visitors to the Finger Lakes Region can experience four distinct seasons. Warm summers averaging between 75 and 85 degrees Fahrenheit make way for crisp, cool fall air and often breathtaking foliage. Winter snowfall typically begins in November and varies greatly throughout the region. Lake-effect snow is moderate in the Ithaca region, averaging 67.3" per year, and heavier in the Rochester and Syracuse areas, which average between 92.3" and 115.6". Resorts around the Finger Lakes provide excellent winter recreation including skiing and snowboarding, which lasts until the first hints of spring in the month of March. (<http://www.fingerlakes.com/about/climate>)

## ***Biological Resources***

Information on the flora and fauna and the natural landscape of the area is documented in several reports. The New York Natural Heritage Program (NYNHP) has described and mapped the natural communities and any known rare species in the park to date (Feldmann, Olivero, Novak, & Weldy, 2003) (Lundgren, Ecological Communities of Sampson State Park, 2014-B). Additional surveys for rare species are warranted, particularly for invertebrates and some more recently listed plant species. A survey of biological features in the park (Phenix Environmental Inc., 1994) provides lists of the flora and fauna and descriptions of the natural communities observed in the park. NYNHP staff also provided additional information and scientific expertise on rare species and natural ecosystems for the purposes of this plan (Lundgren, 2014-A). Unique Natural Areas are another way natural resources are documented on the county level. These reports inventory environmentally sensitive areas throughout a county. Approximately 18% of Seneca County is forested. The park, along with the swamp woodlands of Montezuma Wildlife Refuge and the Finger Lakes National Forest, provides clean air and water, regulation of surface water runoff, and habitat for a diversity of plant and animal life in the county (Seneca County Planning and Community Development Department, 2014).

## **Ecological Communities and Flora**

The flora of the park is typical of Central New York and the Finger Lakes Region. The plant communities are representative of those found in the gorges and rolling uplands in this agricultural landscape between the lakes. Factors such as slope and soil characteristics have shaped the development of different plant communities found within these areas. In addition, the historical use of Sampson SP has strongly influenced the natural cover and conditions found today. Nearly all of this land was cleared until recently, with the exception of the ravines and some wetlands which harbor some of the more mature trees in the park. Numerous roads intersected the landscape and patches of conifer plantation – mostly of non-native species – were added here and there. Over time, the land was allowed to revert to more natural cover which now cover roughly three-quarters of the park.

Fourteen distinct ecological community types have been mapped within the 2,080-acre park (Figure 7) (Lundgren, 2014-B) based on NY Natural Heritage's classification (Feldmann, Olivero, Novak, & Weldy, 2003). Approximately 18% of the land falls in the "cultural communities" category that includes development (paved roads, parking areas, and buildings) as well as vegetated lands that are regularly maintained and/or planted such as the mowed lawns and conifer plantations. The remainder of the park, roughly 1,700 acres, is a mix of community types characterized by native flora. These include established stands of maple-basswood rich mesic forest – found in the ravine areas, Appalachian oak-hickory forest, and successional community types such as northern hardwoods, red cedar woodland, shrubland, and the patches of old field. The intact cobble shoreline in the park is of local ecological significance.

Old fields, shrubland and early successional woodland communities provide important habitat for a variety of resident and migratory bird species. The forests and woodlands

in the park provide habitat for a variety of flora and fauna including the popular game species of white-tailed deer and wild turkey as well as many other species that park visitors enjoy seeing such as rabbits, squirrels, a large array of bird species and others.

### ***Invasive Plants***

Nineteen species of non-native invasive plants have been documented in the park by NY Natural Heritage Program, OPRHP and other organizations (Table 2). Many of these are prevalent in the more open areas such as the shoreline, shrublands, early successional woodlands and roadsides. One of the most problematic is the swallow-wort which is hard to control and is prevalent along the shoreline and edges of some of the ravine forests. In addition to out-competing native plants, it can encroach upon trails and can be toxic to butterflies that mistake it for milkweed. These records and any more recent additions are available on the iMapInvasives website ([www.imapinvasives.org](http://www.imapinvasives.org)).

Table 2 – Invasive Flora Identified at Sampson State Park

<b>Common Name</b>	<b>Scientific Name</b>	<b>Organization</b>
<b>Autumn Olive</b>	<i>Elaeagnus umbellata</i>	NYNHP
<b>Black Locust</b>	<i>Robinia pseudoacacia</i>	NYNHP, TNC
<b>Celadine, Greater Celadine</b>	<i>Chelidonium majus</i>	NYNHP, TNC
<b>Colt's Foot, Coltsfoot</b>	<i>Tussilago farfara</i>	NYNHP, TNC
<b>Common Buckthorn</b>	<i>Rhamnus cathartica</i>	New York Natural Heritage Program (NYNHP) and The Nature Conservancy (TNC), USDA
<b>Common Reed, Common Reed Grass</b>	<i>Phragmites australis ssp australis</i>	New York State Office of Parks, Recreation and Historic Preservation (OPRHP)
<b>Creeping Jenny, Moneywort, Creeping Jennie</b>	<i>Lysimachia nummularia</i>	USDA
<b>Dame's Rocket</b>	<i>Hesperis matronalis</i>	NYNHP, TNC
<b>Eurasian Water-milfoil, European Water-milfoil, Spike Water-milfoil, Eurasian watermilfoil</b>	<i>Myriophyllum spicatum</i>	NYNHP
<b>Garlic Mustard</b>	<i>Alliaria petiolata</i>	NYNHP, TNC, OPRHP
<b>Gypsy-week, Common Speedwell, Speedwell</b>	<i>Veronica officinalis</i>	NYNHP
<b>Japanese Barberry</b>	<i>Berberis thunbergii</i>	NYNHP
<b>Morrow Honeysuckle, Morrows Honeysuckle</b>	<i>Lonicera morrowii</i>	NYNHP, TNC
<b>Multiflora Rose</b>	<i>Rosa multiflora</i>	NYNHP, TNC, OPRHP, USDA
<b>Pale Swallow-wort, Dog-strangling Vine, European Swallow-wort</b>	<i>Cynanchum rossicum</i>	OPRHP

Common Name	Scientific Name	Organization
Periwinkle, Common Periwinkle	<i>Vinca minor</i>	NYNHP, TNC, OPRHP
St. John's wort, Common St. John's wort	<i>Hypericum perforatum</i>	USDA Forest Service, USDA
Tatarian Honeysuckle	<i>Lonicera tatarica</i>	NYNHP, TNC
White Clover	<i>Trifolium repens</i>	USDA

Source: (iMapInvasives.org, 2015)(Data retrieved in May, 2015)

## Fauna

Sampson SP and Seneca Lake provide habitat for a variety of fauna, including many species of resident and migratory mammals, birds, reptiles, amphibians, fish, and invertebrates. Fauna at Sampson State Park is consistent with fauna commonly found in the Finger Lakes region (see [Appendix Y](#) for a partial list).

Many freshwater fishes, migratory and resident waterfowl, and other shorebird species can be found in Seneca Lake along the park shoreline. The shores of Seneca Lake are excellent spring and fall migration viewing areas. Common observations include black duck, redhead, common merganser, Canada goose, and scaup. Seneca Lake supports a variety of sportfish, including lake trout, smallmouth bass, and yellow perch as the mainstays. Other species include rainbow trout, brown trout, landlocked Atlantic salmon, northern pike and largemouth bass. Reptiles and amphibians present in the park include such species as the wood frog and eastern red-backed salamanders found in the woodland and wetland areas, and the common eastern garter snake found in field and edge areas. Mammals commonly found in the woodlands and fields of the park include white-tailed deer, squirrels, chipmunks, raccoons, skunks, porcupines, white-footed mouse and eastern cottontail rabbit (Phenix Environmental Inc., 1994). Numerous species of birds can be found in the reverting fields and woodland areas of the park. Bird species typical of the woodlands in the park include ruffed grouse, woodpeckers, owls, and a variety of songbirds including common woodland species such as the veery, ovenbird, and red-eyed vireo. Bird species readily observed in the park's fields and scrublands include yellow warblers, cedar waxwings, catbirds, field sparrows, and least flycatchers. These are only a few of the many birds suspected or known to breed in the vicinity of the park (NYS DEC, 2015).

### ***Invasive Fauna***

**Terrestrial.** Sampson State Park is in the quarantine area for the Emerald Ash Borer (*Agilus planipennis*). At this time, no Emerald Ash Borers have been detected in the park.

Asian Longhorn Beetle (*Anoplophora glabripennis*) and Hemlock Woolly Adelgid, (*Adelges tsugae*), two common destructive invasive insects, also have not been detected in the park.

Firewood from sources outside the park must meet the requirements listed in the *Camping Procedures & Reference Manual (Revised January 2015)* III.K(3) which states:

“Patrons should not be bringing firewood from home. Only firewood labeled as meeting New York’s heat treatment standards (kiln-dried) may be transported into the state and further than 50 miles from the firewood’s source. They should use only firewood from local sources *usually provided by the campground* [emphasis added]. If the patron brings firewood, ALL must be burned before leaving their campsite. For more information see link: [www.dec.ny.gov/animals/28722.html](http://www.dec.ny.gov/animals/28722.html)”  
(<http://intranet/intranetfiles/Policies/ppbs/Operations/CampingManual.pdf>)

**Aquatic.** Zebra Mussels (*Dreissena polymorpha*) have been found on the shoreline north of the beach area. Bloody-red Shrimp (*Hemimysis anomala*) have been found in the marina.

### ***Rare, Threatened and Endangered Plants and Animals***

Two species listed as Threatened in NY State have been documented in the park to date (New York Natural Heritage Program, 2015) (Lundgren, 2014-A). One, a rare tree species was just discovered in the park in 2014 and more surveys are needed. In addition, comprehensive surveys for all rare animal taxa such as many invertebrates or recently listed bat species has not been done. In addition, documenting which animal species in the park are in the State Wildlife Action Plan or other conservation initiatives can help to inform the development natural resource management plans.

## **Cultural Resources**

A Stage 1A cultural resource investigation was conducted at Sampson State Park in 1993. (Ewing, Nagel, & Bodner, 1993) Several comments (Stokes, 1993) from the OPRHP Field Services Bureau (FSB) were made regarding this investigation. These are:

1. The park buildings do not meet the criteria for listing on the State or National Registers.
2. The buildings built as part of the WWII installation are unevaluated, and potential impacts of any proposed projects should be evaluated by the FSB.
3. The Pioneer Cemetery meets the criteria for inclusion on the State and National Registers, and any potential impacts should be evaluated by the FSB. The cemetery should be monitored by parks personnel to ensure it is adequately preserved and protected from potential vandalism.
4. The Kendaia site is an important prehistoric site that may meet the criteria for inclusion in the State and National Registers. The potential impacts of any proposed projects should be evaluated by the FSB, and the site should be frequently monitored by parks personnel to ensure it is adequately protected from vandals, pothunters, and looters.
5. The FSB approves of the use of Cultural Resource Sensitivity Map on file for determining the need for archeological testing prior to implementing park construction projects that include ground-disturbing activities. If the categories

and sensitivity recommendations on the map are adhered to, no consultation with FSB is necessary to determine the need for an archeological survey.

**Native Americans.** Prior to the European settlement of eastern North America, Native Americans lived in this part of New York for more than 10,000 years. The Iroquois were the last in a series of Indian cultures to have lived here, and two of the six Iroquois Nations were in the vicinity of the park. The lakes around which much Indian life took place now bear their names: Cayuga and Seneca.

The lack of reliable water sources and lime-rich soils (good for corn agriculture) precluded development of large year-round Iroquois villages, but the original forest cover of pines and hardwoods (such as hickory, elm, beech, chestnut, oak, and maple) would have made this a good hunting and nut-gathering territory for the native people.

**Influx of European Settlers.** Between 1790-1850, people from western Massachusetts, eastern New York, and Pennsylvania settled in this area, which had been taken from the Iroquois after their alliance with the British in the Revolutionary War. The settlers depended on farming and logging-related industries for their livelihoods. The associated land-clearing replaced the original forest with cultivated fields, pastures, domestic shrubs and herbs, and a mix of apple trees, maples, and some pines as shelter trees.

**Later 1800's.** During the second half of the 19th century, there was a general economic stagnation in the area, and by 1900 a period of decline and abandonment, characteristic of most "hill" towns in the northeastern U.S. This pattern has been attributed to a combination of deforestation, depleted soils, and the opening of attractive, undeveloped lands in more western states.

**Early 1900's.** In the 1930's, when more than half the farms in the area had been abandoned, and most of the remaining families were struggling to survive, several State and Federal agencies began buying up farms, allowing owners to move to more productive situations. This began the formation of what became the military reservations and Federal lands such as the Hector Land Use Area, which is now the Finger Lakes National Forest. (USDA Forest Service, 2015)

## **Archaeological Resources**

There are several archeologically sensitive areas mapped in Sampson State Park. Because of its use as a Naval and Air Force base the park has importance to military history. A study conducted for the US Army in 2008 found no munitions or explosives of concern or munitions debris anywhere in the park area. (Alion Science and Technology, 2008)

## **Historic Resources**

**1700s - 1779.** After a major military offensive by the Revolutionary War initiated by General George Washington. General Sullivan's troops captured the Indian village of Kendaia. Thereafter the land between the lakes became bounty land and was set aside to compensate New York soldiers after their participation in the war. Evidence of these

early settlers still exists in the park today by a preserved pioneer cemetery near one of the deep ravines.

**Outbreak of WWII.** The second largest Naval training facility in the country was established in Romulus, where an astounding 411,429 recruits were trained from 1942 to 1946. This facility was named in honor of William T. Sampson from Palmyra, NY. Sampson was renowned for his victory in the Battle of Santiago during the Spanish-American War.

### **Post-WWII.**

**1946-1949.** A portion of the grounds was transformed into Sampson State College, educating returning servicemen.

**Korean War.** With the outbreak of the Korean War, the Navy transferred ownership of the remaining land to the Air Force for the purpose of establishing a basic training Military Base. The base operated from 1950 to 1956.

**1960.** Ownership was again transferred, this time to the New York State Park System, which officially opened Sampson State Park in 1963.

**In 1995,** the Military Museum was opened in the park, in the former Navy brig, to share the history and to honor those Navy and Air Force servicemen that booted on Sampson's ground.

Many of the military buildings and roads have been removed or modified over the years in the transformation of the State Park. Except where lawns have been kept mowed, vegetation has slowly reclaimed the once-cleared military land.

## ***Scenic Resources***

The primary scenic resource of the park is the view of Seneca Lake. Although much of the park is wooded which blocks the views to the lake from many locales, there impressive views of the lake from the vast fields at the top of the hill and from several points at the shoreline in the park.

Scenic resources in the park are also concentrated at the ravines that afford interesting views through the forest of majestic trees, the small streams, and a variety of birds and wildflowers.

## ***Recreation Resources/Activities***

A map of the park's existing recreational resources can be found in Figure 8.

Sampson SP is primarily a park for long-term visitation. There are some amenities for day use, but the emphasis does not lie there.

**Camping.** The primary recreation resource at the park is camping. The park has a total of 309 campsites with 245 electric and 64 non-electric sites. Sites accommodate tents,

pop-up trailers and recreational vehicles (RV's). Several simple cabins are also available. The cabins provide rustic accommodations for four. Cabins have no running water, electric, bathroom or kitchen facilities.

**Marina.** The marina has just over 100 boat slips and a large multiple ramp launch site. The marina is very popular with both long-term residents and short-term visitors. Currently, the marina is in declining condition with decks that need replacing and dredging needed to improve navigation.

**Other** recreational amenities include

- tennis courts
- horseshoes
- basketball and volleyball courts
- fishing
- swimming beach
- playground
- hunting
- recreation building with various indoor games

**Picnic shelters** are available and may be reserved for events

For more information about the park's fees and rates, please visit the following Web page: <http://nysparks.com/parks/154/fees-rates.aspx>

**Trails** Currently there is only one designated trail in the park; the Lake Shore Trail. The trail is approximately 1.5 miles long and is located in the southernmost region of the park. The entire length of it is paved, and it is gated from vehicular traffic on both ends. The trail is open to walkers and bicyclists, and benches are provided for resting. The trail offers scenic lake views and is very popular with visitors.

A network of existing roads remains from the park's time as a military facility. Patrons use these for cycling and jogging. While some roads are in acceptable condition, many are degraded with broken surfaces and overgrown vegetation.

A handful of undesignated, natural-surface trails also exist in the park. These trails are most likely a result of patrons exploring the park's natural features (ravines, forests, etc.), of hunting activity in the park, or of adjacent neighbors accessing parklands from their property.

**Hunting and Fishing**

Hunting, is allowed in certain sections of the park away from the camping loops at certain times of the year corresponding to DEC hunting seasons with a state hunting license and a park permit.

Fishing, with a state fishing license, is permitted on all waters within the park boundary. Fishing in Seneca Lake is allowed from the shore of the park property and boats. Fishermen are required to follow all state fishing regulations.

For more information about the hunting season schedule, park rules, and maps, please visit the following Web page: <http://nysparks.com/parks/154/hunting.aspx>

## ***Operations and Maintenance Overview***

### **Emergency Plans and Services**

The NYS Park Police support park activities and operations through enforcement of park rules and regulations, vehicle and traffic law and other criminal and environmental statutes as necessary. The NYS Park Police’s enforcement and community policing efforts help maintain a good “quality of life” atmosphere at the park.

In the event of an evacuation, NYS Park Police serve as command, assisted by the Park Manager and park staff. A combination of police and staff driving to various sites and areas of the park will inform patrons of the need to evacuate.

In addition to the NYS Park Police, Route 96B is often patrolled by New York State Police and Seneca County Sheriffs.

The Romulus Fire Department will respond to any medical or fire emergencies at Sampson SP.

### **Special Events/Permits**

There are numerous special events that take place in the park. Some of the events include the following:

The annual Wine Country Dog Show is an American Kennel Club-sanctioned event held in late September at the park. The event has had up to 2,000 dogs and their owners enjoying the park during the several days of the event. Campground reservations are suspended for the event’s duration.

Special camping groups travel to Sampson SP to take in the park’s offerings throughout the seasons. In the spring, a Winnebago users group stays at the campground. Then there is a tin can (an informal name for a style of lightweight camper) users group that gathers at the campground in the fall. The park’s large open campsites provide the experience these campers enjoy.

The park issues hunting permits for big and small game. Hunting is allowed in designated areas only, and certain areas are restricted to bowhunting only. Hunting

permits are issued for park-specific seasons within the regulated hunting season for WMU 8J. Hunters should check with the park manager for more information.

Special use permits are issued for wedding ceremonies, commercial tents, placing geocaches, and various other activities. For more information about permits and applications for reservations, please visit the following Web page: <http://nysparks.com/parks/154/permits-applications.aspx>

## **Infrastructure**

### **Buildings**

The park uses many of the same buildings used during Sampson's naval base days. There are 53 buildings located throughout the park. Many of the unused warehouse buildings that are part of the regional maintenance facility have not received regular maintenance and have fallen into disrepair. Numerous other buildings existed in the park; however, many have been demolished, and only their stone foundations remain. Much of the needed maintenance of buildings used in the day-to-day operations of the park includes updating electric and providing new roofs, energy efficiency retrofits, exterior painting and staining. Buildings were constructed as part of the park opening around 1965.

### **Water Supplies**

The park's water supply comes from Seneca County Water District No.1. The district purchases water from the Village of Waterloo via the Seneca Lake Water District. This public water supply is treated using state-of-the-art disinfection and filtration to remove or reduce harmful contaminants. Activated carbon is used to absorb organic contaminants in the water, improving taste and providing additional protection against contaminants. A Source water Assessment of Waterloo's water supply is available upon request at the Seneca County Health Department, 31 Thurber Drive, Waterloo, 13165, (315) 539-1945 (Seneca County, 2014).

### **Waste Water and Sewerage Systems**

The park is connected to municipal sewer as provided by Seneca County Water and Sewer District No.1. Beyond the connection with the sewer main is a robust system of service lines and sewage lift stations. Pump stations near the Marina bathhouse and concession building pump all wastewater to the main municipal line. The system services all of the bathhouses at the park, the park office, and the museum. The park's maintenance shop and regional maintenance/navigational aids facilities have septic tanks and leach fields.

Restrooms in the park will be retrofitted with low-flow or waterless toilets as part of the scheduled remodeling project that will utilize universal design guidelines to improve accessibility.

### **Utilities**

Phone – Verizon Telephone

Internet – NYSYS airAccess at the park office.

Electricity – NYSEG. Electrical service comes from poles along Route 96 and into the park to the NYSEG substation located near the military museum. After this connection, electric is distributed using a combination of overhead and underground lines. Lines are typically owned by NYSEG until they form a connection with a transformer. Lines supply the museum, park office, regional maintenance facility, campground, marina, and manager’s residence.

Fuel Oil Storage – 1000 gallon diesel fuel tank near the park maintenance shop. One 275 gallon heating oil tank, one 2,000 gallon waste oil tank, and one 1,000 gallon split (750-gallon gas; 250-gallon diesel) equipment fueling tank behind the regional maintenance shop. A 300-gallon waste oil tank inside the regional maintenance shop. A 250-gallon propane tank near the park manager’s residence. Each of the park’s restroom facilities (7 total) has 500-gallon underground propane tanks. The Military Museum has two 500 gallon propane tanks - one underground, and one above ground.

### **Roads and Bridges**

There are over 25.4 miles of roadway in the park. This total includes maintained paved roads, natural surface access roads, and unmaintained paved roadways that remain from the original naval base.

### **Parking Areas**

Table 3 - Parking Areas in Sampson SP

<b>Location</b>	<b>Standard Spaces</b>	<b>ADA Spaces</b>	<b>Condition</b>	<b>Notes</b>
<b>Park Office</b>	24 car/16 RV	None	Fair	Asphalt
<b>Military Museum</b>	24	None	Fair	Stone dust
<b>Waterfront 1</b>	200	None	Fair	Stone dust
<b>Waterfront 2</b>	150	None	Poor	Stone dust
<b>Marina</b>	125 w/trailers	None	Fair	Asphalt
<b>Concession</b>	30	None	Poor	Stone dust

### **Dams and Culverts**

There are numerous culverts located throughout the park along existing roads. One culvert is on the main park road near the traffic circle. The stone box culvert is deteriorating and no longer functioning as designed.

### **Maintenance**

The maintenance shop at Sampson SP is located on the main park road south of the military museum. Maintenance personnel responsible for Sampson SP use the facility to maintain equipment and store supplies and as an office and lunchroom. The regional maintenance facility is located on the main park road north of the traffic circle. Regional maintenance staff use the facility to store and maintain equipment and make park signs, and as an office. Marine services of the Finger Lakes region also uses the facility to store buoys, service boats, and other materials used to support the program. The facility has an asphalt parking lot used to store vehicles and heavy equipment, which also provides access to the park's fueling tanks.

### **Season and Hours of Operation**

The park is open year-round, but access to some areas may be limited from mid-November through April of each year because many roads are only seasonally maintained. Roads to the park office and boat launch remain open throughout the year.

The campground is open for camping from the third Friday in April through the beginning of November. Cabins and the campground are typically closed for a week in late September when the park hosts an annual dog show.

Swimming at the beach is typically open from the third Saturday in June through Labor Day. Hours are 11:00 AM to 7:00 PM daily.

The park office is open daily from 8:00 AM to 4:30 PM in the winter and from 8:00 AM to 5:30 PM in spring and summer.

The Military Museum is open Wednesday through Sunday from mid-May to the beginning of November. Hours are 9:00 AM to 5:00 PM.

For more information on season and hours of operation, please visit the following Web page: <http://nysparks.com/parks/154/hours-of-operation.aspx>

### **Accessibility (ADA)**

Accessibility is analyzed and improved during the design phase of projects. An assessment has not been conducted for the entire park complex.

### **Solid Waste Management and Recycling Programs**

Solid waste is collected from the park by park staff and transported to the municipal landfill for disposal. Recycling is promoted throughout the park by educational flyers and posters. Recycling bins for cans and bottles are provided at specific points for public use. The park office recycles paper products, aluminum, plastic, and glass. The regional maintenance facility recycles scrap metal and used oils.

### **Sustainability Programs**

The park incorporates energy efficiency and water conservation practices into all routine maintenance and remodeling of existing park facilities. Energy efficient LED lighting, low-flow plumbing fixtures, and weatherizing of buildings (e.g., windows, insulation, and caulking) make a positive contribution toward reaching the park’s sustainability goals. These measures and the incorporation of green building materials will be part of any new capital improvement projects scheduled for the park.

## Chapter 2 – Development of Alternatives

### ***Introduction***

This chapter contains an analysis of the alternatives being considered for recreation resource development, natural and cultural resource protection, and facilities for operations. The options reviewed and the studies use resource inventory information, park goals, core team discussions, and other factors. Findings from the studies are used in identifying the preferred alternatives for each of the resource categories. The status quo, alternatives, considerations and preferred alternative for individual issues are described in narrative form. A complete description of the plan that results from the preferred alternatives is found in the master plan document.

This chapter is divided into three broad resource categories:

- **Natural Resource Protection** – Alternatives that focus on strategies for stewardship, study and interpretation of the park’s natural resources.
- **Recreational Resources** – Alternatives that primarily concentrate on the areas of the park that support various recreation activities. Included in this category are the built facilities and consideration of different types of recreation activities.
- **Operations Facilities** – Those buildings and management practices that provide support for the functioning of the park.

### ***Natural Resource Protection Strategies***

#### **Invasive Species**

A statewide invasive species control program (ISCP) has been established in OPRHP. The goals of the program are to preserve biodiversity and reduce the threat of invasive species to the quality of the natural, recreational, cultural, and interpretive resources in state parkland.

#### ***Background***

##### Terrestrial Fauna

Firewood can be a source of invasive insects which can kill trees. Although Emerald Ash Borer (*Agrilus planipennis*) has not been found in the park as of yet, the park is in the quarantine area for this pest and follows a protocol for firewood described in the *Camping Procedures & Reference Manual (Revised January 2015)* Chapter III, Subchapter K, paragraph 3. Additionally, the park and the agency follow all regulations on firewood and wood transportation issued by the NYS DEC.

##### Aquatic Fauna

Two invasive species have been found in the waters near the shore of Seneca Lake in the park. Zebra mussel has been found north of the beach area, and Bloody-red shrimp

has been found in the marina. Both of these species can be spread by boats loading and unloading.

#### Flora

Several species of invasive plants are found in the park. These are listed in Table 2 in Chapter 1. Control of the spread of Garlic mustard is particularly important as it may impact the threatened plant in the park.

#### **Alternatives Considered**

##### ***(i) Status Quo – No change to current management of invasive species***

Considerations:

- Continue to enforce all current OPRHP Camping regulations pertaining to firewood and NYSDEC firewood transport regulations. If Emerald Ash Borer or Asian Longhorn Beetle is found in the park, work with agencies to follow containment and control recommendations.
- Continue to monitor for Hemlock Woolly Adelgid
- Currently, invasives are being monitored periodically
- No plan for control of aquatic invasives
- Some species are being detected by OPRHP staff and by public
- Certain species are being removed by volunteers
- There are no measures in place for Early Detection Rapid Response

##### ***(ii) Develop a comprehensive invasive species management plan, including early detection and rapid response, and follow recommendations of OPRHP staff and biologists***

Considerations:

- Current control measures will continue
- Develop plan for boat washing station to control spread of aquatic invasives
- Concentrated observation is important for early detection
- Establish Early Detection, Rapid Response protocol for the park
- Develop priorities for management based on assessments of various factors including ease of control, potential environmental impacts, potential infrastructure impacts, and the level of threat to human health

- Park personnel will be trained by Agency invasive species team to develop management plan and strategies

### ***Preferred Alternative***

The preferred alternative is (ii) Develop a comprehensive invasive management plan, including early detection and rapid response, and follow recommendations of OPRHP staff and biologists. Under this alternative, the current management protocols can be continued and expanded with new techniques and strategies that will detect and respond to invasive species on a timely basis.

## **Firewood Procedures**

### ***Background***

The introduction of invasive species impacts local economies and natural resources. Transportation of firewood is a major channel by which invasive insects like the Emerald Ash Borer, Woolly Adelgid, and Asian Long Horned Beetle are introduced into new areas. These pests could have a significant impact on park resources.

OPRHP has issued the Camping Procedures and Reference Manual (Revised in January 2015 <http://intranet/intranetfiles/Policies/ppbs/Operations/CampingManual.pdf>) which specifies the requirements for bringing firewood into New York State parks. These requirements encourage that campers use firewood produced in the park. The procedures also mirror the New York State Department of Environmental Conservation's regulations established to help slow the spread of these invasive insects. Under the OPRHP and DEC regulations, it is illegal to bring untreated firewood into New York State and New York State parks. Furthermore, it is illegal to transport untreated firewood more than 50 miles from its source. A receipt or self-issued certificate stating that the firewood has been properly treated is required as proof of source when carrying firewood into the park from outside from further than 50 miles away.

The park currently enlists a concessionaire to supply certified firewood to campers.

NYS Park Police enforce the OPRHP and DEC Firewood Regulations at this park and NYS Parks statewide.

### ***Alternatives Considered***

#### ***(i) Status Quo –***

***No alternatives to the status quo were considered.*** The park will continue to provide firewood for campers through a concessionaire. The core team feels that this is the best alternative for protecting the park's natural resources and for complying with OPRHP and DEC Firewood Regulations.

## Wildlife Resources

### ***Background***

The wildlife species and significant wildlife habitats of the State Park System are important and valuable natural resources. Of the nearly 350,000 acres of lands and waters statewide, approximately 85% of the land is considered natural habitat. The extraordinary diversity of wildlife present in the State Park System is an important component of our state's biodiversity. Wildlife is also a recreational resource that can enhance park visitors' experiences.

As a general rule, OPRHP follows a "passive management" approach, allowing natural processes to maintain wildlife populations in ecological balance. However, there are unique circumstances when an active management approach is necessary.

Additional information about wildlife management in the State Park System can be viewed by going to the following page: <http://nysparks.com/inside-our-agency/documents/PolicyOnFishAndWildlifeManagement.pdf>

Sampson SP is one of the largest in the region at over 2,000 acres. The historical land-use of the park, surrounding land-use, and geographic location are all factors influencing wildlife species observed in the park. Many areas of the park show signs of past practices conducted when the land was being developed for a naval base. Trees and other vegetation were cleared to make space for planned infrastructure or parade grounds. Today, many of these areas are in a successional forest stage or are reverting old field with shrubs present. The park's ravine areas are mature forests that have remained intact through previous and current land-uses.

The mix of wildlife habitat at the park offers excellent recreational opportunities for viewing wildlife as well as remarkable hunting and fishing opportunities. One can observe a variety of breeding and migratory birds, game animals (i.e., wild turkey, white-tailed deer, and American woodcock<sup>2</sup>), or try their luck fishing for perch from the waterfront area.

Sampson SP provides excellent opportunities for hunting both large and small game species. The most popular game is the white-tailed deer and wild turkey. The reverting old fields, shrub thickets, and successional forest provides enough cover and browse to support an abundant local deer population. Hunting in the park is by permit only. The season when hunting is permitted in the park may vary from the published statewide hunting calendar.

OPRHP consulted with DEC wildlife biologists about managing white-tailed deer in the park. OPRHP will continue its collaboration with DEC by providing deer harvest information for the park. Additional Deer Management Permits (DMPs) may be available for use in the park during future seasons. DEC could issue these additional permits if

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<sup>2</sup> Listed as a Species of Greatest Conservation Need in New York

the local population of deer in the park is considered too high. Harvest information will be evaluated, and impacts on the park’s ecological communities will be monitored. As part of an adaptive management strategy, there may be changes to season dates, the number of hunter or deer management permits issued, or hunting implements permitted in the park.

### ***Alternatives Considered***

#### ***(i) Status Quo – Continue “passive management” of wildlife species and wildlife habitat in the park.***

##### Considerations

- Wildlife observed in the park, and recreational opportunities will change as successional forests transition to later stages of succession
- Will not benefit SGCN listed species, migratory breeding birds, or contribute to landscape level habitat needs within the state
- Does not address forest health concerns

#### ***(ii) Develop a comprehensive natural resources management plan, including wildlife habitat management strategies, and follow recommendations of OPRHP and DEC staff and partner organization wildlife biologists.***

##### Considerations

- Would identify science-based natural resource projects that promote healthy forests and habitats for SGCN listed species, migratory breeding birds, and game species
- Aligns with the agency’s mission to be a good steward of its natural resources
- Would create a more enjoyable recreational experience for park visitors
- Projects would restore important wildlife habitats on the landscape level

#### ***Preferred Alternative – (ii) Develop a comprehensive natural resources management plan, including wildlife habitat management strategies, and follow recommendations of OPRHP and DEC staff and partner organization wildlife biologists.***

This alternative will allow a team of natural resource professionals led by representatives of DEC and OPRHP to work collaboratively with other partner organizations and stakeholders in the region. The team would be charged with formulating long-term strategies for accomplishing park, region, and statewide wildlife goals.

## ***Recreational Resource Development***

### **Campground Improvements/Expansion**

#### ***Background***

The campgrounds at Sampson SP have one of the highest overall occupancy rates in the region. The need for more full-service camping facilities in the Finger Lakes region is supported by the results of analyses undertaken by NYS Parks. These factors combine to indicate that additional full-service camping sites at Sampson SP campground would increase the recreational offerings of the park in an already popular camping location.

It has also been documented, through surveys of campers, that there is demand for campsites with electric and water service, higher amperage electrical service, sewer hook-up at sites and seasonal camping opportunities.

#### ***Alternatives Considered***

##### ***(i) Status Quo – No new campsites, sewer hook-up, or improved electric and water service at existing sites***

###### Considerations

- No new capacity for additional camping at the park
- Patron desire for full-hookup sites will not be addressed
- Would not add support for regional tourism initiatives (e.g., wine trail, scenic byway, Lago Casino, etc.)
- No new environmental impacts
- Will not attract additional users

##### ***(ii) Build a full-service campsite loop with new bathhouse***

###### Considerations

- Aligns with the vision for the park
- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Will meet the estimated demand for full hook-up sites
- Roadways, campsites and trenching for electric, water, and sewer service may impact vegetation depending on location

- New bathhouse will connect to the existing water supply and public sewer
- Meets current demand for full hook-up camping opportunities within the park's service area
- Supports regional tourism initiatives (e.g., wine trail, scenic byway, Lago Casino & Resort, etc.) by providing alternative overnight accommodations
- Will attract additional users
- Some temporary ground disturbances from site work and construction of new bathhouse and campsites
- Campsites will be designed to accommodate RVs
- Design will include a planting plan for shade trees and buffers

**(iii) Improve water and electric service in the campground**

Considerations

- Meets master plan goals for improving recreational resources
- Meets statewide goal of fixing aging infrastructure
- Patron satisfaction will increase
- 50AMP electrical service will be provided
- Some water and electrical hookups will be relocated
- Some temporary ground disturbances during utility work
- Little to no environmental impact
- Improved service will attract additional users

**(iv) Add a solar energy array to the campground**

Considerations

- Aligns with the vision for the park
- Meets the master plan goals for sustainability within the park
- Meets the statewide goal of greening state parks
- Will meet the daily electrical needs of one campground loop (approx. 50 sites)

- Potential for visual impacts
- Will require dedicated space and new infrastructure
- Some temporary ground disturbances during construction and utility work

***(v) Improve water and electric service, and add septic service to campsites in Loop 5***

Considerations

- Aligns with the vision for the park
- Meets statewide goal of fixing aging infrastructure
- Would meet the estimated demand for full hook-up sites
- Meets the current need for full hook-up camping opportunities within the service area of the park
- Offers improved facilities to park patrons
- Increases range of types of campsites offered at the park
- Requires trenching and some temporary ground disturbance
- Loop 5 has the highest reservation rate
- Will connect to existing municipal water and sewer facilities
- Little to no environmental impacts
- Patron satisfaction will improve
- Would attract additional users

***(vi) Designate a camping loop to provide an opportunity for seasonal occupancy***

Considerations

- Satisfies the need expressed by patrons during public open house events, surveys and assessment of opportunities within the park's service area
- Supports regional tourism initiatives (e.g., wine trail, scenic byway, Lago Resort & Casino, etc.) by providing an alternative long-term stay facility in the Finger Lakes region
- Increases the range of types of camping experiences offered at the park

- Virtually no environmental impact
- Would attract additional users

***Preferred Alternative – The preferred alternative combines several of the alternatives considered –***

- ***(ii) Build a seasonal full-service campsite loop with new bathhouse;***
- ***(iv) Improve water and electric service in the campground;***
- ***(v) Add a solar energy array to the campground;***
- ***(vi) Designate a camping loop to provide an opportunity for seasonal occupancy***

The planning team selected these alternatives because they meet multiple master plan goals. These actions direct the park toward the vision developed as part of this planning effort. Improvements like these will meet the expectations of patrons camping at the park.

## **Cabins**

### ***Background***

Sampson SP has seven cabins available for stays at the park. The cabins were established in 2012 under a concession agreement with Klipnocky Custom Cabins of Canaseraga, NY. The cabins provide modest accommodations for four and in their current location offer some of the best views of Seneca Lake. Cabins have no running water, electric, bathroom or kitchen facilities. The application of ADAAG guidelines was not part of the original project.

Several other parks in the region offer cabin rentals, although none have the same characteristics as the Klipnocky cabins at Sampson State Park. Demand for the cabins is considered strong, and occupancy rates for the cabins at Sampson are comparable to the rates at other parks in the region.

Of the comments received during the public open house events, the prevalent feeling was that the cabins are too far away from the campground, waterfront, and nearest comfort stations. Others expressed that there is not enough shade for the cabins, and they are too exposed. Campers did give the cabins an overall favorable rating on the camper survey.

The concession agreement for the cabins is up for renewal at the end of FY-2015. Most of the alternatives listed below assume NYS Parks renews the contract. There is the possibility, however, of the contract not getting renewed. In this case, the inventory may be purchased by parks or the cabins may be removed from the park.

### **Alternatives Considered**

#### ***(i) Status Quo – No change to the cabin colony area***

##### Considerations

- Does not meet the master plan goal of providing and expanding recreational opportunities at the park.
- Improving access to and expanding recreational opportunities for persons with disabilities would not be addressed
- Patron satisfaction would not improve
- Capacity to meet the growing demand for cabin rentals would not be addressed
- No new environmental impacts

#### ***(ii) Retain current location and improve the cabin colony with plantings and support amenities***

##### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park.
- Cabins will remain in their current locations that provide views of Seneca Lake
- Patron satisfaction will improve
- Some cabins would become ADA compliant and utilize Universal Design (incl. accessible parking, pathway, and entry)
- Cabins will be retrofitted with electrical outlets and lighting

#### ***(iii) Relocate the cabin colony to selected sites in the campground***

##### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park.
- Patron satisfaction will improve because cabins will be closer to support amenities
- Some ground disturbances from grade work and construction
- Cabins will be placed in existing sites in the campground with little to no environmental impacts anticipated

- Cabins would be ADA compliant and utilize Universal Design (incl. parking, pathway, and entry)
- Would need to coordinate with the concessionaire

**(iv) Provide additional cabins**

Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Cabins would be of a size and number to meet demand for cabin rentals in the region
- Cabins would be located to take advantage of existing, new, and planned park facilities
- Supports regional tourism initiatives (Lago Resort & Casino, wine trail, scenic byway, etc.) by providing additional alternative overnight accommodations
- Some ground disturbances from grade work and construction
- Virtually no environmental impact

***Preferred Alternative – (iii) Relocate the cabin colony to selected sites in the campground***

This alternative was chosen because it will better utilize the existing cabins. There are a number of sites in the campground that will be considered before deciding on final locations for the cabins. This alternative will make access to bath facilities more convenient for cabin camping patrons.

## **Cottages**

### ***Background***

Cottages in New York's state parks are a popular attraction. They provide an opportunity to enjoy the parks with many of the comforts of home. They serve as an entryway to the park for those who do not have all the gear or are unsure about traditional or RV camping. Several parks in the region offer cottage rentals.

There are several private cottage rental businesses on Seneca Lake near the park.

[Note: The following is a narrative description of the conceptual design for cottages at Sampson Lake State Park. The finished design may vary somewhat from this description.]

The conceptual design for cottages that NYS Parks is considering for Sampson State Park is less rustic and more contemporary. The conceptual design includes one and

two-bedroom units. One-bedroom units range from 480-550 square feet, and two-bedroom units range from 650-750 square feet. Each unit would have a full bathroom, and two-bedroom units may have two full baths. The conceptual design includes a kitchenette with stovetop, microwave, refrigerator, and toaster oven. The remaining space would include separate sitting and small dining areas, with a small propane fireplace to warm the interior space. Each cottage would also have a covered porch with views of Seneca Lake. (Figure 10)

### ***Alternatives Considered***

#### ***(i) Status Quo – Do not provide cottages***

##### Considerations

- Does not meet the master plan goal of providing and expanding recreational opportunities at the park.
- Does not meet the need for cottage rental opportunities within the park's service area.
- Does not support regional tourism initiatives (e.g., wine trail, scenic byway, Lago Casino, etc.)
- Would not attract additional users

#### ***(ii) Build 15 cottages along the eastern shore of Seneca Lake near campground loop 5***

##### Considerations

- Aligns with the vision for the park
- Meets master plan goal of providing and expanding recreation opportunities at the park
- Unique facility will attract additional users
- Some cottages will incorporate ADA guidelines for accessibility
- Cottages will be near the waterfront and provide views of Seneca Lake
- Would require additional infrastructure (sewer or septic, electric and water utilities)
- Would be designed and constructed using sustainable/green building materials
- Cottages will have running water, electric, kitchen and bathroom facilities, and a source of heat suitable for three-season rental

- Some temporary ground disturbances during construction and utility work
- Supports regional tourism initiatives (Lago Resort & Casino, wine trail, scenic byway, etc.) by providing additional alternative overnight accommodations
- Would provide additional revenue for the park

**(iii) Build up to 20 family/group oriented cottages at the preferred locations identified in Figure 10**

Considerations

- Many of the same considerations of (ii); except, preferred cottage locations are not near the waterfront
- Conceptually, cottages are larger (sized for 8-12 people) than those proposed near the waterfront
- Would be phased in groups of 7 to 10 depending on the success of previous cottage developments

**Preferred Alternative – (ii) Build 15 cottages along the eastern shore of Seneca Lake near campground loop 5; (iii) Build up to 20 family/group oriented cottages at the preferred locations identified in Figure 10**

The planning team selected these as the preferred alternatives because they meet several of the master plan goals for the park. These alternative also align with the vision developed for the park.

## **Waterfront Redevelopment**

### **Sampson State Park Beach**

#### **Background**

The beach at Sampson State Park provides opportunities for relaxing in the park and swimming. The number of day-use patron visits to the beach is low with most of the use coming from campground patrons. The beach is staffed with lifeguards when the beach is open. There is a small lifeguard building on the beach and a public comfort station nearby. The large parking area adjacent to the waterfront playground provides ample parking and reasonable access to the beach. Campground loops are within walking distance to the beach. Patrons access the beach on foot, by car and by bicycle using park roads and paved pathways. Many of the paved pathways leading to the beach and waterfront area have steep slopes that make meeting universal design guidelines challenging.

The sandy area at the beach is near capacity during the busy summer season.

### ***Alternatives Considered***

#### ***(i) Status Quo – No changes to the beach area***

##### Considerations

- Does not align with the vision for the park
- Does not meet the goals of the master plan for providing improved recreational resources for park patrons
- Does not address accessibility issues
- No new environmental impacts

#### ***(ii) Expand sandy beach to the east and create a terraced seating area near the waterfront playground***

##### Considerations

- Universal design elements will improve access to the beach for all patrons
- Terraced area will provide excellent views of the beach and lake
- Additional sand will be trucked in and spread
- Expansion will add 6,160 square feet and room for 176 additional patrons

#### ***(iii) Reduce height of breakwater***

##### Considerations

- Improves patron satisfaction by feeling less “enclosed”
- Reduced height allows view of the lake from the beach area

#### ***Preferred Alternative – (ii) Expand sandy beach to the east and create a terraced seating area near the waterfront playground; (iii) Reduce height of breakwater***

These alternatives were selected by the planning team because they are consistent with the master plan goals for the park. The additional sandy beach area and terraced seating will create more useable space for patrons to enjoy waterfront activities.

## **Marina**

### ***Background***

In May of 2015, the agency completed a review of capital investment needs and priorities in Sampson SP. The review considered all capital investment needs in Sampson SP using a holistic approach. The agency set priorities for future park improvements as part of this review. The review also resulted in a set of alternatives for

improving the marina and boat launch in the park. The agency has considered numerous alternatives as part of the review process. The master plan mirrors the agency's preferred alternatives and implementation strategy. Additional information about the agency's review of capital investment needs for Sampson SP is in the Demand-Cost Study for Sampson State Park Marina (Barton & Loguidice 2015.)

Boating is a popular recreational activity in New York State and a significant contributor to local economies. The 103-slip marina at SP opened in 1960 along with the rest of the park. The marina offers seasonal and transient slips and a four-lane boat launch. It is one of many public and private access points on Seneca Lake. There are 34 other marinas on Seneca Lake, each providing varying levels of service.

Currently, the marina has come to the end of its useful life. Docks and slip infrastructure have deteriorated extensively, and there has been significant sand and siltation making navigation difficult. The amenities at the slips are lacking, and there are no fuel sales. Additionally the marina is host to several species of invasive aquatic plants and one species of invasive shrimp. These organisms can attach to watercraft and transported to other water bodies in the state. There is no washing facility at the boat launch.

There are several studies that look at the feasibility of rebuilding the Sampson marina. The 2015 Demand-Cost Study prepared by Barton and Loguidice, D.P.C. (B&L) provides several alternatives including construction cost estimates. The agency has examined the studies and the alternatives presented and has decided on the preferred alternative outlined here. (Barton & Loguidice, 2015)

### ***Alternatives Considered***

#### ***(i) Status Quo – No changes/improvements to the marina***

##### Considerations

- Marina will continue to deteriorate and may become unusable
- No dredging will allow marina to continue to fill in making navigation difficult or impossible
- No improvements to amenities for slip holders
- Invasives will continue to populate the marina (Bloody red shrimp *Hemimysis anomala* and invasive aquatic plants)

#### ***(ii) Solicit proposals from concessionaires to rebuild, maintain, and run a marina at Sampson State Park***

This alternative would open up development and operation of the marina at Sampson SP to a private business enterprise. The private entity would design, reconstruct, maintain, and run a marina according to its business plan. The company would be required to work within the existing footprint of the marina. The company would consult

with NYS Parks on specific elements of the design to ensure the new facility aligns with plans for the waterfront area.

#### Considerations

- Some level of improved marina services will remain in the park if NYS Parks receives an acceptable proposal
- Assists with meeting the master plan goal of connecting the park with the waterfront
- Would improve marina facilities and begin to meet patron expectations
- Would provide at least a basic level of service that would meet some of the demand for a marina at the park.
- May meet all of the demand for marina services in the park depending on the proposals considered
- Capital improvement projects will use limited resources that serve the greatest needs and share of users of the park

#### ***(iii) Decommission the marina, build a redesigned boat launch facility, and provide transient boat slips***

This alternative would decommission the marina in the park. Docks and other marine amenities would be removed. The break wall would be stabilized and maintained to protect the boat launch and transient slips. The rehabilitated boat launch facility would have the capacity to launch four boats at one time. Up to 15 transient slips would be available to service campers and day users.

#### Considerations

- Provides an updated boat launch facility in the park that may improve patrons' experiences
- Enhances the park's recreational boating connection with Seneca Lake
- Would only provide a basic level of service to current marina/launch users
- Capital improvement projects will use limited resources that serve the greatest needs and share of users of the park

***Preferred Alternative – (ii) Solicit proposals from concessionaires to rebuild, maintain, and run a marina at Sampson State Park.***

***Alternate Preferred Alternative – (iii) If no suitable proposal is generated from (ii) then OPRHP will eliminate the marina, build a redesigned boat launch facility, and provide transient boat slips***

## **Waterfront - Picnic, Pavilion, and Special Event Area**

### ***Background***

The Sampson SP shoreline is approximately 4.7 miles long and is an important feature of the park. Providing and expanding the recreational and scenic opportunities associated with this resource and improving access are critical strategies for realizing the vision for the park. The developed portion of the shoreline offers a wonderful waterfront with a marina and boat launch facility, a playground, parking and beach areas. A concrete wall connects the northern breakwater with the marina except at the beach area. The remainder of the park's shoreline has mature mixed hardwoods and a thick understory in the upland areas and a locally significant cobble shoreline.

Specifically, the area between the marina and beach area is the area of focus for this section. The concept for this area is to create an inviting waterfront that further connects the park as well as park activities to Seneca Lake. This experience would be accomplished by using pathways that connect the beach and playground areas with the proposed waterfront amenities and the marina. The additional waterfront open space will provide ample room for patrons wanting to relax lakeside in the park.

### ***Alternatives Considered***

#### ***(i) Status Quo – No changes to the waterfront area***

##### Considerations

- Does not meet the master plan goal of providing and expanding recreational opportunities for relaxing in the park
- Does not connect patrons to the waterfront
- Does not attract users
- No new environmental impacts

#### ***(ii) Provide a pavilion***

The waterfront area of Sampson State Park is an important feature of the park. Developing facilities for patrons to enjoy the waterfront is central to realizing the vision for the park. This alternative proposes a single large pavilion designed to accommodate up to 200 people and in accordance with universal design guidelines. Running water, electric, and an area for light preparation or warming of food would be provided. The

waterfront setting with spectacular views of Seneca Lake would be ideal for large group gatherings and special events.

#### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities for relaxing in the park
- Improves connection to the waterfront
- Increases scenic views of Seneca Lake
- Pavilion could be rented for special events
- Potential for negative visual impacts from the lake
- Site location may obstruct views of the lake from some areas in the park
- Temporary ground disturbances during site work and construction

#### ***(iii) Provide a picnic area***

The existing picnic area, located uphill from the waterfront near the existing shelter and pavilions, does not receive a lot of use. Trees and understory vegetation block views of Seneca Lake from the current picnic area. Relocating the existing picnic area to the waterfront and offering both traditional and innovative alternatives to traditional picnicking facilities will further provide opportunities for patrons to connect to the park's waterfront. Eating areas would link to other waterfront elements using accessible pathways. There would be ten areas with elements like benches and rock groupings, with three components that are ADA accessible, for patrons to use while picnicking and enjoying the waterfront.

#### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities for relaxing in the park
- Will connect patrons to the waterfront
- Will connect to other areas of the waterfront using accessible pathways

#### ***(iv) Provide a special events area with support amenities***

Connecting other areas of the park to the waterfront is an important component needed to realize the vision for the park. An area will be allocated as part of the design of the waterfront to provide space for up to two large event tents. The site would also provide hookups for running water and electric service. The space would be adjacent to any preferred alternative for a large pavilion and connect to other areas of the waterfront using accessible pathways.

## Considerations

- Aligns with the vision for the park
- Increases the capacity of the park to host special events
- Waterfront parking area will be reconfigured
- Will connect to other parts of the waterfront using accessible pathways

### ***Preferred alternative – (ii) Provide a pavilion; (iii) Provide a picnic area***

The planning team selected these alternatives because they fit the master plan goals for the park. A redesigned waterfront area will further connect the Park to Seneca Lake. The waterfront space will provide additional opportunities for patrons to relax in the park.

## Fishing Access

### ***Background***

Fishing is a very popular activity at Sampson State Park with people of all ages. The Recreational Index of Need for fishing in the service area of the park is 5.5, which is above the state average. (See Table 1 in Chapter 1 of this document).

Fishing can connect people to the outdoors and foster an appreciation for the natural environment for years to come. Seneca Lake is a popular freshwater fishing destination within the Finger Lakes region.

Seneca Lake is reported to have a healthy fishery consisting of brown and lake trout, smallmouth bass, yellow perch, and landlocked salmon. Northern pike, largemouth bass, and landlocked Atlantic salmon are also present. Sampson State Park is one of several public access sites available along the shores of Seneca Lake where the public can fish from shore.

A recent survey of campers at Sampson State Park indicated that use of the fishing pier/wall is a favorite activity among patrons. When asked about other amenities they would like to see at Sampson State Park, 11 percent of those surveyed responded that a fish cleaning station would be a welcome amenity for the fishing pier/wall.

### ***Alternatives Considered***

#### ***(i) Status Quo – No change in access to fishing in Seneca Lake***

## Considerations

- Does not meet the master plan goal of providing and expanding recreational opportunities at the park

- Does not meet the master plan goal of improving the connection of the park with the lake waterfront
- Would not require additional construction within the waterfront area

***(ii) Provide a fishing pier***

The boat launch provides access for those wanting to fish by boat, and the marina and lakeshore wall provides access for those wanting to fish from shore. Under this alternative, lake shore access to fishing is expanded, and access to deeper waters of Seneca Lake would be improved. The development of this type of waterfront facility will further connect the park to the lake for all patrons.

The pier would be designed considering current universal access guidelines so that people of all abilities may access and enjoy Seneca Lake from the lakeshore of the park. A small pavilion and seating area at the lake end could be part of the design. These types of design details would provide additional opportunities for patrons looking to fish or simply relax by the lake.

Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Meets the statewide goal of reconnecting children and adults with nature and recreation by improving access to outdoor recreational opportunities (NYS Office of Parks, Recreation and Historic Preservation, 2014)
- The fishing pier will be designed for universal access
- The pier will connect to the rest of the waterfront area
- Environmental concerns include shading of aquatic vegetation and areas of permanent fill for pilings
- Potential for visual impacts from the lake; a visually appealing design is important
- Potential marine navigation impacts; pier will need safety lighting and design should be done in consultation with appropriate state and local agencies

***Preferred Alternative – (i) Status Quo – No change in fishing access to Seneca Lake***

This alternative was chosen because the planning team determined that the current level of access to Seneca Lake for fishing activities is sufficient for current use patterns and levels. The walls of the marina provide excellent access to fishable parts of the lake. The waterfront wall provides additional access with a large amount of space where patrons can spread out.

## ***Day-use Facilities***

### **Picnic, Pavilion, and Special Event Areas**

#### ***Background***

Sampson State Park offers three pavilions, one shelter, and a small picnic area with tables and hibachi grills. The pavilions are open air and can accommodate small groups. The single shelter can accommodate larger groups and has roll down doors for both fair and inclement weather events.

Sampson State Park does not have day use numbers comparable to the surrounding parks near urban populations in the Finger Lakes Region. However, there is some demand for improved facilities generated by campground patrons, special events, and local organizations.

One of the critiques of the current picnic and pavilion facilities is that trees or other facilities obstruct views of the lake. The vision for this park, and, therefore, a primary goal of the master plan, is to connect more areas of the park to sweeping views of the lake.

#### ***Alternatives Considered***

##### ***(i) Status Quo – No change to existing picnic, pavilion, or shelter areas***

###### Considerations

- Does not meet master plan goal of expanding recreational opportunities for relaxing in the park
- Does not improve patron satisfaction with day use facilities
- Does not meet current demand for facilities
- Current use patterns may be a factor of facility condition, size, or location
- Current facilities are not accessible

##### ***(ii) Improve the existing picnic, pavilion, and shelter areas***

Small improvements to the existing pavilions, shelter, and picnic area would positively affect the aesthetics and usability of these facilities. Each pavilion will be upgraded to comply with current universal design standards. Basic electrical service will be provided if currently unavailable at the pavilion. Water outlets will also be provided nearby if not already present. The pavilions and shelter will be updated with complementary façades where needed. The picnic area will be reorganized, and picnicking amenities will be renewed.

###### Considerations

- Meets statewide goal of fixing aging infrastructure
- Likely positive change on use patterns with additional new facilities Use patterns may change with improved facilities
- Facilities will be upgraded and made to comply with universal design guidelines

***(iii) Provide an additional Pavilion and update picnic area***

The current configuration of pavilions limits the ability of the park to meet the vision drafted for this master plan. Views of Seneca Lake are limited, and the size of each pavilion precludes use by larger groups. The facilities themselves are outdated and do not have many of the same support amenities found with newer pavilions such as electric service and food warming areas. Under this alternative, the location of a new pavilion will provide sweeping views of Seneca Lake. Its design will consider current universal design guidelines and be sized to accommodate 150 people. Electric and water service will be supplied at the pavilion. These improvements will cater to special events and larger groups gathering at the park.

The picnic area would be updated with new grills and picnic tables, and would serve patrons of all abilities. The updated picnic area would leverage existing views of Seneca Lake and work would include managing vegetation to create new sweeping vistas of the lake.

Considerations

- Meets master plan goal of expanding recreational opportunities for relaxing in the park
- Likely positive change on use patterns with additional new facilities
- Use patterns may change with improved facilities
- Would meet demand for day use facilities in the park
- New locations would be selected to offer views of the lake
- Shade tree plantings may be necessary based on location
- Picnic area would be accessible to people of all abilities
- Some temporary ground disturbances during utility line trenching and construction activities

***(iv) Provide a special event area with support amenities (e.g., electric & water)***

There is an ongoing need at the park for areas that support special events. The park has been host to many large-scale events through the years. For example, the park

hosts an American Kennel Club sponsored dog show that attracts nearly two thousand dogs and their owners. The many open fields surrounding the military museum are populated with event tents and used as the competition grounds for the event.

An area dedicated to large and special events will be developed in the open field between the museum and camping loop 6. The new event area will be outfitted with water and electric hookups.

#### Considerations

- Meets master plan goal of expanding recreational opportunities
- Supports regional tourism initiatives for current and future events
- Increases the park's capacity to host additional significant events

#### ***Preferred Alternative – (i) Status Quo – No Change to Existing picnic, pavilion, or shelter areas***

The master plan proposes a new picnic area and full-service pavilion in the redesigned waterfront area. Other proposals in the master plan selected the existing picnic area as one of the preferred locations for future cottage development in the park. The existing pavilions and shelter will remain as they are with the basic routine maintenance of each structure.

## **Recreation Building**

### ***Background***

The recreation building at Sampson State Park offers indoor mini-golf, table tennis, and an assortment of video games. The recreation space shares a building with the park office. This facility made use of an existing building present when the park was a base.

A recent survey of campers at Sampson State Park indicated the use of the recreation building as a favorite activity enjoyed by patrons. About a quarter of respondents reported that they used the recreation building during their most recent visit. Several more of those surveyed, 29 percent in all, indicated that they planned to use the recreation building on a return visit.

### ***Alternatives Considered***

#### ***(i) Status Quo – No Changes to the Recreation Building***

#### Considerations

- Does not meet master plan goal of providing and expanding recreational opportunities at the park.
- Does not require new construction or changes to the existing facility.

### ***(ii) Improve and expand opportunities within the current Recreation Building***

The footprint of the existing recreation building would remain the same, and the building would share space with the park office. The space would be updated to facilitate hosting regional events such as wine and cheese tastings. The recreation space would be updated with new indoor recreation amenities like table tennis, foosball, and pool tables. Additional video games could be brought in from a concessionaire. The space would be updated with energy-efficient lighting, additional insulation, and energy-efficient windows. The painted concrete flooring would be updated to clean up the interior space and provide a nicer venue for hosting regional events.

Wi-Fi or internet connections could be made available.

Additional updates would occur to the park office, described in a later section.

#### Considerations

- Would utilize the existing park office and recreation building
- New indoor recreation amenities would provide entertainment for patrons during inclement weather
- Would be open year-round
- Could be used as a warming hut for winter outdoor activities

### ***(iii) Construct a new indoor recreation building***

Current reports suggest that RV park patrons expect facilities to have certain amenities to meet their needs. These amenities include laundry facilities, fitness centers, and business centers with Wi-Fi or public computers with internet connections. These types of services are more common in a private RV campground setting, but it does not mean the public would not expect the same facilities in a state park. Sampson State Park is a very popular park among the RVing community. These types of improvements and seasonal stay opportunities will draw additional visitors to the park and surrounding community as well as provide more satisfaction for the camping experience.

A new recreation building would be sited in a location that will connect with the rest of the park and provide a place to begin exploration of the park. The concept includes a fitness center and indoor climbing wall. There would be other amenities such as table tennis, foosball, and pool tables.

#### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park.

- New indoor recreation amenities would provide entertainment for patrons during inclement weather.
- The new facility would provide additional amenities to service the needs of extended-stay patrons.
- Encourages activity among kids and adults
- Will be open year-round
- Can be used as a warming hut for winter outdoor activities

***Preferred Alternative – (ii) Improve and expand opportunities within the existing recreation building***

This alternative was selected by the planning team because the team determined that the current recreation building's size and location meet the needs of the park. The current recreation building location is convenient to other areas in the park, especially the campground.

## **Field Games**

### ***Background***

Field sports are a favorite outdoor activity in many parks throughout the state. Baseball, soccer, and football fields are common fixtures in many parks. Sampson SP has many open areas that could be utilized for these activities. Currently, there is only one baseball field in the park.

Sampson SP is located in a rural area with small towns within a short drive where demand for these facilities is met by local schools or small municipal parks. Demand for field sports in the park is generated by park patrons. In a survey of campground users, only 16 percent said that they used playfields in the park during their last visit. The same percentage responded that they planned to use the playfields on a future visit.

### ***Alternatives Considered***

***(i) Status quo – No improvements to existing field game facilities or new field game facilities.***

#### Considerations

- Would not meet the master plan goal of providing and expanding recreational opportunities in the park
- Does not encourage physical activity among kids and adults
- Responds to the low number of park patrons who indicated their use of playfields in the park.

### ***(ii) Provide new game fields***

#### Considerations

- Would meet the master plan goal of providing and expanding recreational opportunities in the park
- Would meet the need in the park's service area
- Would exceed the estimated demand
- May duplicate locally available resources
- Encourages physical activity among kids and adults
- One baseball field would be provided
- Would require continual maintenance

### ***Preferred Alternative (i) Status quo – No improvements to existing field game facilities or new field game facilities.***

This alternative was chosen by the planning team because there is not enough demand for improved or new field game facilities. The park receives very little day use. The current facilities and open spaces meet the internal demand created by campground patrons. It is highly likely that facilities found at local schools meet the demand created by the communities surrounding the park.

## **Court Games**

### ***Background***

Sampson SP has very few court games available for day-use or campground patrons. The park has one basketball court and two tennis courts. Most of the use is from campground patrons since the park does not receive a lot of day-use visitors.

The Relative Index of Need (RIN) for court games in Seneca County is above the statewide average at 6. The weighted average RIN in this category for the service area of Sampson State Park is above the statewide average at 8.6. (See Table 1 in Chapter 1 of this document)

### ***Alternatives Considered***

#### ***(i) Status Quo- No change to court games***

#### Considerations

- Current mix and condition of court games at the park will not change

#### ***(ii) Improve existing tennis courts***

### Considerations

- Court surface would be improved
- Fence would be maintained
- Seating will be added
- A water fountain would be added nearby
- Pathways would connect all court games
- Tennis racquets and balls would be available at the park office

#### ***(iii) Improve existing basketball court***

### Considerations

- Court surface would be improved
- Basketball hoops would be replaced
- Fencing would be added to the court
- Seating would be added
- A water fountain would be added nearby
- Pathways would connect all court games
- Basketballs would be available at the park office

#### ***(iv) Provide outdoor handball/racquetball courts***

### Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- A single wall for two courts would be provided
- Fencing would be added to the court
- Seating would be provided
- A water fountain would be nearby
- Pathways would connect all court games

- Racquets and balls would be available at the park office

***(v) Provide outdoor shuffleboard courts***

Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Two courts would be provided
- Seating would be provided
- A water fountain would be nearby
- Pathways would connect all court games
- Cues and disks would be available at the park office

***(vi) Provide a disc golf course***

Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- The course would be 9-holes
- Course would utilize field and wooded areas
- Discs would be provided at the park office

***(vii) Provide outdoor beach volleyball courts***

Considerations

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Two courts would be provided
- Seating would be provided
- A water fountain would be provided nearby
- Pathways would connect all court games
- Volleyballs would be available at the park office

***Preferred Alternative –(ii) Improve existing tennis courts; (iii) Improve existing basketball court; (vii) Provide outdoor beach volleyball courts***

The planning team selected these as the preferred alternatives because they fit several of master plan goals. The updates will make patrons' experiences using these facilities more pleasurable and may add new patrons for beach volleyball with the added amenity.

## **Trail System**

### ***Background***

Currently, there is only one designated trail in the park; the Lake Shore Trail. The trail offers scenic lake views and is very popular with visitors who enjoy cycling and walking. Developing additional trails in Sampson State Park was identified as a high priority in the public comments.

Comments received during the public open house events expressed an interest in additional trail and interpretation opportunities for the park. The camper survey conducted for this master plan asked patrons about amenities they would like to see at the park. Of those surveyed, 31 percent said they would like to see additional trails provided at the park. Of this same group, 65 percent indicated they walked on the trails, and 45 percent reported they bicycled on the trails, on their recent visit. When asked about activities planned for their next visit, 70 percent indicated they would walk on the trails and 55 percent said they would bicycle on trails.

According to the 2014 American Camper Report, hiking is the most popular sports and leisure activity in which to participate while camping. 70% of adult (aged 18+) camping participants said they enjoyed hiking while camping. Moreover, a higher percentage -- 76%-- enjoy hiking as an independent activity. (The Outdoor Foundation, 2014)

## **Develop Additional Bicycling Facilities**

### ***Background***

Bicycling is a popular activity at the park. Improving and expanding cycling opportunities was frequently called for in the public comments. The existing road network provides riders with a hardened surface to travel on and multiple destinations. The proposed closure of some of these roads to vehicular traffic will provide opportunities for additional cycling use.

### ***Alternatives Considered***

***(i) Status Quo – No new cycling facilities or improvements***

#### **Considerations**

- Does not meet the master plan goal of providing and expanding recreational opportunities at the park

- Does not address public comments
- No new environmental impacts
- Would not attract additional users
- Cycling can continue on existing trail and roadways

***(ii) Improve existing cycling facilities***

***Background***

Improve road surface conditions on existing cycling routes where needed. Install signage and way-finding systems to assist cyclists while using roads in the park.

Considerations

- Aligns with the vision for the park
- Addresses public comment for cycling improvements
- Encourages physical activity among kids and adults

***(iii) Designate closed roads as new bike paths***

***Background***

Expand cycling opportunities by designating additional existing roadways to be used as cycling paths. Paths will be designated multi-use and allow walking and biking, as well as cross-country skiing and snowshoeing in the winter.

Considerations

- Meets master plan goals for improving recreational resources
- Aligns with the vision for the park
- Meets the master plan goal of providing and expanding recreational opportunities
- Meets the need for additional multi-use trails in the park
- Encourages physical activity among kids and adults
- Some ground disturbances during construction

***(iv) Develop a new bike path to expand cycling***

### ***Background***

The eastern section of the park contains old railroad beds from its days as a military base. This alternative would utilize the abandoned rail bed alignment for the creation of a new multi-use path for cyclists.

#### Considerations

- Meets the master plan goal of expanding recreational opportunities
- Aligns with the vision for the park
- Would attract new users
- Meets the need for additional multi-use trails in the park
- Encourages physical activity among kids and adults
- Utilizes previously disturbed rail alignment for new development
- Provides patrons with increased mileage for cycling at the park

### ***Preferred Alternative (ii) Improve existing cycling facilities, (iii) Designate closed roads as new bike paths, (iv) Develop a new bike path to expand cycling***

The planning team selected these as the preferred alternatives because cycling is one of the most popular activities at Sampson State Park. Increasing cycling opportunities is a priority for both staff and patrons, and opportunities exist to increase the mileage for cycling recreation.

## **Mountain Bike Skills Park and Bike Trails**

### ***Background***

Mountain biking skills parks are growing in popularity. Skill parks offer a controlled environment where people can learn to ride a mountain bike and can practice balance and negotiation skills while advancing their skill level (novice, intermediate, advanced). Skills parks contain features that challenge riders of all ages and abilities and create a safer, more experienced riding community. Often, a skills park has a connected looped trail system that provides novice, intermediate and advanced trail experiences both in trail layout and design, as well as technical trail features. These trails and features provide riders with opportunities to enhance their biking skills. (IMBA, 2015)

Bicycling is a popular activity at Sampson State Park. The Lake Shore Trail and the many old roads provide opportunities for individual and family rides. The park has a bike rental program available for those looking to ride. During the 2014 survey, 45 percent of campground patrons said they bicycled on trails in the park. Fifty-five percent said they planned on bicycling on trails on a future visit. Many of the comments received from the open house events suggested the need for more trails in the park. Additional bike trails were among the most requested.

The 2014 NYS SCORP provides Relative Index of Need (RIN) numbers for each county. Seneca County has an RIN of 4 in the biking category, which is below the statewide average. The weighted average RIN in this category for the service area of the park is 4.4, slightly below the statewide average.

Bicycling trails range from wide paved pathways – great for family rides – to technical single track trails that attract bicyclists with advanced skills. Trail riding opportunities for individuals and families exist in other locations within the service area for the park. Many of the paved pathways are in recreation areas in nearby cities. The Finger Lakes National Forest offers 30 miles of interconnected trails, on many of which mountain biking is allowed.

There are no existing mountain biking skills parks in the region.

### ***Alternatives considered***

#### ***(i) Status Quo – No new mountain bike skills park or trail system***

##### Considerations

- Does not meet the master plan goal of providing and expanding recreational opportunities at the park
- Does not meet the statewide goal of reconnecting children and adults with nature and recreation by improving access to outdoor recreation opportunities
- Will not attract new users
- Will not encourage physical activity for kids and adults
- No new environmental impacts
- Will not meet the need for trails in the park

#### ***(ii) Provide a mountain biking skills park***

Mountain biking skills parks provide an opportunity for recreationists to hone their mountain biking skills using features designed specifically for mountain biking. These elements include things like small jumps, skinnies, pump tracks, etc. The age of most participants is typically younger with some middle-aged folks looking to join in on the fun. Mountain bike skills parks can be large or small and are designed to fit the intended user. There are many ways that someone can take advantage of such a feature at a park. Many biking skill parks include small ramps and other features that allow an individual to play and enjoy what they are doing. Many enjoy using the pump track and skills park elements to hone their skills.

The mountain biking skills park would be sized appropriately to satisfy estimated demand. The facility would include small jumps, ramps, a pump track, and other items

consistent with a mountain biking skills park. There will be no water features included as part of the skills park, so mud would not be an issue.

#### Considerations

- Aligns with the vision for the park
- Meets the master plan goal of providing and expanding recreational opportunities
- Meets the statewide goal of reconnecting children and adults with nature and recreation by improving access to outdoor recreation opportunities
- Would attract new users
- Encourages physical activity among kids and adults
- Some risk involved
- Some ground disturbances during construction
- Would need to ensure exposed soil does not move offsite by using vegetated filter strips or silt fencing

#### ***(iii) Provide a mountain biking oriented trail system***

##### ***Background***

This type of trail would be designed in the anticipation that most of the use would be from mountain bicyclists. The trail would be designed using accepted standards from various sources such as the International Mountain Bicyclists Association (IMBA, 2015) and OPRHP guidelines (NYS OPRHP, 2015)

#### Considerations

- Aligns with the vision for the park
- Meets the master plan goal of providing and expanding recreational opportunities
- Meets the statewide goal of reconnecting children and adults with nature and recreation by improving access to outdoor recreation opportunities
- Would attract new users
- Meets the need for additional trails in the park
- Encourages physical activity among kids and adults
- Some ground disturbances during construction and use; BMPs would be used for water management and sustainability

***Preferred Alternative – Status Quo – Do not provide a mountain bike skills park or mountain biking specific trails.***

The planning team selected this alternative because there is not a great enough need for mountain biking specific facilities in the area. The planning team determined that a multi-use trail system is the best fit for providing mountain biking opportunities in the park.

## **Nature & History Trail System**

### ***Background***

Sampson State Park has one designated trail – the Lake Front Trail. This paved trail is approximately one mile in length and very popular among bicyclists and walkers. The shoreline adjacent to the trail is mostly vegetated with large trees and a thick understory; however, there are several locations along the trail that offer magnificent views of Seneca Lake.

Sampson State Park has a rich history having been host to tens of thousands of service men and women during the naval base days and later as an air force base. The Sampson Museum provides an enjoyable experience for patrons to learn about the history of Sampson. There are no displays or other interpretive materials about the Sampson military era in the park. There is an opportunity to connect the patron experience visiting the museum with the rest of the park.

Comments received during the public open house events expressed an interest in additional trail and interpretation opportunities for the park. The camper survey conducted for this master plan asked patrons about amenities they would like to see at the park. Of those surveyed, 31 percent said they would like to see additional trails provided at the park. Of this same group, 65 percent indicated they walked on the trails, and 45 percent reported they bicycled on the trails, on their recent visit. When asked about activities planned for their next visit, 70 percent indicated they would walk on the trails and 55 percent said they would bicycle on trails.

### ***Alternatives considered***

#### ***(i) Status Quo – No change to current trail system***

##### **Considerations**

- Does not align with the vision for the park
- Does not meet master plan goals for recreation, natural resource, and access
- Would not attract new users
- Does not encourage physical activity among kids and adults

***(ii) Provide a nature-based trail system***

A new nature-based trail system will be developed in the park. Trails will showcase the natural resources and wildlife found in the park. Patrons will have the opportunity to learn about the park's natural resources and wildlife through an improved interpretation program. Both conventional and new technologies (kiosks, panels, cell phone tour, and mobile device applications) will be used for interpreting the park's resources. This new trail system will provide campground and day use patrons something fun and educational.

Considerations

- Aligns with the vision for the park
- Meets the statewide goal of engaging park visitors through programming at parks and historic sites
- Meets the statewide goal of providing opportunities for children and adults to reconnect with nature and recreation
- Trail system would attract additional visitors to the park
- Impacts of trail construction and use would need to be mitigated
- Part of the trail system would be designed and constructed considering ADA guidelines, where practicable
- Encourages physical activity among kids and adults

***(iii) Provide a history-based trail system***

A new history-based trail system will allow patrons to learn about what life was like during the days when Sampson was an active base. The trails will build on the existing success of the museum and create a link between the park and the interpretation already provided in the museum. The trail system will use conventional and new technologies (kiosks, panels, cell phone tour, and mobile device applications) to interpret the history of the park. The trails may act as an introduction to the history of the park for many and may also encourage some to visit the museum.

Considerations

- Aligns with the vision for the park
- Meets the statewide goal of engaging park visitors through programming at parks and historic sites
- Meets the statewide goal of providing opportunities for children and adults to reconnect with nature and recreation

- Trail system would attract additional visitors to the park
- Trail system would connect the museum to the park
- Part of the trail would be designed considering universal access guidelines, where practicable
- Trail system would provide activities for campground and day use patron participation
- Encourages physical activity among kids and adults
- Would build on the existing partnership with the museum friends group
- Would introduce patrons to the history of Sampson and encourage them to visit the museum
- Museum may receive additional visitors

***Preferred Alternative – (ii) & (iii) Provide Nature & History-based trails***

This alternative was selected by the planning team because it fits several of the master plan goals. Each trail will be an integrated part of the multi-use trail system proposed by this plan.

**Create multi-use trails in the park**

***Background***

Currently, no designated trails exist within the park that offer patrons an opportunity for hiking, mountain biking, cross-country skiing or snowshoeing. These are popular recreation activities, and public feedback has shown there is a desire for these facilities to be added to the park.

***Alternatives Considered***

***(i) Status Quo – No new multi-use trails***

**Considerations**

- Does not meet the master plan goals for creating trails in the park
- Does not address public comments
- No new environmental impacts
- Would not attract additional users
- Patrons may continue to seek out and use undesignated trails

***(ii) Create a multi-use trail in the northern section of the park.***

***Background***

Park visitors and public input have shown a need for hiking paths to be constructed in the park. Creating a hiking loop near the campgrounds offers patrons a nearby destination to get exercise, explore, and experience the natural setting of the park. This multi-use trail will have a natural tread surface in some areas, but may also utilize portions of old and reclaimed roadways in other areas.

Considerations

- Meets master plan goals for creating trails in the park
- Aligns with the vision for the park
- Addresses public desire for multi-use trails
- Provides nearby activity for campers
- Encourages physical activity among kids and adults
- Some ground disturbances during construction

***(iii) Create a multi-use trail near the northern ravine.***

***Background***

Aside from Seneca Lake, the ravine at the north of the park is one of the most interesting and scenic natural features available to visitors. A multi-use trail utilizing a natural tread surface would lead patrons near the ravine for views of the stream below. This trail would provide more of a backcountry-style hiking experience for park visitors looking for nature interpretation and scenery.

Considerations

- Meets master plan goals for creating trails in the park
- Address public desire for multi-use trails
- Provides nearby activity for campers
- Aligns with the vision for the park
- Brings patrons to scenic section of the park

***(iv) Create multi-use trails near the southern ravine, pioneer cemetery, and the southern portion of the property.***

***Background***

The Pioneer Cemetery is a unique historical feature. It is also located near a stream and scenic ravine that provides additional opportunities for nature interpretation. Similar to the northern ravine trail, the Pioneer Cemetery Trail would be a multi-use trail utilizing a natural tread surface and providing a backcountry-style hiking experience. The southern portion of the park provides a large natural area not intersected by the old roads that exist in other areas of the park. Extending from the Pioneer Trail, this trail would also be a multi-use trail utilizing a natural tread surface and provide a backcountry-style hiking experience. Due to the area available, additional trails could be added in the future if there is a demand for it.

**Considerations**

- Meets master plan goals for creating trails in the park
- Addresses public desire for multi-use trails
- Aligns with the vision for the park
- Encourages physical activity among kids and adults
- Brings patrons to scenic and historic section of the park
- Large untapped acreage

***Preferred Alternative(s): (ii), (iii), & (iv) Create multi-use trails at key areas in Sampson State Park.***

The planning team selected these as the preferred alternatives because they fit several of the master plan goals and address public comments. The alternatives will provide patrons with opportunities for hiking, biking, skiing and snowshoeing, as well as nature interpretation.

**Develop paths near camping loops and Park office**

***Background***

Existing camping loops in the park are all within a walkable distance from popular park destinations such as the beach, marina, park office, and fishing pier. Currently, campers must use existing roadways or undesignated social trails to travel from their camping loop to these locations. Creating established paths for camping patrons improves their experience and eliminates potential negative interactions between vehicles and campers.

### ***Alternatives Considered***

#### ***(i) Status Quo – No connector paths created***

##### Considerations

- Does not align with the vision for the park
- No new environmental impacts
- Patrons will continue to use roadways and social trails for foot travel.

#### ***(ii) Develop connector paths in camping loops***

##### ***Background***

Paths will be developed to provide campers with a route of travel from the entrance of each campground loop, to the park office, and to the waterfront. Paths would be a hardened surface and may be constructed to meet ADA standards where feasible.

##### Considerations

- Aligns with the vision for the park
- Creates a more pleasant user experience
- Would be a designated route of travel for patrons to use
- Improves safety for pedestrians in camping areas
- Locations offer sustainable grades and could be made ADA accessible

#### ***(iii) Develop nature path from park office to waterfront***

##### ***Background***

This path will begin near the park office and allow campers and patrons a short, wooded walk to one of the most popular areas of the park. This trail will be located between two wooded ravines and provide an opportunity for nature interpretation in proximity to camping loops. This path will be a hardened surface and may be constructed to meet ADA standards where feasible.

##### Considerations

- Aligns with the vision for the park
- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Provides adults and children an opportunity for nature interpretation

- The existing route has sustainable grades and could be made ADA accessible.

***Preferred Alternative(s): (ii) & (iii) Develop connector paths in camping areas and nature path to the waterfront.***

The planning team selected these as the preferred alternatives because they will improve patrons' experiences while staying at the campgrounds and provide nearby opportunities for walking and nature interpretation.

## **Improve and designate water access along Lake Shore Trail**

### ***Background***

The Lake Shore Trail is very popular with walkers and cyclists and offers scenic views of Seneca Lake and opportunities for patrons to access the cobbled shore. Improving access to the water was identified as a goal of the Master Plan. OPRHP staff identified multiple social paths that lead to the water from the Lake Shore Trail. Some of these paths offer an opportunity to designate water access for patrons along the Lake Shore Trail.

### ***Alternatives Considered***

#### ***(i) Status Quo – Do not improve water access at Lake Shore Trail***

##### Considerations

- Does not align with the vision for the park
- No new environmental impacts
- Patrons will continue to use trail

#### ***(ii) Close and re-vegetate undesignated shore access point(s)***

### ***Background***

OPRHP staff identified one social trail that leads to the water from the Lake Shore Trail. This southernmost path is steep, unsafe and suffers from a great deal of erosion. To dissuade future use and minimize erosion, this trail would be closed and re-vegetated using OPRHP trail closure standards.

##### Considerations

- Help mitigate future erosion
- Improves safety of visitors
- Patrons may continue to use trail

### ***(iii) Improve water access along Lake Shore Trail***

#### ***Background***

Two paths along the Lake Shore Trail offer sustainable access points for patrons to reach the water's edge. Designating and improving these trails for patron use will meet the goal of providing water access while limiting the potential for continued use of unwanted social trails.

#### Considerations

- Provides shore access to users on the Lake Shore Trail
- Takes advantage of an existing access point with sustainable characteristics.
- May or may not mitigate future use of undesigned trails

#### ***Preferred Alternative(s): (ii) & (iii) Close undesirable shore access points and Improve preferred shore access trails.***

The planning team selected these as the preferred alternatives because they fit several of master plan goals. Designating and improving shore access points will improve users' experiences on the Lake Shore Trail and provide patrons with safe, maintained access to the water in areas of the park other than the beach. Undesirable lake access points will be closed and revegetated with the goal of eliminating dangerous off-trail travel to the lake shore.

### **Develop water-view nature trail**

#### ***Background***

The Lake Shore Trail is currently the only designated trail in the park that brings patrons near the water. This trail is a wide, paved surface and accommodates walkers and bicycles well. While popular, this trail location is far to the south and difficult for patrons to reach by foot.

#### ***Alternatives Considered***

##### ***(i) Status Quo – Do not develop water-view nature trail***

#### Considerations

- Does not align with the vision for the park
- Does not meet the master plan goal of providing and expanding recreational opportunities at the park
- No new environmental impacts

## ***(ii) Develop water-view trail heading south from boat launch***

### ***Background***

This trail would provide patrons with a footpath in a more central location to the museum, boat launch, and campgrounds and allow views of the lakeshore from a wooded setting. This trail would head south from the Museum toward the marina and boat launch. The trail will then lead patrons to the water's edge, along the cobbled shore for a brief period, and then back to higher ground away from the shore. The trail will be for foot travel only and consist of a natural surface trail suitable for hiking.

### Considerations

- Meets master plan goals for creating trails in the park
- Address public desire for additional trails
- Aligns with the vision for the park
- Provides opportunity for nature interpretation
- May require bridging of the ravine to the south of the marina

### ***Preferred Alternative (ii) Develop new water-view trail***

This alternative was selected by the planning team because it will provide additional walking/hiking and nature interpretation opportunities for patrons near the day-use area of the park.

## **Winter Facilities**

### ***Background***

Locally, winter activities include a number of outdoor winter activities, e.g. ice skating, sledding, cross-country skiing and snowshoeing. These activities have a lower entry cost compared to other popular outdoor winter activities like snowmobiling and downhill skiing.

The weighted average Relative Index of Need (RIN) of this category for Sampson State Park is above the statewide average at 6.9 (see Table 1 in Chapter 1 of this document). However, the weighted average RIN for Seneca County, where the park is located, is below the statewide average at 4. The park remains open throughout the winter and cross-country skiing and snowshoeing on all park trails, unplowed roads, and natural areas are permitted. Sledding at state parks is prohibited, unless occurring in specially designated areas. Sampson State Park is relatively flat with no suitable hills to provide this opportunity.

The Finger Lakes National Forest, also in Seneca County, offers over 30 miles of interconnected multi-use trails. During the winter, these trails provide opportunities for

backcountry skiing and snowshoeing. The core of the Finger Lakes National Forest is about a 30-minute drive from Sampson State Park.

## **Cross-country Ski Trail System**

### ***Background***

Sampson State Park does not have any designated groomed or backcountry cross-country ski trails. Patrons may ski on the Lake Shore Trail, unplowed roads, and within the natural areas of the park.

The average weighted RIN in this category for the Sampson State Park service area is slightly above the statewide average at 5.8. The weighted average for Seneca County, where the park is located, is above the statewide average at 6. Other opportunities for cross-country skiing exist on designated trail systems within the Finger Lakes National Forest and other state lands in the surrounding counties.

Comments received during and after the public open house events indicated an active interest in multi-use trails. Specific comments regarding cross-country skiing opportunities were not received by the planning team.

### ***Alternatives considered***

#### ***(i) Status Quo – No cross-country ski trails***

##### Considerations

- Does not meet the statewide goal of improving access to outdoor recreation opportunities to reconnect children and adults with nature
- Does not meet the master plan goal of providing and expanding recreational opportunities at the park
- Would not meet expressed demand for trails
- Would not encourage activity among kids and adults
- Would not add a winter outdoor recreation activity to the park

#### ***(ii) Provide an ungroomed cross-country ski trail system***

Trails in the park will not have grooming machines prepare the surface for cross-country skiing. Snow surface will accumulate in a natural way, and users will forge those trails that they find accessible.

##### Considerations

- Meets the statewide goal of improving access to outdoor recreation opportunities to reconnect children and adults with nature

- Meets the master plan goal of providing and expanding recreational opportunities at the park
- Would meet expressed demand for trails
- Encourages activity among kids and adults
- Adds a winter outdoor recreation activity to the park
- Will partner with local cross-country ski clubs/teams
- Trails would utilize other three-season trails in the park
- Trails would offer different degrees of difficulty and distances to accommodate a broad range of skiers
- Trail system would be 20 – 30 km in length
- Trails would be marked and have a uniform wayfinding system
- Ski rentals would be available at the park office
- Would provide additional revenue for the park

***(iii) Provide a groomed cross-country ski trail system***

Considerations include (ii) and

- Groomed trails are unique to the service area of the park

***Preferred Alternative – (i) Status Quo – No cross-country specific trails***

This preferred alternative was selected because the planning team determined that a multi-use trail system will be a better fit for the park based on current use and information gathered during the planning process. The Finger Lakes National Forest is nearby Sampson State Park and has a trail system where cross-country skiing is permitted. For Sampson SP, cross-country skiing will be permitted on designated trails.

## ***Facilities and Operations***

### **Internet Connectivity**

#### ***Background***

Sampson SP does not have an internet connection available for park patron use. The internet/network connectivity of the park office is also quite limited compared to other state park facilities.

There was a strong voice of support about providing this service heard during the public open house events, through public comments received, and during the camper survey

conducted at Sampson State Park. This recent study of campers, undertaken in August of 2014, asked about other amenities patrons would like to see at Sampson State Park. Of those surveyed, 66 percent would like a public internet connection/Wi-Fi provided at the park.

### ***Alternatives considered***

#### ***(i) Status Quo – No Change to Internet Connectivity within the Park***

##### Considerations

- Would not meet master plan goal of providing and expanding amenities to increase patron satisfaction and meet the needs of special events, day users, regular camping and seasonal camping patrons.
- Lack of internet/network connectivity of the park office will continue.

#### ***(ii) Provide internet connection/Wi-Fi hotspot(s) within the Park (e.g., park office, recreation building, or concession area)***

##### Considerations

- Would meet master plan goal of providing and expanding amenities to increase patron satisfaction and meet the needs of special events, day users, regular camping, and seasonal camping patrons.
- Internet/network connectivity of park office will be improved.

#### ***(iii) Provide park-wide Internet/Wi-Fi coverage in developed areas of the Park (e.g., marina, campground, recreation building, and other new facilities)***

##### Considerations

- Would meet master plan goal of providing and expanding amenities to increase patron satisfaction and meet the needs of special events, day users, regular camping, and seasonal camping patrons.
- Would require significant new network infrastructure.
- Internet/network connectivity of park office will be improved.

#### ***Preferred Alternative – (ii) Provide internet connection/Wi-Fi hotspot(s) in the Park (e.g., park office, recreation building, and campground).***

This scenario was selected as the preferred alternative by the planning team because it fits with master plan goals. The planning team determined that a need exists to update the park's current network. There is also supporting information that there is demand for these services.

## Comfort Stations

### **Background**

Sampson State Park comfort stations are situated in each of the camp loops and near the pavilion/picnic area, waterfront beach area, and marina. The comfort stations are original to the park, having been built in the 1960s at the same time as most of the rest of the infrastructure. The structures were built using cement block and have areas of brick veneer. The aging structures have energy-inefficient incandescent lighting or older fluorescent lighting. For the most part, the exterior and main structures of the comfort stations are in good repair. The interior amenities are clean and in decent repair too, although with dated fixtures and tile.

The comfort stations are not compliant with current universal access guidelines. Access and use of each of the facilities are difficult for the disabled community.

An assessment (See Appendix E) and preliminary recommendation is provided in Table 4.

Table 4 -- Preliminary Assessment and Recommendations

Location	Condition	Recommendation
Campground: Loop 1	Good	Modernize/Make ADA Compliant
Campground: Loop 2	Good	Modernize/Make ADA Compliant
Campground: Loop 3	Good	Modernize/Make ADA Compliant
Campground: Loop 4	Good	Modernize/Make ADA Compliant
Campground: Loop 5	Good	Modernize/Make ADA Compliant
Waterfront/Beach	Good	Modernize/Make ADA Compliant
Picnic/Shelter/Pavilion	Good	Modernize/Make ADA Compliant
Marina	Good	Modernize/Make ADA Compliant

### **Alternatives Considered**

#### ***(i) Status Quo – No changes to the existing comfort stations***

##### Considerations

- Does not meet the statewide goal of fixing and greening aging park infrastructure
- Does not fulfill the master plan goal of protecting the natural environment by implementing sustainability actions
- Comfort stations will remain non-compliant with ADA guidelines
- Patron satisfaction will not improve

- Would not address energy inefficiencies

***(ii) Modernize existing comfort stations***

Existing comfort stations will be retrofitted to comply with current universal design guidelines. Modifications to electrical and plumbing systems will increase energy efficiency and improve water conservation. More specifically, LED lighting will replace the aging fluorescent lighting, and low-flow or waterless systems will replace existing plumbing fixtures. New interior fixtures, flooring, tile, and paint will update current interior schemes. Comfort station façades may also be updated.

Considerations

- Meets the statewide goal of fixing and greening aging parks infrastructure
- Comfort stations would be updated to meet ADA guidelines
- Long-term patron satisfaction would likely improve
- Meets master plan goal of promoting sustainability at the park
- Updated facilities may decrease maintenance-related issues
- Aligns with the mission of NYS Parks to provide safe and enjoyable recreational and interpretive opportunities for all visitors
- Aligns with the vision for the park
- Meets master plan goals for access, sustainability, and operations
- There would be some ground disturbances (trenching, grading, etc.) with construction
- There would be some inconveniences for patrons as each comfort station is modernized

***(iii) Replace some comfort stations***

Selected comfort stations will be replaced using updated NYS Parks architectural designs. These designs include universal design elements that provide improved access for all park patrons. Comfort stations include a shower and changing facilities, family bathrooms, and low-flow or waterless toilet facilities. LED lighting complements natural lighting for increased energy efficiency. Selected comfort stations may be relocated or replaced in the same location.

Considerations

- New locations of some comfort stations would improve the patron experience

- Meets master plan goals for access, sustainability, and operations
- Patron satisfaction would improve
- There would be ground disturbances (trenching, grading, etc.) with construction
- Fewer inconveniences for patrons (dependent on replacement in place or a new location)

***(iv) Replace comfort stations***

Comfort stations will be replaced using updated NYS Parks architectural designs. These designs include universal design elements that provide improved access for all park patrons. Comfort stations include a shower and changing facilities, family bathrooms, and low-flow or waterless toilet facilities. LED lighting complements natural lighting for increased energy efficiency. Selected comfort stations may be relocated or replaced in the same location. Replacement comfort stations will be phased in as resources permit.

Considerations

- Meets the statewide goal of building a 21st-century green and sustainable park system
- Aligns with the mission of NYS Parks to provide safe and enjoyable recreational and interpretive opportunities for all visitors
- Meets master plan goals for access, sustainability, and operations
- New locations of some comfort stations would improve the patron experience
- There would be ground disturbances (trenching, grading, etc.) with construction
- Fewer inconveniences for patrons (dependent on replacement in place or a new location)

***Preferred Alternative – (ii) Modernize comfort stations.***

The planning team selected this as the preferred alternative because it meets several of the master plan goals for the park. The existing buildings are considered to be in satisfactory condition supportive of the improvement work.

## **Campground Dump Station Improvement/Expansion**

***Background***

Sampson State Park has one dump station available to service campground patrons. Many attending the public open house events voiced their experiences using the current dump station. Long lines and extended wait times were a common complaint among those at the public open house events.

In August 2015, the planning team conducted a survey of campground patrons' experiences staying at Sampson State Park. Of those surveyed, 38 percent of campground patrons would like to see additional dump station locations provided at the park.

### ***Alternatives Considered***

#### ***(i) Status Quo – No change to current dump station facility***

##### Considerations

- Would not meet the statewide goal of fixing aging infrastructure within our parks
- Would not meet current demand for services
- Potential health and safety issues

#### ***(ii) Improve/expand existing dump station***

A four-bay station would replace the existing dump station. Access to the station would be reconfigured to improve staging patrons in line away from main park access roads. Equipment at the station would be updated as part of the new four-bay setup.

##### Considerations

- Would meet the statewide goal of fixing aging infrastructure within our parks
- May only marginally meet current demand for services
- Patron satisfaction may improve slightly
- Would marginally mitigate health and safety issues

#### ***(iii) Provide a new four-bay dump station***

A new four-bay dump station would replace the existing station located behind the park office. The station would be sited along the reconfigured park access road between the existing campground loops and the proposed full-service seasonal campground loop. Access to the dump station would be convenient and more efficient for campground patrons exiting the park. Patrons would access the station one-way, and the staging area would be configured to be outside of the main park access road.

##### Considerations

- Would meet the statewide goal of fixing aging infrastructure within our parks and opening new facilities
- The locations and design can be tailored to fit current and future demand for services

- Patron satisfaction would improve measurably
- Mitigate any potential health and safety issues
- Would ease concerns over long lines and extended wait times
- Would provide an improved level of convenience for campground patrons

***Preferred Alternative (iii) Provide a new four-bay dump station.***

The planning team selected this as the preferred alternative because it addresses health and safety concerns and patron dissatisfaction for using the current dump station.

## **Park Office/Visitor Center**

### ***Background***

The Sampson State Park office and recreation hall share the same building. The building had existed during the previous era of Sampson before it transformed into a state park in 1960. It is an old building that was built during an era when green building materials were not used, and energy efficiency was not the most important factor in its construction.

### ***Alternatives Considered***

#### ***(i) Status Quo – No Change to existing park office***

##### Considerations

- Does not meet the statewide goal of fixing and greening the aging infrastructure of our parks to create a 21st-century green and sustainable park system
- Would not modernize park operations or increase efficiency

#### ***(ii) Improve existing park office building***

The existing park office would be updated to increase energy efficiency, comply with universal design guidelines, and support more efficient park operations. More specifically, LED lighting will replace aging fluorescent lighting. Energy-efficient windows will replace old, inefficient ones, and additional insulation will decrease heating costs. Low-flow or waterless fixtures along with new floor and wall treatments will replace aging bathroom fixtures. The entryway of the park office will be redesigned considering universal design guidelines. New interior flooring and wall treatments will update the old. New modest furniture will provide a small seating area, and new cases and countertop will update the existing service counter.

The park is scheduled to receive a new fiber service cable. Once installed, network connectivity will be improved to support park office operations. The network will expand

later to provide wireless connections for patrons so they can access the Internet for a modest fee.

#### Considerations

- Improving the existing facility allows elements of sustainability and green building materials to be used, consistent with statewide and master plan goals
- Would be modernized and support park operations
- Would make the existing building compliant with ADA and Universal Design Guidelines

#### ***(iii) Construct a new park office building***

#### Considerations

- Would modernize and make park operations more efficient
- Would be the hub of information for activities in the park
- Small business office available to the public (computer, printer, etc.) to support the needs of campground patrons
- Would be open year-round to welcome winter visitors
- Can serve as a waiting area for bus tours to regional attractions (e.g., Lago Casino & Resort, Waterloo Outlet Mall, Bass Pro Shops, and local Wineries)
- Some temporary ground disturbances during site work and construction

#### ***Preferred Alternative – (ii) Improve existing park office building***

This alternative was chosen because the current location and size of the park office meets the needs of operating the park. The improvements fit the master plan goals by making the facility accessible to the disabled community and improving energy efficiency, water conservation, and facility maintenance issues.

## **Park Water System**

### ***Background***

The existing water system in the park is showing signs of aging and will require full replacement before the situation becomes critical. The current system was designed and constructed independently of the water system that was used for the naval base. Routine maintenance of the system is handled by park staff, and emergency repairs that occur are addressed by park staff, or the work is contracted out.

## **Alternatives Considered**

### ***(i) Status quo – No change to existing water system***

#### Considerations

- Would not meet statewide goal of fixing aging infrastructure in parks
- Would not meet master plan goals for operations and maintenance
- System would continue to age and may require costly emergency repairs
- System could reach a point where it is unable to remain compliant with Department of Health and local government regulations

### ***(ii) Replace core water system infrastructure in the park***

#### Considerations

- Meets the statewide goal of fixing aging infrastructure in parks
- Updated system should minimize the amount of resources used for routine maintenance and emergency repairs
- System would meet new standards if applicable
- System would provide better service to patrons visiting the park
- Would require minor ground disturbances

The existing water system in the park would be replaced in its entirety. New distribution lines, valves, filters, and service pumps would be installed as part of the replacement system.

### ***Preferred Alternative – (ii) Replace core water system infrastructure in the park***

The planning team selected this alternative because it aligns with the vision for the park and will also meet the statewide goal for repairing aging infrastructure in the park.

## **Park Roads**

### ***Background***

Sampson State Park was originally designed to support the functions of an active Naval Base and training ground hosting tens of thousands of service personnel in its lifetime. Subsequently it was used by the Air Force for the same function. Because the road system was designed to accommodate the barracks, parade grounds and other buildings it is linear and grid-like – not giving a park-like experience.

When the park was designed many park elements such as the campgrounds and day use area were positioned using the existing road configuration.

Many of the roads no longer speak to the needs of a park and need resurfacing, and other maintenance issues need to be addressed.

### ***Alternatives Considered***

#### ***(i) Status quo – No Change to existing park roads***

##### Considerations

- Condition of park roads will not change
- Configuration of park roads will continue without responding to the needs of the park

#### ***(ii) Improve existing park roads***

##### Considerations

- Meets the statewide goal of fixing aging infrastructure in parks
- Meets the master plan goals for operations and maintenance
- Would improve patron satisfaction
- Would include a new wayfinding system
- Select roads would be resurfaced

#### ***(iii) Improve existing camp loop roads***

##### Considerations of (ii) and

- Would replace gravel roads with asphalt

#### ***(iv) Develop a uniquely designed park road system connecting existing and new facilities, improving roads that are retained and removing unneeded roads***

The existing park road configuration and public motor-vehicle access to some roads would change under this alternative. A new main park road system will use some existing roads but also require the construction of new roads. The new road configuration will be two-way and non-looping. This configuration will allow the siting of a single contact station/pay station to serve patrons entering the park. Short spur roads are required to connect to the regional maintenance facility and park manager's residence.

(See Figure 11 in the Appendices of this Plan)

## Considerations

- Would improve vehicle and pedestrian flow in the park
- Would respond better to park needs and configuration
- Areas, where roads are removed, can revert to natural vegetation

### ***Preferred Alternative – (iv) - Develop a uniquely designed park road system connecting existing and new facilities, improving roads that are retained and removing unneeded roads***

The core team chose this alternative because it best meets the needs of the park as described in the vision. This alternative also allows reversion to natural vegetation and meets agency goals of sustainability.

## Parade Ground

### ***Background***

The main parade ground of the park is a large mowed open space area. The grounds are occasionally used by large organized events or patrons enjoying a variety of field sports. A large storage building is located in the northeast corner of this area. The building is currently used to store tractors used in maintaining the park. Water and electrical service are not provided in the parade grounds space.

The concept of this space improves access and the park's capacity to host large organized events. Water and electrical service would be brought into this space to provide more convenient access to these amenities during events. The space would be reconfigured with new pathways and areas of native plants and pollinator gardens.

### ***Alternatives Considered***

#### ***(i) Status Quo - No changes to Parade Ground***

##### Considerations

- Does not align with the vision developed for the park
- Does not leverage this space toward meeting master plan goals
- Would not improve park aesthetics
- Would not add capacity for regional tourism events interested in outdoor venues
- Does not set the park up to attract new regional events held out-of-doors

***(ii) Improve Parade Ground; provide electric and water service & create an event space in the storage building***

Considerations

- Aligns with the vision for the park
- Improved amenities would attract additional regional tourism events interested in outdoor venues
- Would provide additional indoor space to hold events in the park
- Would strengthen the park’s connection with the lake during large outdoor events

***Preferred Alternative – (ii) Improve Parade Ground; provide electric and water service & create an event space in the storage building***

Moving large outdoor events closer to the lake and main developed area of the park is the preferred long-term alternative. This alternative will create a greater sense of connection with the lake at large outdoor events in the park. The redesigned space will have pathways for better access to the waterfront and campground.

## **Water Tower**

### ***Background***

The water tower is one of the originally highlighted facilities remaining to be decommissioned at the park. A public water supply continues to service the park today. The location and visibility of the water tower have encouraged exploration by members of the public. Full removal of the water tower and accessory pump house will improve public safety.

### ***Alternatives Considered***

***(i) Status Quo- Do not remove the water tower and accessory building***

Considerations

- Public safety is not improved
- Scenic quality of the park boundary along Route 96A would not improve
- Steel and other valuable materials would not be recycled

***(ii) Remove the water tower and accessory building***

Considerations

- Aligns with the vision and goals for the park
- Public safety would improve

- Scenic quality of the park boundary along Route 96A would improve
- Steel and other valuable materials would be recycled

***Preferred Alternative – (ii) Remove the water tower and accessory building***

The core team selected this alternative because implementation will meet the master plan goal of improving public safety.

## **Firing Range**

### ***Background***

The firing range is an example of the historical landscape in the era of the Sampson Naval Base. In more recent times, the firing range has been used for training by local law enforcement agencies and Park Police. The firing range does not have an active maintenance schedule in recent years requiring Park Police within Finger Lakes territory to travel extended distances to training facilities outside of the region. Maintaining this facility for training purposes would provide a more conveniently located space for Park Police training activities in the Finger Lakes region.

The firing range, near the shore of Seneca Lake, is adjacent to the park's lakeshore multi-use trail found in the southern area of the park. An earthen berm traps and contains bullets fired at the range. Any range activity would impact the public use of the Lake Shore Trail and surrounding area. This factor is part of the consideration for activating the range. Measures to close the Lake Shore Trail and a designated safety zone from public use would need to be implemented during all range activities. Alternate trails that direct public use away from the range back to core areas of the park is included in the park's trails plan. Regularly scheduled Park Police training activities can be scheduled during off-peak seasons. A significant impact on patron use of the Lake Shore Trail and surrounding area is not anticipated.

There are companies that specialize in providing outdoor range maintenance and construction services. Maintenance services for an earthen berm range typically include separating and processing soil for reclaiming lead and reconstruction of the earthen berm (MT2, LLC, 2013). The Environmental Protection Agency (EPA) publication [Best Management Practices for Lead at Outdoor Shooting Ranges](#) details additional maintenance and monitoring activities for outdoor firing ranges (US EPA, 2005). NYS Parks will work with a professional outdoor range maintenance company and follow all applicable BMP's included in the EPA guide.

### ***Alternatives Considered***

***(i) Status Quo- No Changes to Firing Range Area***

#### **Considerations**

- No additional potential for environmental impacts

- Does not provide a local training facility for Park Police
- Would not impact public use of the lakeshore multi-use trail
- Would not decommission the firing range according to current BMPs

***(ii) Maintain Firing Range for Park Police Training Activities***

Considerations

- Would provide a conveniently located training facility for Park Police
- Would require regular maintenance and application of current BMPs to mitigate potential environmental impacts
- May impact public use of the Lake Shore multi-use trail
- Would not be managed as a public firing range

***(iii) Decommission the Firing Range***

Considerations

- No additional potential for environmental impacts
- Does not provide a local training facility for Park Police
- May have short-term impacts on public use of the lakeshore trail
- Would require professional outdoor range decommission services
- Reclamation of the site would add to the park's natural areas and meet master plan stewardship goals
- Incidental public use would be mitigated

***Preferred Alternative – (ii) Maintain Firing Range for Park Police Training Activities***

The core team selected this alternative because it will fill an operational need in the region. Maintenance appropriate for the type of facility present will mitigate potential long-term environmental impacts. Minor impacts to the public use of the Lake Shore multi-use trail and surrounding area are acceptable.

## Chapter 3 – Selection of the Preferred Alternative

### *Selecting the Preferred Alternative*

Two alternatives are considered in this DEIS for the further development of the park.

**The first alternative** is the Status Quo, where the park will continue as it is with existing natural resource protection, recreational facilities and management and operation. In this alternative, no changes would be made to the park to meet current needs of the agency or the park patrons.

**The numbered alternatives** are the alternatives considered by the core team for the master plan. The master plan is the plan of changes in the park which is made up of the combination of all the preferred alternatives for the elements analyzed in Chapter 2. These changes encompass all aspects of the parks including natural resources, recreational resources and management, and operations.

**The preferred plan alternative** for the park is the master plan alternative as described in the accompanying document.

### *Rationale for Selection*

The core team analyzed the status quo and other alternatives with respect to the park vision and goals that guide changes in the park. Although management and operation of the park continue to a high degree of excellence, some changes are necessary because the park no longer fully serves the original intention of its formation, nor does it meet current recreational needs as completely as it could with some changes, reconfigurations or additions. Staff and patrons have indicated areas where changes and improvements could be made that will enhance the user experience and the variety of recreation options available at the park.

The preferred master plan alternative was chosen because the changes it suggests improve natural resource protection, expand recreational opportunities, and enhance management and operation in ways that support the realization of the park's vision and goals.

In choosing the master plan over the status quo, OPRHP is making a commitment to improvements and changes in the park over the next decade and perhaps longer, which will be in the interest of users and staff, and will have a positive impact on recreation and the facility's natural and cultural resources.

## **Chapter 4 – Environmental Impacts & Mitigation**

### ***Introduction***

This chapter focuses on the environmental impacts and mitigation of potential adverse impacts resulting from the implementation of the master plan. For the purposes of SEQR compliance, the two documents together -- Draft Master Plan and Draft Environmental Impact Statement (DEIS) -- satisfy the requirements for an environmental impact statement as specified in the rules and regulations implementing SEQR (NYCRR §617). A description of the preferred alternative can be found in the Master Plan document. The environmental setting is discussed in the DEIS Chapter 1. Chapter 2 of this document contains the alternatives analysis and the selection of the preferred alternative.

This chapter has two primary parts: a summary of environmental impacts associated with the alternatives considered, and a more detailed analysis of impacts associated with implementation of the Draft Master Plan, including a discussion of mitigation measures.

### ***Environmental Impacts of Alternatives***

Alternatives were analyzed and developed in Chapter 2 for natural resource protection strategies, recreation development and management support for the park. The analyses and choice of preferred alternatives are based on:

- Information about existing conditions (Chapter 1)
- Vision and goals of the master plan
- Consideration of demand for various activities
- Site constraints
- Other considerations as specific to each element's resource analyses.

The Draft Master Plan consists of the combined preferred alternatives for each identified activity.

### ***Status Quo Alternative***

This alternative consists of the current facilities, programs and practices at the park as described in Chapter 1. Under this alternative, current resource protection, operations, and facility management practices would continue. The increasing and changing recreational demands on the park would not be addressed, nor would existing impacts be mitigated. There would be no opportunity to address conservation of the resources under recent changes to Environmental Conservation Law or Parks Recreation and Historic Preservation Law.

Although the Status Quo Alternative may not result in any immediate adverse environmental impacts due to the construction of new facilities or changes to existing ones, the potential exists for long-term indirect adverse environmental impacts. This is

because there would be no plan to guide use, protection or development of the park. If more park visitors seek to use the park and use it in new or unforeseen ways, additional demands will be placed on the natural, cultural and recreational resources. Without the guidance provided by the Draft Master Plan, which directs more intensive use and development toward areas with capacity for such use and away from the more sensitive areas of the park, the potential for adverse impacts on environmental resources increases.

### ***Preferred Alternative – the Final Master Plan***

The master plan is the compilation of all the preferred alternatives for natural resource protection, recreation development and support facility development elements identified in Chapter 2 of the DEIS. This compilation was subject to a final evaluation and synthesis to assure that there was consistency among the various alternatives. The plan will provide considerable resource protection and recreational benefits. From an overall, long-term perspective, implementation of the park master plan will result in a beneficial environmental impact by ensuring that recreation development takes place in areas of the park that are appropriate and effective while the most sensitive areas of the park are identified, monitored and provided with appropriate stewardship. Environmental impacts of the master plan are discussed more fully in the rest of this chapter.

### ***Environmental Impacts Associated with Implementation of the Final Master Plan and Proposed Mitigation***

The master plan for Sampson State Park seeks to provide improvements to existing natural resource protection strategies and recreation development while providing additional protection for sensitive natural resources within the park. Planning for new and expanded recreational facilities in the park reflects this and the proposed locations of new or expanded facilities avoid sensitive resources to the extent practicable.

### ***Land (Topography, Geology, and Soils)***

The master plan provides a framework for improvements to existing recreational programs. Implementation of these improvements will result in some physical changes to the land. Consideration for the additional protection of the park's sensitive natural resources is reflected in the planning and proposed actions. The plan proposes several larger projects that will have a greater degree of impact on the landscape than smaller projects. Most of the project proposals are centered within the core area of the park that is already developed with other facilities. Most of the park will remain in its current condition. (Table 5)

Table 5 – Percentage of Park Land Change

Category	Total Acreage	Total New Developed Acres
Total Combined Park Acreage	2,083	n/a
New seasonal camping loop (campsites, roads, bathhouse)		8.64
Waterfront development (pavilion, beach expansion, and lakeside cottages)		7.5
Family cottages <sup>3</sup>		29.8
Net new relocated and closed trails		4.57
Net new, relocated and closed roads		(25.21)
Removal of parking areas		(1.2)
Net New Acres of Development		24.1
Percent of total Park Acreage		≤ 1.16

The following is a discussion of major master plan projects and their impact on the land. A discussion of smaller projects that will have minor physical changes to the land follows this section.

Campground Expansion – Construction of this facility will include the development of 50 new sites. The new campground loop will include new electrical, water, and sewer hookups. A new bathhouse facility will be part of this new campground loop. The preferred location will require grading, grubbing, and excavation work for the new loop road and tent pads, electrical, water, and sewer hookups. BMPs will be used to mitigate movement of sediment from the site during construction. This camping expansion would include an area of approximately 8.64 acres of development that includes new utilities, campsite pads, roads, and a new bathhouse. Two ecological communities are present at the preferred site: successional shrubland and Maple-basswood rich maple forest. The Maple-basswood rich maple forest near the ravine is the smaller component of the preferred site. Consideration for limiting development of this locally significant ecological community will be an important factor when designing the campground expansion. Long-term adverse impacts to either ecological community are not expected by this proposed land use. A buffer will be maintained adjacent to the ravine.

New Solar Array – The master plan proposes the addition of a solar array in the park. The preferred location is approximately four acres between campground loop 2 and loop 4 in an open and level field. The open field with unobstructed access to southern aspect sunshine may need minor modification upon installation of the solar panels. Panels will be installed on pedestals that are anchored to concrete spread footings. Minor excavation will take place when establishing the spread footings and utility

<sup>3</sup> Family style cottages typically have three or four bedrooms, full kitchen and bath, dining and living space. Size can range from 750 – 1,500 square feet and have one or two floors depending on design. Some designs include outdoor space such as a wrap-around porch.

service trenches used to connect the system to the park's current electrical infrastructure.

New Four-bay Dump Station & Removal of Current Dump Station – The master plan proposes the removal of the current dump station located behind the park office. A new four-bay dump station will be constructed along the redesigned park access road near the campground expansion and new contact station. The new location and larger facility will improve circulation and help shorten wait times for patrons.

The decommissioning of the current dump station will include removal of the holding tank, pavement, and rinsing equipment. The excavation of the holding tank will cause minor disturbances to the surrounding grassy areas and will expose soil. The total disturbance is not expected to be greater than one acre. BMPs, including silt fencing and erosion control plantings, will be used to minimize any movement of sediment from the site during construction. Excavated soils will remain onsite to be used when backfilling the holding tank location.

The new dump station will have four pull-through bays. The facility will have a short paved access road leading to four asphalt lanes with concrete islands for rinsing equipment near each drain. Tree and shrub removal, grubbing, excavation for the holding tanks, and grading of the preferred site are expected to be part of the required work. The total disturbance associated with building the facility is not expected to be greater than one acre. BMPs will be used to minimize movement of sediment from the site during construction. Increased stormwater runoff from additional impervious surfaces is not expected to impact the land, local streams, or Seneca Lake. NHP data classifies the preferred site as successional shrubland. Long-term cumulative impacts to this ecological community are not expected by this proposed land-use.

Park-wide Water Distribution System – The master plan proposes replacement of the water distribution system in the park. Replacement of this infrastructure will require ground disturbance of existing utility trenches that are in the developed area of the park. Excavation of the utility trenches for the new water distribution system will disturb greater than one acre but no more than five acres of previously disturbed and developed areas in the park. All construction documents will include appropriate erosion and sediment controls; controls will be implemented and monitored in the field. State and local permits will be acquired as needed. Scheduling the project in the off-season will minimize impacts to patrons visiting the park. There are no significant impacts on the flora or fauna of the park anticipated for this projects.

Family/Group Cottages – The master plan proposes up to 20 new family and group-oriented cottages to be phased in over time in several preferred locations identified in the master plan (Figure 10) based on need and demand. Impacts on the land include some soil disturbances during site work and construction. Also, permanent changes to landform for the creation of parking, roads, and walkways. The preferred areas are flat requiring only minor grading; ecological communities for two sites are mowed lawn and lawn with trees while the last preferred location is sited in an area of successional northern hardwoods. Some trees and other understory vegetation would need to be

removed from each cottage location and for access roads and connector paths. Cottages would range from 750 to 1,500 square feet and be built on cement pads. There would be a minor increase of impervious surfaces related to asphalt parking areas and connector paths; porous pavement will be used where feasible. Stormwater runoff from the additional impervious surfaces is expected to be minor. Mitigations such as porous paving and rain gardens will be considered to mitigate impacts from stormwater runoff.

**Roads** – The reconfiguration of the park road system will utilize some segments of existing park roads as well as the construction of new sections of road in the park. Existing segments to be reused will receive improvements to drainage features and new culverts as needed. These types of projects will require excavation to regrade banks and will incorporate erosion and sediment controls and restoration of disturbed areas with native vegetation. All reused sections will also be repaved. New sections will require removal of vegetation, grading, drainage work, and paving. Roughly 3.5 miles of road will be reused, and 0.9 miles will be new. The new road will accommodate two-way traffic with 12 to 14-foot wide lane widths and additional space for shoulders and clear area. The New York State Highway Design Manual design criteria specifications will be followed for all new road construction in the park (NYS DOT, 2015).

Table 6 - Road Impacts Categorized by Ecological Community Type

Community Type	Status	Length <sup>Miles</sup>	Acres
Appalachian oak-hickory forest	New	-	-
Cobble Shore	New	-	-
Conifer Plantation	New	-	-
Developed	New	.3	.6
	Closed	10.8	15.8
	Open	5.1	-
Maple-basswood rich mesic forest	New	-	-
Mowed lawn	New	.1	.2
Mowed lawn with trees	New	-	-
Red-maple hardwood swamp	New	-	-
Successional northern hardwoods	New	.4	.6
Successional old field	New	-	-
Successional old field	New	-	-
Successional red cedar woodland	New	.1	.1
Successional shrubland	New	.9	1.6

The potential impacts on the land are minimal. Existing road segments will be used wherever possible to minimize new road construction. The proposed route does not cross areas of regulated wetland, significant ecological communities, or critical habitats. All road construction activities will follow site-specific BMPs to minimize the impacts of

all ground disturbances. Parts of existing roads that are not used for cycling trails or new road configurations will either be removed or allowed to revert to nature. There will be a net result of 24.4 acres of reduced impermeable surfaces.

**Trails** – The master plan proposes a network of trails and paths throughout the park. The mix will include paved ADA compliant walking paths and stone dust surfaced bike paths. Hiking and multi-use trails will have natural surfaces.

Table 7 - Conceptual Trail System: Impacts<sup>4</sup>

	Length	Acres	Square Feet
ADA Walking	1.0	2.0	87,732
Bike Path	10.4	41.3	1,801,153
Hiking Trail	1.0	1.0	47,331
Multi-use Trail	6.2	7.4	322,149

Potential impacts on the land include ground disturbances and additional impervious surfaces (Table 6). Impacts of trail construction vary based on the type of trail, proposed use of the trail, proposed surfacing, and its location with respect to steep slopes, streams, or other environmentally sensitive areas. Disturbance of land will be limited to the required width of the trail corridor. Trail construction will follow guidelines for trail building, maintenance, and closure that have been established by recognized trail organizations and governmental agencies. A compilation of standards that OPRHP uses is provided within the OPRHP Technical Documents located at <http://nysparks.com/recreation/trails/technical-assistance.aspx>.

**Waterfront Development** – The waterfront includes the existing marina, large parking area, playground, and beach area.

**Marina** – The master plan proposes the preferred alternative for the marina is for redevelopment and operation by a concessionaire. A secondary alternative under the master plan is to decommission the marina and redevelop the boat launch facility. It is anticipated that improvements in the existing facility or any new construction will be completed within the current footprint of the marina. All other facilities proposed as part of the concession-run marina that fall outside of the current footprint of the marina may require a supplemental environmental review.

Details about future redevelopment and configuration of the marina were unknown during the development of this Master Plan/DEIS. Given these circumstances, an additional or supplemental environmental review will be required if the concessionaire plans to make substantial changes or improvements to the marina.

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<sup>4</sup> Approximate calculations using GIS analysis of conceptual trail and road layouts (impacts approximated using OPRHP trail design guidelines).

The secondary alternative for decommissioning the marina and redeveloping the boat launch facility may have some impacts on Seneca Lake and the developed lakeshore area. The docks and piers of the existing marina would be removed, and a new four-lane boat launch facility with a few transient slips would be constructed in the same location of the current launch. Appropriate erosion and sediment controls would be used during the decommissioning and boat launch project to ensure minimal amounts of sediment enter the main body of Seneca Lake. The decommissioning and boat launch project will require consultation with, and permitting by, NYS DEC.

### Waterfront Redesign

The master plan proposes a new pavilion, picnic seating areas, comfort station, terraced seating area, beach expansion, utilities, and connector paths. A significant portion of the pavilion and picnic seating will be situated where there is an existing stone dust parking area. The parking area will be eliminated, and new grassy areas and plantings will be worked into the landscape. The pavilion will be sized to accommodate up to 200 people with space for tables and other accessories such as a dance floor, beverage tables, and disc jockeys. Pavilions that can accommodate such use are approximately 3,500 to 4,500 square feet, or around 50' x 75'. Connector paths will be five to eight feet wide and be surfaced with a firm and stable surface that meets universal design standards.

The waterfront redesign area is part of the current developed area of the park. Site work for the proposed elements mentioned above is expected to be minor, except for the terraced seating and beach expansion projects (see Chapter 2 for alternatives analysis). The total area affected by new or expanded facilities is expected to be less than one acre. BMPs will be used to minimize movement of disturbed soils or soils brought to the site as part of the site development. Minor Increased stormwater runoff from additional impervious surfaces is not expected to impact the land, nearby streams, or Seneca Lake.

Waterfront Cottages – The master plan proposes 15 new lakefront cottages near Loop 5 of the campground. Cottages will range from roughly 450-650 square feet and use concrete slabs or foundation piers. The footprint of the site development is approximately two acres; however, not all of the currently forested two acres will be physically disturbed. There will be some physical disturbances to the land during construction of the cottages, parking areas, and connector paths. Cottages will have scenic vistas and share several lake access points. Some vegetation will be removed from these areas, as well as for adjacent parking areas, cottages, and connector paths. Other ground disturbances will occur during utility installations. Best management practices for erosion and sediment control will be utilized during construction to minimize construction-related impacts. Increased stormwater runoff from additional impervious surfaces is not expected to impact the land, nearby streams, or Seneca Lake.

The cottage development will occur in an area typed as “developed” according to the park’s NHP report. The cottage colony will be adjacent to a locally significant cobbled shore; however, ground disturbance of the cobbled shore will not occur during

construction and controls will be used to avoid any indirect disturbance or impact from construction activities.

### General Project Considerations

Stormwater runoff can affect local waterbodies such as lakes, streams, and ponds. It also carries the potential to affect groundwater. Increased stormwater runoff can lead to increased sediment loads and pollutants that are transported by the runoff into local waterways. Extraordinary storm events coupled with increased levels of stormwater runoff can cause erosion and affect stream habitats. This can have a direct effect on the overall ecological health of these areas.

Stormwater runoff will be increased by the addition of impervious surfaces such as building roofs, campsites, roadways, trails and parking lots. The implementation of the master plan will lead to some additional impervious surfaces. However, there will also be the removal of some impervious surfaces such as roadways and parking lots. The surface area of new buildings with impervious roofs will include the expanded camping area bathhouse, camp pads, loop roads, cottages and associated pathways and parking areas, a contact station on the new park main road, and waterfront pavilion development.

Green design will be used, where feasible, for any new construction to minimize the effects of stormwater runoff. Porous pavement, vegetated drainage swales, and proper drainage design will be used where applicable, to help mitigate water quality impacts from runoff following storm events. These elements slow the rate by which stormwater is conveyed to local streams, rivers, and lakes. Pollutants are filtered by local vegetation and by percolating through the ground before entering groundwater.

At the time of implementation, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared for construction projects proposed in the Master Plan. Any projects that will disturb one acre or more will be subject to the State Pollution Discharge Elimination System (SPDES) General Permit process. Best Management Practices (BMPs), as described in the New York Guidelines for Urban Erosion and Sediment Control (NYS DEC, 2011), will be used to reduce impacts to soils on the project sites. Some measures which will be used include minimizing soil disturbance and vegetation removal, the use of silt fencing and straw bales where needed, preservation of vegetated buffers, and seeding and mulching of disturbed areas as soon as possible following work.

Renovation projects for existing buildings or new building projects will meet or exceed the state energy code by 20%. Reduced energy use in the park contributes to the overall reduction of Greenhouse Gas (GHG) emissions from park operations statewide. The use of renewables (e.g., the proposed solar array) further reduces the amount of non-renewable energy used for park operations also decreasing GHG emissions.

Other projects proposed under the master plan will have relatively minor impacts on the land (areas of disturbance in each case are included in Table 5). These include:

- Construction of a new holding tank bathroom facility near the waterfront trail
- Improvements to existing campground pads, and electric and water hook-ups
- Parade grounds special event area water and electric improvements

## ***Water***

### Impact on Lake and Stream Water Quality.

It is not anticipated that the implementation of the master plan will have significant adverse environmental impacts on the water quality of Seneca Lake or local streams in or near the park. All construction activities will incorporate mitigation in the form of appropriate sediment and erosion control BMPs to minimize impacts to water quality from runoff. Trail projects will follow BMPs and OPRHP trail construction guidelines. Trails will be sited away from designated wetlands and other seasonally wet areas to minimize the amount of trail hardening required.

Additional information about aquatic invasive species will be posted at the boat launch and in the marina. The additional signage and aquatic weed disposal station will have some beneficial impacts on Seneca Lake by covering the importance of Clean, Drain, and Dry (Appendix B).

Buffer zones will be implemented adjacent to ravines.

### Impact on Ground Water Quality.

The park is connected to a municipal sewer system. New cottages, comfort stations, and RV dump stations will connect directly to this existing municipal sewer system. No groundwater quality impacts are anticipated from projects proposed in the master plan.

The following specific projects identified in the master plan have the potential to affect water resources:

#### Boat Launch and Marina Redevelopment

The implementation of the master plan will allow the invitation of a concessionaire to develop and operate a marina at Sampson SP. Details about this potential development and the anticipated impacts it may have to local water resources are unknown at the time of developing this master plan. This action, if implemented, may require a supplemental environmental review.

Implementing the secondary action of decommissioning the marina and redeveloping the boat launch facility has the potential to affect local water resources. The new launch facility would be built using the same footprint as the current facility. The project would have the potential for short-term impacts during construction from repaving, dock installation, dredging activities, and break wall reconfiguration. The sheet pilings that form the basin would be rehabilitated or removed entirely. A stone rip-rap revetment

could be used in place of sheet pilings. This construction of the new launch facility will improve access to Seneca Lake for boating campers and day users.

Implementation of either alternative will require permits from the NYS DEC and US Army Corps of Engineers for any work below the mean high water mark and all permit conditions regarding mitigation of water quality impacts will be followed.

### Waterfront Cottages

The implementation of this project will provide an alternative to camping for anyone wanting to enjoy the Park and surrounding Finger Lakes region. Construction of the 15 lakeside cottages will add some impervious surfaces such as roofs, connector paths, and parking areas. This increase of impermeable surfaces could result in an increased quantity and velocity of runoff generated during storm events. This additional stormwater will be mitigated using green design such as rain gardens and permeable pavement whenever practical. Other traditional drainage infrastructure will also be used on the site.

The construction of this project will require a SPDES General Permit from NYS DEC and development of a SWPPP.

### Family/Group Cottages

The implementation of this project will provide alternative overnight stay facilities at the Park catered toward use by families and groups. Construction of up to 20 cottages will be phased in if previous projects and demand warrant the additional development. As with the waterfront cottages, implementation of this project would add some impervious surfaces. During the design of cottages groupings, best management practices will be used in determining appropriate green design and traditional stormwater management design practices.

### Main Park Road

The implementation of this project will reorganize existing park roads to improve motor vehicle access to new and existing facilities in the Park. The project will require new construction of roadways as well as repaving of existing park road sections that will be used in the new configuration. The new roadway will lead to some increase in impervious surfaces in the Park. Unused park roadways will be removed or allowed to revert to natural conditions. All new roads will have drainage infrastructure designed to mitigate stormwater runoff.

### Connector Pathways & Multi-use Trails

Implementation and construction of the multi-use and connector trails identified in the master plan have the potential to impact water resources in the Park. Multi-use trail layout will incorporate BMPs and OPRHP trail development guidelines to minimize stream and wetland crossings. Buffers will be retained between new trails and the park's water resources. Multi-use trails will utilize compacted stone dust, and connector

trails will have natural surface tread ways. Permeable surfacing will be used for all new connector pathways whenever practical considering site conditions, cost, and operations. All new trail and pathways will be designed to control stormwater and minimize erosion.

### ***Wetlands***

There will be no impacts to wetlands. There are no State-regulated wetlands located in the park; however, there are several small National Wetland Inventory (NWI) wetlands. A recent survey by the NY Natural Heritage Program (NYNHP) identified an area of Red-maple-hardwood Swamp in the northeast portion of the park (Lundgren, 2014-A). Location and development of the proposed multi-use trail in this location will be done in consultation with regional natural resource stewardship biologists and staff from NHP to avoid sensitive areas and minimize impacts to this sensitive area.

### ***Air***

Full implementation of the master plan will result in increased use of the park. The increased travel to the park to use the new campground facility, waterfront area, or trails will have minor impacts on overall air quality. There is the potential for an impact on local air quality on a seasonal basis due to the increased use of campfires in the expanded Sampson SP camping area. The new seasonal camping loop may encourage fewer trips with large RVs or large vehicles towing recreational trailers. The new solar arrangements and park-wide energy efficient upgrades will help to mitigate any additional energy consumption from improvements. Increasing the share of renewables at the park like this will benefit overall air quality both within the state and regionally.

Other potential air quality impacts as a result of master plan implementation will be minimal. Short term temporary impacts that may occur as a result of master plan implementation could include minor temporary increases in construction vehicle exhaust and some generation of dust during construction. Construction of projects proposed in the master plan will take place over several years, however, so impacts would be widely spread out both in space and time. Air quality impacts from construction vehicles will be mitigated by assuring that these vehicles are in good running condition and are not producing excessive exhaust.

### ***Biological Resources***

Protection of existing natural areas will be attained by careful placement of trails and facilities and identifying priorities for invasives species management to abate key threats to native flora and fauna. Management of successional, shrubland, and grassland habitat as well as other natural communities in the park will be implemented according to a wildlife and habitat management plan. The wildlife and habitat management plan, proposed by this master plan, will frame a core set of objectives and recommend key strategies that benefit any known rare species in the park, uncommon natural communities, and wildlife in the park including year-round residents like, wild turkey & ruffed grouse as well as migratory and breeding bird species such as, American woodcock or grasshopper sparrows). Measures to maintain open habitat for

birds can also support native pollinators so the plan will also attempt to identify and acknowledge this role. Maintaining and improving the wildlife habitat – particularly for birds -- in the park is a key strategy of this master plan based on species currently in the park and regional goals identified by Audubon New York for protecting early successional habitat and species. Enhancing wildlife in the area provides additional recreation opportunities for patrons.

### ***Ecological Communities***

Masterplan implementation will result in minor impacts to some of the natural communities in the park (Table 6). Most of the planned improvements are located in the developed areas of the park. None of the natural communities were considered to be significant from a statewide perspective, but the maple-basswood rich mesic forest is of local importance. Impacts on this community from the proposed trail development will be mitigated by careful assessment of trail routes that will use sustainable trail design during layout and construction. Well-designed trails to provide access to a variety of natural features will enhance the visitor experience and help to reduce potential impacts from off-trail and social trail development.

The development proposed in this master plan will mostly be located primarily in developed areas of the park and will result in only minor removal of vegetation. The amount depends on the kind and siting of the facility. The proposed campground expansion and trails will lead to greater amounts of vegetation loss than other major built facilities proposed in spaces that are already developed. Impacts to natural resources in the park are considered to be minimal. (see Table 6 for acreages)

Some vegetation along the lakeshore will be removed to open up vistas from within the existing campground loops and the proposed waterfront cottages. The vegetation is in developed areas and consists of young white ash and assorted shrub variety non-native species. Careful selection of small trees and understory to remove will occur. No large or mature trees will be selected for removal.

Impacts associated with new trail construction will be mitigated by carefully selecting the most appropriate route, following OPRHP guidelines when establishing the trail corridor, and installing signs or blazes to mark the trail corridor for trail users. Consideration for the protection of the park’s rare species was part of the planning process when selecting preferred locations of new trail development.

Some positive impacts on the natural communities are expected through targeted control and prevention of non-native invasive species and through measures implemented for the habitat management plan.

**Table 8 - New Acreage of Development in Ecological Communities<sup>4</sup>**

Ecological Community	Existing Acres	New Developed Acres
Appalachian oak-hickory forest	74.6	1.5
Artificial pool	3.3	No change
Cobble shore	27.9	0.5

Ecological Community	Existing Acres	New Developed Acres
Conifer plantation	169.7	2.0
Cropland	16.2	No change
Developed	269.5	No change
Maple-basswood rich mesic forest	146.1	4.5
Mowed Lawn	78	12
Mowed Lawn with Trees	29.3	5.3
Red Maple-hardwood swamp	29.1	0.4
Successional northern hardwoods	519.2	25.4
Successional old field	26.6	0.6
Successional red cedar woodland	472.6	9.5
Successional shrubland	161.8	2.8

## ***Fauna***

Impacts on the fauna of the park are expected to be minimal due to the small amount of physical changes in areas that fall outside of currently developed areas. There will be temporary disruptions to wildlife during construction. The timing of construction activities should be planned to minimize impacts to specific wildlife species, particularly in accordance with current guidance for bat species.

Consideration of potential impacts on the fauna of the park was part of the planning when selecting preferred locations for the new campground expansion, changes to park roads, and trail siting. The proposed development of a natural resource management strategy will benefit a variety of wildlife in the park especially birds like American woodcock, turkey, and others, as well as our native bees, butterflies, and other pollinators.

## ***Invasive Species***

Trails, boats, and camping practices can facilitate the spread of invasive species. Invasive plant seeds can be inadvertently introduced with construction equipment and through the use of mulch, imported soil, gravel, and sod. Firewood also poses a risk of introduction of invasive forest pests when campers bring it into the park.

Forest pests pose important invasive species threats to the park and region. The Emerald Ash Borer and Asian Long-Horned Beetle have the potential to cause major damage to the forests if they are introduced into the park. The park contains a large number of young ash trees, primarily in the area mapped as successional northern hardwoods (Lundgren, 2014-A) (Lundgren, 2014-B) and it is nearly inevitable that emerald ash borer will appear in the park. Asian long-horned beetle moves more slowly but could be more devastating to the region. Precautions such as surveying and monitoring for such species should be included as part of the invasive species strategy in order to allow for rapid response. Since camping is a long-standing recreation element in the park, it is critical to enforce DEC and OPRHP firewood regulations and

continue to provide locally sourced firewood from preferred vendors to campers. Educational information should be supplied to campers, including brochures, posters, bookmarks and other materials as available.

The master plan lists nearly two dozen invasive species in the park. A focused approach to management is recommended, with an invasive species plan that outlines various methods for identification, removal and prevention. It should identify priorities and highest threats. For example, control efforts for pale swallow-wort and garlic mustard are already in place to protect a rare species in the park. Other priorities and actions should be identified and updated as new problems arise. The invasives species management plan could be a component of the proposed habitat management plan, though issues of patron safety and impacts could also be included. Two important measures are utilized to minimize the spread of invasive species. First is the education of park patrons through various means of communication including leaflets, environmental education, and interpretive signage. The other is reducing spread of invasives by equipment and transport of materials. Best Management Practices (BMPs) will be implemented during construction to minimize the spread of invasive species. Practices such as proper material disposal and equipment sanitizing methods limit the potential of invasives to establish in new locations within and beyond the park. OPRHP has drafted BMPs for invasive species control for park projects and operations.

### ***Historic Resources***

The Master Plan will have no adverse impacts on historic resources either listed on or determined eligible for listing on the National Register of Historic Places. Education materials including exhibits at the Sampson Navy and Air Force Veteran's Museum and interpretative signage will be integrated into existing and future trail plans to interpret the historic resources in the park. (Adams, 2015)

### ***Archaeological Resources***

The park contains areas of archeological sensitivity. Projects identified in the master plan will occur outside of all documented archeologically sensitive areas. The State Historic Preservation Office (SHPO) has reviewed the preferred locations for development in the park and has determined that implementation of the master plan will not result in any significant adverse impacts on the archaeological resources in the park. (SHPO, 2015)

### ***Scenic Resources***

Implementation of the Master Plan may result in minor adverse impacts on scenic resources in the park. Some new scenic vistas will be opened up to allow patrons views of Seneca Lake and the western shoreline.

Impacts caused by the proposed solar arrangements will be minimized by careful siting using existing topography and vegetation, to screen their view from other areas of the park where practicable. This development and other projects proposed in the park will not have any significant effect on the view of the park from the surrounding landscape.

All new development along the lakeshore will be designed to complement their surroundings and not be visually intrusive. Maintenance of existing scenic vistas and creation of new ones within the campground and lakeshore cottage areas will be done in a phased manner. This incremental approach will minimize the amount of vegetation taken at any one time.

### ***Recreation***

Implementation of the Master Plan will result in significant beneficial impacts on existing recreational facilities and the patron experience while visiting the park. The master plan provides for expanding camping opportunities with a new season full-service campground loop, updates to utilities and pads in existing loops, lakeshore and family oriented cottages, new, improved, trail opportunities, and development of new waterfront facilities designed to capitalized on the remarkable natural resource that is Seneca Lake.

### ***Open Space***

The 2,080 acres of public parkland in the park complex adds tremendous value to the Finger Lakes region and Seneca Lake in particular. The park complex provides a significant open space that will continue to be protected under the master plan. OPRHP will evaluate and consider the acquisition of fee title or easements on adjacent open space areas as they become available.

### ***Transportation, Access and Traffic***

Implementation of the master plan will result in several access improvements and a significant improvement in traffic flow through the park.

The existing park road system, except the campground loops, was developed during the construction of the navy base and responded to those needs. Access and traffic flow do not meet the needs of the park. They are not intuitive for patrons and not compatible with a park setting. The road system will be reconfigured to provide improved access to existing areas of the park as well as new facilities in the park such as the expanded seasonal camping area, park office, cottages and will reduce the number of roads in the park.

### ***Public Health and Safety***

Public health and safety are important elements in park operations. New or substantially rehabilitated facilities will be designed and constructed to meet all applicable health and safety codes including compliance with the Americans with Disabilities Act. Design and rehabilitation of infrastructure systems such as electric, water, and sewer where needed will ensure public health protection.

### ***Energy, Noise, and Odor***

Sustainability principles and energy efficiency will be incorporated into the design of all proposed construction. Masterplan implementation may result in some minor temporary increases in noise during construction.

### ***Unavoidable Adverse Impacts***

The proposed master plan will result in some unavoidable adverse impacts. There will be some minimal permanent loss of pervious soil surface and vegetative cover as a consequence of the construction of the additional seasonal camping area, trails, and other proposed new facilities. Trees will be selectively removed along the main developed area of the waterfront, existing campground loops, and new lakefront cottage area to improve scenic vistas of Seneca Lake.

### ***Irreversible and Irrecoverable Commitments of Resources***

The planning, development and implementation of this Master Plan including the potential reconstruction of the marina, expanded seasonal camping area and other new proposed facilities, infrastructure and trails will involve the irreversible and irretrievable commitment of public resources in the form of time, labor, and materials. It will also require a commitment to the long-term operation and maintenance costs of the park.

### ***Growth Inducement***

It is anticipated that implementation of the master plan will result in increased recreation use of the park. All increases of recreational use will be managed to ensure continued stewardship of the parks' natural, scenic and historic resources. The increased visitation is expected to have a positive impact on local businesses in communities nearby. Local restaurants, convenience stores, and gas stations are expected to see an increase in patronage. Tourism-related expenditures for activities like overnight cottage rentals and seasonal camping that will be offered at the park will also support the local economy. The location of the Park on Seneca Lake and its proximity to other regional tourist attractions will be enhanced by implementing the master plan, making Sampson State Park an excellent resource for anyone interested in exploring the Finger Lakes region.

### ***Supplemental Environmental Review***

As part of the Agency's responsibility under the State Environmental Quality Review Act, OPRHP will review proposed implementation projects with respect to consistency with this EIS. Projects found by OPRHP to be consistent with the EIS can go forward without any additional examination.

However, portions of this Environmental Impact Statement are somewhat general or conceptual. Decisions regarding the type and extent of certain actions will be dependent on the findings from site-specific studies or analysis in the field. For example, the particular site designs for the new campground loop and solar array will require more detailed site analysis. The findings from these site-specific evaluations may identify

impacts that were not adequately addressed in this DEIS. Under such a circumstance, an additional or supplemental environmental review will be required.

To assist in this consistency evaluation, the following types of actions have been identified in 6 NYCRR Part 617 as likely to require additional review under SEQR:

- Any new actions not addressed within this EIS that do not meet the Type II categories identified in part 617
- Any change from the preferred alternatives for natural resource protection, recreational and facility development (including trails) or other elements of the plan that would result in significant environment impacts
- Any leases, easements, memoranda of understanding, or other agreements between OPRHP and private entities or other agencies (such as a concession agreement for the marina) that affect resources in a manner that is not sufficiently addressed in this plan.

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## **Appendices**

### ***Appendix A – Camper Survey Results and Regional Economic Contribution***

# Sampson State Park Camper Survey Results

Data Collected: August 16, 2014- September 17, 2014

September 2014



Andrew M. Cuomo  
Governor

Rose Harvey  
Commissioner

The New York State Office of Parks, Recreation and Historic Preservation began the process of developing a master plan for Sampson State Park in the Summer of 2014. To aid in this process, a camper survey was developed, both in paper form and through SurveyMonkey.com. A copy of this survey can be found in the appendix. Email addresses were obtained from ReserveAmerica.com for 4218 individuals who had camped at Sampson State park from 2012 to present.

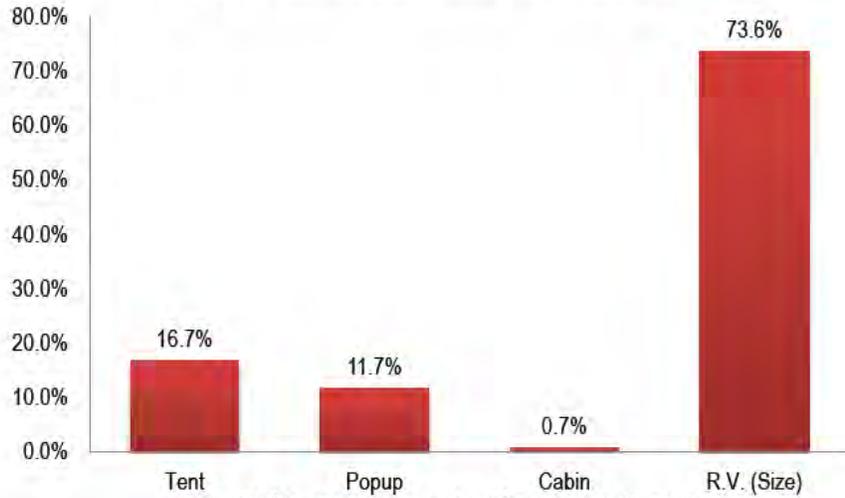
As of September 17, 2014, 1,340 survey responses had been received, 1,290 came in through survey monkey, equating to a response rate of 30% from the email blast. 1,173 out of the 1,340 responses were complete, meaning that the respondent had proceeded to the end of the survey. As incomplete responses can result in bias, the following results are based off the 1,173 completed responses.

In addition to the charts presented below, nearly a third of the respondents had additional comments regarding the park on top of other comments collected during some of the questions. The comments ranged from commenting on how much they have enjoyed the park to specific improvements that need to be made. All comments can be found in the appendix.



# Camping Facts

Type of Equipment Used when Camping



Average Number of Visits Over the Past 36 Months:

**3 Visits**

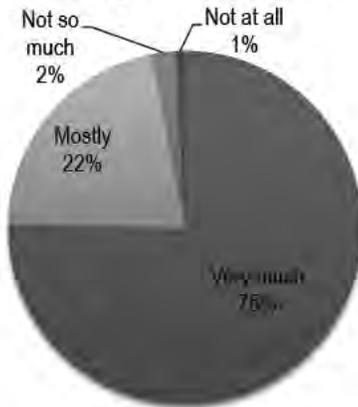
Average RV Size:

**29 Feet**

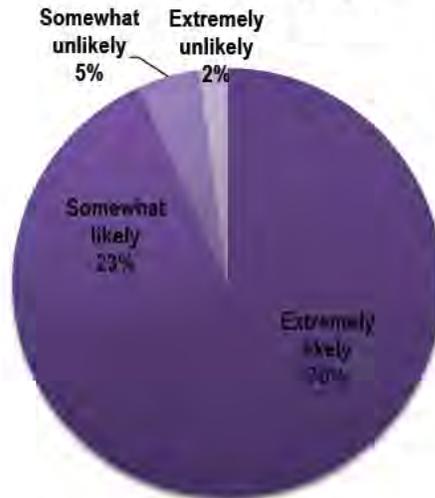
Average Length of Stay:

**4 Days**

Enjoyment of Visit:

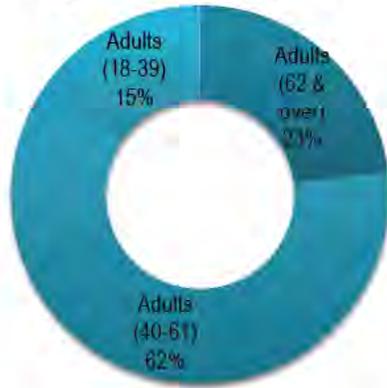


Likelihood of Visiting Again

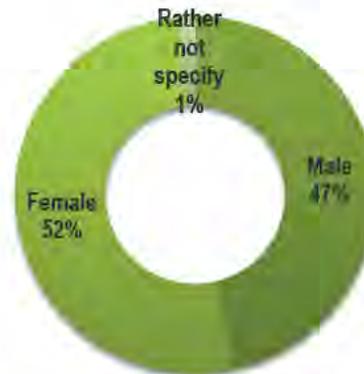


# Demographics

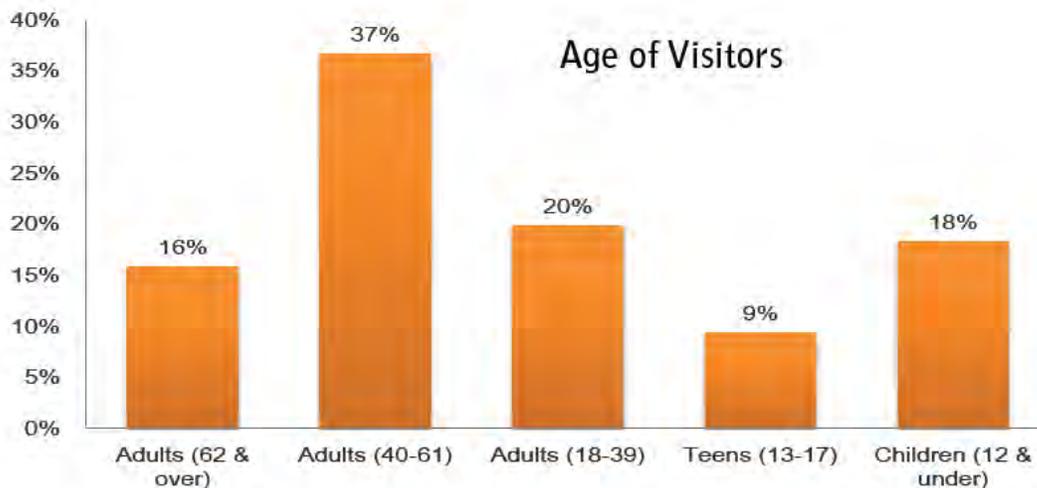
**Age of Respondents**

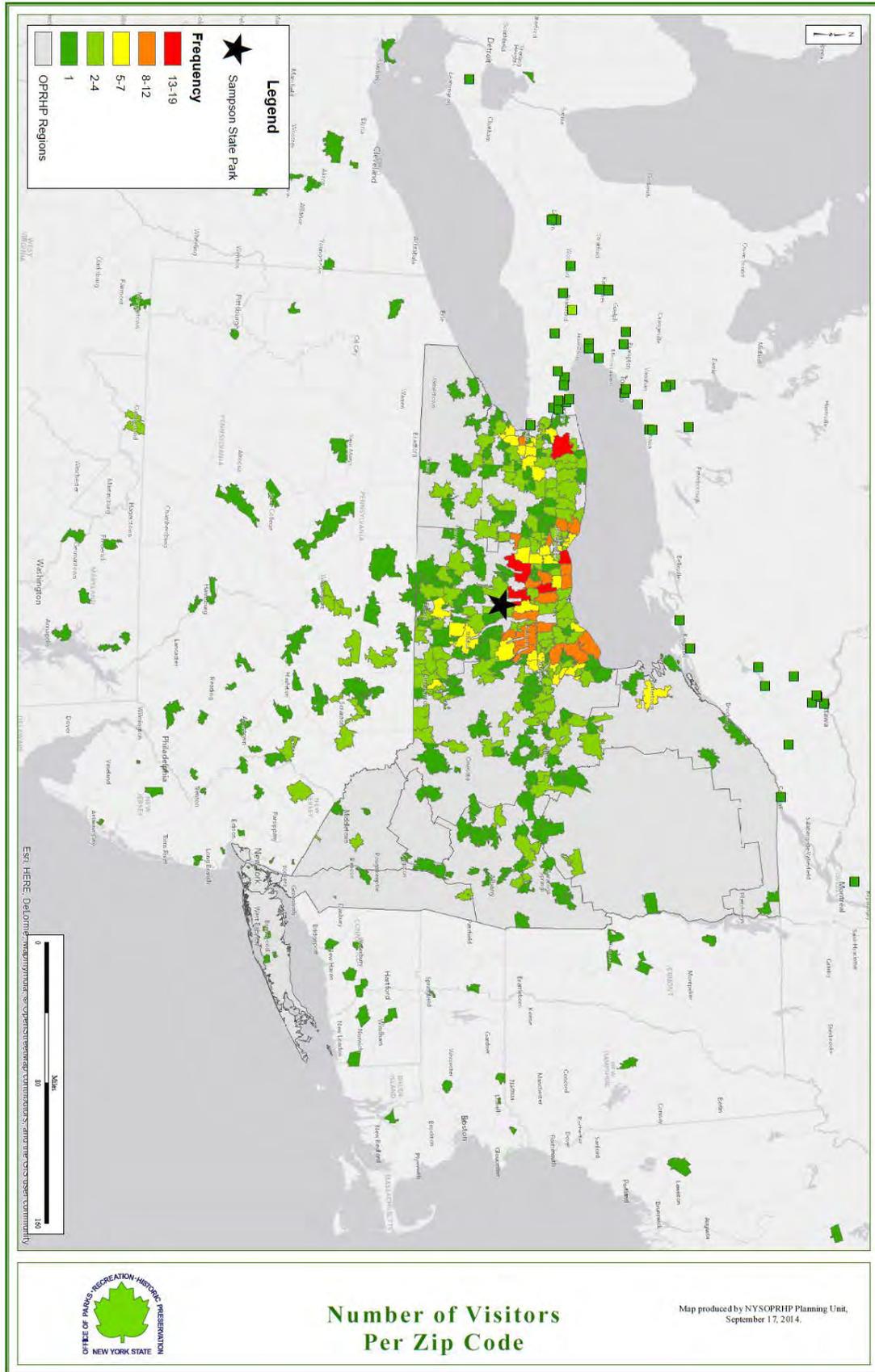


**Gender**

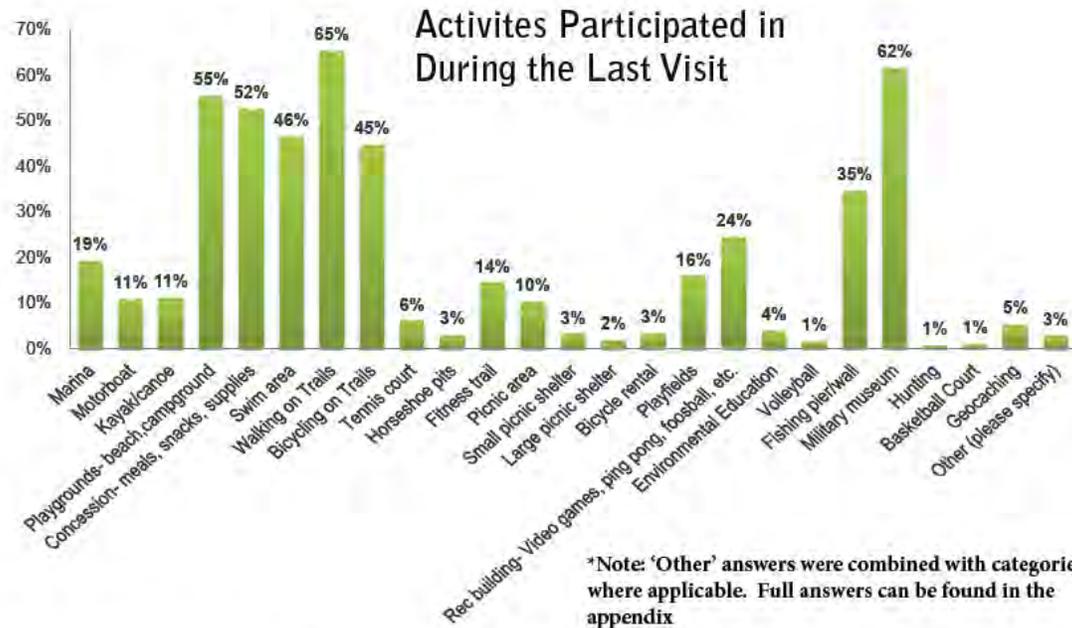


Sampson State Park is very much an RV park. 73% of survey respondents have camped via RV over the past two years, with the average RV size of 29 feet. Patrons on average visit Sampson once a year and stay for an average of 4 days on each visit. The majority of survey respondents were between the ages of 40 and 61 and female. However, only 37% of the total visitors were between that same age group, indicating that 40-61 year olds may be filling out the survey, but they camped with family and friends of all ages. Respondents also traveled from all over the Northeast to visit Sampson State Park. The map on page 5 shows the zip codes that respondents came from and the number of visitors from that zip code. The majority came from the Finger Lakes Region, but there were many from out of state and Canada as well. Not pictured on the map are respondents from Arkansas, Colorado, Florida, Illinois, Iowa, Oregon, South Dakota, Tennessee, Texas, and Utah.

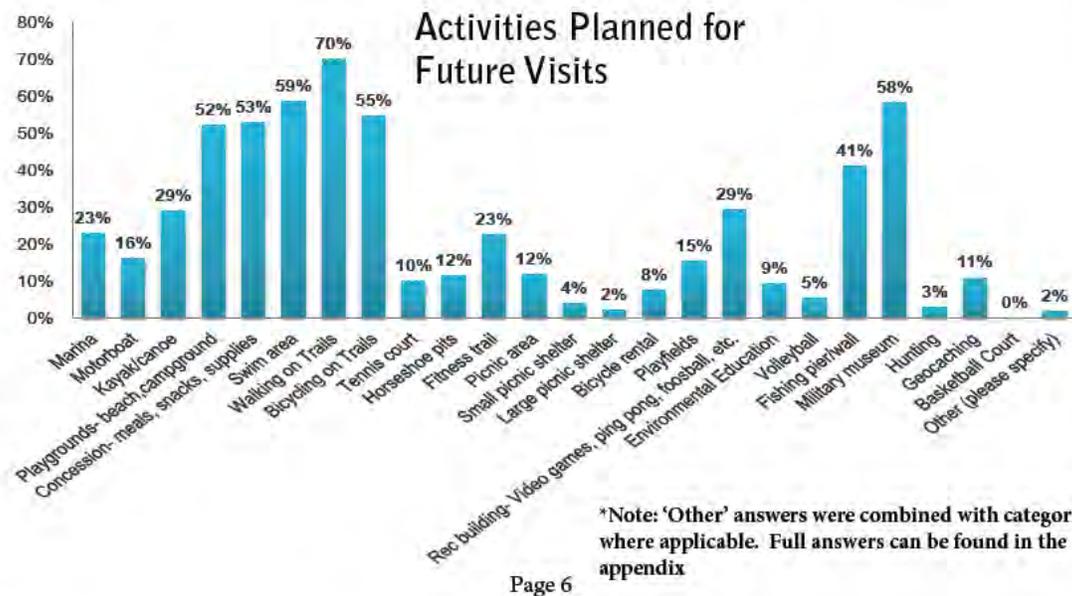


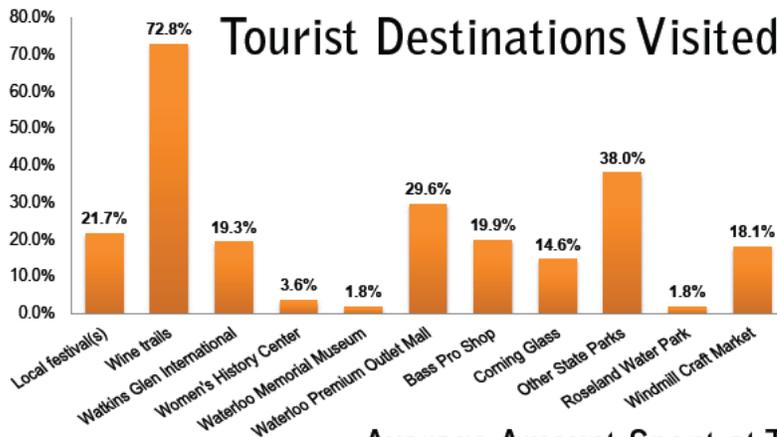


# Activities at Sampson



The majority of respondents walked on the trails, used the playgrounds and concessions, and made a visit to the military museum in their most recent visit. When asked what they would do in the future, the responses were generally the same. However, the number wanting to participate in kayaking/canoing nearly tripled, and geocaching and the fitness trail both about doubled.

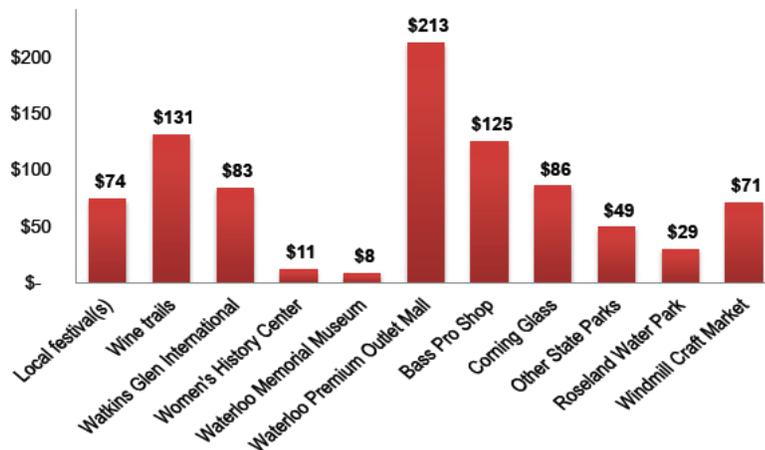




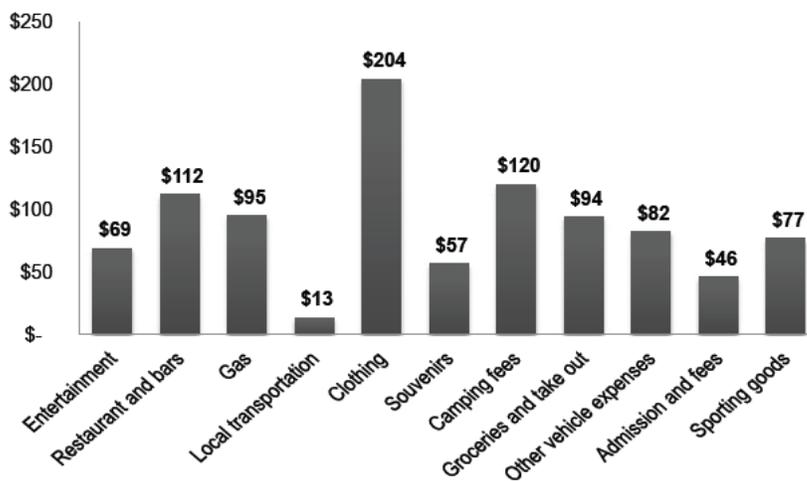
Of those respondents that visited other destinations while camping at Sampson State Park, 73% were visiting vine trails, and spent an average of \$131 doing so. Only 30% visited the Waterloo Premium Outlet Mall, but on average they spent \$213 on their trip. This is consistent with the largest amount being spent in the community, with an average of \$204 on clothing. Camping fees

## Economic Impact

### Average Amount Spent at Tourist Destinations



### Average Amount Spent in the Local Community



and restaurants and bars were also large expenses in the community, taking in \$120 and \$112 on average, respectively. It should be noted that the averages are based on the number of people who spent money on that activity or in the community. It does not include those who skipped the question or left that activity blank. As such, these numbers may overestimate the true values.

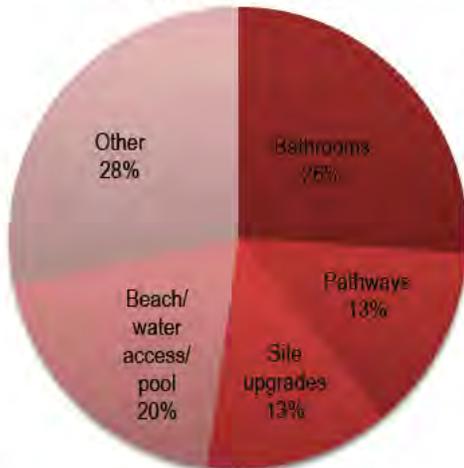
## Accessibility & Pets

Six percent of respondents indicated that they had used facilities adapted for persons with disabilities on their most recent visit. When asked what other programs and facilities should be made accessible at Sampson, Bathrooms and beach/water access were popular answers. More paved paths were also requested. The 'Other' category contained answers such as, none, better training for staff and more activities for children.

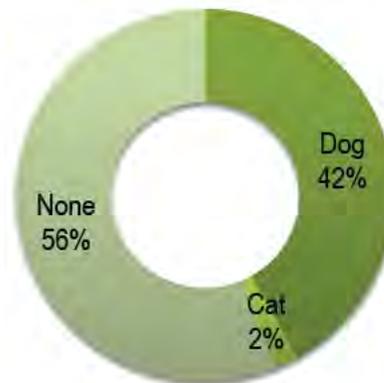
**Used Facilities Adaped for Persons with Disabilities**



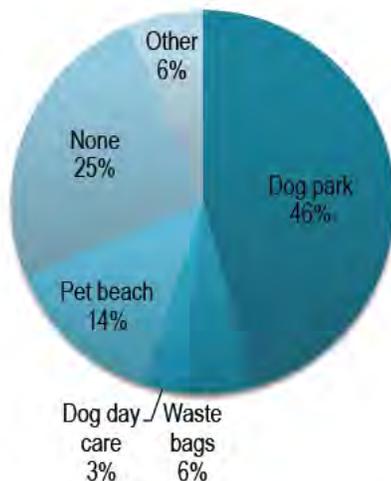
**Other Programs and Facilities that Should Made Accessible**



**Traveled with a Pet(s)**



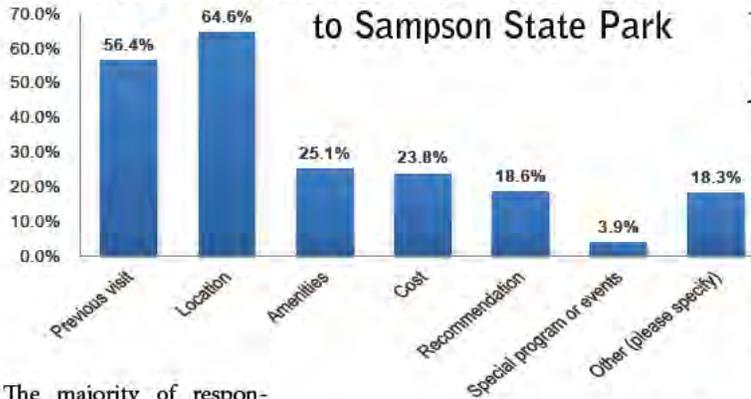
**Other Amenities that Should be Made Available for Pets**



Slightly less than half of the campers traveled with a pet on their most recent visit. Of those who did, the majority brought dogs with them. As such, when asked what other amenities they would like to see available for pets, the a dog park was the most popular choice. Patrons also expressed interest in water access for dogs and waste bags being provided. A quarter of the respondents thought things were good as they are now.

# Influence & Amenities

Factors that Influenced Most Recent Visit to Sampson State Park



\*Note: 'Other' answers were combined with categories where applicable. Full answers can be found in the appendix

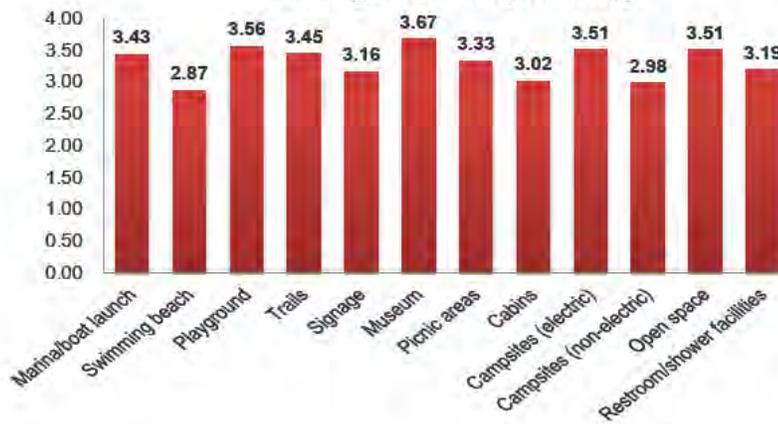
The majority of respondents chose to visit Sampson State Park because of its location or a previous visit to the park. A quarter of respondents also came there because of the amenities.

On average, the amenities were rated as good or excellent, represented by a 3.00 or higher in the graph below.

The museum received the highest rating at 3.67, while the swimming beach and non-electric campsites received the lowest ratings at 2.87 and 2.98 respectively.

The number one new amenity that patrons would like to see at Sampson in Wi-Fi. It was chosen as a top three choice by 2/3 of the respondents. Additional full-service campsites were also chosen by just over half and 38% indicated additional pumpout stations were necessary.

Average Amenity Rating



Other Amenities Patrons Would Like to See at Sampson

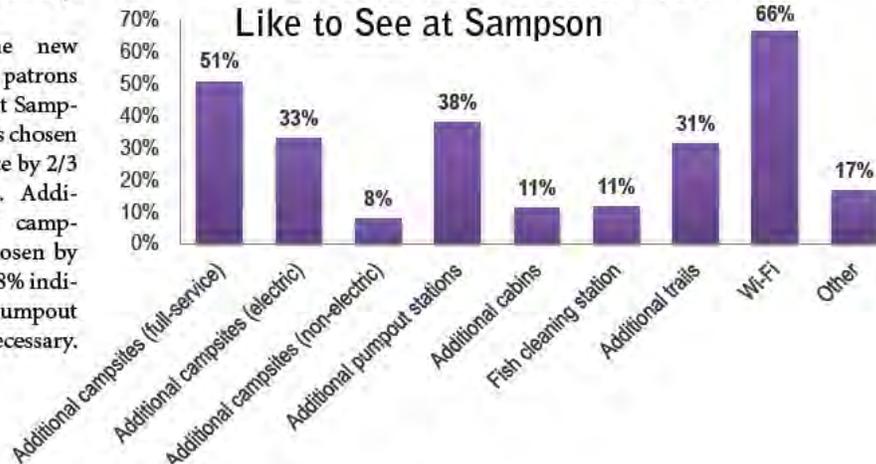


Figure 0-1 – Chart of Tourist Destinations Visited

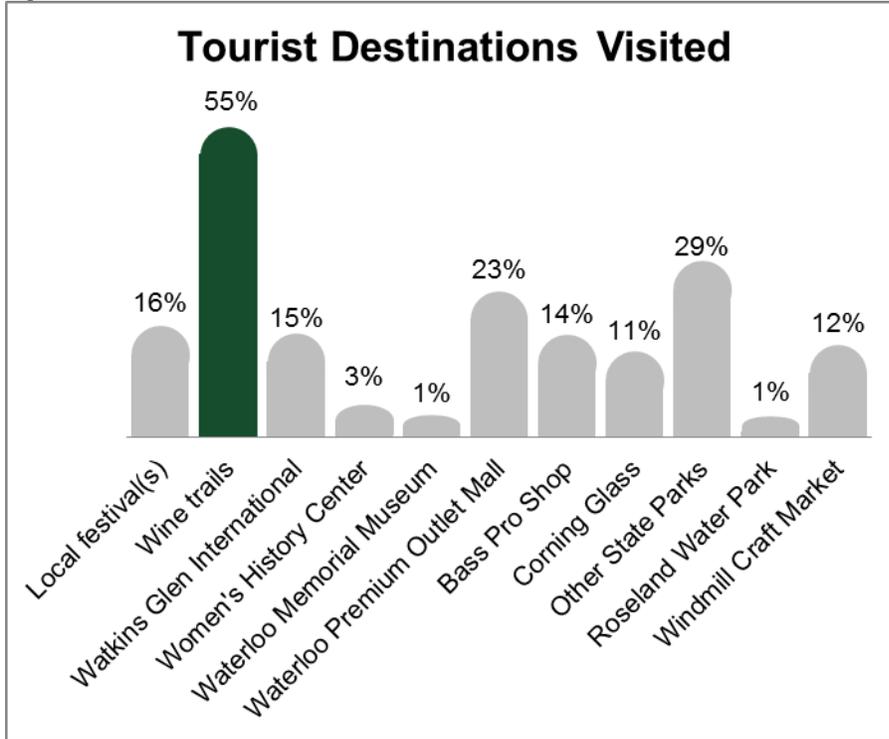


Figure 0-2 – Chart of Average Amount Spent at Tourist Destinations



Figure 0-3 – Chart of Average Amount Spent in the Local Community

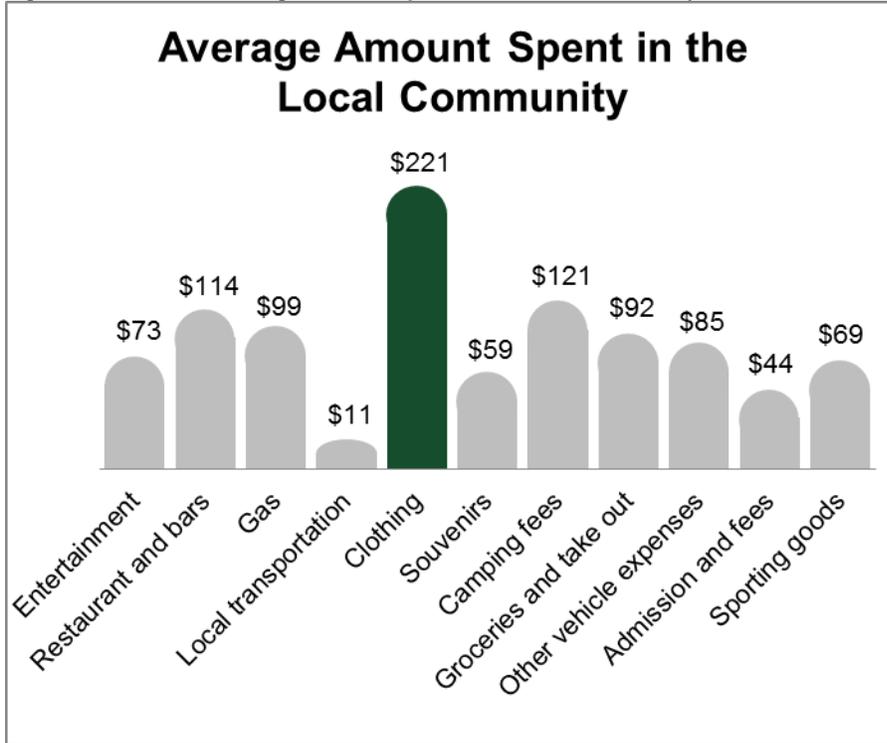


Figure 0-4 – Summary of Results: Initial Impacts – Table 1 and Table 2

<b>SUMMARY OF RESULTS</b>				
<b>Park</b>	<b>Sampson State Park</b>			
<b>Region</b>	<b>7 County-Area around Park</b>			
<b>Application</b>	<b>Initial Impacts</b>			
<b>Spending data set</b>	Camper Survey			
<b>Year</b>	2014			
<b>Multipliers</b>	EMSI 2013			
<b>Visits</b>	47,361	Party-night		
<b>Average spending</b>	\$ 100.25	Per Party-night		

**Table 1. Spending and Visits by Segment**

Segment	Visits in Party-night ,	Avg Spending (\$)	Total Spending \$000's	Pct of Spending
L-Day User	3,454	44.68	154.3	3%
NL-Day User	11,955	66.15	790.9	17%
Motel-In	-	205.01	-	0%
Camp-In	18,289	57.50	1,051.6	22%
Backcountry Campers	-	47.60	-	0%
Motel-Out	13,663	201.36	2,751.2	58%
Camp-Out	-	106.54	-	0%
VFR	-	68.28	-	0%
	-	-	-	0%
	-	-	-	0%
	-	-	-	0%
	-	-	-	0%
<b>TOTAL</b>	<b>47,361</b>	<b>100.25</b>	<b>\$ 4,748</b>	<b>100%</b>

**Table 2. Economic Impacts of Visitor Spending : Direct & Secondary Effects**

Sector/Spending category	Direct Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	1,253	6	165	326
Camping fees	251	3	14	90
Restaurants & bars	1,054	14	206	300
Admissions & fees	355	22	188	137
Gambling	-	-	-	-
Other vehicle expenses	68	1	19	24
Local transportation	13	0	4	4
Grocery stores	121	0	12	48
Gas stations	70	0	9	40
Other retail	298	4	105	136
Wholesale Trade	82	0	24	25
Local Production of goods	40	0	2	6
<b>Total Direct Effects</b>	<b>3,606</b>	<b>52</b>	<b>748</b>	<b>1,137</b>
<b>Secondary Effects</b>	<b>587</b>	<b>7</b>	<b>106</b>	<b>443</b>
<b>Total Effects</b>	<b>\$ 4,193</b>	<b>59</b>	<b>\$ 855</b>	<b>\$ 1,580</b>
Multiplier	1.16	1.13	1.14	1.39

Figure 0-5 – Summary of Results: Additional Campsites/Cottages – Table 1 and Table 2

<b>SUMMARY OF RESULTS</b>			
<b>Park</b>	<b>Sampson State Park</b>		
<b>Region</b>	<b>7 County-Area around Park</b>		
<b>Application</b>	<b>Additional Campsites/Cottages</b>		
<b>Spending data set</b>	Camper Survey		
<b>Year</b>	2014		
<b>Multipliers</b>	EMSI 2013		
<b>Visits</b>	52,442	Party-night	
<b>Average spending</b>	\$ 99.27	Per Party-night	

**Table 1. Spending and Visits by Segment**

Segment	Visits in Party-night ,	Avg Spending (\$)	Total Spending \$000's	Pct of Spending
L-Day User	3,736	44.68	166.9	3%
NL-Day User	12,933	66.15	855.6	16%
Motel-In	-	205.01	-	0%
Camp-In	20,993	57.50	1,207.1	23%
Backcountry Campers	-	47.60	-	0%
Motel-Out	14,780	201.36	2,976.2	57%
Camp-Out	-	106.54	-	0%
VFR	-	68.28	-	0%
	-	-	-	0%
	-	-	-	0%
	-	-	-	0%
	-	-	-	0%
<b>TOTAL</b>	<b>52,442</b>	<b>99.27</b>	<b>\$ 5,206</b>	<b>100%</b>

**Table 2. Economic Impacts of Visitor Spending : Direct & Secondary Effects**

Sector/Spending category	Direct Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	1,356	7	179	353
Camping fees	288	3	16	103
Restaurants & bars	1,151	16	225	328
Admissions & fees	385	24	204	149
Gambling	-	-	-	-
Other vehicle expenses	76	2	22	26
Local transportation	15	0	4	4
Grocery stores	134	0	13	53
Gas stations	78	0	10	44
Other retail	328	4	116	150
Wholesale Trade	91	0	26	27
<u>Local Production of goods</u>	<u>44</u>	<u>0</u>	<u>2</u>	<u>7</u>
<b>Total Direct Effects</b>	<b>3,946</b>	<b>57</b>	<b>817</b>	<b>1,246</b>
<u>Secondary Effects</u>	<u>643</u>	<u>7</u>	<u>119</u>	<u>485</u>
<b>Total Effects</b>	<b>\$ 4,589</b>	<b>64</b>	<b>\$ 936</b>	<b>\$ 1,731</b>
Multiplier	1.16	1.13	1.15	1.39

## Appendix B — Aquatic Invasive Species – Clean, Drain, and Dry Program



# STOP AQUATIC HITCHHIKERS!

Prevent the spread of invasive species.

Aquatic invasive species are non-native plants and animals that threaten native plants, wildlife and their habitats. They also affect humans by degrading boating and fishing areas and reducing lakeshore property values and tourism. Once they are established eradication is almost impossible.

### BEFORE AND AFTER BOATING...

**✓ CLEAN**

**Clean** and remove all visible plants, animals, fish and mud from your boat, trailer and other equipment and dispose of it in a suitable trash container or on dry land.



**✓ DRAIN**

**Drain** water from bilge, live wells, ballast tanks and any other locations with water before leaving the launch. Disinfect when possible.

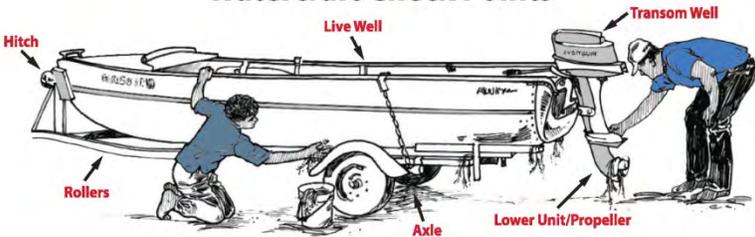


**✓ DRY**

**Dry** your boat, trailer and all equipment completely. At least 5 days of drying time is recommended. Drying times vary depending on weather & material.



### Watercraft Check Points



PLEASE DO NOT DUMP BAIT, FISH, OTHER ANIMALS OR PLANTS INTO THE WATER!










Learn more!

New York State Office of Parks, Recreation and Historic Preservation  
For more information visit [www.nysparks.com/environment](http://www.nysparks.com/environment)  
or contact us at [invasives@parks.ny.gov](mailto:invasives@parks.ny.gov)

## **Appendix C – Soil Descriptions and Limitations**

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### **Soil Descriptions** (*major map units only*)

#### **AnB – Angola silt loam, 3 to 8 percent slopes**

##### **Component: Angola**

The Angola component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on benches, till plains, ridges. The parent material consists of loamy till derived mainly from shale and siltstone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

#### **ApA – Appleton silt loam, 0 to 3 percent slopes**

##### **Component: Appleton**

The Appleton component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on drumlins, till plains. The parent material consists of calcareous loamy till derived mainly from limestone, sandstone, and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrinkswell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

#### **ApB – Appleton silt loam, 3 to 8 percent slopes**

##### **Component: Appleton**

The Appleton component makes up 85 percent of the map unit. Slopes are 3 to 8

percent. This component is on drumlins, till plains. The parent material consists of calcareous loamy till derived mainly from limestone, sandstone, and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrinkswell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

#### **AwB – Aurora silt loam, 3 to 8 percent slopes**

##### **Component: Aurora**

The Aurora component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on benches, till plains, ridges. The parent material consists of loamy till derived mainly from calcareous shale, with some limestone and sandstone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during March, April, May. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

#### **AzF – Aurora and Farmington soils, 25 to 70 percent slopes**

##### **Component: Aurora**

The Aurora component makes up 40 percent of the map unit. Slopes are 25 to 75 percent. This component is on benches, till plains, ridges. The parent material consists of loamy till derived mainly from calcareous shale, with some limestone and sandstone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during March, April, May. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

##### **Component: Farmington**

The Farmington component makes up 40 percent of the map unit. Slopes are 25 to 70 percent. This component is on till plains, benches, ridges. The parent material

consists of loamy till or congeliturbate derived from limestone, dolomite, shale, and sandstone, and in many places mixed with wind and water deposits. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

### **DaA – Darien silt loam, 0 to 3 percent slopes**

#### **Component: Darien**

The Darien component makes up 75 percent of the map unit. Slopes are 0 to 3 percent. This component is on hills, drumlinoid ridges, till plains. The parent material consists of loamy till derived predominantly from calcareous gray shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **DdB – Darien-Danley-Cazenovia silt loams, 3 to 8 percent slopes**

#### **Component: Darien**

The Darien component makes up 35 percent of the map unit. Slopes are 3 to 8 percent. This component is on till plains, hills, drumlinoid ridges. The parent material consists of loamy till derived predominantly from calcareous gray shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

#### **Component: Danley**

The Danley component makes up 30 percent of the map unit. Slopes are 3 to 8

percent. This component is on till plains, drumlinoid ridges, hills. The parent material consists of loamy till derived predominantly from calcareous gray shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrinkswell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during March, April, May. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

**Component: Cazenovia**

The Cazenovia component makes up 25 percent of the map unit. Slopes are 3 to 8 percent. This component is on reworked lake plains, till plains. The parent material consists of loamy till that contains limestone with an admixture of reddish lake-laid clays or reddish clay shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during March, April, May. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

**HnB – Honeoye silt loam, 2 to 8 percent slopes**

**Component: Honeoye**

The Honeoye component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on drumlins, till plains. The parent material consists of loamy till derived from limestone, dolomite, and calcareous shale, and from lesser amounts of sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

**HnC – Honeoye silt loam, 8 to 15 percent slopes**

**Component: Honeoye**

The Honeoye component makes up 85 percent of the map unit. Slopes are 8 to 15

percent. This component is on drumlins, till plains. The parent material consists of loamy till derived from limestone, dolomite, and calcareous shale, and from lesser amounts of sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **HoE – Honeoye, Ontario, and Lansing soils, 25 to 40 percent slopes**

#### **Component: Honeoye**

The Honeoye component makes up 35 percent of the map unit. Slopes are 25 to 40 percent. This component is on drumlins, till plains. The parent material consists of loamy till derived from limestone, dolomite, and calcareous shale, and from lesser amounts of sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

#### **Component: Ontario**

The Ontario component makes up 25 percent of the map unit. Slopes are 25 to 40 percent. This component is on drumlins, till plains. The parent material consists of calcareous till high in limestone and sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 40 inches during March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

#### **Component: Lansing**

The Lansing component makes up 25 percent of the map unit. Slopes are 25 to 40 percent. This component is on till plains, drumlinoid ridges, hills. The parent material consists of loamy till derived from shale, limestone, sandstone, and siltstone. Depth

to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent.

**Is – Ilion silty clay loam, 0 to 2 percent slopes**

**Component: Ilion**

The Ilion component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions. The parent material consists of loamy till derived from calcareous dark shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 percent.

**LtA – Lima silt loam, 0 to 3 percent slopes**

**Component: Lima**

The Lima component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is on drumlins, till plains. The parent material consists of loamy till derived mainly from limestone and calcareous shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during March, April, May. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

**LtB – Lima silt loam, 3 to 8 percent slopes**

**Component: Lima**

The Lima component makes up 85 percent of the map unit. Slopes are 3 to 8 percent.

This component is on drumlins, till plains. The parent material consists of loamy till derived mainly from limestone and calcareous shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during March, April, May. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **Md – Made land, tillable, 0 to 8 percent slopes**

#### **Component: Udorthents**

The Udorthents component makes up 100 percent of the map unit. Slopes are 0 to 8 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6s.

### **OnB – Ontario loam, 2 to 8 percent slopes**

#### **Component: Ontario**

The Ontario component makes up 85 percent of the map unit. Slopes are 2 to 8 percent. This component is on till plains, drumlins. The parent material consists of calcareous till high in limestone and sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 40 inches during March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **OvB – Ovid silt loam, 3 to 8 percent slopes**

#### **Component: Ovid**

The Ovid component makes up 85 percent of the map unit. Slopes are 3 to 8 percent. This component is on reworked lake plains, till plains. The parent material consists of

loamy till with a significant component of reddish shale or reddish glaciolacustrine clays, mixed with limestone and some sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, May. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **Ro – Romulus silty clay loam, 0 to 2 percent slopes**

#### **Component: Romulus**

The Romulus component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions. The parent material consists of loamy till derived from reddish calcareous shale, limestone, and sandstone, in places intermixed with glaciolacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 7 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent.

### **Vc – Varick silty clay loam, 0 to 2 percent slopes**

#### **Component: Varick**

The Varick component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions. The parent material consists of loamy till or congluturbate strongly influenced by clayey calcareous shale, in places incorporating re-worked glaciolacustrine deposits. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

#### **Data Source Information**

Soil Survey Area: Seneca County, NY

Survey Area Data: Version 11, September 16, 2014

### **Soil Limitations**

The soils of the survey area are rated in this table according to limitations that affect their suitability for various recreation types. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in the table can be supplemented by other information, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

### **Camp Areas, Picnic Areas, and Playgrounds**

*Camp areas* require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to

a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, Ksat, and toxic substances in the soil.

*Picnic areas* are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, Ksat, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, Ksat, and toxic substances in the soil.

*Playgrounds* require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, Ksat, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, Ksat, and toxic substances in the soil.

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AnB—Angola silt loam, 3 to 8 percent slopes							
Angola	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Slope	0.88
						Depth to bedrock	0.16
						Dusty	0.03
Aurora	5	Not rated		Not rated		Not rated	
Darien	5	Not rated		Not rated		Not rated	
Varick	5	Not rated		Not rated		Not rated	
ApA—Appleton silt loam, 0 to 3 percent slopes							
Appleton	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Slow water movement	0.49	Slow water movement	0.49	Slow water movement	0.49
		Dusty	0.03	Dusty	0.03	Gravel content	0.22
						Dusty	0.03
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ApB—Appleton silt loam, 3 to 8 percent slopes							
Appleton	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
		Slow water movement	0.49	Slow water movement	0.49	Slope	1.00
		Dusty	0.03	Dusty	0.03	Slow water movement	0.49
						Gravel content	0.22
						Dusty	0.03
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
AwB—Aurora silt loam, 3 to 8 percent slopes							
Aurora	80	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.77
						Depth to bedrock	0.29
						Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AzF—Aurora and Farmington soils, 25 to 70 percent slopes							
Aurora	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
		Dusty	0.03	Dusty	0.03	Depth to bedrock	0.29
						Dusty	0.03
Farmington	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.03	Dusty	0.03	Gravel content	0.22
						Dusty	0.03
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lansing	5	Not rated		Not rated		Not rated	
Honeoye	3	Not rated		Not rated		Not rated	
Rock outcrop	2	Not rated		Not rated		Not rated	
DaA—Darlen silt loam, 0 to 3 percent slopes							
Darlen	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	
Alden	2	Not rated		Not rated		Not rated	
Appleton	2	Not rated		Not rated		Not rated	
Cazenovia	2	Not rated		Not rated		Not rated	
Danley	2	Not rated		Not rated		Not rated	
Lima	2	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds–Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DdB—Darien-Danley-Cazenovia silt loams, 3 to 8 percent slopes							
Darien	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Slope	0.88
						Dusty	0.03
Danley	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slope	0.88
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.77
						Dusty	0.03
Cazenovia	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Slope	0.88
						Dusty	0.03
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HnB—Honeoye silt loam, 2 to 8 percent slopes							
Honeoye	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Slope	0.88
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HnC—Honeoye silt loam, 8 to 15 percent slopes							
Honeoye	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Slope	0.63	Slope	0.63	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HoE—Honeoye, Ontario, and Lansing soils, 25 to 40 percent slopes							
Honeoye	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Lansing	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Gravel content	1.00
		Gravel content	0.06	Gravel content	0.06	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Ontario	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.02	Dusty	0.02	Dusty	0.02
Danley	5	Not rated		Not rated		Not rated	
Palmyra	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Is—Ilion silty clay loam							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Alden	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	
LtA—Lima silt loam, 0 to 3 percent slopes							
Lima	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Depth to saturated zone	0.77
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
LtB—Lima silt loam, 3 to 8 percent slopes							
Lima	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water movement	0.96	Slow water movement	0.96	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	0.43	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.77
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Md—Made land, tillable							
Udorthents	100	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OnB—Ontario loam, 2 to 8 percent slopes							
Ontario	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.02	Dusty	0.02	Slope	0.88
						Dusty	0.02
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
OvB—Ovid silt loam, 3 to 8 percent slopes							
Ovid	85	Very limited		Somewhat limited		Very limited	
		Depth to saturated zone	1.00	Slow water movement	0.96	Depth to saturated zone	1.00
		Slow water movement	0.96	Depth to saturated zone	0.94	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Slope	0.88
						Dusty	0.03
Cazenovia	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Ro—Romulus silty clay loam							
Romulus	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Alden	5	Not rated		Not rated		Not rated	
Fonda	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	

Camp Areas, Picnic Areas, and Playgrounds—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Vc—Varick silty clay loam							
Varick	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Slow water movement	0.96	Slow water movement	0.96	Slow water movement	0.96
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
W—Water							
Water	100	Not rated		Not rated		Not rated	

## Paths and Trails

*Paths and trails* for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodability. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer. Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodability, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AnB—Angola silt loam, 3 to 8 percent slopes							
Angola	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Dusty	0.03	Dusty	0.03	Depth to bedrock	0.16
						Dusty	0.03
Aurora	5	Not rated		Not rated		Not rated	
Darien	5	Not rated		Not rated		Not rated	
Varick	5	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ApA—Appleton silt loam, 0 to 3 percent slopes							
Appleton	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Dusty	0.03	Dusty	0.03	Low exchange capacity	0.50
						Dusty	0.03
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
ApB—Appleton silt loam, 3 to 8 percent slopes							
Appleton	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.99	Depth to saturated zone	0.99	Depth to saturated zone	0.99
		Dusty	0.03	Dusty	0.03	Low exchange capacity	0.50
						Dusty	0.03
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
AwB—Aurora silt loam, 3 to 8 percent slopes							
Aurora	80	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Low exchange capacity	0.50
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.43
						Depth to bedrock	0.29
						Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AzF—Aurora and Farmington soils, 25 to 70 percent slopes							
Aurora	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Low exchange capacity	0.50
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.43
						Depth to bedrock	0.29
						Dusty	0.03
Farmington	40	Very limited		Very limited		Very limited	
		Slope	1.00	Water erosion	1.00	Slope	1.00
		Water erosion	1.00	Slope	1.00	Depth to bedrock	1.00
		Dusty	0.03	Dusty	0.03	Droughty	0.99
						Low exchange capacity	0.75
						Dusty	0.03
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lansing	5	Not rated		Not rated		Not rated	
Honeoye	3	Not rated		Not rated		Not rated	
Rock outcrop	2	Not rated		Not rated		Not rated	
DaA—Darien silt loam, 0 to 3 percent slopes							
Darien	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	
Alden	2	Not rated		Not rated		Not rated	
Appleton	2	Not rated		Not rated		Not rated	
Cazenovia	2	Not rated		Not rated		Not rated	
Danley	2	Not rated		Not rated		Not rated	
Lima	2	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DdB—Darlen-Danley-Cazenovia silt loams, 3 to 8 percent slopes							
Darien	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Danley	30	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Cazenovia	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HnB—Honeoye silt loam, 2 to 8 percent slopes							
Honeoye	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.03	Dusty	0.03	Low exchange capacity	0.50
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HnC—Honeoye silt loam, 8 to 15 percent slopes							
Honeoye	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.03	Dusty	0.03	Slope	0.63
						Low exchange capacity	0.50
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HoE—Honeoye, Ontario, and Lansing soils, 25 to 40 percent slopes							
Honeoye	35	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.56	Slope	1.00
		Dusty	0.03	Dusty	0.03	Low exchange capacity	0.50
						Dusty	0.03
Lansing	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.56	Slope	1.00
		Dusty	0.03	Dusty	0.03	Low exchange capacity	0.50
						Gravel content	0.06
						Dusty	0.03
Ontario	25	Very limited		Somewhat limited		Very limited	
		Slope	1.00	Slope	0.56	Slope	1.00
		Dusty	0.02	Dusty	0.02	Low exchange capacity	0.50
						Dusty	0.02
Danley	5	Not rated		Not rated		Not rated	
Palmyra	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Is—Ilion silty clay loam							
Ilion	80	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Alden	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtA—Lima silt loam, 0 to 3 percent slopes							
Lima	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Low exchange capacity	0.50
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.43
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
LtB—Lima silt loam, 3 to 8 percent slopes							
Lima	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.08	Depth to saturated zone	0.08	Low exchange capacity	0.50
		Dusty	0.03	Dusty	0.03	Depth to saturated zone	0.43
						Dusty	0.03
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Md—Made land, tillable							
Udorthents	100	Not rated		Not rated		Somewhat limited	
						Gravel content	0.22
						Droughty	0.09
						Dusty	0.01
OnB—Ontario loam, 2 to 8 percent slopes							
Ontario	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.02	Dusty	0.02	Low exchange capacity	0.50
						Dusty	0.02
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Paths, Trails, and Golf Fairways—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OvB—Ovid silt loam, 3 to 8 percent slopes							
Ovid	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.94
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Cazenovia	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Ro—Romulus silty clay loam							
Romulus	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.03	Dusty	0.03	Dusty	0.03
Alden	5	Not rated		Not rated		Not rated	
Fonda	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	
Vc—Varick silty clay loam							
Varick	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Dusty	0.03	Dusty	0.03	Depth to bedrock	0.90
						Dusty	0.03
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
W—Water							
Water	100	Not rated		Not rated		Not rated	

### Dwellings and Small Commercial Buildings

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. This table shows the degree and kind of soil limitations that affect dwellings and small commercial buildings.

*Dwellings* are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For

dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

*Small commercial buildings* are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Information in this table is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works. Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this table. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Dwellings and Small Commercial Buildings—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AnB—Angola silt loam, 3 to 8 percent slopes							
Angola	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to hard bedrock	0.16	Depth to hard bedrock	1.00	Depth to hard bedrock	0.16
						Slope	0.13
Aurora	5	Not rated		Not rated		Not rated	
Darien	5	Not rated		Not rated		Not rated	
Varick	5	Not rated		Not rated		Not rated	
ApA—Appleton silt loam, 0 to 3 percent slopes							
Appleton	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
ApB—Appleton silt loam, 3 to 8 percent slopes							
Appleton	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.50
Lima	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
AwB—Aurora silt loam, 3 to 8 percent slopes							
Aurora	80	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Slope	0.50
						Depth to hard bedrock	0.29
Angola	5	Not rated		Not rated		Not rated	
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	

Dwellings and Small Commercial Buildings—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AzF—Aurora and Farmington soils, 25 to 70 percent slopes							
Aurora	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Depth to hard bedrock	0.29
Farmington	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to hard bedrock	1.00	Depth to hard bedrock	1.00	Depth to hard bedrock	1.00
Cazenovia	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lansing	5	Not rated		Not rated		Not rated	
Honeoye	3	Not rated		Not rated		Not rated	
Rock outcrop	2	Not rated		Not rated		Not rated	
DaA—Darlen silt loam, 0 to 3 percent slopes							
Darlen	75	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	
Alden	2	Not rated		Not rated		Not rated	
Appleton	2	Not rated		Not rated		Not rated	
Cazenovia	2	Not rated		Not rated		Not rated	
Danley	2	Not rated		Not rated		Not rated	
Lima	2	Not rated		Not rated		Not rated	

Dwellings and Small Commercial Buildings—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DdB—Darlen-Danley-Cazenovia silt loams, 3 to 8 percent slopes							
Darlen	35	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.13
Danley	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
						Slope	0.13
Cazenovia	25	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.10	Depth to saturated zone	0.95	Slope	0.13
						Shrink-swell	0.10
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HnB—Honeoye silt loam, 2 to 8 percent slopes							
Honeoye	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.99	Slope	0.13
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
HnC—Honeoye silt loam, 8 to 15 percent slopes							
Honeoye	85	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.63	Depth to saturated zone	0.99	Slope	1.00
				Slope	0.63		
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Dwellings and Small Commercial Buildings–Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HoE—Honeoye, Ontario, and Lansing soils, 25 to 40 percent slopes							
Honeoye	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	0.99		
Lansing	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Ontario	25	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Depth to saturated zone	0.88		
Danley	5	Not rated		Not rated		Not rated	
Palmyra	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Is—Ilion silty clay loam							
Ilion	80	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.20			Shrink-swell	0.20
Alden	5	Not rated		Not rated		Not rated	
Danley	5	Not rated		Not rated		Not rated	
Lyons	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	
LtA—Lima silt loam, 0 to 3 percent slopes							
Lima	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	

Dwellings and Small Commercial Buildings–Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtB—Lima silt loam, 3 to 8 percent slopes							
Lima	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
						Slope	0.50
Appleton	5	Not rated		Not rated		Not rated	
Honeoye	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Md—Made land, tillable							
Udorthents	100	Not limited		Somewhat limited		Not limited	
				Depth to saturated zone	0.96		
OnB—Ontario loam, 2 to 8 percent slopes							
Ontario	85	Not limited		Somewhat limited		Somewhat limited	
				Depth to saturated zone	0.88	Slope	0.13
Appleton	5	Not rated		Not rated		Not rated	
Lima	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
OvB—Ovid silt loam, 3 to 8 percent slopes							
Ovid	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
						Slope	0.13
Cazenovia	5	Not rated		Not rated		Not rated	
Romulus	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
Ro—Romulus silty clay loam							
Romulus	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	0.12			Shrink-swell	0.12
Alden	5	Not rated		Not rated		Not rated	
Fonda	5	Not rated		Not rated		Not rated	
Ovid	5	Not rated		Not rated		Not rated	

Dwellings and Small Commercial Buildings—Seneca County, New York							
Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Vc—Varick silty clay loam							
Varick	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Depth to hard bedrock	0.90	Depth to hard bedrock	1.00	Depth to hard bedrock	0.90
Angola	5	Not rated		Not rated		Not rated	
Ilion	5	Not rated		Not rated		Not rated	
Unnamed soils	5	Not rated		Not rated		Not rated	
W—Water							
Water	100	Not rated		Not rated		Not rated	

## Appendix D – Flora and Fauna Lists

Plant Species Found in the Park.....	X
Trees, Shrubs, and Woody Vines.....	X
Herbaceous Vegetation.....	X
Animal Species Found in the Park.....	X
Amphibians and Reptiles.....	X
Fish.....	X
Birds.....	X
Mammals.....	X

### Plant Species Found in the Park<sup>5</sup> (alphabetical by common name)

Common and Scientific Names of Trees, Shrubs, and Woody Vines			
Common Name	Scientific Name	Common Name	Scientific Name
Alder, Speckled	<i>Alnus rugosa</i>	American Bittersweet	<i>Celastrus scandens</i>
Apple	<i>Pyrus malus</i>	Arrowwood, Shortstalk	<i>Viburnum rafinesquianum</i>
Ash, Black	<i>Fraxinus nigra</i>	Arrowwood, Northern	<i>Viburnum recognitum</i>
Ash, Green	<i>Fraxinus pennsylvanica</i>	Blackberry	<i>Rubus allegheniensis</i>
Ash, White	<i>Fraxinus americana</i>	Blackhaw, Smooth	<i>Viburnum prunifolium</i>
Aspen, Quaking	<i>Populus tremuloides</i>	Buckthorn, Common	<i>Rhamnus cathartica</i>
Basswood	<i>Tilia americana</i>	Dogwood, Gray (Red-panicle)	<i>Cornus racemosa</i>
Beech	<i>Fagus grandifolia</i>	Dogwood, Red-osier	<i>Cornus stolonifera</i>
Birch, Black	<i>Betula lenta</i>	Dogwood, Silky	<i>Cornus amomum</i>
Boxelder (Ashleaf Maple)	<i>Acer negundo</i>	Eglantine (Sweetbrier)	<i>Rosa rubiginosa</i>
Butternut	<i>Juglans cinerea</i>	Elder, Red-berried	<i>Sambucus racemosa</i>
Cedar, Eastern Red	<i>Juniperus virginiana</i>	Grape	<i>Vitis sp.</i>
Cedar, Northern White	<i>Thuja occidentalis</i>	Grape, River Bank	<i>Vitis riparia</i>
Cherry, Black	<i>Prunus serotina</i>	Grape, Summer	<i>Vitis aestivalis</i>
Cherry, Choke	<i>Prunus virginiana</i>	Guelder-rose	<i>Viburnum opulus</i>
Cherry, Fire (Pin)	<i>Prunus pensylvanica</i>	Honeysuckle, Bella	<i>Lonicera morrowi x bella</i>
Cherry, Sweet (Bird)	<i>Prunus avium</i>	Honeysuckle, Tartarian	<i>Lonicera tatarica</i>
Chestnut	<i>Castanea dentata</i>	Nannyberry	<i>Viburnum lentago</i>
Cottonwood	<i>Populus deltoides</i>	New Jersey Tea	<i>Ceanothus americanus</i>
Elm, American	<i>Ulmus americana</i>	Poison Ivy	<i>Rhus radicans</i>
Elm, Slippery	<i>Ulmus rubra</i>	Prickly-ash, Northern	<i>Xanthoxylum americanum</i>
Hawthorne	<i>Crataegus sp.</i>	Raspberry, Black	<i>Rubus occidentalis</i>
Hickory, Bitternut	<i>Carya cordiformis</i>	Raspberry, Red	<i>Rubus idaeus</i>
Hickory, Pignut	<i>Carya glabra</i>	Rose, Multiflora	<i>Rosa multiflora</i>
Hickory, Shagbark	<i>Carya ovata</i>	Rose, New England	<i>Rosa nitida</i>
Hickory, Shellbark	<i>Carya laciniosa</i>	Silverberry	<i>Elaeagnus commutata</i>
Hickory, Sweet Pignut	<i>Carya ovalis</i>	Spicebush	<i>Lindera benzoin</i>
Hop Hornbeam	<i>Ostrya virginiana</i>	Sumac, Fragrant	<i>Rhus aromatica</i>
Ironwood (American Hornbeam)	<i>Carpinus caroliniana</i>	Sumac, Smooth	<i>Rhus glabra</i>
Locus, Black	<i>Robinia pseudo-acacia</i>	Sumac, Staghorn	<i>Rhus typhina</i>
Maple, Black	<i>Acer nigrum</i>	Viburnum, Cranberry	<i>Viburnum trilobum</i>
Maple, Norway	<i>Acer platanoides</i>	Viburnum, Mapleleaf	<i>Viburnum acerifolium</i>
Maple, Red	<i>Acer rubrum</i>	Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Maple, Silver	<i>Acer saccharinum</i>	Wild Raisin	<i>Viburnum cassinoides</i>
Maple, Striped	<i>Acer pensylvanicum</i>	Witch Hazel	<i>Hamamelis virginiana</i>

<sup>5</sup> This list and those that follow were taken from the Appendices of the *Biological Features Inventory for Sampson State Park* (Phenix Environmental, Inc. 1994)

Maple, Sugar	<i>Acer saccharum</i>				
Mulberry, Red (U)	<i>Morus rubra</i>				
Oak, Black	<i>Quercus velutina</i>				
Oak, Chinquapin (Yellow) (U)	<i>Quercus muehlenbergii</i>				
Oak, Red	<i>Quercus rubra</i>				
Oak, Swamp	<i>Quercus bicolor</i>				
Oak, Swamp White	<i>Quercus bicolor x alba</i>				
Oak, White	<i>Quercus alba</i>				
Pear, Domestic	<i>Pyrus communis</i>				
Pine, Red	<i>Pinus resinosa</i>				
Pine, Scotch	<i>Pinus sylvestris</i>				
Pine, White	<i>Pinus strobus</i>				
Spruce, Norway	<i>Picea abies</i>				
Spruce, White	<i>Picea glauca</i>				
Sycamore	<i>Platanus occidentalis</i>				
Tree-of-heaven	<i>Ailanthus altissima</i>				
Walnut, Black	<i>Juglans nigra</i>				
Willow, Black	<i>Salix nigra</i>				
Willow, Crack	<i>Salix fragilis</i>				
Willow, White	<i>Salix alba</i>				
Source: Phenix Environmental, Inc. 1994					
State Rank:					
U = locally uncommon					

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Common and Scientific Names of Herbaceous Vegetation			
Common Name	Scientific Name	Common Name	Scientific Name
Agrimony	<i>Agrimonia gryposepala</i>	Clover, White Sweet	<i>Melilotus alba</i>
Aster, Arrow-leaved	<i>Aster sagittifolius</i>	Coltsfoot	<i>Tussilago farfara</i>
Aster, Calico (Starved)	<i>Aster lateriflorus</i>	Coontail	<i>Ceratophyllum demersum</i>
Aster, Heart-leaved	<i>Aster cordifolius</i>	Crowfoot, Hooked	<i>Ranunculus recurvatus</i>
Aster, Heath	<i>Aster pilosus</i>	Crowfoot, Small-flowered	<i>Ranunculus abortivus</i>
Aster, New England	<i>Aster novae-angliae</i>	Dandelion, Common	<i>Taraxacum officinale</i>
Aster, Panicked	<i>Aster simplex</i>	Dock, Curled	<i>Rumex crispus</i>
Aster, Smooth	<i>Aster laevis</i>	Duckweed, Lesser	<i>Lemna minor</i>
Aster, White Wood	<i>Aster divaricatus</i>	Fern, Sensitive	<i>Onoclea sensibilis</i>
Avens, White	<i>Geum canadense</i>	Fern, Toothed Wood	<i>Dryopteris carthusiana</i>
Baneberry, Red	<i>Actaea rubra</i>	Fescue, Tall	<i>Festuca elatior</i>
Baneberry, White	<i>Actaea pachypoda</i>	Fowl Meadow Grass	<i>Glyceria striata</i>
Bean, Wild	<i>Apios americana</i>	Garlic-mustard	<i>Alliaria petiolata</i>
Bedstraw, Forest	<i>Galium circaezans</i>	Geranium, Wild	<i>Geranium maculatum</i>
Bedstraw, Sweet-scented	<i>Galium triflorum</i>	Germander, American	<i>Teucrium canadense var. occidentale</i>
Bergamot, Wild	<i>Monarda fistulosa</i>	Goldenrod, Blue-stemmed	<i>Solidago caesia</i>
Bindweed, Hedge	<i>Convolvulus sepium</i>	Goldenrod, Early	<i>Solidago juncea</i>
Bloodroot	<i>Sanguinaria canadensis</i>	Goldenrod, Flat-top Fragrant	<i>Euthamia graminifolia</i>
Blue Cohosh	<i>Caulophyllum thalictroides</i>	Goldenrod, Gray	<i>Solidago nemoralis</i>
Bluegrass, Canada	<i>Poa compressa</i>	Goldenrod, Tall	<i>Solidago altissima</i>
Bluegrass, Kentucky	<i>Poa pratensis</i>	Heal-all	<i>Prunella vulgaris</i>
Bouncing Bet	<i>Saponaria officinalis</i>	Hepatica, Sharp-lobed	<i>Hepatica acutiloba</i>
Bulrush, Dark Green	<i>Scirpus atrovirens</i>	Herb Robert	<i>Geranium robertianum</i>
Burdock, Common	<i>Arctium minus</i>	Horse Balm (Richweed, Stoneroot)	<i>Collinsonia canadensis</i>
Burdock, Great	<i>Arctium lappa</i>	Horsetail, Field	<i>Equisetum arvense</i>
Burnet, Salad	<i>Sanguisorba minor</i>	Hound's Tongue	<i>Cynoglossum officinale</i>
Butter-and-eggs	<i>Linaria vulgaris</i>	Ivy, Ground (Gill-over-the-ground)	<i>Glechoma hederacea</i>
Buttercup, Hispid	<i>Ranunculus hispidus</i>	Jack-in-the-pulpit	<i>Arisaema atrorubens</i>
Carrion Flower	<i>Smilax herbacea</i>	Jewelweed (Spotted Touch-me-not)	<i>Impatiens capensis</i>
Cattail, Broad-leaved	<i>Typha latifolia</i>	Knotweed, Virginia	<i>Polygonum virginianum</i>
Cattail, Narrow-leaved	<i>Typha angustifolia</i>	Lettuce, Tall White	<i>Prenanthes altissima</i>
Chicory	<i>Cichorium intybus</i>	Lily, Day	<i>Hemerocallis fulva</i>
Cinquefoil, Common	<i>Potentilla simplex</i>	Long-awned Wood Grass	<i>Brachyelytrum erectum</i>
Cinquefoil, Rough-fruited (Sulphur)	<i>Potentilla recta</i>	Loosestrife, Purple	<i>Lythrum salicaria</i>
Clearweed	<i>Pilea pumila</i>	Lopseed	<i>Phryma leptostachya</i>
Cleavers	<i>Galium aparine</i>	Mayapple (Mandrake)	<i>Podophyllum peltatum</i>
Meadow Rue, Early	<i>Thalictrum dioicum</i>	Sedge	<i>Carex spp. (laxiculmis, pensylvanica, digitalis, platyphylla, rosea)</i>
Milkweed, Common	<i>Asclepias syriaca</i>	Sedge, Bladder	<i>Carex intumescens</i>
Moneywort	<i>Lysimachia nummularia</i>	Sedge, Graceful	<i>Carex gracillima</i>
Morning Glory, Common	<i>Ipomoea purpurea</i>	Sedge, Loose-flowered	<i>Carex laxiflora</i>
Motherwort	<i>Leonurus cardiaca</i>	Skullcap, Marsh	<i>Scutellaria galericulata</i>
Mouse Ear	<i>Hieracium pilosella</i>	Snakeroot, White	<i>Eupatorium rugosum</i>
Mullein, Common	<i>Verbascum thapsus</i>	Solomon's Seal, False	<i>Smilacina racemosa</i>
Muhly, Wirestem	<i>Muhlenbergia mexicana</i>	Solomon's Seal, Hairy	<i>Polygonatum pubescens</i>
Myrtle (Periwinkle)	<i>Vinca minor</i>	Sorrel, Common Wood	<i>Oxalis montana</i>
Nettle, False	<i>Boehmeria cylindrica</i>	Strawberry, Barren	<i>Waldsteinia fragarioides</i>
Nightshade, Bittersweet	<i>Solanum dulcamara</i>	Strawberry, Wild	<i>Fragaria virginiana</i>
Nightshade, Enchanter's	<i>Circaea quadrifidata</i>	Swallow-wort	<i>Cynanchum vincetoxicum</i>
Nightshade, Southern Broad-leaf	<i>Circaea lutetiana</i>	Teasel, Common	<i>Dipsacus sylvestris</i>
Nipplewort	<i>Lapsana communis</i>	Thimbleweed (Tall Anemone)	<i>Anemone virginiana</i>
Orchard-grass	<i>Dactylis glomerata</i>		

Ox-tongue, Hawkweed	<i>Picris hieracioides</i>	Thistle, Bull	<i>Cirsium vulgare</i>
Parsnip, Wild	<i>Pastinaca sativa</i>	Touch-me-not, Pale	<i>Impatiens pallida</i>
Pilewort (Fireweed)	<i>Erechtites hieracifolia</i>	Trillium, Large-flowered	<i>Trillium grandiflorum</i>
Pimpernel, Yellow	<i>Taenidia integerrima</i>	Trillium, Purple	<i>Trillium erectum</i>
Plantain, Common	<i>Plantago major</i>	Twinleaf (R)	<i>Jeffersonia diphylla</i>
Plantain, Red-stemmed (Pale)	<i>Plantago rugelii</i>	Vervain, White	<i>Verbena urticifolia</i>
Pondweed	<i>Potamogeton spp.</i>	Violet, Canada	<i>Viola canadensis</i>
Queen Anne's Lace (Wild Carrot)	<i>Daucus carota</i>	Violet, Large-leaved White	<i>Viola incognita</i>
Reed Canary Grass	<i>Phalaris arundinacea</i>	Violet, Downy Yellow	<i>Viola pubescens</i>
Rice Cutgrass	<i>Leersia oryzoides</i>	Virginia Stickseed (Beggar's Lice)	<i>Hackelia virginiana</i>
Rocket, Dame's	<i>Hesperis matronalis</i>	White Grass	<i>Leersia virginica</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>	Wild Ginger	<i>Asarum canadense</i>
		Willow Herb, Purple-leaved	<i>Epilobium coloratum</i>
		Yarrow (Milfoil)	<i>Achillea millefolium</i>

Source: Young 1992; Phenix Environmental, Inc. 1994

State Rank: R = rare

### Animal Species Found in the Park

Common and Scientific Names of Reptiles and Amphibians			
Common Name	Scientific Name	Common Name	Scientific Name
Frog, Bull	<i>Rana catesbeiana</i>	Snake, Eastern Fox	<i>Elaphi vulpina</i>
Frog, Cricket (T)	<i>Acris crepitans</i>	Snake, Eastern Garter	<i>Thamnophis sirtalis</i>
Frog, Green	<i>Rana clamitans</i>	Snake, Eastern Hog-nosed (SC)	<i>Heterodon platyrhinos</i>
Frog, Northern Leopard or Meadow	<i>Rana pipiens</i>	(Snake), Eastern Massasauga (E)	<i>Sistrurus catenatus</i>
Frog, Mink	<i>Rana septentrionalis</i>	Snake, Eastern Milk	<i>Lampropeltis triangulum</i>
Frog, Pickerel	<i>Rana palustris</i>	Snake, Eastern Ribbon	<i>Thamnophis sauritus</i>
Frog, Spring Peeper	<i>Hyla crucifer</i>	Snake, Eastern Ring-necked	<i>Diadophis punctatus</i>
Frog, Swamp Cricket or Swamp Chorus	<i>Pseudacris nigrita</i>	Snake, Eastern Smooth Green	<i>Opheodrys vernalis</i>
Frog, Gray Tree	<i>Hyla versicolor</i>	(Snake), Northern Black Racer	<i>Coluber constrictor</i>
Frog, Wood	<i>Rana sylvatica</i>	Snake, Northern Water	<i>Natrix sipedon</i>
Newt, Eastern	<i>Notophthalmus viridescens</i>	Snake, Queen	<i>Natrix septemvittata</i>
Newt, Red Eft	<i>Dicmitylus viridescens</i>	Snake, Red-bellied	<i>Storeria occipitomaculata</i>
Rattlesnake, Eastern Timber (T)	<i>Crotalus horridus</i>	Snake, Short-headed Garter	<i>Thamnophis brachystoma</i>
Salamander, Dusky	<i>Desmognathus fuscus</i>	Toad, American	<i>Bufo americanus</i>
Salamander, Four-toed	<i>Hemidactylum scutatum</i>	Toad, Fowler's	<i>Bufo woodhousei</i>
Salamander, Jefferson's (SC)	<i>Ambystoma jeffersonianum</i>	(Toad), Spadefoot	<i>Scaphiopus holbrooki</i>
Salamander, Mountain	<i>Desmognathus ochrophacus</i>	Turtle, Blanding's (T)	<i>Emydoidea blandingii</i>
(Salamander), Mudpuppy	<i>Necturus maculosus</i>	Turtle, Eastern Box	<i>Terrapene carolina</i>
Salamander, Slimy	<i>Plethodon glutinosus</i>	Turtle, Map	<i>Graptemys geographica</i>
Salamander, Spotted (SC)	<i>Ambystoma maculatum</i>	Turtle, Muhlenberg (Bog) (E)	<i>Clemmys muhlenbergii</i>
Salamander, Spring or Purple	<i>Gyrinophilus porphyriticus</i>	Turtle, Painted	<i>Chrysemys picta</i>
Salamander, Two-lined	<i>Eurycea bislineata</i>	Turtle, Snapping	<i>Chelydra serpentina</i>
Skink, Coal	<i>Eumeces anthracinus</i>	Turtle, Soft-shelled	<i>Trionyx ferox</i>
Snake, Black Rat	<i>Elaphe obsoleta</i>	Turtle, Spotted (SC)	<i>Clemmys guttata</i>
Snake, DeKay's (Northern Brown)	<i>Storeria dekayi dekayi</i>	Turtle, Stinkpot or Musk	<i>Sternotherus odoratus</i>
		Turtle, Wood (SC)	<i>Clemmys insculpta</i>

Source: New York State Natural Heritage Program 1992; NYSDEC 1994; and Phenix Environmental Inc. 1994.

State Rank:

E = endangered

T = threatened

SC = species of special concern

Common and Scientific Names of Fish			
<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
Bass, Largemouth	<i>Micropterus salmoides</i>	Pickereel, Chain	<i>Esox niger</i>
Bass, Smallmouth	<i>Micropterus dolomieu</i>	Salmon, Atlantic (Landlocked)	<i>Salmo salar</i>
Bullhead	<i>Ictalurus spp.</i>	Sunfish	<i>Lepomis spp.</i>
Dace, Redside (U)	<i>Clinostomus elongatus</i>	Trout, Lake	<i>Salvelinus namaycush</i>
Perch, Yellow	<i>Perca Flavescens</i>	Trout, Rainbow	<i>Salmo gairdneri</i>
Pike, Northern	<i>Esox lucius</i>		
Source: New York State Natural Heritage Program 1992; Phenix Environmental, Inc. 1994.			
State Rank:			
U = locally uncommon			

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Common and Scientific Names of Birds			
Common Name	Scientific Name	Common Name	Scientific Name
Bittern, American	<i>Botaurus lentiginosus</i>	(Duck), Goldeneye or Whistler	<i>Bucephala changula</i>
Bittern, Least (SC)	<i>Ixobrychus exilis</i>	(Duck), Greater Scaup	<i>Aythya marila</i>
Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	(Duck), Green-winged Teal	<i>Anas carolinensis</i>
Bluebird, Eastern (SC)	<i>Sialia sialis</i>	(Duck), Lesser Scaup	<i>Aythya affinis</i>
Bobolink	<i>Dolichonyx oryzivorus</i>	Duck, Mallard	<i>Anas platyrhynchos</i>
Bunting, Indigo	<i>Passerina cyanea</i>	(Duck), Old Squaw	<i>Changula hyemalis</i>
Bunting, Snow	<i>Plectrophenax nivalis</i>	Duck, Pintail	<i>Anas acuta</i>
Cardinal	<i>Richmondia cardinalis</i>	Duck, Redhead	<i>Aythya americana</i>
Catbird, Gray	<i>Dumetella carolinensis</i>	Duck, Ring-necked	<i>Aythya collaris</i>
Chat, Yellow-breasted	<i>Icteria virens</i>	Duck, Ruddy	<i>Oxyura jamaicensis</i>
Chickadee, Black-capped	<i>Parus atricapillus</i>	Duck, Shoveler	<i>Spatula clypeata</i>
Coot, American	<i>Fulica americana</i>	Duck, Wood	<i>Aix sponsa</i>
Cormorant, Double-crested	<i>Phalacrocorax auritus</i>	Eagle, Bald (E)	<i>Haliaeetus leucocephalus</i>
Cowbird, Brown-headed	<i>Molothrus ater</i>	Eagle, Golden (E)	<i>Aquila chrysaetos canadensis</i>
Creeper, Brown	<i>Certhia familiaris</i>	Egret, Cattle	<i>Bubulcus ibis</i>
Crossbill, Red	<i>Loxia curvirostra</i>	Egret, Great	<i>Casmerodius albus</i>
Crossbill, White-winged	<i>Loxia leucoptera</i>	Egret, Snowy	<i>Egretta thula</i>
Crow, American	<i>Corvus brachyrhynchos</i>	Finch, House	<i>Carpodacus mexicanus</i>
Cuckoo Black-billed	<i>Coccyzus erythrophthalmus</i>	Finch, Purple	<i>Carpodacus purpureus</i>
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	Flicker, Yellow-shafted (Northern)	<i>Colaptes auratus</i>
Dickcissel	<i>Spiza americana</i>	Flycatcher, Acadian	<i>Empidonax virescens</i>
Dove, Mourning	<i>Zenaidura macroura</i>	Flycatcher, Alder	<i>Empidonax aliorum</i>
(Duck), Baldpate or Widgeon	<i>Mareca americana</i>	Flycatcher, Crested	<i>Myiarchus crinitus</i>
(Duck), Barrow's Goldeneye	<i>Bucephala islandica</i>	Flycatcher, Least	<i>Empidonax minimus</i>
Duck, Black	<i>Anas rubripes</i>	Flycatcher, Olive-sided	<i>Nuttallornis borealis</i>
(Duck), Blue-winged Teal	<i>Anas discors</i>	Flycatcher, Traill's or willow	<i>Empidonax traillii</i>
(Duck), Bufflehead	<i>Bucephala islandica</i>	Flycatcher, Yellow-bellied	<i>Empidonax flaviventris</i>
(Duck), Canvasback	<i>Aythya valisineria</i>	Gallinule, Florida (common moorhen)	<i>Gallinula chloropus</i>
(Duck), Gadwall	<i>Anas strepera</i>	Gallinule, Purple	<i>Porphyryla martinica</i>
Gnatcatcher, Blue-gray	<i>Polioptila caerulea</i>	Hawk, Red-shouldered (T)	<i>Buteo lineatus</i>
Goldfinch (American)	<i>Spinus tristis</i>	Hawk, Red-tailed	<i>Buteo jamaicensis</i>
Goose, Blue	<i>Chen caerulescens</i>	Hawk, Sharp-shinned	<i>Accipiter striatus</i>
Goose, Canada	<i>Branta canadensis</i>	Hawk, Sparrow (Kestrel)	<i>Falco sparverius</i>
Goose, Snow	<i>Chen hyperborea</i>	Heron, Black-crowned Night	<i>Nycticorax nycticorax</i>
Goose, White-fronted	<i>Anser albifrons</i>	Heron, Great Blue	<i>Ardea herodias</i>
Grackle, Purple or Common	<i>Quiscalus quiscula</i>	Heron, Green	<i>Butorides virescens</i>
Grebe, Horned	<i>Podiceps auritus</i>	Heron, Little Blue	<i>Florida caerulea</i>
Grebe, Pied-billed	<i>Podilymbus podiceps</i>	Heron, Yellow-crowned Night	<i>Nyctanassa violacea</i>
Grebe, Red-necked	<i>Podiceps grisegena</i>	Hummingbird, Ruby-throated	<i>Archilochus colubris</i>
Grosbeak, Evening	<i>Hesperiphona vespertina</i>	Ibis, Glossy	<i>Plegadis falcinellus</i>
Grosbeak, Pine	<i>Pinicola enucleator</i>	Jay, Blue	<i>Cyanositta cristata</i>
Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	Junco, Slate-colored (dark-eyed)	<i>Junco hyemalis</i>
Grouse, Ruffed	<i>Bonasa umbellus</i>	Killdeer	<i>Charadrius vociferus</i>
Gull, Bonaparte's	<i>Larus philadelphia</i>	Kingbird, Eastern	<i>Tyrannus tyrannus</i>
Gull, Franklin's	<i>Larus pipixcan</i>	Kingfisher, Belted	<i>Megasceryle alcyon</i>
Gull, Glaucous	<i>Larus hyperboreus</i>	Kinglet, Golden-crowned	<i>Regulus satrapa</i>
Gull, Great Black-backed	<i>Larus marinus</i>	Kinglet, Ruby-crowned	<i>Regulus calendula</i>
Gull, Herring	<i>Larus argentatus</i>	Knot, Red	<i>Calidris canutus</i>
Gull, Little	<i>Larus minutus</i>	Lark, Northern Horned	<i>Otocoris alpestris</i>
Gull, Ring-billed	<i>Larus delawarensis</i>	Longspur, Lapland	<i>Calcarius lapponicus</i>
Hawk, American Rough-legged	<i>Buteo lagopus</i>	Loon, Common (SC)	<i>Gavia immer</i>
Hawk, Broad-winged	<i>Buteo platypterus</i>	Loon, Red-throated	<i>Gavia stellata</i>
Hawk, Cooper's (SC)	<i>Accipiter cooperii</i>	Martin, Purple	<i>Progne subis</i>
(Hawk), Goshawk	<i>Accipiter gentilis</i>	Meadowlark, Eastern	<i>Sturnella magna</i>
(Hawk), Gyrfalcon	<i>Falco rusticolus</i>	Merganser, American	<i>Mergus merganser</i>
Hawk, Marsh (Northern Harrier) (T)	<i>Circus cyaneus</i>	Merganser, Hooded	<i>Lophodytes cucullatus</i>
(Hawk), Osprey (T)	<i>Pandion haliaetus</i>	Merganser, Red-breasted	<i>Mergus serrator</i>
(Hawk), Peregrine Falcon (E)	<i>Falco peregrinus</i>	Mockingbird, Northern	<i>Mimus polyglottos</i>
Hawk, Pigeon (Merlin)	<i>Falco columbarius</i>	Nighthawk, Common (SC)	<i>Chordeiles minor</i>
Nuthatch, Red-breasted	<i>Sitta canadensis</i>	Sanderling	<i>Crocethia alba</i>
Nuthatch, White-breasted	<i>Sitta carolinensis</i>	Sandpiper, Baird's	<i>Erolia bairdii</i>
Oriole, Baltimore (Northern)	<i>Icterus galbula</i>	Sandpiper, Least	<i>Erolia minutilla</i>

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Oriole, Orchard	<i>Icterus spurius</i>	Sandpiper, Pectoral	<i>Erolia melanotos</i>
Ovenbird	<i>Seiurus aurocapillus</i>	Sandpiper, Purple	<i>Erolia maritima</i>
Owl, Barn (SC)	<i>Tyto alba</i>	Sandpiper, Red-backed	<i>Erolia alpina</i>
Owl, Barred	<i>Strix varia</i>	Sandpiper, Semipalmated	<i>Ereunetes pusillus</i>
Owl, Great Horned	<i>Bubo virginianus</i>	Sandpiper, Solitary	<i>Tringa solitaria</i>
Owl, Long-eared	<i>Asio otus</i>	Sandpiper, Spotted	<i>Actitis macularia</i>
Owl, Screech	<i>Otus asio</i>	Sandpiper, White-rumped	<i>Erolia fuscicollis</i>
Owl, Short-eared (SC)	<i>Asio flammeus</i>	Sapsucker, Yellow-bellied	<i>Sphyrapicus varius</i>
Owl, Snowy	<i>Nyctea scandiaca</i>	Scoter, American	<i>Oidemia nigra</i>
Pewee, Eastern Wood	<i>Contopus virens</i>	Scoter, Surf	<i>Melanitta perspicillata</i>
Pheasant, Ring-necked	<i>Phasianus colchicus</i>	Scoter, White-winged	<i>Melanitta deglandi</i>
Phoebe, Eastern	<i>Sayornis phoebe</i>	Shrike, Northern	<i>Lanius exubitor</i>
Pigeon (Rock Dove)	<i>Columbia livia</i>	Siskin, Pine	<i>Spinus pinus</i>
Plover, Black-bellied	<i>Squatarola squatarola</i>	Snipe, Wilson's (Common)	<i>Capella gallinago</i>
Plover, Piping (E)	<i>Charadrius melodus</i>	Sparrow, Chipping	<i>Spizella passerina</i>
Plover, Semipalmated	<i>Charadrius semipalmatus</i>	Sparrow, English (House)	<i>Passer domesticus</i>
Plover, Upland (Upland Sandpiper) (SC)	<i>Bartramia longicauda</i>	Sparrow, Field	<i>Spizella pusilla</i>
Qual, Bobwhite	<i>Corlinus virginianus</i>	Sparrow, Fox	<i>Passerella iliaca</i>
Rail, Clapper	<i>Rallus longirostris</i>	Sparrow, Grasshopper (SC)	<i>Ammodramus savannarum</i>
Rail, King	<i>Rallus elegans</i>	Sparrow, Henslow's (SC)	<i>Ammodramus henslowii</i>
Rail, Sora	<i>Porzana carolina</i>	Sparrow, Lark	<i>Chondestes grammacus</i>
Rail, Virginia	<i>Rallus limicola</i>	Sparrow, Savannah	<i>Passerherbulus sandwighensis</i>
Raven, Common (SC)	<i>Corvus corax</i>	Sparrow, Song	<i>Melospiza melodia</i>
Redpoll	<i>Acanthus flammea</i>	Sparrow, Swamp	<i>Melospiza georgiana</i>
Redpoll, Hoary	<i>Acanthus hornemanni</i>	Sparrow, Tree	<i>Spizella arborea</i>
Redstart (American)	<i>Setophaga ruticilla</i>	Sparrow, Vesper (SC)	<i>Pooecetes gramineus</i>
Robin (American)	<i>Turdus migratorius</i>	Sparrow, White-crowned	<i>Zonotrichia leucophrys</i>
Sparrow, White-throated	<i>Zonotrichia albicollis</i>	Warbler, Bay-breasted	<i>Dendroica castanea</i>
Starling, European	<i>Sturnus vulgaris</i>	Warbler, Blackburnian	<i>Dendroica fusca</i>
Swallow, Bank	<i>Riparia riparia</i>	Warbler, Black-throated Blue	<i>Dendroica caerulescens</i>
Swallow, Barn	<i>Hirundo erythrogaster</i>	Warbler, Black-throated Green	<i>Dendroica virens</i>
Swallow, Cliff	<i>Petrochelidon pyrrhonota</i>	Warbler, Black-and-white	<i>Mniotilta varia</i>
Swallow, Rough-winged	<i>Stelgidopteryx ruficollis</i>	Warbler, Blue-winged	<i>Vermivora pinus</i>
Swallow, Tree	<i>Iridoprocne bicolor</i>	Warbler, Canada	<i>Wilsonia canadensis</i>
Swan, Whistling (Tundra)	<i>Olor columbianus</i>	Warbler, Cape May	<i>Dendroica tigrina</i>
Swift, Chimney	<i>Chaetura pelagica</i>	Warbler, Cerulean	<i>Dendroica cerulea</i>
Tanager, Scarlet	<i>Piranga erythromelas</i>	Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>
Tern, Black (SC)	<i>Chiononias niger</i>	Warbler, Golden-winged	<i>Vermivora chrysopteryx</i>
Tern, Caspian	<i>Hydroprogne caspia</i>	Warbler, Hooded	<i>Wilsonia citrina</i>
Tern, Common (T)	<i>Sterna hirundo</i>	Warbler, Magnolia	<i>Dendroica magnolia</i>
Tern, Forster's	<i>Sterna forsteri</i>	Warbler, Mourning	<i>Oporornis philadelphicus</i>
Tern, Roseate (E)	<i>Sterna dougalli</i>	Warbler, Nashville	<i>Dendroica coronata</i>
Thrasher, Brown	<i>Toxostoma rufum</i>	Warbler, Palm	<i>Vermivora ruficapilla</i>
Thrush, Hermit	<i>Hylocichla guttata</i>	Warbler, Parula	<i>Dendroica palmarum</i>
Thrush, Swainson's	<i>Hylocichla ustulata</i>	Warbler, Pine	<i>Parula americana</i>
Thrush, Wood	<i>Hylocichla mustelina</i>	Warbler, Prairie	<i>Dendroica pinus</i>
Titmouse, Tufted	<i>Parus bicolor</i>	Warbler, Prothonotary	<i>Dendroica discolor</i>
Towhee, Red-eyed (Rufus-sided)	<i>Pipilo erythrophthalmus</i>	Warbler, Tennessee	<i>Protonotaria citrea</i>
Turkey (Wild)	<i>Meleagris gallopavo</i>	Warbler, Wilson's	<i>Vermivora peregrina</i>
Turnstone, Ruddy	<i>Arenaria interpres</i>	Warbler, Worm-eating	<i>Wilsonia pusilla</i>
Veery	<i>Hylocichla fuscescens</i>	Warbler, Yellow	<i>Helmitheros vermivorus</i>
Vireo, Philadelphia	<i>Vireo philadelphicus</i>	(Warbler), Common Yellowthroat	<i>Dendroica petechia</i>
Vireo, Red-eyed	<i>Vireo olivaceus</i>	Warbler, Yellow-throated	<i>Geothlypis trichas</i>
Vireo, Warbling	<i>Vireo gilvus</i>	Waterthrush, Louisiana	<i>Dendroica dominica</i>
Vireo, White-eyed	<i>Vireo griseus</i>	Waterthrush, Northern	<i>Seiurus motacilla</i>
Vireo, Yellow-throated	<i>Vireo flavifrons</i>	Waxwing, Cedar	<i>Seiurus noveboracensis</i>
Vulture, Turkey	<i>Cathartes aura</i>	Woodpecker, Red-headed	<i>Bombycilla cedrorum</i>

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Whip-poor-will	<i>Caprimulgus vociferus</i>	Woodpecker, Three-toed	<i>Melanerpes erythrocephalus</i>
Woodcock	<i>Philohela minor</i>	Wren, Carolina	<i>Picoides tridactylus</i>
Woodpecker, Black-backed	<i>Picoides arcticus</i>	Wren, House	<i>Thryothorus ludovicianus</i>
Woodpecker, Downy	<i>Dryobates pubescens</i>	Wren, Marsh	<i>Troglodytes aedon</i>
Woodpecker, Hairy	<i>Dendrocopos villosus</i>	Yellowlegs, Greater	<i>Cistothorus palatensis</i>
Woodpecker, Pileated	<i>Dryocopus pileatus</i>	Yellowlegs, Lesser	<i>Totanus melanoleucus</i>
Woodpecker, Red-bellied	<i>Centurus carolinus</i>		<i>Totanus flavipes</i>

Source: Andrlle and Carroll 1988; New York Natural Heritage Program 1992; New York State Department of Environmental Conservation 1994; and Phenix Environmental, Inc. 1994

State Rank:

E = endangered

T = threatened

SC = species of special concern

Common and Scientific Names of Mammals

<u>Common Name</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>Scientific Name</u>
Bat, Big Brown	<i>Eptesicus fuscus fuscus</i>	Muskrat	<i>Ondatra zibethicus</i>
Bat, Hoary	<i>Lasiurus cinereus</i>	Opossum	<i>Didelphis marsupialis (virginiana)</i>
Bat, Indiana (E)	<i>Myotis sodalis</i>	Otter	<i>Lutra canadensis</i>
Bat, Least Brown (Small-footed) (SC)	<i>Myotis leibii</i>	Pipistrel, Eastern	<i>Pipistrellis subflavus subflavus</i>
Bat, Little Brown	<i>Myotis lucifugus lucifugus</i>	Porcupine	<i>Erethizon dorsatum</i>
Bat, Red	<i>Lasiurus borealis borealis</i>	Rabbit, Eastern	<i>Sylvilagus floridanus</i>
Bat, Say's	<i>Myotis keenii septentrionalis</i>	Raccoon	<i>Procyon lotor</i>
Bat, Silver-haired	<i>Lasionycteris noctivagans</i>	Rat, Norway	<i>Rattus norvegicus</i>
Bear, American Black	<i>Ursus americanus</i>	Shrew, Least	<i>Cryptotis parva</i>
Beaver	<i>Castor canadensis</i>	Shrew, Masked	<i>Sorex cinereus</i>
Bobcat	<i>Lynx rufus</i>	Shrew, Pigmy	<i>Microsorex hoyi</i>
Chipmunk, Eastern	<i>Tamias striatus</i>	Shrew, Short-tailed	<i>Blarina brevicauda</i>
Coyote	<i>Canis latrans</i>	Shrew, Smoky	<i>Sorex fumeus</i>
Deer, White-tailed	<i>Odocoileus virginiana</i>	Shrew, Water	<i>Sorex palustris</i>
Fox, Gray	<i>Urocyon cinereoargenteus</i>	Skunk, Striped	<i>Mephitis mephitis</i>
Fox, Red	<i>Vulpes fulva</i>	Squirrel, Eastern Gray	<i>Sciurus carolinensis</i>
Hare, Varying (Snowshoe)	<i>Lepus americanus</i>	Squirrel, Fox	<i>Sciurus niger</i>
Lemming, Bog	<i>Synaptomys cooperi</i>	Squirrel Northern Flying	<i>Glaucomys sabrinus</i>
Mink	<i>Mustela vison</i>	Squirrel, Southern Flying	<i>Claucomys volans</i>
Mole, Hairy-tailed	<i>Parascalops breweri</i>	Squirrel, Red	<i>Tamiasciurus hudsonicus</i>
Mole, Star-nosed	<i>Condylura cristata</i>	Vole, Boreal Red-backed	<i>Clethrionomys gapperi</i>
Mouse, Deer (bairdii)	<i>Peromyscus maniculatus bairdii</i>	Vole, Meado	<i>Microtus pennsylvanicus</i>
Mouse, Deer (gracilis)	<i>Peromyscus maniculatus gracilis</i>	Vole, Pine	<i>Pitymys pinetorum</i>
Mouse, House	<i>Mus musculus</i>	Weasel, Short-tailed	<i>Mustela erminea</i>
Mouse, Meadow Jumping	<i>Zapus hudsonius</i>	Weasel, Least	<i>Mustela nivalis</i>
Mouse, White-footed	<i>Peromyscus leucopus</i>	Weasel, Long-tailed	<i>Mustela frenata</i>
Mouse, Woodland Jumping	<i>Napaeozapus insignis</i>	Woodchuck	<i>Marota monax</i>

Source: New York State Natural Heritage Program 1992; New York State Department of Environmental Conservation 1994; and Phenix Environmental, Inc. 1994

State Rank:

E = endangered

SC = species of special concern

### ***Appendix E – Building Inventory***

<b>Building Number</b>	<b>Building Name</b>	<b>Date Constructed (Ca.)</b>	<b>Condition</b>
2	Contact Station	1941	2
5	(Park) Maintenance Shop	1941 to 1942	3
11	Park Manager's Residence (FL-22)	1941	2
15	Comfort Station (above boat launch area)	1970	2
16	Picnic Shelter (above marina parking)	1968	2
17	Comfort Station (picnic area)	1966	2
18	Concession	1968	2
20	Tractor Barn / Storage	1941	2
21a	Museum – Navy	1941	2
21b	Museum – Air Force	1941	2
22	Park Office / Recreation	1941	2
24	Comfort Station (Loop 1)	1966	2
25	Comfort Station (Loop 3)	1966	2
26	Comfort Station (Loop 5)	1966	2
27	Comfort Station (Loop 4)	1967	2
28	Comfort Station (Loop 2)	1966	2
32	Warehouse M-1	1941 to 1942	5
33	Warehouse M-9	1941 to 1942	5
34	Warehouse M-10	1941 to 1942	5
35	Warehouse M-20 (Navigation Aids Storage)	1941 to 1942	2
36	Navigation Aids M-21	1941 to 1942	2
37	Warehouse M-2	1941 to 1942	4
38	Warehouse M-8	1941	4
40	Warehouse M-19	1941 to 1942	4
41	Warehouse M-22	1941 to 1942	5
42	Warehouse M-7	1941 to 1942	4
43	Warehouse M-11	1941 to 1942	5
44	Warehouse M-18	1941 to 1942	5
45	Warehouse M-23	1941 to 1942	5
46	Warehouse M-6	1941	5
47	Warehouse M-12	1941 to 1942	5
48	Warehouse M-17	1941 to 1942	5
49	Warehouse M-24	1941 to 1942	5
50	Warehouse M-5	1941 to 1942	5
51	Warehouse M-13	1941 to 1942	5
53	Warehouse M-25	1941 to 1942	5
54	Central Stores M-4	1941 to 1942	4
55	Warehouse M-14	1941 to 1942	5
56	Warehouse M-15	1941 to 1942	4
57	Warehouse M-26	1941 to 1942	5

59	Cold Storage (east of heavy eq./regional maint.)	1942	3
64a	Regional Heavy Equipment Shop	1942	3
64b	Regional Maintenance Shop	1942	3
65	Equipment Storage (west of heavy eq./regional maint.)	1942	3
66	Bath House	1966	2
68	Pump House	1968	2
69	Marina Contact Station	1968	2
70	Lifeguard / First Aid Shed	1970	2
71	Storage Shed (residence)	1950	2
72	Water Equipment Bldg. (near water tower)	1942	4
73	North Mini Picnic Shelter (open-sided)	1999	2
74	South Mini Picnic Shelter (open-sided)	1999	2
75	Shelter / Information Panel (near boat launch)	1990	2

Condition Code Legend: 1 = Excellent 2 = Good 3 = Fair 4 = Poor 5 = Scrap

## **Appendix F – Cultural Resource Review – Categorical Exclusion**

### Exempt Activities under Section 14.09 for OPRHP

The following work items are exempt from Division for Historic Preservation (DHP) review. List items marked with an asterisk “\*” are NOT exempted when work is being undertaken on a State Historic Site or State Historic Park designated property.

#### Site work

1. Repaving/resurfacing of existing paved areas, e.g. parking areas, sidewalks, tennis courts, outdoor basketball courts where the proposed work does not exceed the depth of previous undisturbed soil.
2. Repaving/resurfacing of roads, streets, alleys, ramps, and driveways where no change in width, curb location, surface material, depth of roadbed, vertical alignment (that is, height or crown of the road surface), or drainage is to occur.
3. Installation of lighting (including new underground conduit and Conductors) and minor drainage work where no other new excavation work is needed.\*
4. Repair/replacement-in-kind of exterior steps, platforms, stairs, ramps, and area ways.\*
5. Installation of exterior freestanding signage and kiosks.\*
6. Repair and replacement of site installed mechanical, electrical, and plumbing equipment (eg., an emergency generator or air cooled condenser) on the condition that no trim or architectural features are altered and that no ground disturbing work is proposed that will exceed the depth and width of previous undisturbed soil.\*
7. Installation of site mechanical, electrical, and plumbing equipment (eg., an emergency generator or air cooled condenser) on the conditions that no trim or architectural features are altered and that it is behind the building or not visible from the street and that no ground disturbing work is proposed that will exceed the depth of previously disturbed soil.\*
8. Repair and replacement of in-ground utilities in existing utility trenches.
9. Excavation or other ground disturbance impacting areas 10 ft or less from existing c.1900 or later structures.\*
10. Repair and replacement of play equipment and safety surfacing.
11. Maintenance and repair of existing landscape features, including plantings, trees, and shrubs provided that any new vegetation is a replacement in kind of existing historic planting in regard to location and species and the work does not threaten to damage historic resources.
12. Maintenance and repair of existing landscape features, fences, retaining walls and walkways, provided that such maintenance is limited to repairs using matching materials and retains as much original material as possible.
13. Repair/replacement of existing curbing or sidewalks in kind in the same location with no removal of trees or damage to tree root systems.

14. Maintenance, repair, replacement or new installation of street lights and traffic signs, provided that such maintenance and repair is limited to repairs using matching material and retains as much original material as possible.

ALSO SEE SECTION VI-

#### ARCHAEOLOGY II. Exterior

1. Repair/ replacement of flat roofs, roof hatches, roof drains, and rooftop mechanical, electrical, and plumbing equipment.\*
2. Repair/ replacement-in-kind of the surface materials on pitched roofs.\*
3. Masonry cleaning will be appropriate on the condition that it follows the Secretary of the Interior's Standards for Rehabilitation and the National Park Service Technical Guidelines.<sup>6\*</sup>
4. Masonry repair and repointing on up to 50% of a building on the condition that it follows the Secretary of the Interior's Standards for Rehabilitation and the National Park Service Technical Guidelines.\*
5. Repair of masonry foundations, walls, or chimneys by repointing using matching mortar composition, color, joint width and profile, only when mortar is missing or deteriorated.\*
6. Replacement of non-original windows that were installed. post-1960 with windows that either match the configuration and proportions of historic windows, the current configuration, or have one-over-one sash. If the replacement windows have muntins, they should ideally be either true divided lights or a three part grid system which includes an interior, exterior, and a spacer bar. If this can not be done, an exterior applied muntin is acceptable. However, muntins applied only to the interior or placed only between the double insulated glass panels are not acceptable.\*
7. Installation or replacement of video surveillance cameras, fire alarm systems, and security systems on the condition that no trim or architectural features are altered and that the fixtures are not mounted directly to masonry.\*
8. Installation or replacement of lightning protection on the condition that no architectural features are altered.
9. Repair/ replacement in-kind of exterior door hardware.\*
10. Repair/ replacement-in-kind of non-decorative exterior hollow metal doors.
11. Repainting of exterior masonry.
12. Exterior scraping with non-destructive means (hand scraping, hand sanding, and chemical strippers) and painting of stucco, wooden siding, features, and trim that historically were painted. Destructive surface preparation treatments, including, but not limited to water blasting and sandblasting, are not allowed under any circumstance. The use of silicone sealers or such other coatings defined as "waterproof" or "water-repellent" are not allowed under any circumstance\*
13. Installation or replacement of exterior connections for sprinkler and standpipe systems on the condition that no trim or architectural features are altered.\*

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<sup>6</sup> All references to the Secretary of the Interior's Standards for Rehabilitation and the National Park Service

14. Repair or replacement in kind of asphalt, fiberglass shingle, clay tile, slate or metal roofs; replacement of structural roof components or decking; and replacement of a flat roof not visible from a public right-of-way. Where feasible roofs can be replaced using salvaged materials, or replaced in whole using new materials matching the historic in color, texture, size, profile and all other characteristics. Use of replacement materials not in-kind is not exempt\*
15. Retention and repair of existing windows. If windows are proposed for replacement please submit project to DHP.\*
16. Minor repair of porches, cornices, siding, masonry, exterior stucco or other historic exterior surface materials, doors, balustrades, stairs, or other trim. Any new material shall match the existing features in material, design, color, finish (paint, stain, etc.) texture and other visual and physical qualities\*
17. Repair or replacement of gutters and downspouts with identical materials and design.
18. Rebuilding of existing wheelchair ramps if the ramp is rebuilt exactly as it exists and will not perpetuate damage to a historic resource. Any new location must be reviewed.
19. Repair of foundations and structural features of the building when the action does not require the removal or alteration of historic architectural building fabric or the introduction of new kinds of materials not already present.\*
20. Installing water, natural gas, and electric meters on the side or back of a building (non-primary/public elevation) so that they are not readily visible.

### III. Interior

1. Repair and replacement-in-kind of ceilings.\*
2. Installation or replacement of video surveillance cameras, fire alarm systems, and security systems on the condition that no trim or architectural features are altered.<sup>7\*</sup>
3. Installation or replacement of data (computer network, power) systems on the condition that no trim or architectural features are altered. Note that surface raceways may be included in this installation.\*
4. Installation or replacement of switchboards, motor control centers, panel boards, conductors and conduit, transformers, generators, and power receptacles with the condition that no trim or architectural features are altered or obscured.
5. Installation or replacement of sprinkler and standpipe systems on the condition that no trim or architectural features are altered. Note that exterior fire department connections must be visible and accessible to fire department personnel.\*
6. Repair and refinishing of wood floors.\*
7. Replacement of toilet room fixtures; partitions; floor; wall or ceiling surfaces.
8. Replacement of plumbing fixtures.
9. Installation or replacement of lighting fixtures and their controls such as switching and/or occupancy sensors, on the condition that no trim or architectural features are altered.\*

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<sup>7</sup> With the exception of wireless systems that place receivers in non-historic or minor spaces such as basement, attic or service areas.

10. Installation or replacement of kitchen equipment on the condition that no trim or architectural features or trim are altered.
11. Elevator retrofits where only modern elements are replaced.
12. Interior repainting of previously (modern) painted surfaces.\*
13. Repair, replacement, or installation of electrical, plumbing; and life-safety systems, where no structural or decorative feature alteration is involved and where new outlets or vents are finished to match the surrounding wall. Where possible, new electrical outlets shall be installed in conjunction with new wiring inside walls, rather than running wire mould on the surface of the wall.\*
14. Provided that the DHP has concurred that they lack historic integrity, any changes to kitchens, bathrooms, or basement spaces in historic properties, as long as such changes are not visible from and do not detract from the significant exterior or interior historic character-defining elements in areas other than the kitchen, bathroom, or basement. This includes installation of new kitchen cabinets and countertops and installation of new bathroom fixtures as long as no window openings or doors are altered.
15. Installation of insulation in floors, attics, and openings and installation in side walls from the interior with an appropriate vapor barrier. For exterior walls and ceilings, this is typically on the "warm" side (interior wall). For flooring where crawl spaces are the underlying areas, this should be on the "cold side" (below the insulation, above open ground). In locations where blown-in insulation is the optimal or only possible method of installation, an equivalent vapor barrier shall be created by assuring that the interior wall surfaces are covered with an impermeable paint layer. Two layers of oil base paint or one layer of impermeable latex paint constitute an acceptable vapor barrier. The paint layer must cover all interior surfaces adjacent to the newly installed wall insulation. Special attention shall be given to rooms that are major sources of interior moisture--laundry rooms, bathrooms and kitchens. Changes to the finish of historically unpainted trim and wood elements are not exempt.\*
16. Repair of flat, non-decorated interior walls and ceilings by patching plaster where possible. When plaster repairs are not feasible, repairing with a smooth finish drywall is allowed provided that the historic trim/wall relationship is maintained and the new surface lies in the same plane as the original.\*
17. Replacement of trim work if and only if sections are missing or deteriorated beyond repair and will be, replaced in kind. Where new wall and ceiling surfaces are installed or where wholesale replacement is needed, new trim should match the historic in general scale and profile. New trim may be built up of stock materials if appropriate.\*
18. Installation of standard light fixtures to replace missing or broken interior and exterior lighting, fixtures. Where "public" spaces within buildings (entryways, lobbies, dining rooms, function rooms) may have had or can accept more elaborate or "period" fixtures, such fixtures will be appropriate in scale, material and overall appearance, and where possible, be based on historic documentation.\*
19. Lead-based paint and asbestos abatement activities, such as cleaning and vacuuming, that does not involve removal or alteration of structural, architectural, or decorative features.\*
20. Control of insects, rodents, or other pests when the method does not physically or visibly

impact the historic fabric of the building.

#### IV. Mechanical Systems, Electrical Systems, and Plumbing Systems

1. Installation and replacement of heating ventilation and cooling systems on the condition that no trim or architectural features are altered. Note that ductwork visible in areas other than utilitarian basement areas should be reviewed by DHP.\*
2. Installation of backflow preventers, water mains, switch gear upgrades, new gas services, and other main utility upgrades. This includes gas pipe runs within the building and exterior runs.
3. Installation, repair, and replacement of automatic HVAC control systems on the condition that no trim or architectural features are altered.
4. All other mechanical, electrical & plumbing work in boiler rooms, fan rooms, utility rooms, storage rooms and custodial spaces on the condition that no trim or architectural features are altered.\*
5. Installation or replacement of mechanical, plumbing, and electrical distribution equipment on the condition that no trim or architectural features are altered.\*  
**Note:** Penetrations greater than 6" in diameter through walls or floors or wall removal for pipe or duct removal/installation should be reviewed by DHP.

#### VI. Health & Safety Hazards

1. Removal of asbestos containing materials (ACM), e.g., floor tile, insulation, glazing putty, lead based paint material, or PCB containing materials, e.g., PCB containing caulk.\*
2. Installation or replacement of emergency egress lighting systems and exiting signage with the condition that no trim or architectural features are altered.
3. Emergency removal or repair in kind of masonry cracks and/or falling masonry elements.\*
4. Removal of falling plaster walls and ceilings and replacement-in-kind or with gypsum board on the condition that no trim or architectural features are altered.\*

#### VII. Archaeology

The following project activities are exempt from Office of Parks, Recreation and Historic Preservation/State Historic Preservation Office (SHPO) consultation and review because it has been determined that they will not likely change the quality of historic resources provided the following conditions are met:

1. The proposed activity is a stand alone project; and
2. The proposed activity does not include and is not located in or contiguous to any historic or archaeological resource 50 years of age or older; nor listed on the State or National Register of Historic Places; nor is it a National Historic Landmark (e.g., historic structures, foundations, and out buildings, archaeological sites; historic gardens; historic viewsheds and cultural landscapes); and

3. The proposed project must be limited to one of the activities listed below.
  - a. In kind bridge repair or replacement involving the same abutment.
  - b. In kind repair/replacement of below grade utilities such as septic systems, water lines, electric lines and fuel supply lines within the same utility trench.
  - c. In kind repair/replacement of existing septic systems, storm drainage, or fuel storage where significant site features, such as mature vegetation, are not impacted.
  - d. Trail construction on slopes greater than 12% and trail maintenance where no change in width, depth, vertical alignment, or drainage is to occur.
  - e. In kind culvert replacement.
  - f. Repaving or re-grading of roadways or pathways where no change in width, surface material, depth, vertical alignment, or drainage is to occur.
  - g. Repair of erosional issues/washouts due to flooding within 10 ft of the washout.
  - h. Removal of root balls from downed trees.
  - i. Removal of invasive species that does not entail grubbing or grading.
  - j. In kind repair/replacement of existing curbing or sidewalks.
  - k. Planting shrubs when excavation will not exceed 2 ft in diameter.
  - l. Digging post holes for signs and fences that will not exceed 2 ft in diameter.
  - m. Environmental cleanup (petroleum spills, etc.) where the excavation will not exceed .25 acres.
  - n. Excavation/new construction will not exceed depth of prior, documented ground disturbance.

NOTE 1: If during the course of construction any artifacts, archaeological features, or historic remains are discovered, work in the vicinity of the discovery must be stopped immediately and the Archaeological Unit of the DHP must be contacted for further guidance.

NOTE 2: Human Remains Discovery Protocol (September 2012)

In the event that human remains are encountered during construction or archaeological investigations, the following protocol shall be implemented.

- At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.
- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- The county coroner/medical examiner, local law enforcement, the Regional Capital Facility Manager, APO and the DHP Native American Liaison will be

notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological.

- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Avoidance is the preferred option. The Regional Capital Facility Manager and the DHP Native American Liaison will consult with the appropriate Indian Nations to develop a plan of action. Although not a requirement off of federal lands, OPRHP will follow a process that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.
- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Avoidance is the preferred option. The Regional Capital Facility Manager and the DHP Native American Liaison will consult with appropriate parties to develop a plan of action.

#### NOTE 3: Indian Nation Consultation Recommendations

The OPRHP has developed these recommendations as a process for incorporating the knowledge and concerns of Indian Tribes (Indian Nations)<sup>8</sup> into the OPRHP Section 14.09 review processes.

The Division for Historic Preservation (DHP) Indian Nation Liaison in cooperation with the Regional Capital Facility Manager will generally begin consultation with interested Indian Nations when an undertaking under Section 14.09 identifies a Native American habitation site<sup>9</sup> or burial site within or immediately adjacent to a *project impact area*. Identification generally occurs as part of the Phase I archaeological investigation. Consultation means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding

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<sup>8</sup> Federally Recognized Indian Nations Whose Ancestral Lands Lie within the Present Boundaries of New York State: Cayuga Nation of New York; Delaware Nation of Oklahoma; Mohawk Nation of New York (while the Mohawk Nation is not federally recognized, the Mohawk Nation Council of Chiefs is the traditional government of the Mohawk people and for this reason the DHP recommends consultation with this Nation); Oneida Indian Nation of New York; Oneida Tribe of Indians of Wisconsin; Onondaga Nation of New York; Seneca-Cayuga Tribe of Oklahoma; Seneca Nation of Indians of New York; Saint Regis Mohawk Tribe of New York; Shinnecock Nation of New York; Stockbridge-Munsee Community Band of Mohicans of Wisconsin; Tonawanda Seneca Nation of New York; Tuscarora Indian Nation of New York.

<sup>9</sup> “Habitation Site” is viewed by DHP as an area where Native Americans may have lived on a daily basis for months or years. These areas may be associated with burial sites. Often identified in archaeological literature as a village or large base camp, the habitation site usually has unique types or quantities of artifacts. Pottery vessel fragments or features such as fire pits, storage pits, trash disposal pits and house remains usually indicate the presence of a habitation site.

matters arising in the Section 14.09 process.

As part of this consultation process, the interested Indian Nations will receive a copy of all materials submitted to the DHP and all DHP review letters. The Indian Nation Liaison in cooperation with the Regional Capital Facility Manager will initiate follow- up discussions on the project and its impacts to Native American sites through telephone calls, emails or meetings. Indian Nations will be encouraged to send their oral or written comments on the project to the Indian Nation Liaison and the Regional Capital Facility Manager. Consultation will continue until the Section 14.09 process is complete.

## Appendix G – Marina Study & Park Improvements Priorities

OPRHP Guidance Document 1 - Marina Study & Park Improvements Priorities



### Parks, Recreation and Historic Preservation

ANDREW M. CUOMO  
Governor

ROSE HARVEY  
Commissioner

#### New York State Office of Parks, Recreation and Historic Preservation Sampson State Park – Marina Study & Park Improvements Priorities May 6, 2015

##### Introduction

New York State Parks has completed a review of capital investment needs and priorities in Sampson State Park. The review initially focused on the park's marina, which is in deteriorating condition. However, State Parks determined it is appropriate to expand the review to consider all capital investment needs at Sampson, to develop a holistic approach to future park improvements and set priorities for the next several years. Therefore, the agency has initiated development of a comprehensive Park Master Plan to guide future development of Sampson State Park. The Master Plan process was initiated in June, 2014, and the agency anticipates the Plan will be completed later this year.

This memo:

- Identifies preliminary findings from the Master Planning process regarding capital improvement priorities for Sampson State Park.
- Summarizes the findings of a detailed study, conducted for State Parks by the firms Barton and Loguidice and the Danter Company that evaluated the costs of various marina reconstruction scenarios and analyzed the market demand for marina slips.
- Describes State Park's selected strategy and next steps for the Sampson marina.

##### Overview of Sampson State Park

Encompassing just over 2,000 acres on the eastern shore of Seneca Lake, Sampson State Park features camping and boating as its primary recreational activities. In 2014, the park welcomed 166,043 patrons. This corresponded to an increase of 4% from the prior year and 1.6% above the five year average.

Sampson has a total of 309 campsites with 245 electric and 64 non-electric sites. A key feature of the park is the beautiful view of the lake at its center. Facilities include courts for tennis, horseshoes, basketball and volleyball, a swimming beach with nearby playground, a low impact fitness circuit, and a scenic lake trail. Other popular activities include fishing, bicycling, jogging, geocaching, and nature watching. Picnic shelters are available and may be reserved for events. The Park, which was a U.S. military base prior to becoming a State Park in 1963, houses a military museum that tells the story of the more than 700,000 U.S. Navy and Air Force service members that trained at Sampson from 1942 to 1956.

Sampson State Park also has a substantial marina that provides seasonal, weekly, and daily rental slips. The marina has just over 100 slips and a large multiple-ramp boat launch to service park campers and day users. It is an older facility dating back 50 years and is in poor condition – its docks, slips, breakwall, and infrastructure are deteriorating, and portions of the marina have experienced significant siltation, reducing

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water depth and contributing to aquatic vegetation growth. The marina's electric and water hookups are in poor condition, and it lacks amenities typically provided at modern marinas such as internet and fuel sales. As a result, many of the marina's slips go unrented – in 2014 only 24 of Sampson's 103 slips (23%) were rented by seasonal boaters. It has deteriorated to the point where modest maintenance is not an option. The marina needs to be completely reconstructed into a new marina, or absent that decommissioned in the coming years.

#### Sampson Park Master Plan – Preliminary Findings

State Parks has initiated a Master Planning process for Sampson State Park, with the goal of completing the plan in the fall of 2015. Much work remains to be done to develop the comprehensive plan. However, based on analysis completed to date, the agency has begun to develop preliminary findings. At a broad level, these findings include:

- Camping is the highest use activity at Sampson State Park. Of the 62 campgrounds in the New York State Park System, Sampson's campground ranks 8<sup>th</sup> in the state in visitation. Sampson's campsites were rented a total of 20,463 nights in 2014, which equates to attendance of 61,970 campers. Moreover, a 2014 survey revealed that Sampson's campground is a significant economic development facility for the surrounding Seneca County area. For example, 73% of Sampson campers reported visiting local wineries, spending an average of \$110 per visit, and 30% reported shopping at the Waterloo Outlet Mall, spending an average of \$183 per visit. contributing to Seneca County's \$48 million tourism economy (ESDC/Tourism Economics, 2013)
- Sampson's campground requires significant improvements, totaling many millions of dollars, in the coming years in order to rehabilitate outdated facilities, develop new camping opportunities, and address aging infrastructure. Construction needs include: rehabilitation/replacement of outdated restrooms and shower buildings; providing electrical service at some campsites; replacement of failing public water systems; improving campground roads and vehicle circulation; and reconfiguration of the park's entrance. Improvements to the camping experience will be the agency's highest capital investment priority for Sampson State Park.
- State Parks is also committed to developing cottages and cabins at Sampson, to serve New York residents and visitors who are looking for a camping experience but are not interested in traditional tent, trailer, or RV camping. As a first step, in 2014 State Parks announced funding to construct approximately 15 public rental cottages on Sampson's Seneca Lake Shoreline. Design is well along on this project, with construction of the cottages slated to start in the spring of 2016.
- As described below, the cost of replacing the Sampson marina with a new facility is very substantial – in the range of \$6.6 to \$8.8 million for a new facility with approximately 100 slips. At the mid-point of this range (\$7.7 million), this equates to a cost exceeding \$75,000 for each marina rental slip. Moreover, in addition to Sampson, there are 12 other existing marinas on Seneca Lake which provide a total of 850 slips (plus 5 more marinas providing 264 slips on the Seneca-Cayuga Canal) – indicating that privately-operated marinas are viable on the lake. After careful consideration, State Parks has decided that spending on the order of \$7.7 million to construct a new marina is not an appropriate expenditure of public funds. State Parks has concluded that the agency's scarce capital funds are better directed to the campground improvements described above, which will serve more than 60,000 campers annually and directly support regional tourism and economic development.

- Although State Parks cannot justify investing in the range of \$7.7 million in public funds to construct a new marina, the agency acknowledges that the consultant study concluded there is public demand for a marina at Sampson State Park. Therefore, State Parks plans to seek a private-sector partner to construct and operate a new marina at Sampson. This summer, State Parks will issue a formal RFP seeking a private concessionaire partner. In order to attract a private developer, State Parks will commit \$2.5 million of agency funds to make needed infrastructure improvements in the marina area, relieving potential bidders of this cost and thereby improving the economic viability of a private operator. State Parks is also coordinating with Empire State Development to promote the RFP process.
- State Parks will make every effort to attract a private entity to develop a new marina at Sampson State Park. However, if that effort is unsuccessful, the agency's alternative plan will be to decommission and remove the existing marina, which has exceeded its useful life. Under this scenario, State Parks will rehabilitate the public boat launch at the marina location, providing approximately 15 slips to service Sampson campers and day users who bring boats to the park (seasonal marina slip rentals will not be provided). State Parks will also maintain and stabilize the existing breakwall to protect the boat launch area.

#### Comprehensive Marina Study

In 2014 OPRHP commissioned a detailed consultant study to answer two questions: a) Is there market demand for a public marina on Seneca Lake at Sampson State Park? and b) How much would it cost for State Parks to reconstruct the marina?

The marina demand study, produced by the Danter Company, provides baseline data on seasonal and transient rental rates; marina amenities; and regional and national recreational boating data. Valuable assistance to this report was provided by the Sampson State Park Friends Group that helped distribute surveys to the recreational boating community in upstate New York. The results of this study will help enable Parks make informed decisions. The study concluded that, under current market conditions, there is public demand for a new marina at Sampson. A modern 100 slip marina would attract boaters to rent seasonal slips, and would generate approximately \$140,000 of gross revenue annually before accounting for operating expenses, facility maintenance, or debt service.

The study initially developed a wide range of future marina scenarios ranging from several alternate designs for constructing a new marina and boat launch, to the option of decommissioning and removing the marina. This portion of the study, produced by Barton and Loguidice, estimated re-development plans encompassing dredging of the marina basin, shore stabilization, realignment of the current marina entrance (onto Seneca Lake) and expanding water and electric service to newly constructed slips to service boats ranging in length from 20 to 50 feet in length.

OPRHP selected three of the seven alternatives for further consideration:

- Construction of a new marina with 102 slips for vessels ranging from 20 to 50 feet (Alt 4), including a boat launch with capacity for 4 boats, and constructed with sheet piling on the interior of the marina. The estimated construction cost is \$8.2 million.
- Construction of a new marina with 97 slips for vessels ranging from 20 to 50 feet (Alt 5), including a boat launch with capacity for 2 boats, and constructed with an armored stone bank on the interior.

The estimated construction cost is \$6.6 million.

- Construction of a new boating facility to accommodate 12 slips for transient vessels ranging from 30 to 40 feet (Alt 7), including a boat launch that with capacity for 4 boats. This facility would support day-use boaters and visitors staying in the park's campground, but would not provide seasonal rental slips. The estimated construction cost is \$4.0 million.

After reviewing these options, OPRHP has concluded the agency cannot commit \$6.6 to \$8.2 million to construct a new marina. At a mid-point of \$7.7 million, the construction cost is extremely high, equating to a cost of \$77,000 per slip. Given the agency's huge backlog of capital rehabilitation needs across the state park system, and specifically at Sampson our priority of improving the park's camping facilities and addressing pressing park infrastructure needs (water, roads, etc.), OPRHP cannot justify a capital expense of this magnitude. Therefore, as outlined above State Parks is adopting a two-part approach:

- This summer, State Parks will issue an RFP seeking a private marina concessionaire that would build and operate a marina at Sampson State Park. The private sector is well positioned to operate marinas, as evidenced by the large number of existing private marinas on Seneca Lake and other Finger Lakes. OPRHP recently secured a private concessionaire to improve and operate the existing marina at Buffalo Harbor State Park on Lake Erie (the Buffalo Harbor operator will invest more than \$8 million over the first five years of the contract to improve the marina, demonstrating the viability of private sector partnerships). In the Sampson RFP, State Parks will commit \$2.5 million of agency capital funding to support development of a new marina with the private operator providing the remaining capital funds. Expanded programming and sales that could add value to the project would be consideration of possible fuel sales, sundries, and a seasonal restaurant. The agency would offer a long-term lease to enable potential concessionaires to recoup their capital investment cost. If a qualified private operator expresses interest in the marina, State Parks will diligently work to secure an agreement and expedite construction.
- If the RFP process is not successful in attracting a private sector concessionaire to operate the marina, State Parks will then pursue plans to develop a day-use boat launch with transient docking for day-use boaters and to accommodate visitors staying in the park's campground. The consultant study determined this option could cost as much as \$4.0 million (the agency will evaluate value engineering options to reduce the cost). Given this level of cost, it will be several years before State Parks could commit funding. The agency will also seek grants from federal boating programs or other sources in order to undertake a project of this scope.

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