



**Department of  
Environmental  
Conservation**

Division of Operations

Bureau of Recreation

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# **Caroga Lake Public Campground**

## **Unit Management Plan**

### **PUBLIC DRAFT**

Town of Caroga - Fulton County, New York

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**April 2017**

New York State Department of Environmental Conservation  
Division of Operations, 3<sup>rd</sup> Floor  
625 Broadway, Albany, NY12233



# **CAROGA LAKE PUBLIC CAMPGROUND SITE SPECIFIC - VOLUME II DRAFT UNIT MANAGEMENT PLAN**

**NOTE:** Volume I is a generic plan. It contains an overview, environmental setting, goals, policy, management, and impact assessment criteria which pertain to all Adirondack and Catskill public campgrounds and special day-use classified intensive-use areas.

Volume II is a site-specific document. It contains inventories of physical, biological and human-made features, and specific management actions for the individual site.

Volume III contains support data in the form of an appendix to Volumes I and II.

Unit management plans (UMPs) are prepared by the New York State Department of Environmental Conservation (DEC) to cover the next five-year management period. The final UMP is completed according to guidelines and criteria set forth in the Adirondack Park State Land Master Plan (APSLMP).

This draft UMP has been prepared by DEC Region 5 staff for review. All comments and information should be forwarded to the attention of Max Rulison, with a copy to Tom Folts, New York State Department of Environmental Conservation, Division of Operations-3<sup>rd</sup> Floor, 625 Broadway, Albany, NY 12233.

For information, contact Michael Buzzelli, Campground Program Manager, New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233; phone 518-457-2500.

**SUMMARY**  
**CAROGA LAKE PUBLIC CAMPGROUND**  
**UNIT MANAGEMENT PLAN**  
**DRAFT**

In keeping with constitutional provisions criteria referenced in the *Adirondack Park State Land Master Plan* (APSLMP) and Department of Environmental Conservation (DEC) management policy for Forest Preserve state-owned lands, DEC has established a management plan for the five (5) year operation of Caroga Lake Public Campground.

Goals include:

- Management of recreation programs to ensure protection of natural resources according to Environmental Conservation Law (ECL) and to offer recreational opportunities to state residents,
- Ensure that revenues equal operating costs for the portion of the program covered by user fees, and
- Manage the program to enhance economic benefits to local communities and the state.

To meet these goals, the 12 management actions below are being proposed.

**Proposed Management Actions\***

- Replace two existing toilet buildings.
- Convert three campsites to universal design.
- Replace overhead lines with underground system, and install backup power system for water and sewer.
- Convert vault toilet building to a storage building.
- Replace north and south perimeter fencing.
- Install utility sinks at all toilet buildings.
- Rehabilitate seawall at lakefront.
- Rehabilitate 20 campsites.
- Install information on aquatic invasive species and drop box at boat launch.
- Provide foot-wash stations at beach area.
- Construct pavilion at day-use area.
- Plant trees and shrubs.

\*To be completed when funding becomes available



Beneficial effects of proposed actions include compliance with state health codes, maintenance of physical plant investment, and modernization of facilities. These improvements will enhance users' recreational experience, contribute to public safety, and be in harmony with the character of the Adirondack Park.

DEC will ensure conformance to criteria established in the APSLMP by:

- Determining whether proposed activities avoid alterations of wetlands and topography,
- Limiting vegetative clearing,
- Preserving the scenic natural resources of the area, and
- Determining whether the plan contains an adequate assessment of actual and projected public use.

DEC has considered mitigation measures to minimize environmental impacts. All construction projects will minimize tree removal to reduce clearing and maintain the facility's wooded appearance. Architectural designs will be selected to achieve a harmonious blending with the character of the recreation area and surrounding forest. Seeding and mulching of construction sites will readily reestablish vegetation and effectively stabilize soil. Adjacent forest cover will not be altered. DEC's proposals concentrate on improving and updating facilities to accommodate present peak-use periods rather than projected population increases.

Public dissatisfaction, adverse effects on local communities, and uncontrolled use of state lands would sharply increase should DEC reduce or dissolve recreation planning and management efforts. DEC also considered alternative actions, but current care, custody and control issues preclude selection of alternatives at this time.

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## I. INTRODUCTION

### A. Overview

Caroga Lake Campground is a state-owned public campground operated by the Department of Environmental Conservation (DEC). It is located within the DEC Region 5 - Northville working circle and consists of 49.1 developed acres, with no acreage available for expansion. The campground is situated in a stand of northern hardwoods on the eastern shoreline of 232-acre East Caroga Lake and located just four miles inside the southern boundary of the Adirondack Park. This allows easy access from municipalities located in the Mohawk Valley and Capital District. The campground offers a variety of recreational opportunities, including camping, picnicking, swimming, fishing and boating. Canoe and rowboat rentals are available at the campground. Nearby recreational opportunities include hiking, golf and historical sites. Restaurants and shopping are also available nearby in Caroga Lake, Gloversville and Johnstown. Guidelines for management of the campground are based on its classification as an intensive-use area in the Adirondack Park State Land Master Plan (APSLMP).

### B. Area Description

#### 1. Location

Off Route 29A, nine miles northwest of the City of Gloversville, Town of Caroga, Fulton County. The campground is on lands of the Mayfield Patent, part of Lot 103, Title File 59-3 and 108-9.

#### 2. History

The campground is located on lands once claimed by the British Crown, which may or may not have negotiated with Native Americans for purchase. On June 27, 1770, Great Britain granted the Mayfield Patent and the land was subdivided into 112 lots, with Lot 103 containing the southeast portion of a body of water known today as East Caroga Lake. Although farms were built in the area, they did not prosper on the rocky and infertile lands. Due to the proximity to forests of the Adirondack Mountains, lumbering, sawmills and, later on, tanneries became the main industries. After the timber was removed, much of the land fell into disuse, and, in the two decades between 1871 and 1890, the state began to acquire lands throughout the Adirondacks through tax sales for unpaid taxes. The northerly portion of Lot 103 was purchased by New York State in 1887 and 1891, and an easterly portion in 1929.

By 1920, private cottages or camps, as they are called in the Adirondacks, began to spring up along the lakeshore. More hotels and boarding houses opened. There was soon a large summer

## I. INTRODUCTION

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community on the Caroga lakes. The undeveloped state-owned land near the lake began to be used for roadside camping. Concern for the unmanaged use of the state lands in the Adirondacks and a fear of the potential for forest fires led the Conservation Department to begin to improve these sites and officially open them to the public for camping.

Development of Caroga Lake Campground was begun by Conservation Department personnel in 1927 and, when opened to the public just after the Fourth of July 1929, the campground reportedly had camping and picnicking facilities for 1,000 persons. Its annual attendance for that year was recorded at 7,700 persons according to the department's 1929 report to the Legislature. Initially camping was in the present parking lot, as current camping loops did not exist, and most of the area just behind the shoreline was too wet to use. According to long-time campground employee, Holton Seeley, the present seawall was installed in 1929-31 to clear stones from the shoreline and fill the area behind it with gravel to make the present picnic area. The Department's 1930 report said that the campground was one of its most extensively used camping areas, with the largest single-day registration of all its campgrounds up to that time—1,930 persons on August 3, 1930. Camping loops were developed by the Civilian Conservation Corps (CCC) in 1933, freeing up the waterfront for the current swimming and picnic area, and increasing camping capacity. Also in 1933, a spring water system was installed and the bathhouses and superintendent's cabin were constructed. CCC crews came from their headquarters at Shaker Place in Piseco and operated from a "side camp" in the present day-use area. Holton Seeley, a laborer on the CCC crew, later became the campground's first assistant superintendent and its second superintendent.

Attendance during the campground's early years was high, with no occupancy rules or camping fees. Campers usually arrived before the snow was gone to get a good site and did not leave until snowfall the following fall. Most campers came from the Gloversville and Johnstown areas and moved into the campground for the summer. Nearby amusement parks at Caroga and Pine lakes, together with rodeos, dance halls and other attractions, undoubtedly attracted many visitors to the area.

Caroga Lake Campground was one of the first campgrounds developed and operated by the Conservation Department. The name Caroga is derived from the once nearby Indian Village known as Garoga.

Federal and state monies have been used at the campground to modernize and maintain the facility since its completion in 1930. A partial list of campground improvements is included in the table that follows.

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

Year	Campground Improvement
1967	Flush toilets and sewage disposal system added
1981	Beach upgraded and exercise course installed
1982	Shower building completed
1993	Water system updated with new well, chlorination system and storage reservoir
2000	New water heater and circulator installed for shower building
2001	New ticket booth constructed
2006	Campground repaved
2013	Toilet replaced and renovations made in Comfort Station #12
2016	Sewage system rehabilitated, and 56 sites closed permanently to eliminate possible overloading of the system.

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

### A. Inventory of Existing Facilities

#### 1. Camping and Day-Use (Picnic) Areas

Existing Camping and Day-Use Facilities	
Camping Area	Day-Use Area
<ul style="list-style-type: none"> <li>• 105 Campsites</li> <li>• 105 Picnic Tables</li> <li>• 105 Fireplaces</li> <li>• 19 Spigots</li> <li>• Design Capacity – 630 people (105 sites x 6 persons)</li> </ul>	<ul style="list-style-type: none"> <li>• 3 Acres</li> <li>• 72 Picnic Tables</li> <li>• 35 Grills</li> <li>• 5 Fireplaces</li> <li>• 12 Spigots</li> <li>• Exercise Course*</li> <li>• Design Capacity – 432 people (72 tables x 6 persons)</li> </ul>

\*The exercise course, constructed in 1981, circles the day-use area and is a series of 18 stations spaced around the 3,320-foot course.

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

### 2. Roads and Parking

The campground is bordered on the north, east and south by public roads. DEC-maintained roads include 2.8 miles of paved roads for two-way and one-way traffic. Seven-tenths of a mile of roads have a 20-foot average width, while 2.1 miles have a 14-foot average width. Paved parking at the beach/day-use area is 85' x 180' with a capacity for 100 vehicles. There is also a 30' x 50' paved parking area at the shower house with a capacity for eight vehicles and a 20' x 70' paved parking area at the campground entrance with a capacity for eight vehicles.

As seen below, two bridges and 57 culverts provide drainage.

Bridges and Culverts	
Bridges	Culverts
<ul style="list-style-type: none"><li>• Crosses four-foot stream at site #86</li><li>• Crosses four-foot stream at site #123</li></ul>	<ul style="list-style-type: none"><li>• Drainage under campground roads (17)</li><li>• Drainage under parking lots (4)</li><li>• Drainage under campsite driveways (36)</li></ul>

### 3. Buildings

MMS #	Building Name/Function	Location/Description/Use	Size	Condition	Year Built
(001)*	Facility Supervisor's Cottage	Living and office space	782 sf	Fair	1933
(002)	Ticket Booth	Control	80 sf	Excellent	2001
(003)	Bathhouse	No sanitary facilities	520 sf	Good	1933
(004)	Garage	Parking and storage	875 sf	Good	1964
(005)**	Shower House	Near entrance	660 sf	Good	1982
(006)	Lifeguards' Cabin	Near beach, Living space	523 sf	Fair	1964
(007)	Lake Pump House	Chlorination	495 sf	Fair	1967
(008)	Sewer Chlorinator Bldg	Near tile field - Not in use	89 sf	Fair	?
(009)	Spring Pump House	Near spring – Not in use	56 sf	Poor	1982
(010)***	Vault Toilet Bldg	Near site #132 – Not in use	311 sf	Poor	?
(012)***	Comfort Station	North end of day-use area	528 sf	Poor	1967
(013)***	Comfort Station	Near site #50	528 sf	Poor	1967
(014)***	Comfort Station	Near site #72	528 sf	Poor	1967
(015)	Comfort Station	Near site #17	528 sf	Poor	1967
(016)	Sewage Lift Station	Day-use parking area	120 sf	Fair	?
(017)	Recycling Center	Near entrance	320 sf	Fair	1992
(018)	Firewood Storage Bldg.	Near entrance	720 sf	Excellent	2013

\*Numbers in parentheses are building numbers assigned in the Maintenance Management System (MMS) Building Inventory. Building condition rating from (MMS) building inspection report based on inspection conducted October 9, 2014.

\*\*The shower building has 4 showers, each side; the men's side has 1 toilet, 1 urinal and 4 sinks; the women's side has 4 showers, 2 toilets and 4 sinks.

\*\*\*Comfort stations 012-015 are flush toilets with 1 sink and 4 toilets on the women's side and 1 sink, 3 toilets and 1 urinal on the men's side. Vault toilet building (010) has 8 vault toilets but no sinks.

### 4. Sewage System

During the camping season, four flush-type comfort stations and one shower building contain sanitary facilities. Combined, these buildings contain 32 toilets, 14 sinks, 5 urinals and 8 showers. The four comfort stations each have a 3,000-gallon septic tank with a 532 gallons-per-day (gpd) hydraulic loading capacity. The shower building septic tank is 3,000 gallons with a 5,400 gpd loading capacity. Total hydraulic loading capacity (including two staff residences), using water-saving devices and an infiltration design of 750 gpd, is 8,500 gpd.

The SPDES permit (#NY-101-2705) for Caroga Lake Campground was issued 12/1/1987, and the hydraulic load capacity was specified for 8,500 gpd.

One sewage lift station, with 75 gallons-per-minute (gpm) pumping capacity, forces effluent to an evapotranspiration disposal field. A trailer dumping station (3,000 gallon septic tank and grease trap) is also part of the system.

At the start of the 2016 camping season, an inspection revealed that the sand filter, distribution boxes, and evapotranspiration field were partially plugged by roots and sand. To reduce system flow while repairs were made, the number of campsites was reduced and some effluent was held in septic tanks and pumped out as needed. Upon completion of repairs, engineers calculated that the number of campsites would need to be permanently reduced to avoid exceeding system design-flow capacity. Fifty-six campsites were selected for permanent closure. It is expected that the site closures will eliminate any future problems with over-capacity sewage flow.

In 1992, a recycling center was constructed. Its effluent flows through a 1,000-gallon septic tank and discharges subsurface. Daily flow is below the 1,000-gallon daily threshold and is not regulated by the current SPDES permit.

During electrical and water system failures, the campground has outhouses located near the comfort stations to use until power and water are restored.

Septic tanks are periodically pumped by a DEC-owned sewage pumping truck and their effluent is transported to the City of Johnstown Waste Water Treatment Plant. See Exhibit 6.



## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

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MMS#	Building Description	Septic Tank Size (gallons)	Leach Field sq/ft
(005)	Shower Building	3,000 gal	23,000
(012)	Comfort Station #12	3,000 gal	
(013)	Comfort Station #13	3,000 gal	
(014)	Comfort Station #14	3,000 gal	
(015)	Comfort Station #15	3,000 gal	
(001)	Facility Supervisor's Cottage	500 gal	
(006)	Lifeguards' Cabin	1,000 gal	
(017)	Recycling Center	1,000 gal	
(377)	Trailer Dump Station	3,000 gal	

Numbers in parentheses are building numbers assigned in the MMS Building Inventory.

## 5. Solid Waste

This campground has a centralized refuse disposal facility with a staff person to manage it. A brochure is available to instruct campers of its availability and required use. Refuse generated is estimated to be 20 tons annually. At this time, solid waste is removed weekly from the campground by the Town of Caroga. Recyclable materials collected at the Recycling Center are transported to the county landfill on Mud Road by campground staff. Recyclables collected total about three tons annually. The Recycling Center is connected into the water and sewer systems.

Since 1992, all day-use areas have required patrons to carry-in, carry-out their solid waste. Signs were erected to inform the public and a brochure was produced by the Recreation Office in Albany.

## 6. Barriers

Barriers are used for controlling campground access. DEC policy specifies design and safety considerations for in-place barriers. Due to the proximity of the campground to adjacent privately owned cottages, chain link fencing is required on both the north and south boundaries to control access. The current barrier inventory follows.

Location	Type	Function
Main entrance	Pipe gate	Control park access
North pedestrian gate	Gate	Foot access from north
South pedestrian gate	Gate	Foot access from south
Filter bed	Gate	Access to filter bed
Spring	Gate	Access to spring house
North property line	Chain link fence	Control park access
South property line	Chain link fence	Control park access

## 7. Telephone

The main phone number is 518-835-4241. The phone is turned off when the campground is closed and calls are not answered.

## 8. Signs

Messages for the public are provided by means of standard (yellow on brown) signs and include information about entering the campground; directions to the supervisor's office; a bulletin board; information about traffic control, commemoratives and regulations; and information and directions to the picnic area, comfort stations and campsites.

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

### 9. Electric System

The campground receives electrical power from National Grid, Inc. Average yearly electric consumption is 10,000 kilowatt hours (kWh) at a cost of \$1,700. There are two 200-amp service entrances—one at the supervisor's cabin and the other at the pump house. Power is distributed via 2,384' of overhead lines and 870' of underground lines. DEC owns and maintains all utility lines that are located on the campground. (See Exhibit #7.)

### 10. Potable Water System

In 1993, a well was drilled to replace both lake and spring water sources for the campground. The well is 395' deep with a 1½ HP submersible pump with a pumping capacity of 12 GPM set at 350' deep. Well water is pumped to a 10,000-gallon concrete potable water reservoir. From the reservoir, water flows by gravity to a pump house where it is chlorinated. It is then pumped through 3,830' of pipe to 31 spigots, five comfort stations and five other buildings. The two water distribution systems, previously supplied by the lake pump and spring pump, are now one system joined at a valve near site 99. (See Exhibit 5.)

### 11. Trails and Bridges

The campground has a 3,320 foot-long exercise course near the beach.

### 12 Fuel Systems

The chart below displays the permanent fuel system used at the campground.

Tank #	Product Type	Tank Size	Location	Ave Annual Use
1	Propane	1,000 gal.	Shower Building	
2	Propane	100 gal.	Caretaker's Cabin	
3	Propane	100 gal.	Recycling Building	
Annual Cost				\$3,200
Annual Gallons				1,013 gal.

### 13. Swimming

The swimming area is located at the south end of Caroga Lake. It is staffed with lifeguards as availability of qualified candidates allows.

Swimming Area Capacities		
Location	Size	Capacity
Swim area < 4'	2,450 sf	98
Swim area 4'-6'	2,800 sf	37
Beach area	5,600 sf	

### 14. Boating

Caroga Lake Campground contains about 1,390' of shoreline frontage on 232-acre East Caroga Lake, or approximately five percent of the lake's total 5.1 miles of shoreline. A navigable channel connects East Caroga to West Caroga Lake. East Caroga is considered an extensively developed waterway, with 223 shore-front lots. Substantial development further from the waterway may mean many owners have lake water rights.

DEC built a fishing and waterway access site to enhance the East Caroga Lake State Campground. It is open when the campground is open and has a capacity of 15 cars and trailers. The site is listed in the New York State Directory of State Access and Boat Launching Areas as a DEC-operated facility with a hard surface launch located within another DEC facility. Exhibit 11 of Volume I of the *Final Generic Unit Management Plan and Environmental Impact Statement of Campgrounds and Day-Use* areas notes that the facility has a "pre-existing" and "improved" ramp that provides for the launching of trailered boats.

In reality, the site is primitive and shallow and does not constitute an improved boat ramp. Since East and West Caroga lakes are less than 1,000 acres combined, the status of the launch must be reviewed according to Adirondack Park State Land Master Plan criteria. The simple ramp at the launch facility is composed of concrete blocks, and, in effect, constitutes a hardened beach. The ramp's extremely gradual pitch limits its use to small boats.

Parking is not provided at the waterway access site, but adequate parking exists in the day-use parking area nearby. The site presently gets light use. Regional personnel estimate that fewer than 10% of campground users launch boats at the campground. Data from past boating surveys support this estimate.

Currently (February 2017) a commercial marina and general store are located on the west side of East Caroga Lake; the marina provides access for larger boats into both lakes. This operation offers a ramp launch, seasonal dockage, boat rentals and basic necessities. The combined capacity of the campground and commercial launches is considered adequate to serve users of West and East Caroga lakes. If public access other than that provided by the campground becomes unavailable, it may be necessary to explore expansion of access opportunities.

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

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### B. Inventory of Systems

#### 1. Staff

Total	Position Title
1	Conservation Recreation Facilities Supervisor III
1	Park Maintenance Assistant
7	Park and Recreation Aides
2	Conservation Security Workers
3	Lifeguards
3	Green Thumb Laborers

#### 2. Fee Schedule 2016

Daily Fees 2016 Open Dates: May 20-Sep 5	
Camping/night – NYS Residents	\$20.00
Camping/night – Non Residents	\$25.00
Day Use - Auto	\$8.00
Day Use - Walk-In	\$2.00
Day Use - Bus	\$50.00
Day Use - Motorcycle	\$4.00
1-Seat Kayak Rental/day	\$20.00
2-Seat Kayak Rental/day	\$25.00
Canoe Rental/day	\$20.00
Rowboat Rental/day	\$25.00
Firewood/bundle	\$9.00
Empire Passport - season	\$65.00

#### 3. Permits

Peddling permits may be issued annually for firewood, boat rentals and camper supplies. Each vendor is charged a fee of \$2.00 x number-of-campsites. No permits were issued in 2016.

#### 4. Off-season Use

Gates are opened once snow cover is adequate for snowmobiling. Snowmobiles pass through the facility to access the lake for riding and ice fishing. No parking is available at the facility. As budgets allow, additional off-season opportunities may be offered.

### C. Inventory of Natural Resources

#### 1. Physical

##### *a. Elevation*

Elevation of the Caroga Lake Campground varies from 1,452' at the lakeshore to a maximum of 1,470'. (See Exhibit 2.)

##### *b. Water*

East Caroga Lake is 232 acres, with a maximum depth of 48 feet. Two campsites are located on the lakeshore. The campground beach is located on the east shore. (See Exhibit 2.)

##### *c. Wetlands*

Wetlands are inventoried, mapped, and protected by DEC and the Adirondack Park Agency (APA) under Article 24 of Environmental Conservation Law. Palustrine wetlands cover 4.6 acres within the boundaries of Caroga Lake Campground.

Projects that alter or adversely affect either wetlands or any sewage disposal system within 100 feet of a wetland require a permit from APA. APA will be consulted to determine whether a permit is needed prior to site disturbance either in or adjacent to designated wetland areas. (See Exhibit 10.)

##### *d. Soils*

Soils found within Caroga Lake Campground's boundaries are 41.2 acres (84%) Metacomet fine sandy loam, 3-8% slopes; 6.8 acres (14%) of Skerry fine sandy loam, 8-15% slopes in the southern part of the campground; and 1.1 acres (2%) of Skerry fine sandy loam, 3-8% slopes in the extreme southeast corner of the campground. (See Exhibit 10.)

#### 2. Biological

##### *a. Forest Type*

Northern hardwood tree species are by far the most common forest cover type across the rolling uplands and hill country of the Adirondack Park. They occur on rich, well-drained soils up to an elevation of approximately 2,500'. Sugar maple, American beech and yellow birch are the predominant "climax" species, although other hardwoods such as white ash, ironwood, and black cherry are locally found in varying numbers, generally reflecting some recent natural disturbance or variation in site quality. The forest is also typified by scattered conifers—white pine on drier northern hardwood sites;

## II. INVENTORY of FACILITIES, SYSTEMS and RESOURCES

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red spruce on moist sites; and hemlock on moist, north-facing sites and ravines. The latter is often found in nearly pure stands of several acres. Aspen, fire cherry, and paper birch are common species found on northern hardwood sites in early successional stages—i.e., before the northern hardwood species have had time to become established. The ground cover is composed primarily of maple and beech seedlings, shrubs, such as witch-hopple and fly honeysuckle, and scattered herbs.

### *b. Unique Vegetation*

The New York Natural Heritage Program keeps track of the status of the state's rare flowering plants, conifers, ferns and fern allies, and mosses. No rare plants or unique natural communities have been documented to exist within Caroga Lake Campground.

### *c. Wildlife*

The diversity of wildlife living in or using this area is influenced by the extent of privately owned developments bordering the campground. Movement of some wildlife may be inhibited by fencing on the north and south boundaries. Ecotones created by developments provide habitat for smaller wildlife species dependent on the earlier stages of succession. No permanent irreversible damage is anticipated to either wildlife habitats or species.

The capacity of wildlife resources to withstand non-consumptive use is unknown. Hunting within the campground (discharge of firearms) is restricted.

A comprehensive list of wildlife native to the area can be found in the “Inventory of Resources, Facilities, and Public Use” section (Section II-2) of the *Shaker Mountain Wild Forest Unit Management Plan*, available on DEC’s website.

### *d. Fisheries*

East Caroga Lake is classified as a two-story lake (waters that simultaneously support populations of cold water and warmwater game fishes). Warmwater habitat is more abundant than cold water habitat, but the lake has potential for Atlantic salmon management. Fisheries surveys were conducted in East Caroga Lake in 1934 and again in 1989. Information from the 1934 survey indicates that early stocking was responsible for the presence of many fish species now found in East Caroga Lake. These include smallmouth bass, yellow perch, whitefish and black crappie. In 2014, DEC stocked rainbow trout into East Caroga Lake and brown trout into Caroga Creek. Local businesses promoting fishing in the lake note the presence of largemouth bass, smallmouth bass, chain pickerel, whitefish,

splake, brown bullhead, yellow bullhead, pumpkinseed, walleye, yellow perch, black crappie, white suckers, golden shiners, rock bass and common shiners.

Statewide angling regulations apply to smallmouth bass and species without regulations specific to East Caroga Lake. Trout are subject to statewide regulations for length and daily limits, but differ from statewide regulations in that the season is open all year and ice fishing is permitted. Pickerel may be taken in any number and size in all Fulton County waters.



## **III. INVENTORY of ISSUES and CONSTRAINTS**

### **A. Article XIV, New York State Constitution**

Article XIV of the NY State Constitution provides in part that “The lands of the state, now owned or hereafter acquired, constituting the Forest Preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or taken by any corporation, public or private, nor shall the timber thereon be sold, removed, or destroyed.”

### **B. Adirondack Park State Land Master Plan**

The APSLMP requires that all campgrounds and day-use areas are of a rustic nature. Natural materials must be used to the fullest extent possible in construction to blend with the Adirondack environment. These constraints are further described in Volume I of the generic plan.

### **C. Environmental Conservation Laws**

The management plan has been developed within the constraints set forth by the Environmental Conservation Law (ECL), Rules and Regulations of the State of New York, and established policies and procedures for the administration of the lands involved.

### **D. Campground Generic Unit Management Plan/Environmental Impact Statement**

The management plan has been developed within the constraints set forth by the Generic Unit Management Plan/Environmental Impact Statement (GUMP/EIS) and contains an overview, environmental setting, goals, policy, management, and impact assessment criteria which pertain to all Adirondack and Catskill public campgrounds and special day-use classified intensive use areas.

### **E. Recreation Program Goals**

- Manage recreation programs in a manner that ensures protection of natural resources according to the Environmental Conservation Law, Article XIV of the New York State Constitution and the Adirondack and Catskill parks state land master plans.
- Offer recreational opportunities for state residents.
- Ensure that revenues equal operating costs for that portion of the program covered by user fees.

- Manage the program to enhance economic benefits to local communities and the state.

## **F. Public Use**

### **1. Inventory of Public Use**

#### ***a. Attendance Trends***

Attendance numbers are a combination of camper days (the number of campers times the number of nights spent) and day-use (the number of people using the beach, day-use areas or just visiting) but not staying overnight. The five-year trend in camping attendance indicates fairly static visitation, with fluctuations due to economic and weather conditions. The average length of stay is 2.9 nights. However, the average attendance for the most recent five years is about 22% lower than the previous five-year average.

Prior to the 2010 camping season, Caroga Lake Campground was unique among DEC campgrounds in the high percentage of no-fee camping through use of the NYS Access Pass Program. In some seasons, the percentage of campers using the program exceeded 50% at this facility compared to the 5% average for all campgrounds.

In 2010, the Office of Parks, Recreation and Historic Preservation (OPRHP), which administers the access pass program, modified it, eliminating several eligibility categories. OPRHP did this after recognizing that the program's growth exceeded what was authorized by law, causing a significant loss of projected park system revenues.

These changes resulted in an immediate drop in attendance at Caroga Lake Campground, but numbers have stabilized since. Closure of 61 sites for the 2016 camping season affected attendance only on the busiest holiday weekends and had little effect on overall seasonal attendance.

Day-use attendance for the most recent five years also shows static numbers for the period.

### III. INVENTORY of ISSUES and CONSTRAINTS

The most recent five-year average attendance is about 30% higher than the previous five-year period, which is unique among campgrounds operated by DEC. No studies have been conducted to determine a reason for this trend, but it is likely connected to the change in Access Pass rules. A slight drop in attendance in 2016 may be partially attributed to limiting the maximum number of day-use tickets to 75 per day to insure compliance with sewage effluent capacities.

Caroga Lake Attendance			
Year	Camping	Day Use	Total
2016	15,027	8,360	23,387
2015	15,120	9,704	24,824
2014	13,103	9,254	22,357
2013	12,319	9,346	21,675
2012	14,068	9,982	24,050
Average	13,927	9,329	23,259

Most Caroga Lake campers are from New York State (97%), with strong representation from Fulton and Montgomery counties (58%). Counties adjacent to Fulton County and the Capital District also contribute to attendance. (See Exhibit 8.)

Campground use during winter months is from use of snowmobile trails, cross-country skiing, snowshoeing and ice fishing. Currently, there is no way to accurately track usage, because no permits are required or issued for off-season use, nor is staff on site to monitor use.

#### *b. Revenue Trends*

Revenues are important because they are used to offset the campground's annual operating costs. Operating costs for Caroga Lake average \$118,210 annually. The operating budget allocation is in part based on revenues generated from camping and other service fees as well as economic conditions for the

Caroga Lake Revenue				
Year	Camping	Day Use	Misc	Total
2016	\$65,570	\$20,366	\$2,381	\$88,317
2015	\$77,120	\$19,374	\$6,131	\$102,625
2014	\$71,990	\$21,624	\$3,122	\$96,736
2013	\$67,775	\$20,371	\$3,914	\$92,060
2012	\$72,085	\$20,793	\$5,744	\$98,623
Average	\$70,908	\$20,506	\$4,258	\$95,672

geographic area. Camping revenue comes from the rental of the 105 campsites. Camping revenue generally shows some variability, which is tied to attendance fluctuation, fee increases and weather events. Nightly camping rate at Caroga Lake Campground has been \$20.00 since 2010. In 2011, an additional \$5.00 fee per night was instituted for non-state residents. About 5% of camping revenue is collected from non-resident campers. Camping revenue has been fairly static at the campground over the last five-year period. Closure of 61 sites in 2016 resulted in a full campground on the three holiday weekends.

Day-use revenue constitutes park entrance fees and boat rentals. Miscellaneous revenue comes from a combination of pavilion rentals, firewood sales and Empire Passport sales. Total day-use revenue has been fairly static over the last five-year period. Firewood sales have increased with recent regulations limiting the transport of firewood over 50 miles.

## 2. Carrying Capacity

Caroga Lake Campground facilities should be operated within the physical, biological and social carrying capacity of the site. Operation within these limits will grant continued character and integrity to intensive recreational use at this location and insure that public use is kept within the campground's carrying capacity.

### a. Physical Design

The following is an analysis of existing design capacities compared to NYS Department of Health codes and DEC's design standards. The existing design capacity for the 105 campsites is 6 persons per site or 630 persons. The day-use design capacity is 6 persons per picnic table x 72 tables or 432 persons.

The table that follows compares calculated capacity needs with currently available capacity and notes deficiencies. The proposed management actions for this facility are aimed at addressing these deficiencies. Utility sinks are needed in each camping loop to provide a sanitary and convenient location for cleaning and disposing of wastewater. Additional showers are needed and should be located conveniently throughout the facility. The day-use area shows a sizable deficiency in toilets and sinks. No restroom facilities at this campground currently meet accessibility standards. A few of the sites are undersized. Several lack adequate vegetation screening between sites, from the road and from the lakeshore. Some sites are located in a naturally wet area and have little opportunity to dry during extended wet periods. Other sites are on excessive slopes and lack level spots for erecting tents.

Facility Infrastructure Capacity Analysis				
Facility Description	Design Standard*	Calculated Need	Currently Available	Deficiency
Campsites	1,250 sf/site	1,250 sf/site	1,250 sf/site	None
Trailer dumping station	1 for every 100 sites*	1	1	None
Potable water supply	55 gal/day/site	5,775 gal	17,280 gal	None
	5 gal/day/picnicker	2,160 gal	17,280 gal	None

### III. INVENTORY of ISSUES and CONSTRAINTS

Facility Description	Design Standard*	Calculated Need	Currently Available	Deficiency
Water spigots	1/10 campsites	11	19	0
	1/60 picnickers	7	12	0
Sinks (within 500')	1 for every 15 campsites	7	16	0
	1 for every 60 picnickers	7	2	5
Toilets/Urinals (within 500')	2 for every 10 sites	11	36	0
	2 for every 60 picnickers	14	8	6
Utility sinks	Conveniently located	4	0	4
Showers	2 for every 25 sites	8	8	0
<b>*DEC design standards meet or exceed NYS Health Department codes.</b>				

#### *b. Biological Carrying Capacity*

Many campsites have been in continuous use since the campground opened, and, depending on site design and level of occupancy, they are showing their age in loss of vegetation screening, soil compaction, drainage issues and site amenity needs. To address these concerns, DEC is conducting a Campsite Restoration Project to evaluate the condition and needs of each of its campgrounds, including their 6,000 campsites. In most cases, sites that require restoration work will be removed from use for two camping seasons. Restoration work will include:

- Planting trees and shrubs
- Replacing lost soils
- Re-grading sites
- Improving drainage
- Evaluating the design and size of campsites
- Replacing deteriorated tables and fireplaces

During winter, this campground is closed for camping, but available for ice fishing, snowmobiling, snowshoeing and cross-country skiing. Most vehicular traffic occurs on paved surfaces, which helps limit compaction, rutting and erosion. Years of weather damage have affected the campground, requiring rehabilitation of approximately 20 campsites. Although some of the original forest cover was cleared during construction in the 1930s, most of the campground remains forested. Hazardous trees are regularly removed (in accordance with established policy), and natural regeneration, replanting and growth of residual trees compensates for any losses.

### *c. Social Carrying Capacity*

Annual camper surveys have been conducted at each campground since 1996. Campers have been asked to rate their camping experiences on a scale from unacceptable to excellent. Based on responses received over the last five years, this campground appears to be generally operating within an acceptable social carrying capacity at current attendance levels. In 2015, campers were also asked to comment specifically on their concerns regarding the condition and design of campsites at Caroga Lake Campground. Seventy-five comments were received, nearly equally divided among poor screening between sites, poor site layout, poor drainage and erosion. The closure of 56 sites in 2016 addressed many of the campers' concerns.

Additional impacts associated with planned campground objectives and actions are identified and discussed in the *Generic Unit Management Plan Volume I*. The table below summarizes survey statistics over the past five years.

<b>Caroga Lake Camper Survey</b>		
<b>Year</b>	<b>Number of Respondents</b>	<b>Good or Excellent Rating</b>
2016	134	68%
2015	165	73%
2014	90	71%
2013	108	72%
2012	20	75%

### *D. Unique Ecosystems, Historical*

No significant unique ecosystems have been identified or are known to exist at this campground. The New York State Archaeological Site Locations Map does not indicate that archaeological resources are present in the Caroga Lake Campground area. However, prior to site disturbance for construction of any facility affiliated with this management plan, the nature and extent of archaeological resources in the project area are investigated. If it appears that any aspect of the project will cause changes to a unique ecosystem, all reasonable and prudent alternatives will be considered, together with feasible plans to avoid and/or mitigate adverse impacts on the property. DEC's preservation officer has been informed that this applies to Caroga Lake Campground in keeping with the New York State Historic Preservation Act of 1980.

### III. INVENTORY of ISSUES and CONSTRAINTS

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#### **E. Adjacent Lands**

The campground is bounded on the north and south by chain link fencing to separate public roads and moderately dense private residences from the campground. To the north of the campground, First Avenue runs parallel to the fence. Twenty-eight private parcels are located along this 0.45 mile of road, with most lots less than 0.2 acre in size.

The east boundary of the campground is bordered by NY 29A and Beech Ridge Road for a distance of 0.2 mile. For several years, a commercial business located directly outside the campground entrance has offered campers supplies and dining options. Four other properties are located along Beech Ridge Road.

To the south of the campground runs South Shore Caroga Road. Fourteen private parcels are located along this 0.3 mile of road. A large private parcel of 47 acres fronts the road in two places. A 15.5-acre detached parcel of the Shaker Mountain Wild Forest fronts the road for 135 feet. The campground is bounded on the west by East Caroga Lake for 0.25 mile.

The campground provides employment for local residents. Their wages are largely spent at local businesses. Various supplies and materials needed for campground maintenance are also frequently purchased locally. Local contractors including plumbers, electricians, carpenters, masons, and others are also used at times.

#### **F. Invasive Species**

The threat of both aquatic and terrestrial invasive species at Caroga Lake is of concern to DEC for their destructive effect on our environment and the associated financial drain on revenue and resources.

One common way many insect pests are moved around the country—beyond their natural rate of spread based on biology and flight potential—is on firewood carried by campers, hunters and other users of our forests. People may unknowingly transport firewood from trees infested with insect pests. A regulation (NYCRR Chapter II Part 192.5) is in effect that prohibits the import of firewood into New York unless it has been heat treated to kill pests. The regulation also limits transportation of untreated firewood to less than 50 miles from its source. A firewood storage building was recently completed at this campground to permit the sale of heat-treated wood that complies with state regulations

It is DEC's goal, in collaboration with other agencies and interested groups, to establish a documented inventory of invasive species by location within the campground. It is also our goal to implement an active invasive species management program that contains further spread, and possibly

eradicates, local aquatic and terrestrial invasive species. DEC, the Adirondack Park Invasive Plant Program and the State University of New York College of Environmental Science and Forestry have developed the *Adirondack Park State Campground Terrestrial Invasive Plant Management 2016 Program Report*. The report includes the information below for Caroga Lake Campground.

**Invasive Plant Species:** garlic mustard, yellow iris, *Phragmites*, purple loosestrife, Japanese knotweed, Japanese barberry

#### **Locations:**

Garlic mustard was found and removed from sites 3, 52, 73 and 91. Infestations of *Phragmites* (common reed grass) occur behind sites 90 and 92 and at the end of the break wall near the swimming beach and showers. Yellow iris was found along a stream behind site 123, with the infestation extending down most of the stream towards the lake. It is also present along the shoreline near the boat launch area, stretching across and behind site 125 onto private property adjacent to the campground. Purple loosestrife was found at the outlet of a stream next to the boat launch and in a ditch at the edge of site 125. An expanding infestation of Japanese knotweed was found along the fence across from sites 144 and 146, and a larger patch was found behind sites 153 and 155, adjacent to a main road. Japanese barberry was found at the edge of site 80, near the entrance booth

#### **Management Totals**

A total of five second-year garlic mustard plants were pulled from the campground. Seven large garbage bags of yellow iris were removed from the stream behind site 123 and along the lakeshore, but management was not completed due to inclement weather. A total of 10 purple loosestrife plants were removed. One Japanese barberry shrub was pulled and hung upside down onsite to dry and decompose.

#### **Recommendations**

Due to the southerly location of this campground in the Adirondack Park, it becomes very busy during the summer season and should be visited early in the season for invasive species management, if possible. The campground should be monitored annually to contain and locally eradicate the small garlic mustard infestation.

Due to the abundance and density of yellow iris at this location, it would be very beneficial to dedicate an additional staff member to assist with management efforts.



### III. INVENTORY of ISSUES and CONSTRAINTS

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The Phragmites and Japanese knotweed infestations should be treated with herbicide in 2017, if possible, to minimize their continued growth and spread throughout the campground and surrounding areas. Japanese barberry bushes should be pulled and left to dry and decompose, as they present a potential hazard to campers due to their spines and ability to improve tick habitat.

An additional monitoring visit should be conducted in mid-August to survey for, and remove, purple loosestrife. While not present this year, a small infestation of loosestrife was observed and managed in 2015 in a copse of trees along the southern edge of the parking lot. This location should be closely monitored for re-sprouts. While the size of the purple loosestrife infestations at this campground have fluctuated historically, the plants observed this year were primarily small and heavily stressed. With continued monitoring and management, local eradication is a realistic possibility.

#### **H. ADA Accessibility Guidelines**

The Americans with Disabilities Act (ADA), along with the Architectural Barriers Act of 1968 (ABA) and the Rehabilitation Act of 1973; Title V, Section 504, have had a profound effect on how people with disabilities are afforded opportunities for recreational pursuits. The ADA is a comprehensive law prohibiting discrimination against people with disabilities in employment practices, use of public transportation, use of telecommunication facilities, and use of public accommodations. Title II of the ADA requires, in part, that reasonable modifications must be made to the services and programs of public entities, so that when those services and programs are viewed in their entirety, they are readily accessible to, and usable by, people with disabilities. This must be done unless such modification would result in a fundamental alteration in the nature of the service, program or activity, or an undue financial or administrative burden.

Title II also requires that new facilities, and parts of facilities that are newly constructed for public use, are to be accessible to people with disabilities. In rare circumstances where accessibility is determined to be structurally impracticable due to terrain, the facility, or part of the facility, is to be accessible to the greatest extent possible to people with various types of disabilities.

Consistent with ADA requirements, DEC incorporates accessibility for people with disabilities into the planning, construction and alteration of recreational facilities and assets supporting them. This UMP incorporates an inventory of all recreational facilities or assets supporting programs and services available on this unit, and an assessment of programs, services and facilities on this unit, to determine the level of accessibility provided. In conducting this assessment, DEC employs guidelines which ensure

that programs are accessible, including buildings, facilities, and vehicles, in terms of architecture and design, transportation and communication to individuals with disabilities. Any new facilities, assets and accessibility improvements to existing facilities, or assets proposed in this UMP, are identified in the section containing proposed management actions.

DEC is not required to make each of its existing facilities and assets accessible, as long as its programs, taken as a whole, are accessible. For copies of any of the above mentioned laws or guidelines relating to accessibility, contact the DEC Universal Access Program Coordinator at 518-402-9437, or [UniversalAccessProgram@dec.ny.gov](mailto:UniversalAccessProgram@dec.ny.gov).

In 2014, an accessibility assessment was conducted at Caroga Lake Campground by the Inclusive Recreation Resource Center at SUNY Cortland. They assessed various areas in the campground, including the beach, shower building and comfort stations, and suggested improvements to provide accessibility. For example, Campsite #157 was assessed and the cooking grill exceeded the maximum height allowed above ground. Also, the base of the fireplace did not meet the minimum height of 9" above ground.

## IV. PROPOSED MANAGEMENT ACTIONS

### IV. PROPOSED MANAGEMENT ACTIONS

The management actions below are being proposed for the ensuing five-year period, and will be completed as staff and funding allow.

Proposed Management Actions		
Management Actions	Cost	Priority
1. Replace two existing toilet buildings.	\$400,000 ea	High
2. Convert three campsites to universal design.	\$5,000 ea	High
3. Replace overhead lines with underground system, and install backup power system for water and sewer.	\$200,000	High
4. Convert vault toilet building into storage building.	\$10,000	Medium
5. Replace north and south perimeter fencing.	\$130,000	High
6. Install utility sinks at all toilet buildings.	\$2,000 ea	Medium
7. Rehabilitate seawall at lake front.	\$50,000	Medium
8. Rehabilitate 20 campsites.	\$1,000 ea	High
9. Install information on invasives and drop box at boat launch.	\$500	High
10. Provide foot-wash stations at beach area.	\$2,500 ea	Medium
11. Construct pavilion at day-use area.	\$75,000	Medium
12. Plant trees and shrubs.	\$50,000	High

These actions reflect the need to modernize facilities and comply with health and safety codes and user needs. They will also provide universal access and increase the efficiency of campground management. Implementation of these proposed actions will reduce operating costs and generate revenues for DEC. Prioritization of management actions was based on the availability of funding, and health and safety concerns.

#### 1. Replace existing toilets, buildings #12 and #13

The existing toilet buildings contain older style toilets which require constant maintenance, and replacement parts are no longer available for the leaking flush valves. Toilet building #13 is located in the vicinity of the one existing ADA campsite and the three sites proposed for conversion to universal access. This area is level and best suited for an ADA-compliant toilet building. A new accessible toilet building will improve efficiency and meet the needs of all campers. Toilet building #12 is used by both

campers and day-users and is currently undersized for the number of patrons it serves. A new accessible toilet building will provide enough toilets and sinks to comply with DEC design standards and NYS Health Department Codes.

### **2. Convert three campsites to universal design**

This management action proposes to convert three campsites to universal access, which will meet the needs of all campers.

### **3. Replace overhead lines with underground system, and install backup power system for water and sewer**

Caroga Lake Campground has 2,384' of overhead power lines and 870' of buried lines running through a facility that is heavily wooded in many locations. Both the water and sewer systems require electric power for pumps to operate. The overhead lines are in constant need of maintenance and have required emergency repairs several times, resulting in power being off in the facility for extended periods. In 2014, the campground was without power for three days, requiring visitors in the entire campground to use outhouses. Also, there was no running water or flush toilets.

Over time, the overhead power lines have had many splice repairs that further weaken their durability. This management action proposes that the overhead power lines be buried and the two pole transformers moved to a ground-pad location. In addition, by installing a backup generator for the water system, water could be pumped to the water spigots. If the backup system was portable and could be moved to the sewer lift station, some use of toilets and sinks could also be provided.

### **4. Convert vault toilet building into storage building**

The vault toilet (building #10), located near the day-use area, is no longer used because it was determined to have a leak in its vault. If a temporary storage tank can be located outside the building and connected, it could be used as a backup toilet building in the event of a power outage. At such time when a backup power system is installed (management action #3), the toilet could be removed and the building could be converted to a storage building.

### **5. Replace north and south perimeter fences**

Caroga Lake Campground is located in a densely settled area adjacent to private homes and public roads on both the north and south boundaries. To insure public safety and to control access to the facility, 2,600' of fencing is installed on the boundaries. Over several years' time, snowplows pushing

## IV. PROPOSED MANAGEMENT ACTIONS

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snow against the fence, trees falling onto the fence, and ground shifting from frost have deteriorated the fence to the point when it should be replaced.

### **6. Install utility sinks at all toilet buildings**

Section III E of this plan noted a deficiency of four utility sinks in the camping area. With no alternative for disposing of gray water, campers often toss wash and rinse water to the edge of the campsites, leaving soap, food and grease on the ground. This is both unsightly and draws wildlife. A utility sink attached to the outside of each toilet building and tied to the campground's sewer system will provide a place for campers to either wash dishes or dispose of gray water.

### **7. Rehabilitate seawall at lakefront**

The stone seawall was constructed in 1929 and prevents shoreline erosion. The wall is in good condition but needs some pointing up of the stonework and additional soil brought in for where areas behind the wall have settled. If the wall has a significant failure in the future, the department will consider a more natural shoreline stabilization remedy rather than replacement of the retaining wall.

### **8. Rehabilitate 20 campsites**

The concentrated use of campsites over time results in the need for rehabilitation. An annual survey of each campsite is conducted, and site conditions, including camping-pad, screening, fireplace and table, are evaluated. In addition, today's larger camping vehicles require some sites to be enlarged. From this survey, a list of campsite improvements was produced that will identify sites needing additional gravel and camping-pad hardening, removal of hazardous trees and stumps, new plantings for screening, relocation or replacement of fireplaces, repair or replacement of picnic tables, and improvements to drainage. This management action is an ongoing process and will be conducted over the life of the plan.

### **9. Install information on aquatic invasive species and drop box at boat launch**

Boats, trailers, waders and other fishing and boating equipment can spread aquatic invasive species from waterbody to waterbody unless properly cleaned and dried or disinfected after use.

New York State has developed cleaning, drying and disinfection guidelines for boaters to use and these will be posted at the boat launch. In addition, an invasive species disposal station will be installed for users to dispose of plants, animals and debris removed at the boat launch site.

### **10. Provide foot-wash stations at beach area**

Sand, fresh-cut grass and leaves are constantly tracked from the day-use area into the bath house and comfort station, as well as into visitors' vehicles. Sand is especially hard to clean up in buildings. Providing foot-wash stations will minimize the need for extra cleaning efforts and offer a service to visitors. The stations will be located where foot-traffic exits the beach.

### **11. Construct pavilion at day-use area**

As previously noted, Caroga Lake Campground draws over 7,000 day-use visitors each season and is also used during the week by the Town of Caroga for its summer youth program. A pavilion will provide a shelter for visitors during inclement weather and can be rented to provide additional revenue.

### **12. Plant trees and shrubs**

New trees and shrubs are required to establish trees in high-traffic areas where natural regeneration is unlikely to occur and to replace those lost due to removal of hazardous trees. Species will be selected that are both native to the area and will provide needed shading and screening. This management action is an ongoing process and will be conducted over the life of the plan. Particular attention will be given to improving vegetative cover in the day-use area, providing shade to visitors, and improving the visual buffer from other locations on the lake.

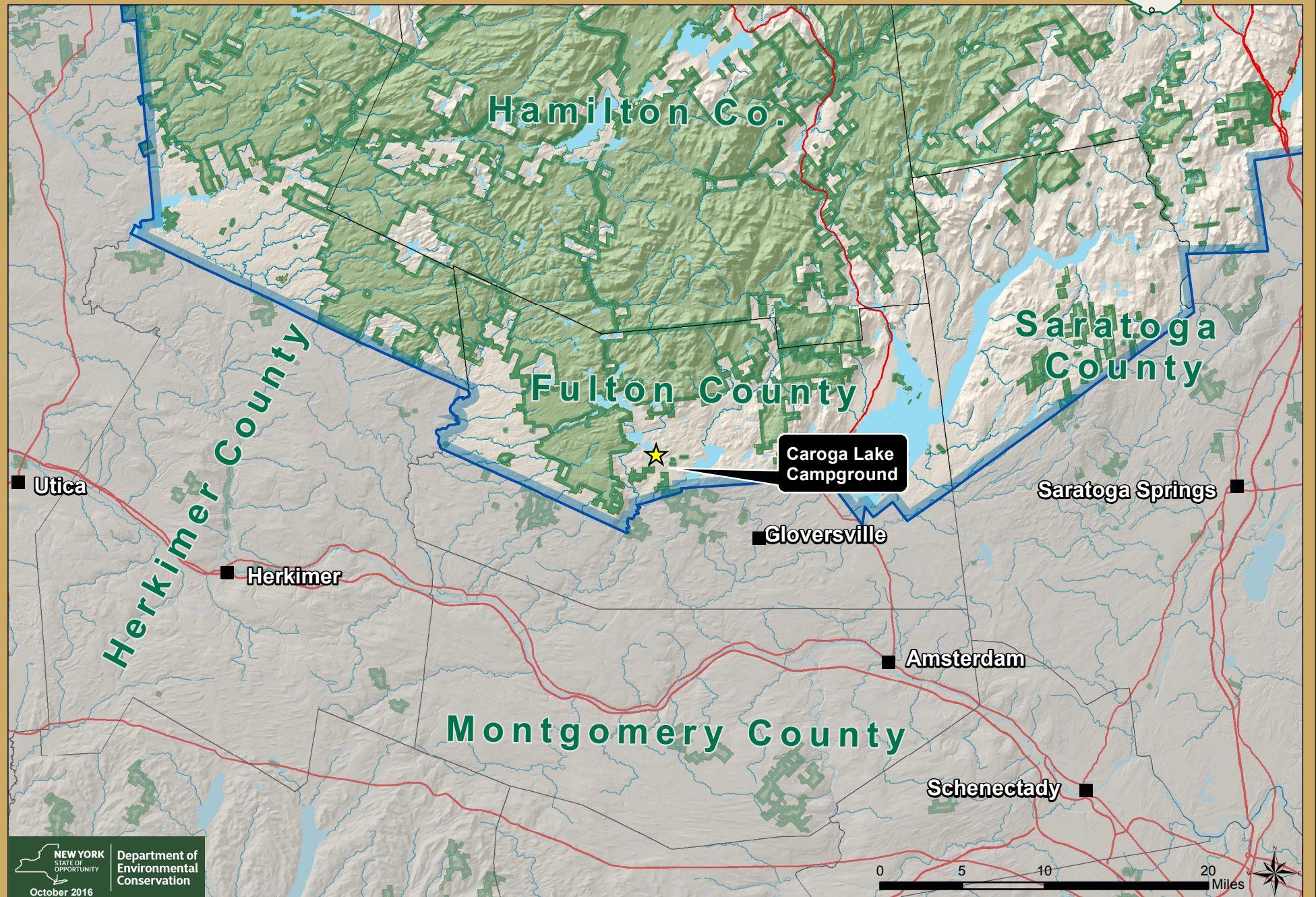
## V. EXHIBIT INDEX

Exhibit Index	
Exhibit #1 – Caroga Lake Campground Location Map	
Exhibit #2 – Caroga Lake Campground Topography Map	
Exhibit #3 - Caroga Lake Campground Orthoimagery Map	
Exhibit #4 – Caroga Lake Existing Facilities Map	
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Exhibit #11 – Caroga Lake Management Actions Location Map	
Exhibit #12 – Caroga Lake Campground Photos	



# Caroga Lake Campground

## Exhibit # 1 - Location Map



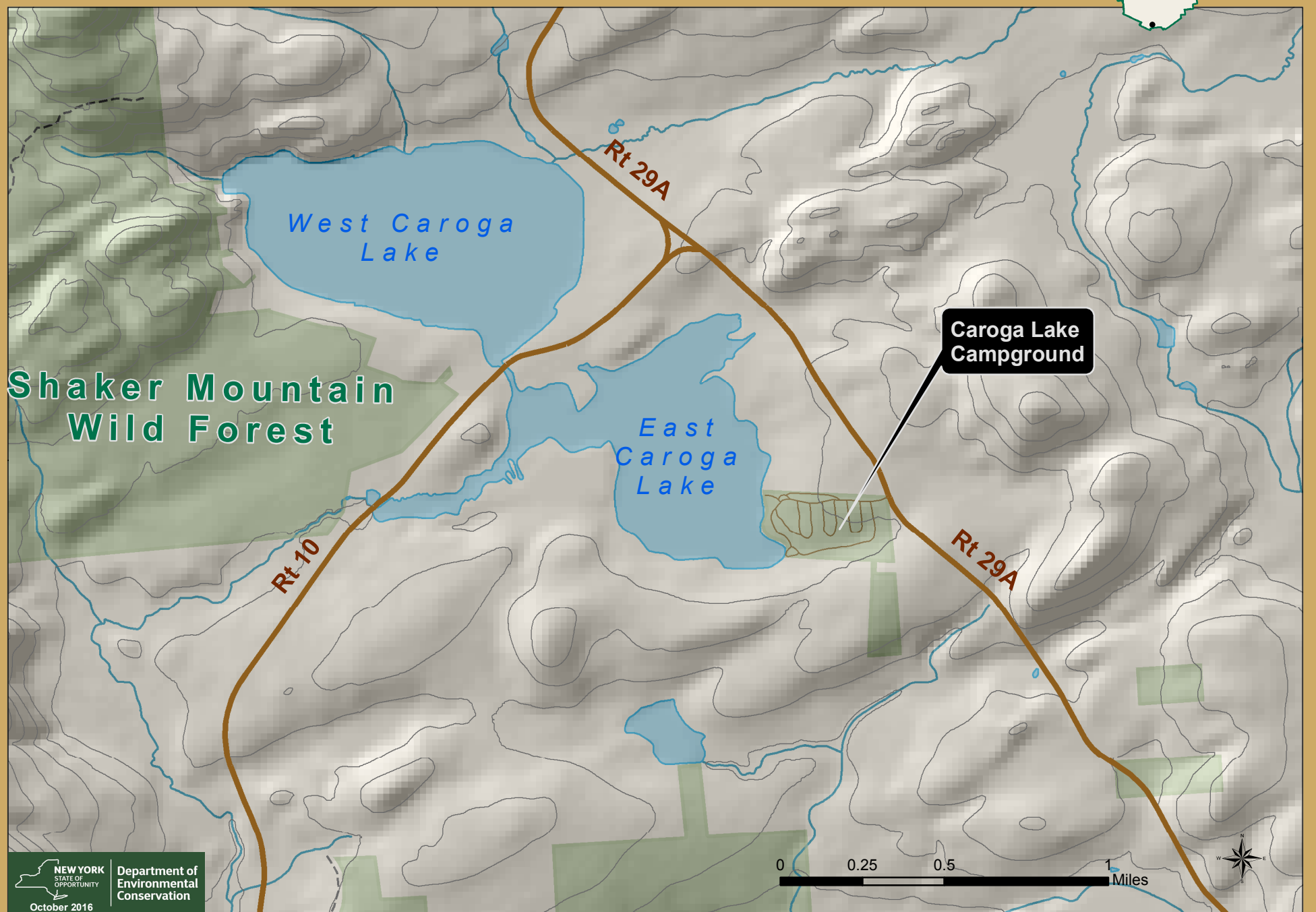


# Caroga Lake Campground

Exhibit # 2 - Topography Map



Adirondack  
Park



# Caroga Lake Campground

Exhibit # 3 - Orthoimagery Map



Adirondack  
Park



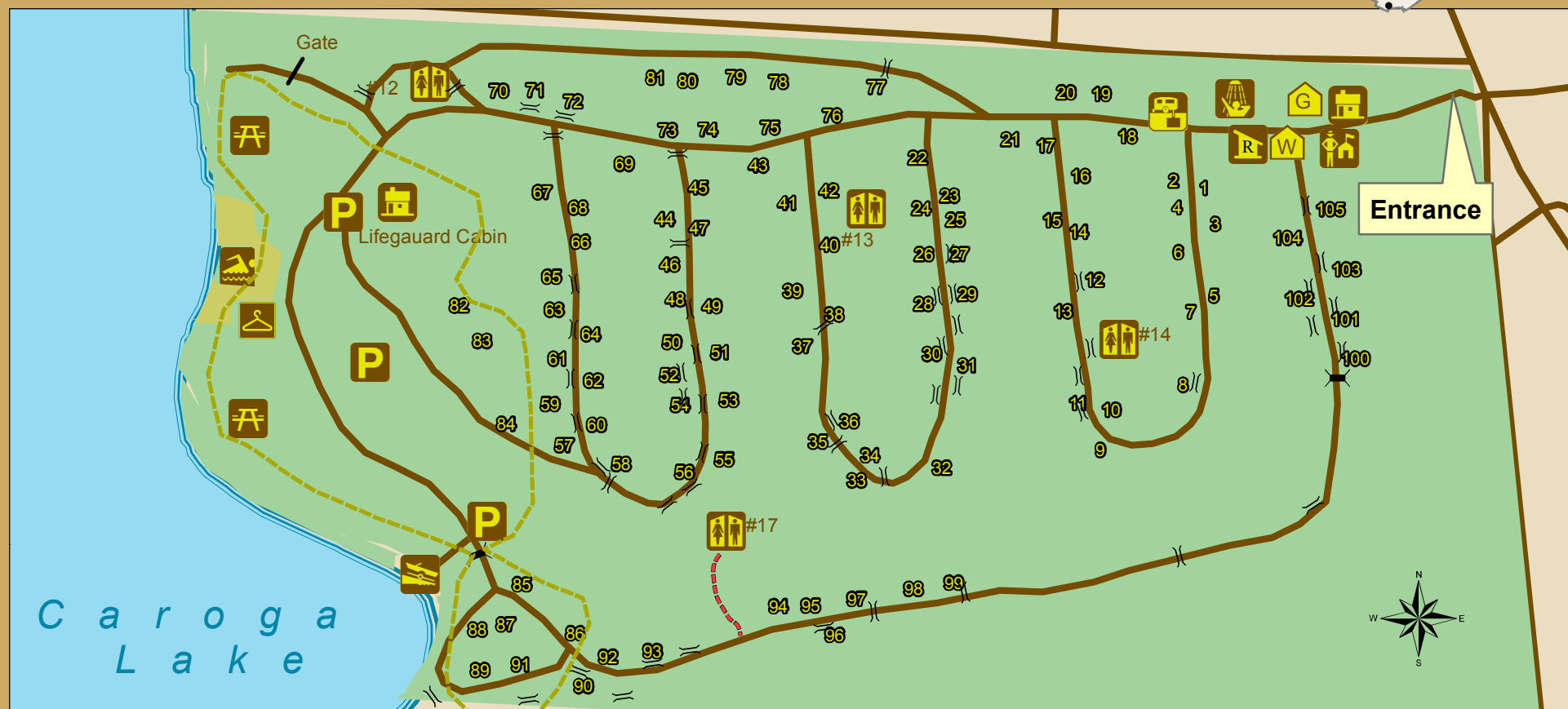


# Caroga Lake Campground

## Exhibit # 4 - Existing Facilities Map

Caroga Lake  
Campground

Adirondack  
Park



### Legend

	Staff Housing		Dump Station		Shower Building		Bathhouse
	Boat Launch		Wood Storage Building		Rest Rooms		Garage
	Site #		Recycling Building		Beach		Parking Lot
	Exercise Trail		Picnic Area		Culvert		Bridge

0 200 400 800 Feet

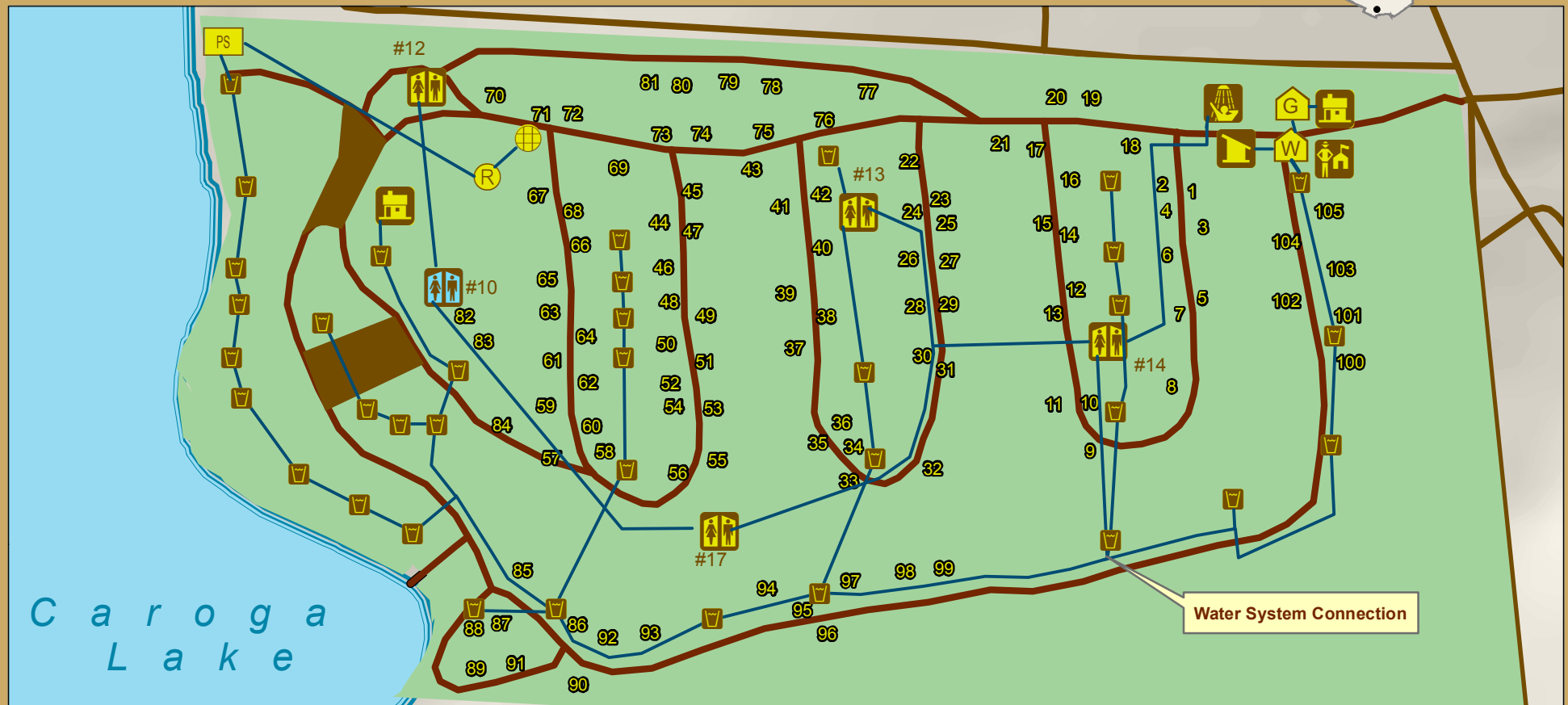


August 2016

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Environmental  
Conservation

# Caroga Lake Campground

## Exhibit # 5 - Existing Water Facilities Map



### Legend

	Staff Housing		Pumpouse		Garage		Wood Storage Bldg
	Rest Room		Vault Toilet		Shower Bldg		Recycling Bldg
	Well		Reservoir		Ticket Booth		Waterline

0 250 500 1,000 Feet

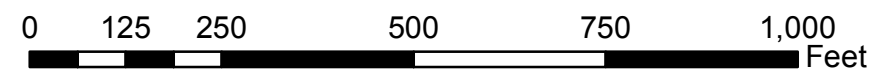


# Caroga Lake Campground

## Exhibit # 6 - Existing Sewage Facilities Map



- |                 |                    |                    |
|-----------------|--------------------|--------------------|
| Bathhouse       | Staff Housing      | Shower Building    |
| Comfort Station | Dump Station       | Force Main Sewer   |
| Lift Station    | Recycling Building | Gravity Sewer Line |

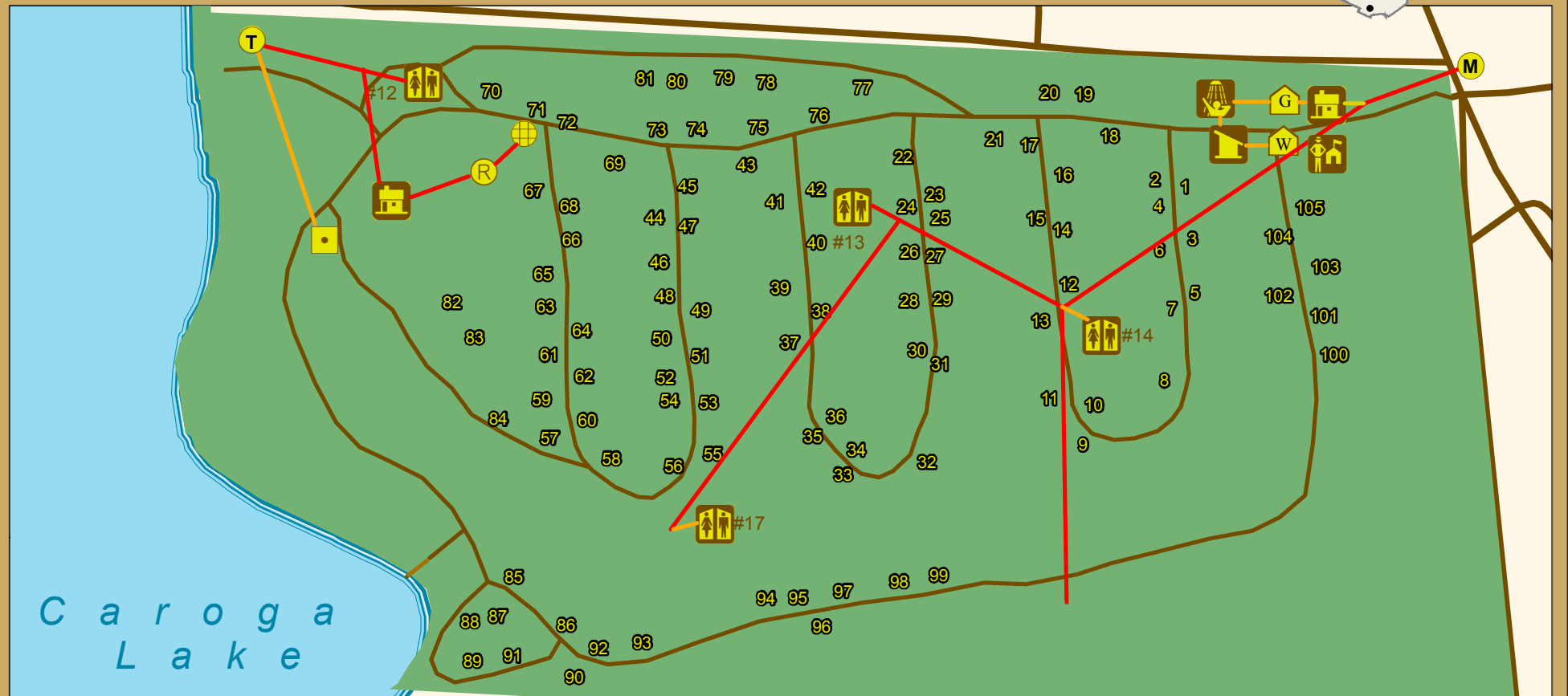


# Caroga Lake Campground

## Exhibit # 7 - Existing Electric Facilities Map



Adirondack  
Park



Comfort Station



Well



Garage



Transformer



Lift Station



Staff Housing



Recycling Bldg



Electric Meter



Reservoir



Wood Storage Bldg

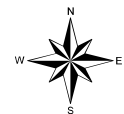


Shower Bldg

Overhead Powerlines

Underground Powerlines

0 250 500 1,000 Feet



August 2016

Department of  
Environmental  
Conservation

# Caroga Lake Campground

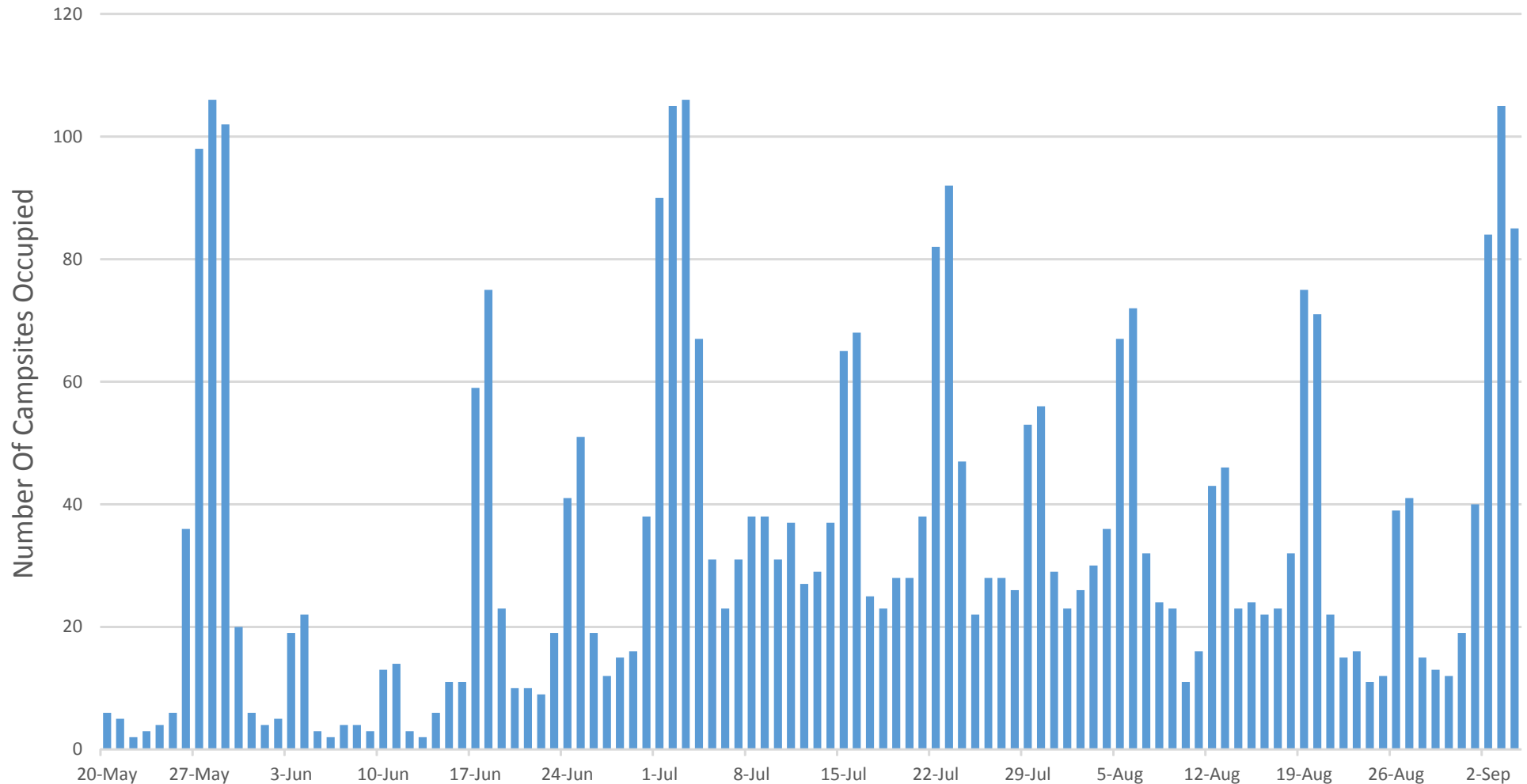
## Exhibit # 8 - Campsite Occupancy Graph



Adirondack  
Park

### Caroga Lake Campground

Daily Occupancy 2016

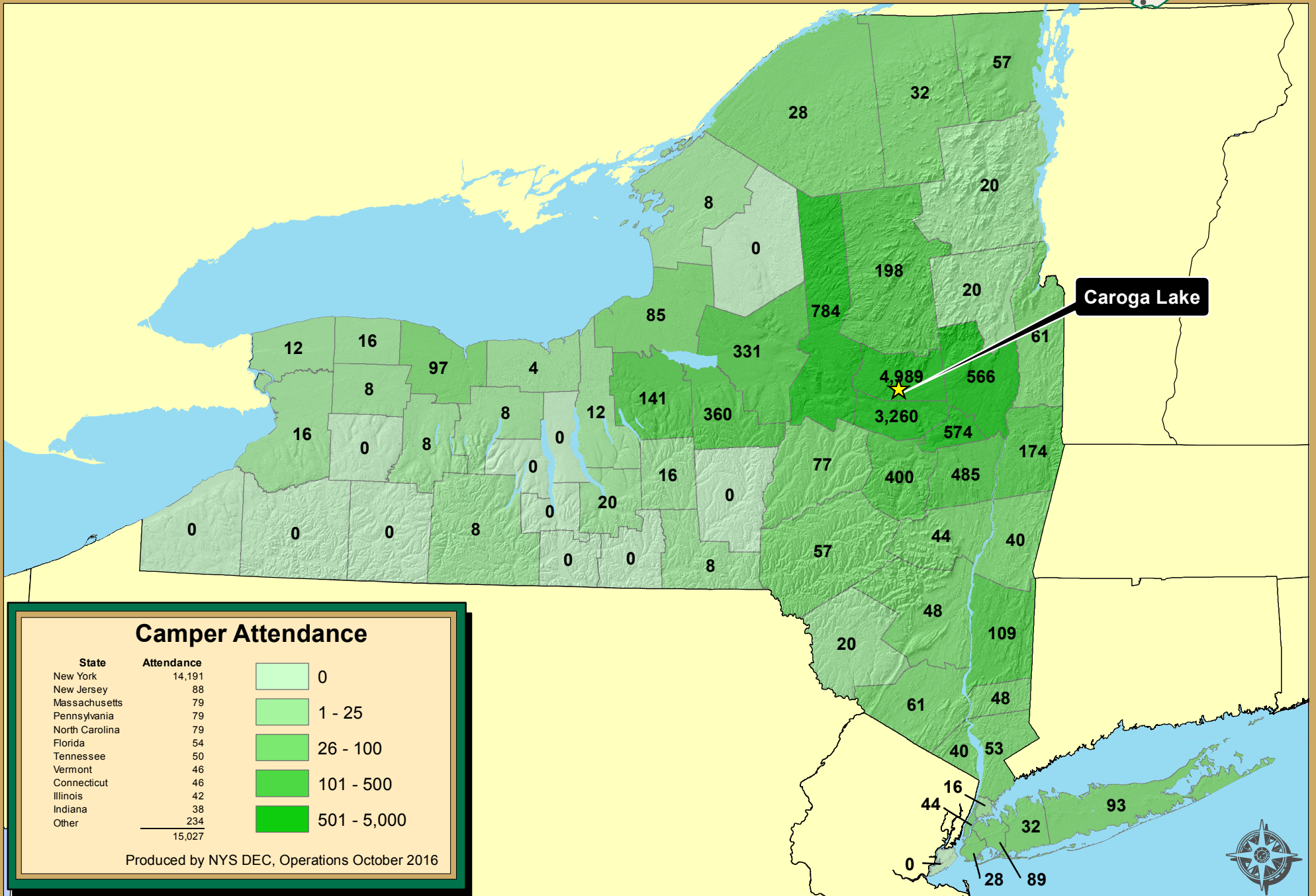


# Caroga Lake

## Exhibit # 9 - Camper Demographics 2016



Adirondack  
Park








# Caroga Lake Campground

Exhibit # 10 - Wetlands and Soils Map



Adirondack  
Park



- |  |  |
|--|--|
| <b>M3</b> Metacamoet fine sandy loam 3-8% slopes | <b>W0</b> Wonsqueak mucky peat 0-2 % slopes  |
| <b>P3</b> Pillsbury fine sandy loam 3-8% slopes  |  Caroga Lake Campground         |
| <b>S3</b> Skerry fine sandy loam 3-8% slopes     |  Palustrine Wetlands            |
| <b>S8</b> Skerry fine sandy loam 8-15 % slopes   |  Intermittent Riverine Wetlands |

0 375 750 1,500 Feet



Department of  
Environmental  
Conservation

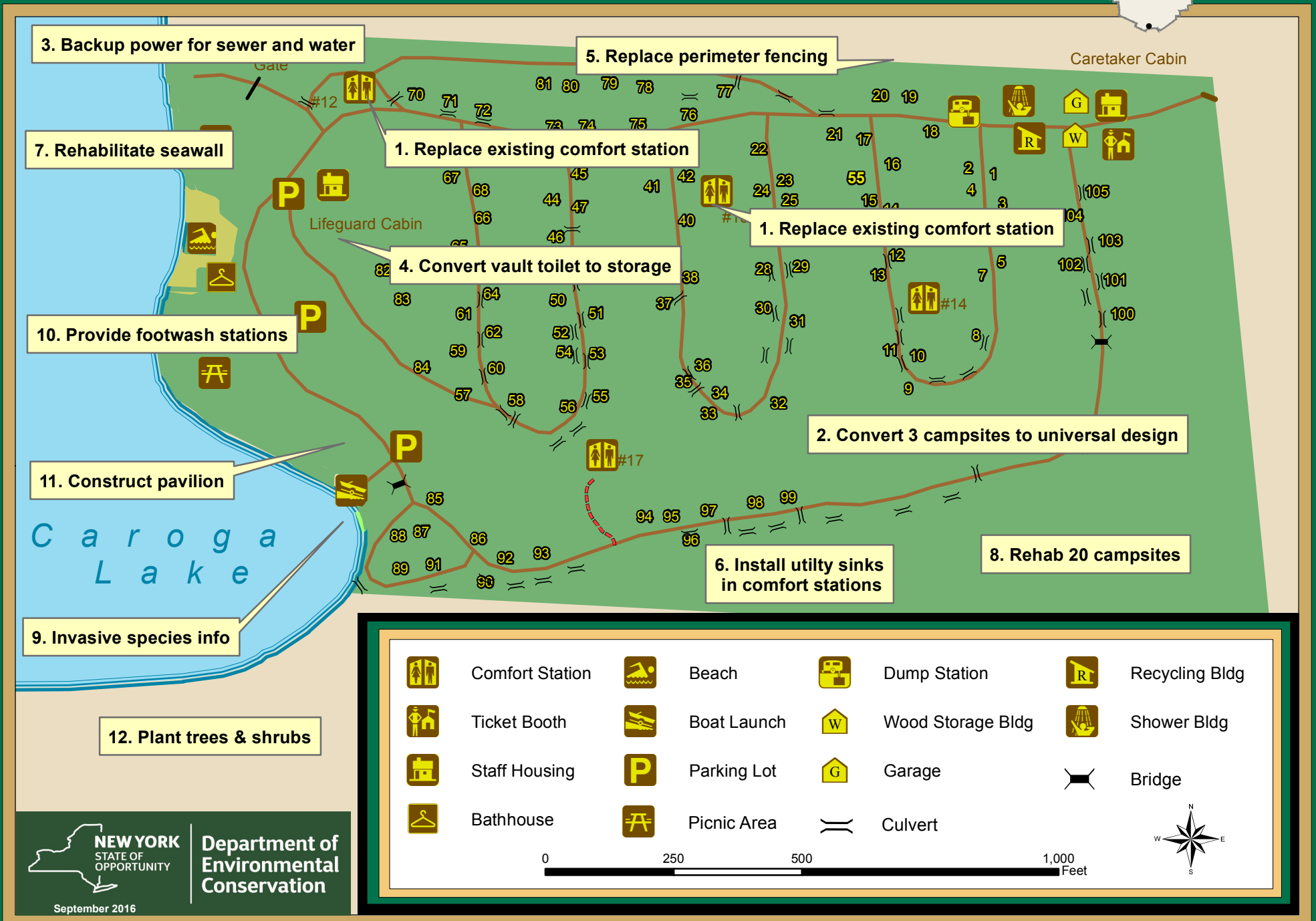
August 2016

# Caroga Lake Campground

## Exhibit # 11 - Campground Management Actions Map



Adirondack  
Park



Department of  
Environmental  
Conservation

September 2016



## Exhibit # 12

### ► Photos of Caroga Lake Campground







Caretaker Cabin



Information Board



Ticket Booth



Garage





Firewood Storage Building



Recycling Building



Shower Building



Comfort Station #1 (Bldg 12)





Lakeshore Retaining Wall



Beach



Bathhouse



Lift Station





Lifeguard Cabin



Picnic Area



Comfort Station #2 –Vault (Bldg 10)



Reservoir





Boat Launch Ramp



Boat Rental Area



Chlorinator Building (not in use)



Comfort Station 5 (Bldg 14)





Comfort Station #4 (Bldg 13)



Comfort Station #3 (Bldg 15)