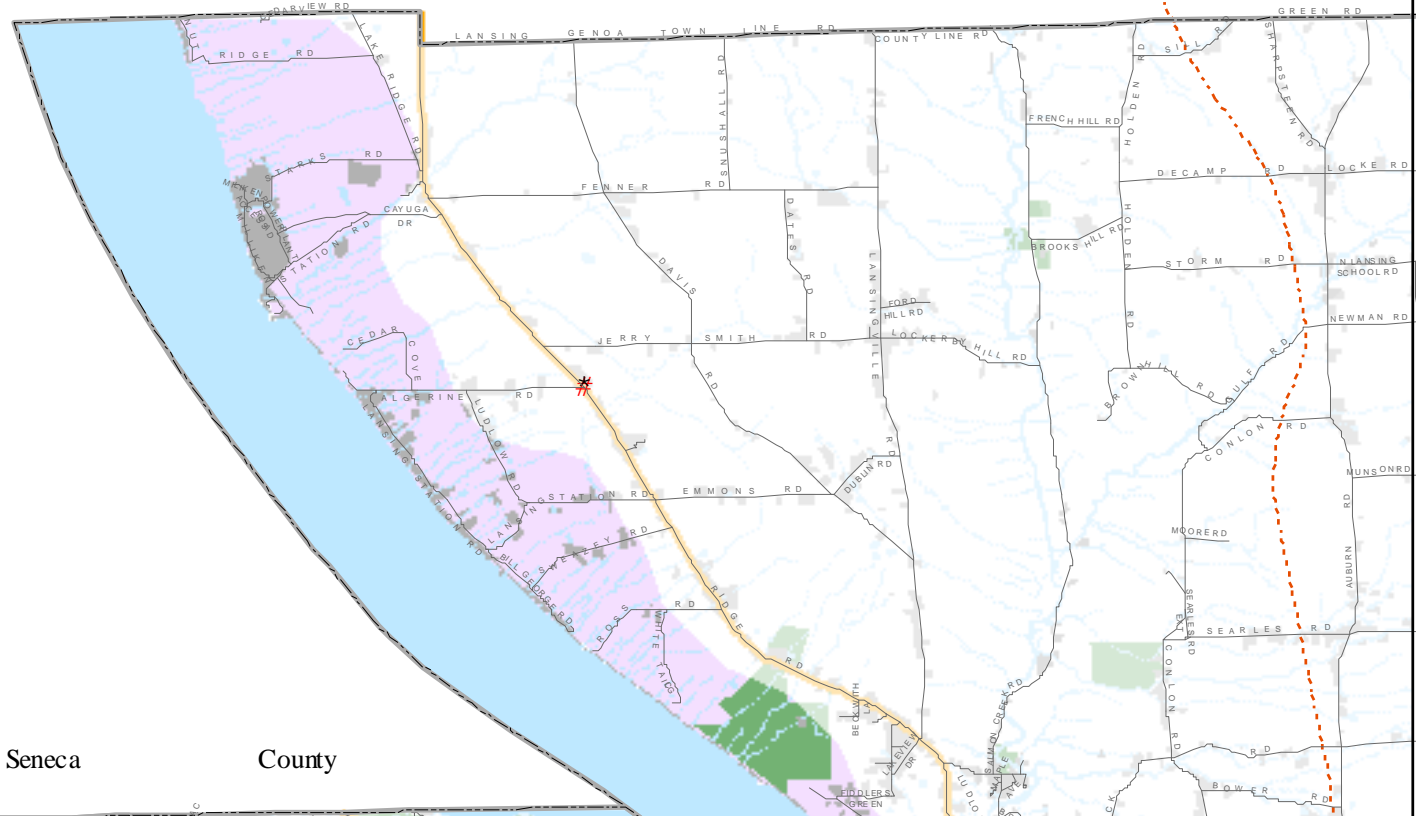


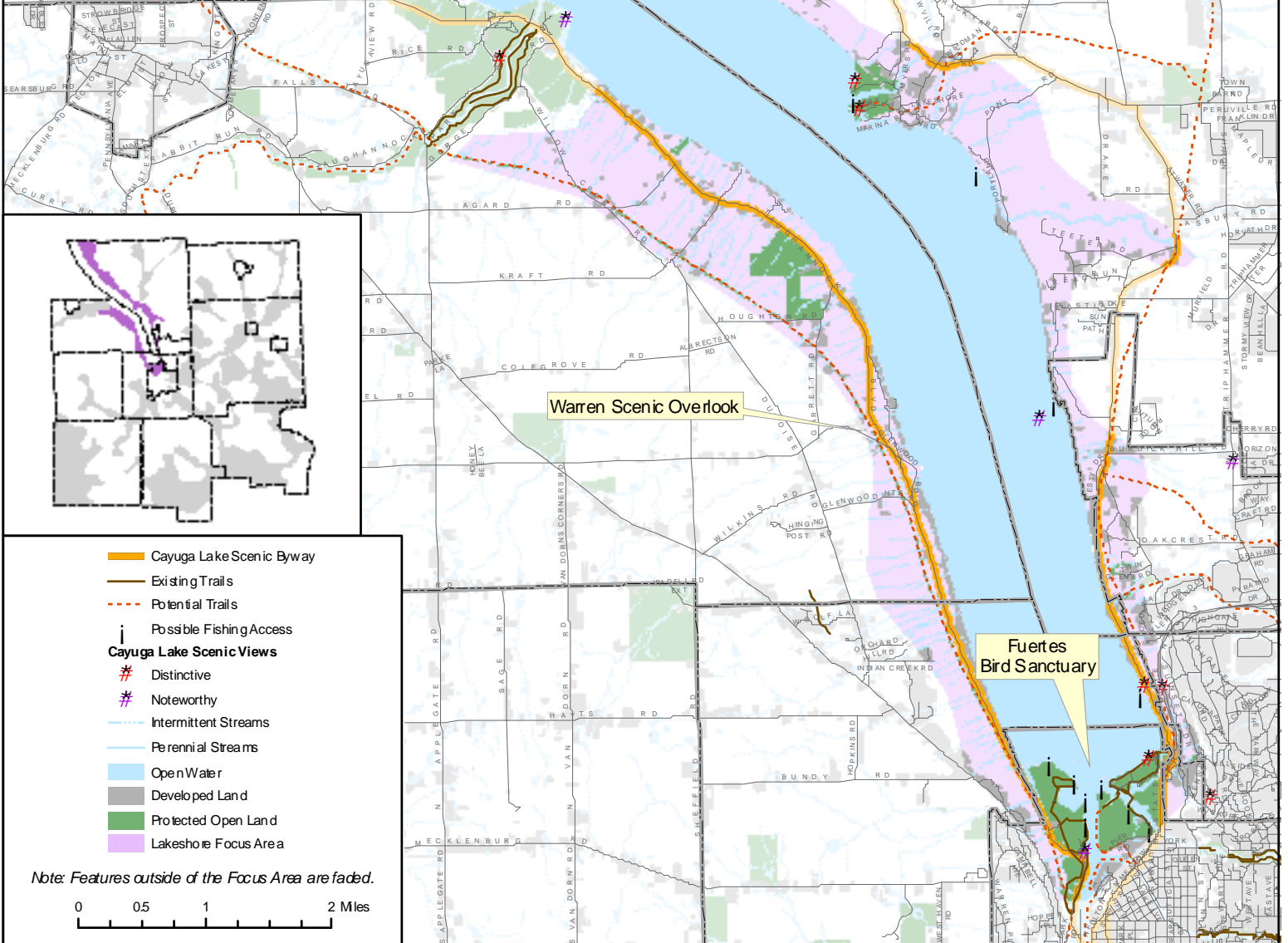
# Lakeshore



# Cayuga County



# Seneca County

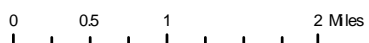


Warren Scenic Overlook

Fuentes Bird Sanctuary

- Cayuga Lake Scenic Byway
- Existing Trails
- - - Potential Trails
- | Possible Fishing Access
- Cayuga Lake Scenic Views**
- # Distinctive
- # Noteworthy
- Intermittent Streams
- Perennial Streams
- Open Water
- Developed Land
- Protected Open Land
- Lakeshore Focus Area

Note: Features outside of the Focus Area are faded.



## Description of Focus Area

Cayuga Lake, one of the eleven Finger Lakes, is striking in its beauty, is widely used as a source of drinking water and recreation, has influenced the area's historical development, and continues to this day to help define the community's sense of place. It is the longest and widest of the Finger Lakes, and has more feet of shoreline than any other. Its principal tributaries in Tompkins County are Fall Creek, Salmon Creek, Cayuga Inlet, Taughannock Creek, and Six Mile Creek. The Lakeshore Focus Area encompasses the entirety of Cayuga Lake in Tompkins County and its lakeshore, extending from the Town of Lansing on the east side of the Lake, south to the City and Town of Ithaca, and northwest through the Town of Ulysses.

## Summary of Key Benefits

Major benefits provided by this Focus Area are outdoor recreation, scenic views, fishing, critical habitat and biodiversity, and water quality. Cayuga Lake is the focal point of most recreational activities in this Focus Area. From boating and swimming, to biking and hiking on multi-use trails and picnicking at public park facilities located on the lakeshore, the Lake is a recreational draw for residents and visitors alike. Scenic views from one of the various parks or from the Cayuga Lake Scenic Byway are part of what makes Cayuga Lake and Tompkins County special. Cayuga Lake is also noted for its diversity of fish species, and for the high quality fishing experience that it provides. Birds also take advantage of these waters and the surrounding landscape, as evidenced by the area's designation by National Audubon Society and New York State as an Important Bird Area. The majestic cliffs, wooded hillsides and abundant wetlands along the Lakeshore provide critical habitat for a variety of rare and scarce plants. The Lake is also a major source of drinking water for thousands of residents of Tompkins County.

Other important benefits include education and research and agro-forestry. The varied landscape within this Focus Area, along with the unique characteristics of the Lake, combine to offer many unique education and research opportunities. The Cayuga Nature Center, located in the wooded hillside above the west shore of Cayuga Lake, provides environmental education programs to school groups and area residents. The Floating Classroom, which is funded by a consor-

tium of non-profit groups, tours Cayuga Lake and offers educational programming about the dynamic relationship between Cayuga Lake and the landscape that surrounds it. On the east side of the Lake, Portland Point Quarry offers unique education and research opportunities for geologists and paleontologists. It is cited by local geologists and educators as the most important geological site in the county. Although the Quarry is private property, the current owners are open to permitting prearranged visits to the site for educational purposes. At the southern end of the Lake, adjacent to the City golf course, the Cornell Lighthouse Point Biological Station contains an impressive diversity of birds and plants, and provides access to Cayuga Lake for students and researchers alike.

An extensive area along the western shore of the Lake offers prime conditions for agro-forestry, including the production of ginseng, goldenseal, and maple syrup. Increasing subdivision and development of land along this side of the Lake and a high deer population threaten the remaining large tracts of forests and the income opportunities that they provide.

## Outdoor Recreation

Cayuga Lake is part of the 524-mile-long New York State Canal System, connecting Cayuga Lake to waterways from Buffalo to the Hudson River. Operators of motorboats, kayaks, canoes, wind surfers, and sailboats are served by public and private marinas, boat launches, and public parks and facilities. These resources are regularly used by local residents, as well as by visitors from across the northeast.



*Public and private marinas serve operators of motorboats, kayaks, canoes, wind surfers, and sailboats.*

The Cayuga Lake Waterfront Trail is also an important recreational amenity in the City of Ithaca, and provides a connection between the multiple recreational opportunities along the City's waterfront. The proposed Black Diamond Trail, slated to extend along the west side of the Lake and link the two State Parks found in or abutting this Focus Area with the two State Parks just to the south in the Gorges Focus Area, will also greatly add to the recreational opportunities in this Focus Area.

## Scenic Views

Glacial action and centuries of scouring and erosion have created dramatic landforms in this Focus Area, including a variety of gorges, waterfalls, and steep escarpments that provide great scenic value around the Lake. From many locations along the steep hillsides and roadways near the Lake, views of the water, the Ithaca urban area, and the opposite shore can be spectacular. In some places, views are fleeting or are obscured by dense tree growth. Much of the lakeshore along the east and west sides can be enjoyed from public parks, including Myers Point, Stewart Park, Cass Park, Tremem Marina, Town of Ithaca East Shore Park, and Taughannock Falls State Park, which is located in the adjacent Taughannock Creek Focus Area. In addition, the Cayuga Lake Scenic Byway (which circles the entirety of Cayuga Lake) traverses this Focus Area.



Scenic view of Cayuga Lake.

A scenic resources inventory, currently being conducted by Tompkins County, documents numerous scenic views from within this Focus Area, and many others that include portions of this Focus Area within their viewsheds. Although planning efforts for scenic resources will largely be done as part of the anticipated scenic resources plan that will follow completion of the scenic resources inventory, it is identified here because it is a key benefit provided by this Focus Area.

## Fishing

According to the *New York's Finger Lakes Fishing and Hunting Guide*, the combination of shallow and deep waters of Cayuga Lake provide habitat for the greatest diversity of sport fish in the region. Landlocked Atlantic Salmon live in the warmer waters near the discharge of creeks such as the Cayuga Inlet, Salmon Creek, and Taughannock Creek. Lake Trout can also be found off of Taughannock Creek, as well as off Myers Point, where Rainbow Trout and Brown Trout are also found in abundance. A healthy population of Small Mouth Bass are concentrated in the central portion of the Lake along the rock rubble points on both sides of the Lake. Deep trolling for a variety of fish species off Myers Point and Taughannock is very popular among boat anglers. Fishing opportunities exist year-round, with the shore along Taughannock Creek being a popular fishing spot in the fall and winter for Lake Trout, Brown Trout, and Landlocked Salmon.

## Critical Habitat and Biodiversity

The beautiful cliffs along the east side of Cayuga Lake provide unique habitat for a variety of rare and scarce plant species including Drummond's Rock Cress. Although there are many important habitat areas within this Focus Area, one of the gems is McKinneys Twin Glens, located just north of the Town of Ithaca border. McKinneys Twin Glens has been identified in the Tompkins County Unique Natural Areas Inventory as one of the urban area's peripheral green spaces in need of protection. The Glens cuts through a forested hillside and consists of two steep-sided gorges, with a high point between them, which provide habitat for a number of rare or scarce plants.

The west side of the Lake is characterized by steep forested hillsides, crossed by a number of small streams that have carved glens and small gorges through the rocks over the years. Oak-hickory forests dominate the west side, and provide habitat for a variety of forest and riparian bird species.

At the southern end of the Lake, the landscape flattens and important wetland bird habitat is found in abundance. The City-owned Fuertes Bird Sanctuary is primarily forested, and includes old-growth forest and marsh growing on the river delta created by Fall Creek. A number of rare species survive and thrive in this area. The site is a popular birding area, rich for both nesting and migratory (especially warblers) species.



*The Fuertes Bird Sanctuary in the City of Ithaca is a popular birding area, rich in both nesting and migratory species.*

The nearby Newman Tract, Cornell Biological Station, and Hogs Hole Unique Natural Area provides lake-forest marsh and floodplain habitat, and are noted for their rich bird species. Similar habitat is also found at the delta of Lower Salmon Creek, which is an important nesting site for resident and migratory birds. Some wading birds, including the golden and the black-bellied plovers, buff-breasted sandpiper, and a rich diversity of migratory shorebirds and waterfowl are

found here. These and other important bird habitat sites support a large number of species. Indeed, over 300 species of birds make seasonal use of Cayuga Lake, and the National Audubon Society and New York State have identified the Lake as an Important Bird Area.

The Lake also provides important habitat for fish, including Landlocked Atlantic Salmon and Lake Sturgeon.

## Water Quality

The waters of Cayuga Lake flow into the Oswego River Basin and form part of the headwaters to Lake Ontario and the Great Lakes basin. Cayuga Lake is a major source of public and private drinking water supplies and the southern end of Cayuga Lake is the source of drinking water for approximately 30,000 residents of Tompkins County. The southern end of Cayuga Lake is shallow making it inherently more vulnerable to water quality concerns than other, deeper portions of the Lake.

Although water quality in the southern end of Cayuga Lake is generally high, it is strongly influenced by water quality in the main tributaries to the Lake (Cayuga Inlet, Six Mile Creek, Fall Creek, and Salmon Creek). Cayuga Inlet, in particular, has water quality problems including sedimentation, high bacteria levels, and odor. These issues detract from an otherwise lovely feature that could be the cornerstone for business and tourism in the up-and-coming Inlet Island district. A number of specific water quality concerns have also been identified for the southern end of Cayuga Lake; chief among these is sedimentation, which reduces water clarity in the Lake, increases the costs to treat drinking water, and affects habitat for aquatic species.

## Protection and Management Issues

### Outdoor Recreation

Scenic views and tranquility are important components of the outdoor experience, and are threatened in some areas by human development and incompatible land uses. In particular, development along the lakeshore and in areas adjacent to the future Black Diamond Trail has the potential to reduce the scenic quality and tranquility of these key recreational resources.

The presence of pollutants such as sediment, herbicides, pesticides, fertilizers, pathogens, and litter can negatively impact human health and recreational opportunities. Occasional monitoring at the southern portion of the Lake has indicated elevated levels of fecal coliform bacteria in near-shore areas. Until the early 1960s, Stewart Park in the City of Ithaca served as a designated swimming beach. This swimming area was closed due to water quality issues. Remaining public swimming beaches along the lakeshore include Myers Point and Taughannock Falls State Park.

- n Invasive aquatic species can interfere with the ability of boats to move and dock in shallow-water areas. The presence of Eurasian watermilfoil and, more recently, water chestnuts have been documented in Cayuga Lake. Increasing sedimentation also interferes with boating operations, particularly in the southern, shallow end of the lake.
- n Public access to the waterfront is relatively limited in some locations, which can reduce opportunities for public enjoyment of water resources, particularly boating. There is an ongoing call for more places along Cayuga Lake to launch a canoe or sailboat, dock a boat, swim, and sit and watch waterfront activities. The Cayuga Lake Local Waterfront Revitalization Plan identifies several locations along the Lake where additional waterfront access could potentially be provided.
- n Existing waterfront parks and related facilities are in need of improvements. Stewart Park, the City's historic waterfront park, needs to be enhanced through improving the condition of the lake edge, restoring historic buildings, developing trails, and upgrading park landscaping and facilities. Improvements planned for Lansing Town Park include landscaping at Lighthouse Point and construction of a waterfront performance pavilion. And virtually all facilities at the City's Cass Park need to be upgraded, including the swimming pool, skating rink, playing fields, tennis courts and playground.



*Improving the conditions of the lake edge is a major improvement needed at Stewart Park.*

- n Noise from watercraft has been identified as a concern, and communities along the Lake have recently worked to adopt policies and regulations to reduce noise. Most the lakeshore municipalities now have regulations that address this issue, although limited resources make adequate enforcement difficult.
- n Cayuga Inlet is the location of much of the Focus Area's services and facilities for recreational boating. Numerous marinas, transient docking facilities, tour boats, and boat repair facilities are dependent on maintaining a navigable channel to Cayuga Lake. Dredging of the Inlet last occurred in 1982 and marina operators and boat owners agree that dredging is long overdue; it is a critical and immediate need.
- n Canoes, kayaks, and other 'muscle-powered' boats provide low cost and low impact boating opportunities for the public. Launching facilities are, in most cases, easy and inexpensive to construct, particularly when located in existing public facilities. Canoe and kayak rental facilities might locate in close proximity to launch facilities.

## Scenic Views

- n Scenic views contribute to the general attractiveness, outdoor experiences, and high quality of life experienced by residents and tourists of Tompkins County. These views can be degraded when vegetation or manmade structures interfere with the quality of the view or the point from which the view can be seen.
- n Several spectacular views along the lakeshore, such as from Rt. 13 heading south into Ithaca, lack safe pull-off spots for vehicles. This limits opportunities for safe enjoyment of these key views.
- n Pro-active steps need to be taken to preserve important scenic resources. For example, vegetation at key points (such as Warren Scenic Overlook along the scenic byway in Ulysses) needs to be managed to protect the scenic view for the public.
- n Particularly important scenic views need to be protected as well as the overall visual quality of the Cayuga Lake Scenic Byway.



*The scenic view from Rt. 13 heading south into Ithaca is one of the many spectacular views in this Focus Area.*

## Fishing

- n Improving landside-fishing access, including the provision of accessible fishing facilities, is an important need. Fishing pads, floating docks and fishing piers are all structures that can improve fishing opportunities. Accessible fishing sites should be provided at lakefront public parks and along publicly owned creeks where fishing opportunities are already located. Accessible fishing facilities include not only accessible fishing pads and piers, but also accessible parking spaces, pathways, and, in some cases, restroom facilities.
- n Pollutants in the waters, such as sediment, pesticides and herbicides, and inputs from atmospheric deposition, can negatively impact fish populations and raise health concerns for fish consumption. Sedimentation is of particular concern in Cayuga Lake, and some agricultural chemicals have been detected in the water although the levels do not currently exceed ambient water quality standards.
- n When streambanks and lakeshores become eroded, vegetation can no longer filter out sediment and other pollutants, and water temperatures rise because there are no longer trees and tall grasses along the shore to provide shade. These effects negatively impact water quality and compromise the health of aquatic species. Although specific buffer needs vary from site to site based on topography, vegetation, soils, and land uses, in general a 100-foot vegetated buffer is the minimum needed to provide the filtration necessary for nutrient and

pollutant removal and to prevent excessive temperature fluctuations. A wider buffer width may be required for bank stabilization or additional water filtration, depending on local site characteristics.

## Critical Habitat and Biodiversity

- n Although specific habitat size requirements vary by habitat type and from species to species, connected open space of at least 135 acres is generally needed to support diversity and abundance in plant and animal communities, and to enhance species survival by providing habitat for larger populations of animals and allowing for species movement and migration. Given the level of development along much of the Lake, there are relatively few remaining areas of connected habitat of this size. Protecting the key remaining parcels and habitat corridors from further fragmentation is critical for sustaining biodiversity.
- n Wildlife corridors promote genetic diversity among species and help counter the negative effects of habitat fragmentation by connecting otherwise isolated patches of suitable habitat. Cayuga Lake is an important regional, and even international, habitat link. The Montezuma National Wildlife Refuge, located at the north end of Cayuga Lake, is an important refuge and breeding ground for migratory birds and other wildlife.
- n The introduction of non-native species, pesticides, herbicides, and fertilizer can inhibit growth of native plants critical to biodiversity. Agricultural chemicals have been detected in the streams and Lake, although the levels do not currently exceed ambient water quality standards. There are a number of exotic species that have invaded Cayuga Lake. These include the zebra and quagga mussels, a predatory cladoceran zooplankton, Eurasian watermilfoil, and water chestnuts. Invasive species along the lakeshore has also been identified as major problem.
- n Wetlands and ponds are sometimes filled or degraded, which has a negative impact on the ability of those systems to support wetland and pond species. Large wetlands (>5 acres) provide critical habitat, and smaller wetlands serve as “stepping stones” to provide habitat connections. Wetlands and pond areas that are isolated and small in size cannot support certain wetland and pond species of greatest conservation need. Many wetland bird communities depend on their local habitat, as well as the wetlands within a two-mile radius. Development from the 1900s through today has resulted in a loss of wetlands and fragmentation of

habitat around the southern portion of Cayuga Lake. Protecting the remaining wetlands and maintaining viable habitat connections between them is critical to sustaining the resident and migratory bird populations in this area.

- n When streambanks, lakeshores, and upland areas erode and become bare, water quality and the health of aquatic species are compromised (by increases in sediment and other pollutants that don't get filtered out by vegetation, and higher water temperatures resulting from lack of shade from trees and other tall vegetation). Although specific buffer needs vary from site to site based on topography, vegetation, soils, and land uses, in general a 100-foot vegetated buffer is the minimum needed to provide the filtration necessary for nutrient and pollutant removal and to prevent excessive temperature fluctuations. A wider buffer width may be required for bank stabilization, improved habitat conditions, or additional water filtration, depending on local site characteristics.
- n Stream relocation and management can limit natural flooding and channel meandering, which provide vital aquatic habitats. The streams running through the City of Ithaca are already mostly channelized, however, many of the other creeks along the Lake, such as Salmon Creek remain in a more natural state.
- n Lake Sturgeon and Atlantic Salmon are sometimes harvested at a greater rate than their ability to reproduce.
- n Introduced sport fish species can compete against native fish populations and limit the survival rate of immature native fish. Balancing sport fishing goals with native fish conservation goals is a critical challenge for Cayuga Lake.
- n Some cliffs contain sensitive plant and animal species that are vulnerable to development that may impact their unique habitats.
- n Illegal collection of seeds and plants can have a negative impact on plant populations that are critical to biodiversity in this region. This is of particular concern for the cliff habitat areas.
- n Overgrazing by whitetail deer can inhibit native plant growth, forest diversity, and forest regeneration.

## Water Quality

- n Pollutants in the waters (such as sediment, pesticides and herbicides, fecal contamination and other inputs) can negatively impact human health and

increase the costs of treating drinking water.

Vegetated buffers along permanent and intermittently flowing watercourses, wetlands, and associated floodplains help filter pollutants from water, and are critical for sustaining water quality. Although specific buffer needs vary from site to site based on topography, vegetation, soils, and land uses, in general a 100-foot vegetated buffer is the minimum needed to provide nutrient and pollutant removal. A wider buffer width may be required for bank stabilization or additional water filtration, depending on local site characteristics.

- n When areas are developed, precipitation and runoff flowing across developed areas accumulate pollutants, such as sediment and oil and gas products.
- n As water runs off the landscape and into streams and the Lake below, it accumulates pollutants (such as sediment, bacteria, pesticides, and herbicides) that can negatively impact water quality. Steep slopes and shallow soils in some portions of this Focus Area reduce the ability of the landscape to absorb rainwater, and therefore increase the potential for runoff. Land management practices designed to minimize the amount of pollutants entering runoff are particularly critical in these areas.
- n Water flowing through roadside ditches eventually enters a stream and or a lake. Proper management of roads and roadside ditches is important in limiting the amount of pollution and sediment that enters streams and lakes and the spread of invasive species.
- n Although many of the key water resources in the Cayuga Lake Watershed are found within the Focus Area, these resources are affected by activities that occur throughout the watershed. As a result, water resource management efforts must address issues that extend beyond the boundaries of the Focus Areas.



## Priority Actions for the Lakeshore

The Natural Features Focus Area Project has identified 35 priority action items to be initiated over the next five years. The action items have been established to bolster and coordinate the region's many existing conservation efforts. They are not intended to replace or replicate those efforts. The action items reflect the broad range of unique uses in the identified Focus Areas. Below is a list of actions that are particularly relevant to the Lakeshore Focus Area. For a complete list of actions and designation of principal agencies that will lead implementation efforts please see the *Implementation of Priority Actions* section of the complete county-wide plan.

### Fishing

- è Establish accessible fishing locations at publicly owned lakefront parks and creeks where fishing opportunities are already located, as opportunities arise.

- è Work with responsible parties to dredge Cayuga Inlet Flood Control Channel and find an appropriate method for disposal of dredge spoil materials, as also recommended in the Tompkins County Comprehensive Plan.
- è Establish launch facilities for canoes, kayaks, and other 'muscle-powered' boats along Cayuga Lake.

### Water Quality

- è Initiate inspection and maintenance requirements for individual on-site wastewater treatment systems, as also recommended in the Tompkins County Comprehensive Plan.
- è Encourage semi-pervious paving, bioretention, and infiltration practices.
- è Provide education about and access to hydrologically sensitive area data through the Natural Resources Inventory (NRI) on-line interactive mapping tool.
- è Educate highway departments about the impacts of roadside ditching on water quality and water quantity, and provide highway departments with information about appropriate best management practices to address this issue.
- è Investigate and distribute information about techniques for controlling excessive water-borne bacteria originating from geese and other wildlife.
- è Conduct trainings for local planning boards about flood plain management.

### Critical Habitat and Biodiversity

- è Work with municipalities to protect wetlands and vernal pools smaller than 12.4 acres in size and not regulated by the NYS Department of Environmental Conservation.
- è Map small wetlands and vernal pools using data on hydrologically sensitive areas.

### Invasive Species and Native Plants

- è Inventory and identify high priority areas for the control of invasive species.
- è Establish a coordinated approach for distributing invasive species information to landowners throughout identified high priority areas.
- è Develop and distribute a list of popular landscaping plants and appropriate native species substitutions.
- è Conduct a comprehensive "natural lawns and gardens" campaign to limit the use of pesticides, herbicides, and fertilizer, and increase the use of native plants in landscaping.
- è Develop a policy for using native plants for all county maintenance activities and on all county properties, and work with local municipalities to institute a similar policy.
- è Provide a wide selection of native plants as part of annual plant sale, and eliminate all invasive species from the sale.

### Outdoor Recreation

- è Create and distribute a guidebook for the county's recreational amenities that highlights trails, swimming areas, and bird watching opportunities.
- è Enhance Stewart Park amenities by improving the lakeshore areas, restoring historic buildings, developing trails, and upgrading park landscaping and facilities, as funding permits.

## Rural Landowner Outreach and Education

- è Enhance existing rural landowner education efforts with an emphasis on sustainable forestry practices, impacts of ATV use, invasive species, wetlands management, grassland habitat, and targeted outreach to new rural landowners.
- è Identify and coordinate the dissemination of information about grants available to private landowners for habitat management and enhancement.

## Technical Assistance for Municipalities

- è Provide technical assistance to municipalities working on projects that implement the recommendations of the plan.
- è Provide training and information to municipalities on the full-range of conservation tools available, the Plan and the Natural Resources Inventory, flood plain management strategies, and vernal pool and small wetland habitat conservation.

## Coordination

- è Convene a group of partners (Tompkins County Conservation Partners) involved in local conservation efforts twice a year. Meetings will facilitate regular information sharing as well as coordinated educational efforts such as periodic field trips for municipal officials to key sites in the Focus Areas.

## Land Protection in Priority Areas

- è Protect open space system through partnerships with area agencies and municipalities by purchasing land and acquiring conservation easements.
- è Educate landowners about tax incentives available for conservation efforts through various formats including town/village newsletters with special emphasis on landowners within the open space system.
- è Develop or identify a model conservation zoning ordinance for use in key portions of the Focus Areas.
- è Engage key land protection stakeholders to assess the financial resources available for land conservation and work to establish additional funding as needed.