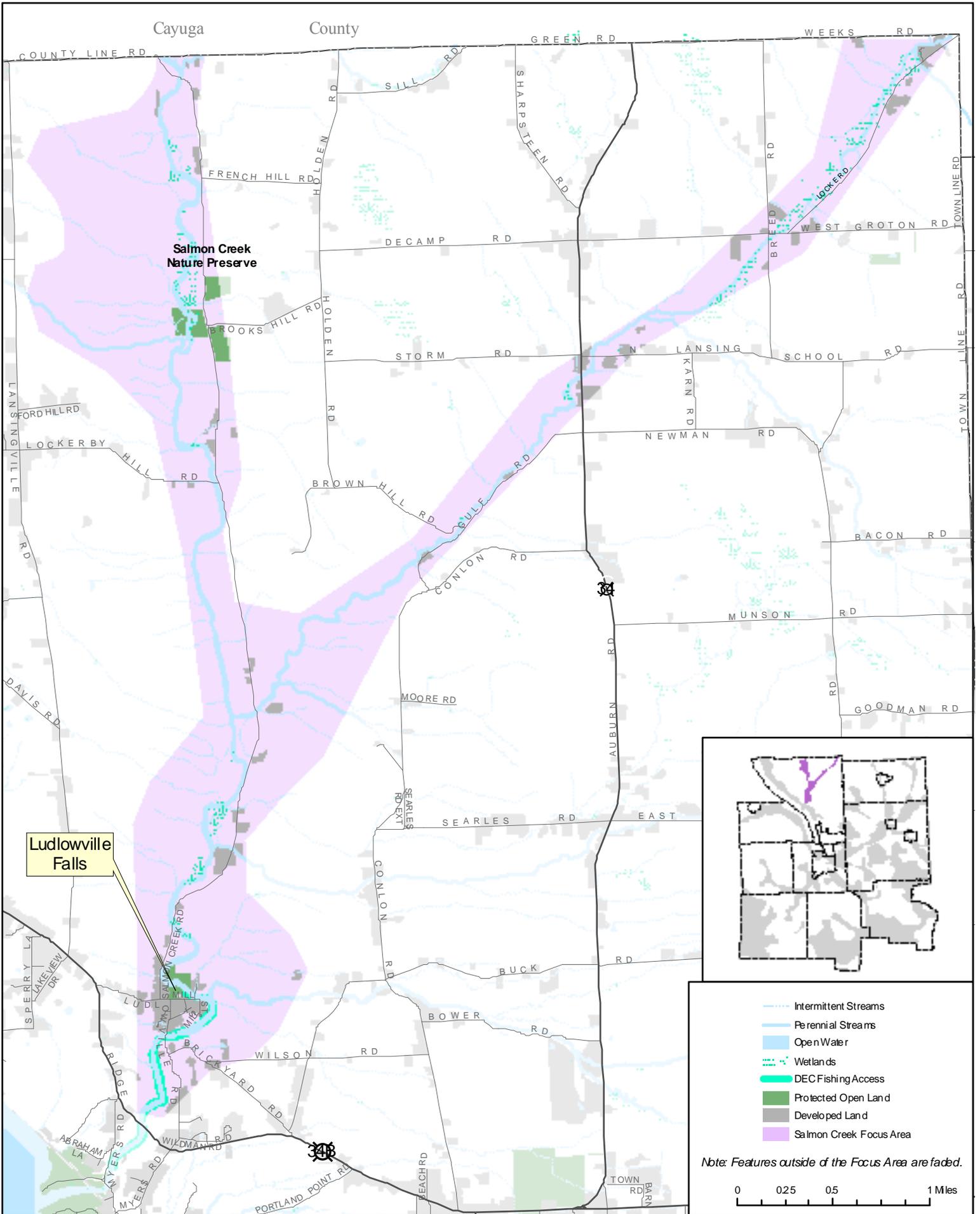


Salmon Creek

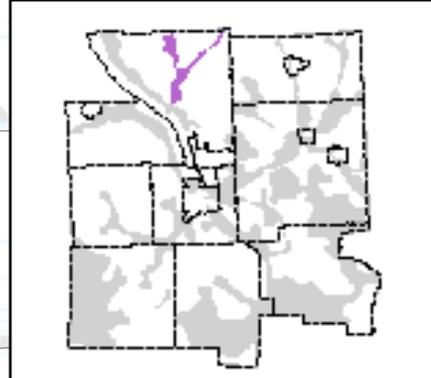


Cayuga County



Salmon Creek
Nature Preserve

Ludlowville
Falls



Legend:

- Intermittent Streams
- Perennial Streams
- Open Water
- Wetlands
- DEC Fishing Access
- Protected Open Land
- Developed Land
- Salmon Creek Focus Area

Note: Features outside of the Focus Area are faded.

Scale: 0 0.25 0.5 1 Miles

Description of Focus Area

The Salmon Creek Focus Area is located in Northern Lansing, extending from 34B near Myers Point north to the border with Cayuga County. The focal points of this area are the Salmon Creek and Locke Creek corridors, which connect and define the area. The area is known for its abundant fishing opportunities and its beautiful working landscape of fields and forests.

Major Benefits

The major benefits provided by this Focus Area are water quality, flood mitigation, fishing, and habitat and biodiversity. The miles of protected streams and acres of designated wetlands that fall within this Focus Area contribute significantly to flood protection downstream, the quality of drinking water available to local residents, and amount of riparian and wetland habitats available to plant and animal species. Many people enjoy the numerous fishing spots, and the area is well known for its superb bird watching.

Other important benefits include agro-forestry, as well as sustainable agriculture in the surrounding areas. More than half of the Focus Area is forested. Although steep slopes may limit timber-harvesting opportunities, the forests are well suited to agro-forestry, such as maple syrup, ginseng, and goldenseal production. While there is limited farmland in the Focus Area itself, the surrounding landscape is dominated by working farms. This agricultural context frames the major benefits provided by this area, and has implications for protection and management. Maintaining working farms and forests, and encouraging sustainable management practices are critical for the long-term economic viability of this landscape, and, consequently, for the long-term stewardship of its resources.

Water Quality and Flood Mitigation

The floodplains in the northern portion of this Focus Area are complimented by particularly rich and well-established wetlands that likely help store and filter surface water runoff in this area. Despite the key role of these features in protecting water quality, active erosion and stream meandering are common along the stream corridor, and the area south of Lockerby Hill Road is of particular concern for erosion.

Data from the United States Geological Survey also indicate the levels of pesticides and herbicides associated with agricultural management practices are relatively higher in Salmon Creek than other major tributaries of Cayuga Lake.



Erosion along Salmon Creek is of particular concern.

Fishing

This Focus Area includes both native and non-native fish species, including regularly stocked brown trout and rainbow trout as well as landlocked salmon and small mouth bass, both of which are present in the waters below Ludlowville Falls. While introduced sport fish provide anglers with enhanced fishing opportunities, they also compete against existing native fish populations, suggesting a need to balance the benefits against the potential impacts on biodiversity. Though public access for fishing is present throughout Salmon and Locke Creeks, particularly from bridges at road crossings, public rights-of-way are limited to Salmon Creek below Ludlowville Falls.

Critical Habitat and Biodiversity

Salmon and Locke Creeks form an important biological corridor, providing critical habitats and habitat connections along their lengths. A variety of habitats are found in the Focus Area, and the abundance of large sized parcels provide opportunities for management of these lands to sustain wildlife populations.

Although the creek corridor is a central habitat element throughout the Focus Area, one creek-side habitat area of particular note is found in the northwest fork. This area is known for its superb birdwatching and is identified as an Important Bird Area by the National Audubon Society. The Finger Lakes Land Trust's Salmon Creek Nature Preserve, known for its seasonal population of Cerulean Warblers, is located in this area. This section of the stream corridor also provides suitable habitat for a variety of riparian deciduous forest birds, such as the Louisiana Waterthrush.



The Salmon Creek Nature Preserve in the northwest branch of the Focus Area is known for its seasonal population of Cerulean Warblers. Photo courtesy of the Finger Lakes Land Trust.

Protection and Management Issues

Water Quality and Flood Mitigation

- 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. Well-established, and contiguous, buffers are particularly important in this Focus Area due to the amount of pesticides, herbicides, and erosion originating from agricultural management practices.
- n Wetlands and riparian areas are sometimes filled or degraded, which negatively impacts the ability of those systems to slow the flow of stormwater and provide storage for floodwaters (reducing the amount of floodwater entering streams, ponds, and Cayuga Lake). Development in these areas can increase the volume and rates of stormwater runoff and increase the potential for flooding, property damage and erosion during storm events.
- n When areas are developed and stormwater is not managed on site to allow for controlled release, stormwater runs off the land at increased speeds, in greater volumes, and with more sediment and pollution than before development. Increased stormwater runoff can also cause streams to widen to accommodate the additional runoff during storm events. During low flow events, water flowing through these widened stream channels slows and deposits sediment making the stream shallower. These wider, shallower streams may, in turn, increase the frequency of flooding.
- n Erosive soils near Lockerby Hill Road are a major contributing factor for the erosion and sedimentation problems in this area. Additional conservation measures are needed to mitigate soil erosion on adjacent agricultural lands.
- n Excavation of gravel from streams, and other in-stream management activities, can cause changes in the natural course of streams and reduce the ability of the natural landscape to control flooding.
- n As water runs off the landscape and into streams 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.

- Although many of the key water resources in the Salmon Creek 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.

Fishing

- While Salmon Creek and Locke Creek provide excellent fishing opportunities, their upstream portions lack public fishing access except at bridge crossings.



Bridges across Salmon Creek and Locke Creek provide fishing access. Additional access would enhance fishing opportunities.

- 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. Given the amount of fishing that takes place in Salmon Creek, addressing water quality concerns, particularly in regards to the presence of pesticides and herbicides, is important.
- When streambanks 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.

- Fallen trees in creeks can also provide important habitat for fish, and should not be removed unless there is the potential for causing significant flooding or damage to infrastructure.
- Wetlands absorb, store, and gradually release water over time. When it rains, wetlands absorb this water, and then gradually release it into nearby streams. In this way, wetlands play an important role in maintaining stream flow during dry periods.

Critical Habitat and Biodiversity

- Although specific habitat size requirements vary by habitat type and from species to species, contiguous 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. Many species, however, are more sensitive to habitat size and generally require a much larger contiguous area of at least >6,000 acres for suitable habitat.
- Wildlife corridors promote genetic diversity among species and help counter the negative effects of habitat fragmentation by connecting otherwise isolated patches of suitable habitat.
- The introduction of non-native species, pesticides, herbicides, and fertilizer can inhibit growth of native plants critical to biodiversity.
- Beavers physically alter habitats by cutting down trees, building dams, digging canals and building lodges. This activity affects the distribution of many other plant and animal species. In some situations beavers are desirable, whereas in other circumstances their presence may be detrimental to habitat management goals. As a result, areas inhabited by beaver may require active beaver management. The nature of the management depends on the particular conditions and resource priorities of the site.



Forested stream buffers are particularly important in the northwestern fork of the Focus Area.

Many riparian forest birds are particularly sensitive to habitat fragmentation. Fragmentation of riparian forest habitat decreases the ability of certain species to utilize migration corridors and increases competition from species that dominate edge habitats. In addition, fragmentation increases light penetration into riparian forests, which can alter understory composition and forest microclimates. There are two critical components of functioning and unfragmented riparian habitat: 1) forested buffers along creeks of at least 330 feet; and 2) large contiguous tracts of adjacent forestlands. Protecting patches of at least 150 acres is

particularly critical in this area because the surrounding landscape in Lansing is largely unforested agricultural lands. Forested stream buffers are particularly important in the northwestern fork of this Area where key riparian habitat is found. The Salmon Creek Nature Preserve, located within the stream corridor, provides a foundation for conservation efforts.

- n Species that live in and around stream corridors and floodplains require clean water to thrive. Poorly managed riparian areas, and riparian areas that are cleared for development, negatively impact water quality and reduce the viability of these habitat areas.
- n Unless adequate conservation measures are taken, some timber harvesting practices can adversely impact riparian habitat (for example, by reducing canopy coverage, damaging understory vegetation and forest litter, and increasing erosion along streambanks). While most riparian birds tolerate timber harvesting, it is important to encourage harvesting practices that are compatible with habitat requirements of species of greatest conservation need in the area.
- n Overgrazing of forested areas by whitetail deer can inhibit native plant growth, forest diversity, and forest regeneration. Deer particularly like eating saplings, which can interfere with the viability of understory habitat that is particularly critical for many riparian birds.

Priority Actions for Salmon Creek

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 Salmon Creek 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 Acquire and build additional parking areas for fishing access, as opportunities arise. Construct parking at least 100 feet from stream and use pervious paving materials where possible to limit the impact of new parking areas on water quality. Public access should be limited to less sensitive areas.
- è Establish accessible fishing locations at publicly owned parks and creeks where fishing opportunities are already located, as opportunities arise.

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 Provide education about and access to hydrologically sensitive area data through the Natural Resources Inventory (NRI) on-line interactive mapping tool.

- è Encourage semi-pervious paving, bioretention, and infiltration practices.
- 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.

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.

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 informa-

tion 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 priority protection areas 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.