



NYS Local Waterfront Revitalization Program: Cayuga Lake Waterfront Plan

Final Report

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Introduction

The *Local Waterfront Revitalization Program: Cayuga Lake Waterfront Plan* was written primarily in 2002. Since that time, many of the recommendations of the *Waterfront Plan* have already been initiated. The purpose of this foreword is to acknowledge the efforts made by individuals, businesses, and municipalities in implementing the plan and to bring the reader up to date on just a few of these accomplishments.

Progress in implementing the *Waterfront Plan* can be seen in large and small ways around the waterfront. Some of the progress in implementing the plan can be seen in:

- the successful establishment of The Boatyard Grill a new restaurant at the northern tip of Inlet Island;
- the development of the Ithaca Town Park at East Shore, including a pavilion and a popular fishing access;
- continued improvements at Ithaca Farmers Market, including expanded hours of operation during the week; and
- the adoption of revised land development regulations for property along the waterfront in the Towns of Lansing and Ithaca.

Boating Regulations

One of the five key issues identified in the *Waterfront Plan* was the need to "control noise from boats and enhance boater safety by strengthening and enforcing boating regulations." The communities bordering the waterfront have done just that. They have all adopted regulations that govern the speed and hours of operation of watercraft on Cayuga Lake. Through the coordinated efforts of the towns and the city, noise concerns have been addressed.

Cayuga Waterfront Trail

The Cayuga Waterfront Trail was one of the more sweeping recommendations of the *Waterfront Plan*. Designed to expand the public's access to the urban waterfront, the Cayuga Waterfront Trail will establish a physical connection among a variety of waterfront destinations and activities and will provide an important new recreation resource in the City of Ithaca. Substantial progress on developing the Trail has already been made.

Phase I of the Cayuga Waterfront Trail has been open for over a year and is a very popular recreation resource in Cass Park. Phase II of the Waterfront Trail is nearing construction, and Phase III planning is well underway. More exciting, though, has been the range of support for this project. The Tompkins County Chamber of Commerce has taken the lead in moving this project forward, securing grant funding from The Park Foundation to coordinate the planning and construction of the trail. Grants from state and federal agencies have helped to fund construction of the Trail. However, the community, local residents and businesses, have provided a significant amount of funding for trail development.

Watershed Management Efforts

<u>Phosphorus Reduction Project</u>. The *Waterfront Plan* repeatedly talks about the central importance of the quality of water in Cayuga Lake to the success of waterfront development efforts. One of the threats to

the quality of water in Cayuga Lake is phosphorus; it is the limiting nutrient for algal growth. NYSDEC has adopted a phosphorus guidance value that is occasionally exceeded in the southern end of the lake. There is strong evidence that these elevated concentrations reflect sediment-borne phosphorus from tributaries as well as dissolved phosphorus in the discharges from the two wastewater treatment plants.

Several intermunicipal efforts are underway to help address this issue, including upgrades at the two wastewater treatment facilities, an extension of sewer service northward from the Village of Lansing, and plans for emergency treatment of wastewater overflows. Once fully implemented, these efforts are expected to result in significant reductions in phosphorus in Cayuga Lake and associated reduction in algal blooms.

<u>Streambank Protection</u>. The *Waterfront Plan* identifies sedimentation as the most significant water quality impairment issue in Cayuga Lake, and streambank erosion as the most important source of that sedimentation. As a result, the Plan identifies streambank erosion control as a high priority recommendation for watershed management.

The Town of Ithaca is developing a stream setback ordinance to improve water quality within and reduce streambank erosion along its streams. The Town of Dryden is also currently investigating similar streambank protection mechanisms.

<u>Stormwater Management Plans</u>. These and other non-regulatory streambank protection efforts have also been incorporated into stormwater management plans for the ten governmental entities in Tompkins County that are affected by the Phase II stormwater regulations. These plans are required of the affected entities to obtain State Pollution Discharge Elimination System permits to discharge stormwater to the waters of the United States.

<u>List of Impaired Water Bodies</u>. In 2002, the southern end of Cayuga Lake was included on NYSDEC's 303 (d) list of impaired water bodies. The area affected by this designation is south of McKinney's Point, which corresponds to the Class A waters with a best designated use for water supply (see page 7 of the *Waterfront Plan*). Inclusion of the southern end of Cayuga Lake on this list requires the development of a Total Maximum Daily Load allocation. This allocation will help determine the total amounts of phosphorous and sediment the southern end of Cayuga Lake can assimilate without further deteriorating water quality.

Introduction

In January of 1997 the *Tompkins County Waterfront Plan* was completed. The *Plan* was a joint effort of the County, City of Ithaca, Town of Ithaca, County Chamber of Commerce, and Cornell University to create a vision for the waterfront and identify projects to achieve the following goals:

- 1. Increase public access to the waterfront and improve waterfront parks.
- 2. Improve boating facilities and operations; and
- 3. Encourage appropriate economic development, including tourism.

Through a series of public workshops, thirty projects were identified along with numerous implementation strategies to ensure that critical projects were pursued and, where feasible, implemented. One of the implementation strategies identified was to prepare a Local Waterfront Revitalization Program (LWRP). The Local Waterfront Revitalization Program is administered by the NYS Department of State and provides participating communities more leverage in acquiring state and federal funds for implementing waterfront projects.

Six waterfront municipalities in Tompkins County are participating in the LWRP: City of Ithaca; Villages of Cayuga Heights and Lansing; and Towns of Ithaca, Lansing, and Ulysses. The City of Ithaca, on behalf of all waterfront communities, received a grant from the Department of State in 1998 to complete the LWRP. A consultant team consisting of Trowbridge & Wolf Landscape Architects and PERC (Planning and Environmental Research Consultants) was hired, along with the Tompkins County Planning Department, to staff the project.

The preparation of the LWRP has been underway for nearly three years. A Planning Committee comprised primarily of municipal, county, and state staff professionals has met at least a dozen times. A Steering Committee comprised of elected officials from waterfront municipalities and county government has met three times. Focus groups and three public workshops were conducted to gather information and present draft proposals for review. Drafts of the plan were circulated to all Planning and Steering Committee members and to the Department of State. This final draft incorporates, as appropriate, their comments.

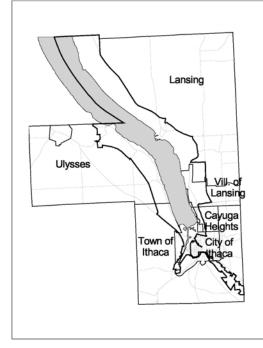
During the past two years, much progress has been made on the projects and initiatives described in the LWRP. This reflects the excitement and energy that individuals, organizations, and all levels of government are bringing to bear on improving Tompkins County's waterfront. The federal government's Canal Corridor Initiative has assisted in the opening of two waterfront restaurants in the Inlet Island area. New York State and the City of Ithaca together have committed hundreds of thousands of dollars towards the construction of the Cayuga Waterfront Trail and the Inlet Island Promenade. The Tompkins County Chamber of Commerce received \$55,000 from the Park Foundation for the Cayuga Waterfront Trail Initiative and plans to raise \$200,000 from the Ithaca community to construct the trail. Tompkins County has developed plans to relocate the NYS Department of Transportation's maintenance facility from a six-acre parcel of prime waterfront land, opening up this area for water-dependent or water-enhanced development in the near future.

Study Area

The Waterfront Revitalization Area (WRA) is approximately thirty-nine square miles and includes lands and waters in the Towns of Ithaca, Lansing, and Ulysses; the Villages of Cayuga Heights and Lansing; and the City of Ithaca. Criteria for determining the WRA boundary are described in *Chapter One* (see Appendix A for a detailed boundary description).

Inventory

Chapter Two includes a detailed inventory of the natural and cultural resources of the study area. The report describes water quality issues and programs; unique natural areas and important water-related habitat; land use and zoning; public infrastructure, including water supply and treatment systems, transportation, solid waste; and utilities. Cultural resources identified include lake-related historic themes and sites, water-based recreation resources, boating facilities and policies, scenic resources, and tourist attractions and services on Cayuga Lake.



Boundary of the Cayuga Lake Waterfront Plan.

Summary of Policies for the Cayuga Lake Waterfront Plan

The NYS Department of State has developed an outline of 13 specific policy categories and 57 related sub-policies that were considered in the development and implementation of the *Cayuga Lake Waterfront Plan*. Policies are an important component of the plan, providing the general framework needed to support, and give context to, specific proposals and recommendations.

All New York State policies and sub-policies are included in *Chapter Three*. Policies relate to fundamental waterfront planning issues such as:

- Protecting and enhancing existing water-dependent and water-related uses;
- Preserving scenic and open space resources;
- Sustaining fish and wildlife resources;
- Protecting and restoring wetlands and other ecological resources;
- Minimizing loss from flooding and erosion;
- Preventing and correcting the discharge of toxic products and substances;
- Protecting and enhancing environmental quality of the Lake, including enhancing water quality and controlling excessive noise from power boats.
- Providing for increased public access and recreational use; and,
- Preserving and retaining historic resources.

Those policies applicable to conditions and activities in Tompkins County are followed by a description of actions recommended in the plan to implement the policy. Some state policies relate to coastal lands and do not directly apply to this plan.

Proposed Waterfront Projects and Initiatives

Five key issues and opportunities emerged during the inventory phase of the project. Specific projects and initiatives are proposed in the LWRP to address them. Following is an illustrative list of projects proposed in the LWRP. These projects, and others, are described more fully in *Chapter Four* of the LWRP.

Increase public access to the waterfront through trail development and enhancing waterfront parks.

- *Develop the Cayuga Waterfront Trail*, a six-mile multi-use trail on Cayuga Lake and Cayuga Inlet in the City of Ithaca. See pages 117 and 134.
- *Develop the Black Diamond Trail* to connect the County's four state parks to the Cayuga Waterfront Trail. See page 126.
- *Enhance Stewart Park*, the City's historic waterfront park, through improving the condition of the lake edge, restoring historic buildings, developing trails in the park, and upgrading park landscape and facilities. See pages 118 and 130-131.
- Upgrade facilities at Cass Park, the City's largest and most heavily used waterfront park. Facilities include a swimming pool, a skating rink, playing fields, tennis courts, a playground, and a walking trail. Proposed park initiatives and improvements include the preparation of a park master plan and development of 2 miles of multi-use trail, the Ithaca Children's Garden, a trailhead for the Black Diamond Trail, and improvements to the existing pier. See pages 122-123 and 131-132 for more details.
- *Improve Lansing Town Park*, including landscaping at Lighthouse Point and construction of a waterfront performance pavilion (pages 116 and 129-130).
- *Preserve significant open spaces* in the viewshed of Cayuga Lake through the establishment of an Open Space Preservation Program. See pages 110-112 for more information.
- *Improve fishing access and small boating facilities* (launches and rental) on Cayuga Lake and its tributaries. See pages 112-114 for information on proposed locations for such improvements.
- *Enhance the Ithaca Farmers' Market*, located at the historic Steamboat Landing. Future improvements include constructing a brick terrace between the pier and the market structure, improving vehicular access and parking, and developing a small boat/car top launch at the site. One goal of market improvements is to extend the use of the site and facility throughout the week and into the shoulder seasons (spring and fall). See page 118.

Control noise from boats and enhance boater safety by strengthening and enforcing boating regulations.

• *Adopt new boating regulations* and increase enforcement. Many individuals who attended public meetings - those who live on the lake and those who frequent public parks on the lakefront - identified noise from personal watercraft and motorboats as a major problem. New proposed regulations include adopting a 25 mph night and a 55 mph day speed limit and adopting hours of operation for personal watercraft from 9 AM to dusk. See pages 105-107 for more information.

Dredge the navigable sections of the Cayuga Inlet to enhance boat access and maintain flood protection.

• *Dredge Cayuga Inlet* to maintain navigability, to support the commercial viability of marinas and waterfront restaurants, and to control flooding in the downtown area. The NYS Canal Corporation is prepared to conduct dredging operations in 2003, however viable dredge spoil sites must be identified. See pages 123-126 for more information.

Stimulate water-dependent and water-enhanced development in the City of Ithaca.

- *Redevelop NYS Department of Transportation (NYSDOT) Maintenance Facility site*, a six-acre site adjacent to the Ithaca Farmers' Market. Negotiations are underway to relocate NYSDOT operations to a new facility in the Town of Dryden, freeing up the waterfront parcel for water-dependent and water-enhanced development. While no specific redevelopment plans are in place, City and County officials are in agreement that the site should be used for economic development, tax revenue producing development, and public access to the water edge. See page 120.
- *Continue Inlet Island and West End Waterfront development.* The City of Ithaca's Inlet Island and West End have become popular destinations for dining. The Inlet Island is envisioned by City Planners as a vibrant waterfront commercial and residential area with transient docking facilities, waterfront promenades, restaurants and shops, and upper story office and residential development. The City has adopted Urban Design Guidelines for the Island and is developing plans for a pedestrian promenade and improved parking and vehicular access. West End redevelopment efforts should benefit from public infrastructure improvements on Inlet Island and the Cayuga Waterfront Trail and from proposed development projects. See pages 120-122.

Protect and improve the water quality of Cayuga Lake, which is critical and integral the success of all other projects and initiatives.

• Support ongoing watershed management efforts by the Cayuga Lake Intermunicipal Organization and the County Planning Department to enhance the water quality of Cayuga Lake by minimizing streambank erosion, upgrading roadside ditch management practices, improving stormwater management, strengthening sedimentation and erosion control regulations and practices, and changing agricultural practices to minimize nutrient and sediment runoff. See pages 107-109 for more information.

Adoption and Implementation of the Plan

The LWRP is required to be adopted by all participating waterfront municipalities: the City of Ithaca; the Towns of Ithaca, Lansing, and Ulysses; and the Villages of Cayuga Heights and Lansing. Once adopted locally, the final draft is submitted to the NYS Department of State. The Department of State circulates the document among all affected state agencies for review and comment. Upon incorporation of those comments, the LWRP becomes final.

Once finalized, the LWRP will continue to be a part of the public decision-making process about the waterfront. An important aspect of a finalized LWRP is that all state actions within the waterfront area must be consistent with the LWRP.

There is also provision for the long-term implementation of the LWRP locally. A consistency review process is described which provides for each municipality to consider the relationship of future actions with the LWRP. The local planning board or agency would review any future project in the waterfront area that requires municipal funding or approval for consistency with the LWRP's policies. In addition, all waterfront communities would be given an opportunity to comment on such projects. Communities can also choose to 'un-adopt' the plan at any time.

Cayuga Lake Waterfront Plan

Table of Contents					
Executive	Executive Summaryi				
Chapter (One: Waterfront Revitalization Area Bounda	ry	1		
	Introduction	1			
	Determination of Waterfront Revitalization Area	1			
	Boundary Descriptions	2			
Chapter T	wo: Inventory and Analysis	• • • • • • • • • • • • • • • • • • • •	5		
Δ	Natural Resources		5		
11.	Topography	5	0		
	Hydrology	5			
	Significant Environmental Areas	10			
B. (Cultural and Land Resources		19		
	Land Ownership	19			
	Existing Land Use	22			
	Existing Zoning	36			
	Public Facilities	50			
	Historic Resources	55			
	Recreation Resources	62			
	Boating on Cayuga Lake	71			
	Scenic Resources	77			
	Tourism Resources	81			
C.]	Key Issues and Opportunities		85		
Chapter T	Three: Waterfront Revitalization Policies	••••••	87		
Chapter H	Four: Proposed Land and Water Uses	• • • • • • • • • • • • • • • • • • • •	101		
A.]	Proposed Land Uses		101		
			105		
B.	roposed water Uses		10.5		
B.]	Proposed Water Uses	105	103		
B.]	Noise	105 107	105		
B.]		105 107 107	105		
	Noise Conflicts in Cayuga Inlet Enforcement	107			
	Noise Conflicts in Cayuga Inlet Enforcement Watershed Management	107 107	103		
	Noise Conflicts in Cayuga Inlet Enforcement Watershed Management Overview	107 107 107			
	Noise Conflicts in Cayuga Inlet Enforcement Watershed Management	107 107			

D.	Waterfront Projects and Initiatives		109
	County-Wide Projects and Initiatives	109	
	East Shore Projects and Initiatives	114	
	Urban Area Projects and Initiatives	117	
	West Shore Projects and Initiatives	126	
Е.	Short-Term Projects		127
	Salt Point Improvements	127	
	Lansing Town Park Improvements	129	
	Stewart Park Lake Edge Improvement Study	130	
	Cass Park Master Plan	131	
	Cass Park Landing	132	
	Cayuga Waterfront Trail	133	
Chapter .	Five: Local Implementation	•••••	135
А.	Zoning Changes		135
	Town of Lansing	135	100
	Village of Lansing	135	
	Town of Ithaca	136	
	City of Ithaca	136	
	2	136	
	Town of Ulysses	130	
В.	Consistency Review		137
Chapter ,	Six: State Actions and Program		139
1	Introduction	139	
	State and Federal Actions and Programs That Should Be		
	Undertaken In a Manner Consistent With the LWRP	140	
	State and Federal Actions and Programs Necessary To		
	Further the LWRP In Tompkins County	157	
Chanter	Seven: Local Commitment and Consultation		150
Chupier	Local Commitment	159	
	Consultation	160	
Appendix A.	<i>xes</i> Waterfront Revitalization Area Boundary – Detail	lad Dasarin	tion
A.	watermont Kevitanzation Area Boundary – Detan	ieu Descrip	uon
В.	Waterfront Revitalization Area Boundary – Tax parcels		
C.	Lake Edge Treatments		
D.	Model Consistency Review Law		
Е.	Implementation Schedule		

Introduction

The Waterfront Revitalization Area includes lands and waters in the Towns of Ithaca, Lansing, and Ulysses; the Villages of Cayuga Heights and Lansing; and the City of Ithaca. The following table shows the extent of the Waterfront Revitalization Area within each of these municipalities. Please note that the totals for the towns do not include the area within the villages.

Municipality	Area (sq. mi.)	Proportion of Total
Town of Lansing	21.3	54%
Town of Ulysses	9.6	24%
Town of Ithaca	3.7	9%
Village of Lansing	2.1	5%
City of Ithaca	2.1	5%
Village of Cayuga Heights	0.3	1%
TOTALS	39.3	100%

Table 1-1 Waterfront Revitalization Area, by Municipality

Note: Numbers may not add due to rounding.

Determination of Waterfront Revitalization Area

A map of the study area was presented at a public meeting in May 1999 and was available for review at an Open House in October 1999. Public comments on the proposed study area were taken into account in the preparation of the final Waterfront Revitalization Area Boundary.

The final boundary of the Waterfront Revitalization Area was determined based on a number of factors. The principal ones are listed here:

- The Waterfront Revitalization Area should include the entire portion of Cayuga Lake located within Tompkins County.
- The Waterfront Revitalization Area should include those lands most influenced by Cayuga Lake and its waterfront.
- The boundaries of the Waterfront Revitalization Area should be easily identifiable, e.g., roads and railroads.
- The Waterfront Revitalization Area should include the portion of the proposed Cayuga Lake Scenic Byway located in Tompkins County.
- The Waterfront Revitalization Area should include four urban river corridors (Fall Creek, Cascadilla Creek, Six Mile Creek, and Cayuga Inlet) and all publicly owned lands along these corridors. These corridors provide important connections between the City's most populous neighborhoods and the waterfront. In addition, the corridors, particularly the Six Mile Creek corridor, provide connections from the waterfront to Ithaca's commercial and cultural facilities, giving waterside visitors access to urban amenities.

• The Waterfront Revitalization Area should include the Six Mile Creek watershed protection lands in the Town of Ithaca. The source of the City of Ithaca's public drinking water is located in this area.

The Waterfront Revitalization Area Boundary was the principal boundary used in the collection of data, the development of policies, and consideration of projects in the *Cayuga Lake Waterfront Plan*. However, it was recognized early in the process that no single boundary could adequately address the variety of relationships between the waterfront and the remainder of the County. For example, there is a great difference between those properties with frontage on the lake and those with a view of the lake.

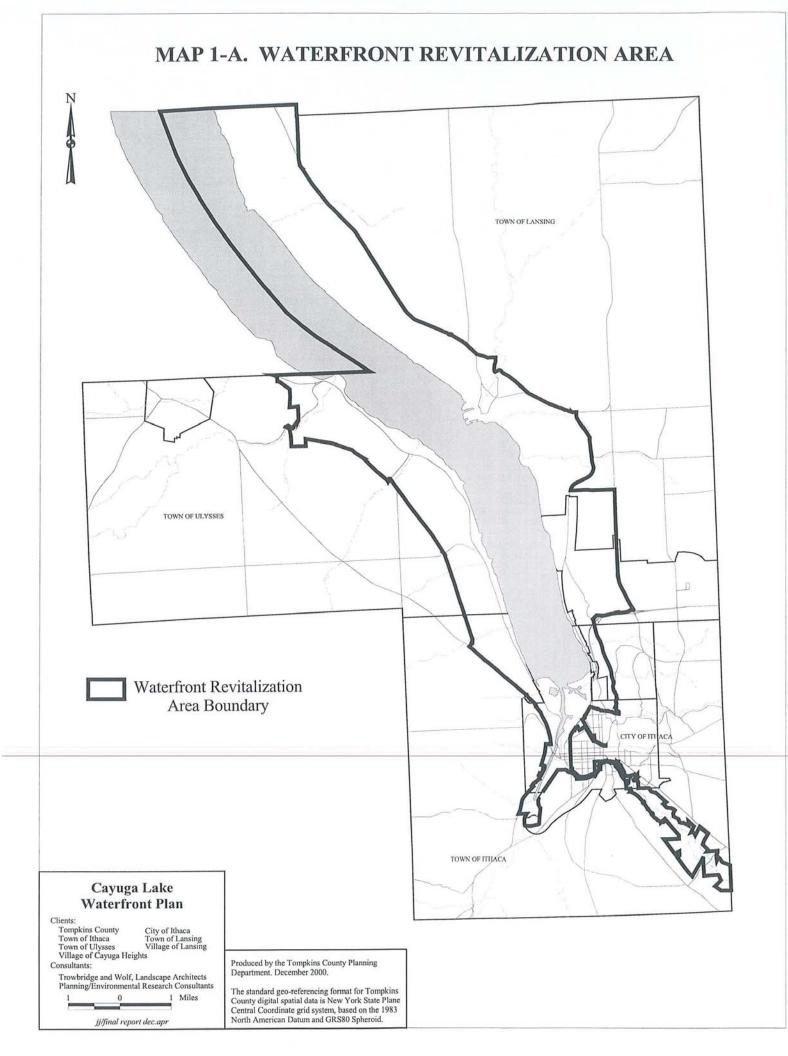
Thus, on occasion, this LWRP addresses a slightly different geographic area than that of the Waterfront Revitalization Area. When this occurs, text and accompanying maps will make the geographic area being considered clear. Prime examples are the sections of this report addressing water quality (which address the watershed of Cayuga Lake), and the sections addressing land use controls (which address those properties in close proximity to the waterfront).

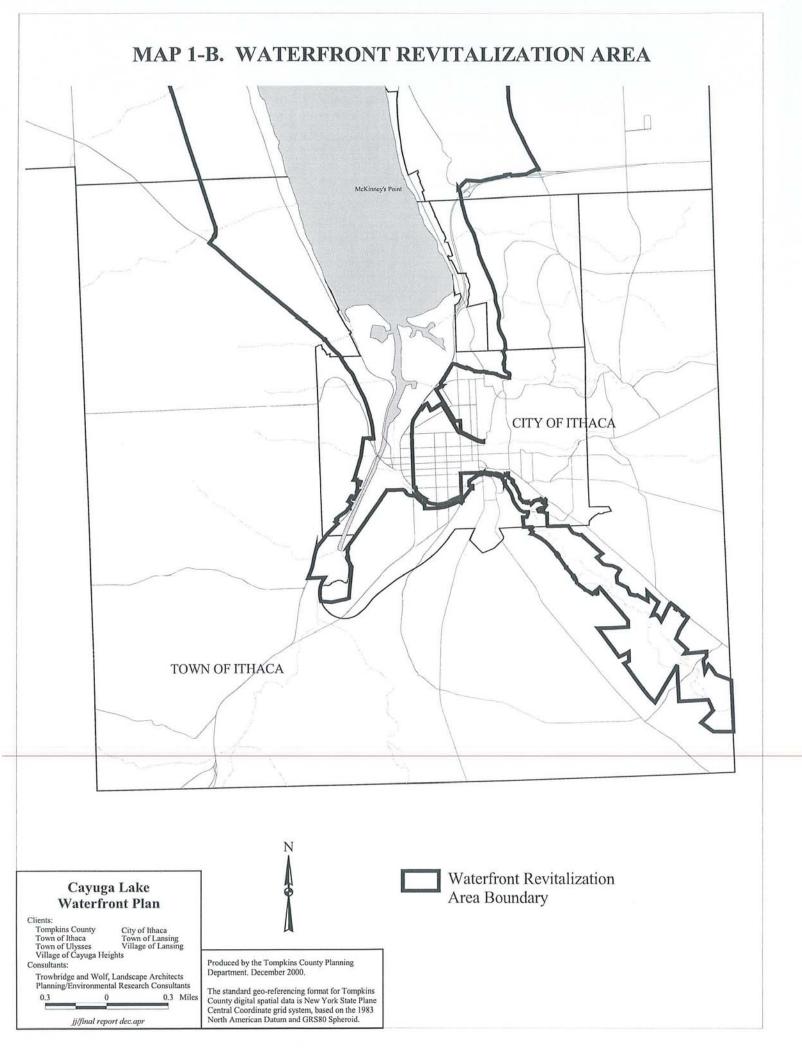
For a detailed description of the waterfront boundary see *Appendix A: Waterfront Revitalization Area Boundary - Detailed Description*. A list of all properties located within the Waterfront Revitalization Area is included as *Appendix B: Waterfront Revitalization Area Boundary - Tax Parcels*.

Boundary Descriptions

This report contains three distinct descriptions of the Waterfront Revitalization Area:

- The boundary of the Waterfront Revitalization Area is shown on Maps 1-A and 1-B.
- A description of the boundary shown on those maps is included in Appendix A.
- Appendix B is a list of all tax parcels included within the Waterfront Revitalization Area.





A. Natural Resources

Topography

The Cayuga Lake Watershed is located in a glacial valley, and is comprised of flat terrain and low relief characteristics in the north (Cayuga and Seneca Counties), and higher elevations with steeper slopes on the east and west (within Tompkins County). Dramatic increases in elevation and steep slopes that define the watershed's gorges begin north of Tompkins and extend to the southern end of the lake. Gorge elevations can reach 1800 feet above sea level. Higher elevations of lake tributaries combine with the steep gorges to produce numerous waterfalls.

The watershed's topography was created through an uplifting of land that began 200 million years ago. At that time, water drained to the south through the Susquehanna system. The fluvial movements of the streams from their headwaters gradually eroded the northern portion of the basin. During the Ice Age, two glaciations produced deep gorges and carried debris that formed the gorges of the southern end. The retreat of the second glacier resulted in the reversal of drainage in the watershed from the south to the north.

The steepest slopes within the Waterfront Revitalization Area are found along the eastern and western shores of Cayuga Lake in the gorges, along the banks of streams, and along the urban river corridors. Outside of these areas, slopes are generally flatter, and there is a plateau above the lake. There are several, relatively small areas along the shore of the lake where the land is flat.

Hydrology

Water Resources

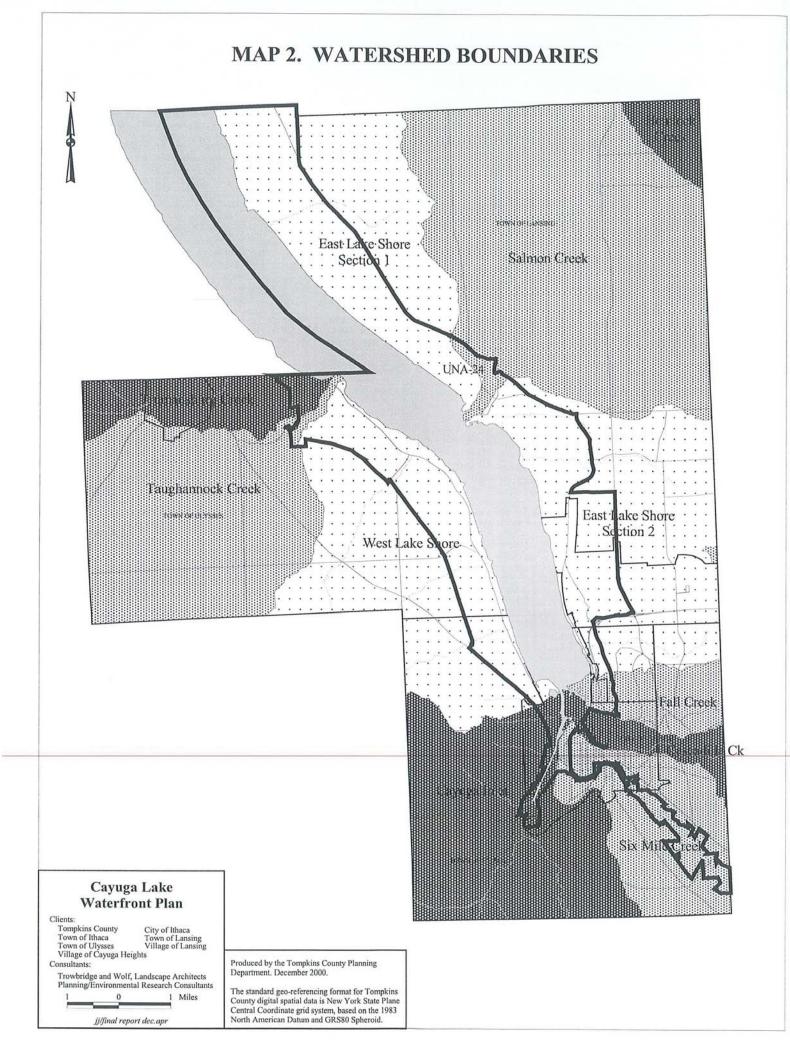
Of the eleven Finger Lakes, Cayuga Lake is the longest and widest, has the largest drainage basin, and has the most shoreline. It has an overall length of 38.2 miles, a mean width of 1.75 miles, a maximum depth of 435 feet and 95.3 miles of shoreline. It takes over 10 years for water to cycle through its system.

The entire Cayuga Lake Watershed covers 785 square miles. Within Tompkins County, the watershed covers an area of 399 square miles, or 83% of the County's area. All but one of the County's 16 municipalities are all or partially in the watershed. Cayuga Lake drains through the Oswego River system to Lake Ontario.

The quality and quantity of water in Cayuga Lake depend on water from its tributaries and precipitation within the watershed. The Cayuga Lake watershed in Tompkins County is divided into 12 sub-watersheds (see Map 2). The largest sub-watershed of Cayuga Lake is Fall Creek, with a total drainage area of 128 square miles. Other principal tributaries are Salmon Creek, Cayuga Inlet, Taughannock Creek, and Six Mile Creek.

Water Quality

Water quality and ecological conditions in Cayuga Lake are the result of complex physical, chemical, and biological processes. Important attributes of the lake ecosystem are determined by geological history, climatic setting, hydrology, and land use patterns.



Water quality in the southern end of Cayuga Lake depends largely on the quality of the water from its tributaries. Overall, the tributary streams exhibit moderate to high water quality, and habitat conditions support a balanced biological community.

The NYS Department of Environmental Conservation (NYSDEC) classifies surface waters according to their designated best use. The lake supports its designated best use as a public drinking water supply and recreational resource; the fish community is diverse and productive. Within Tompkins County, Cayuga Lake is classified into two distinct segments, reflecting differences in the lake's shape, depth and water quality. South of McKinneys Point, Cayuga Lake is Class A, with a designated best use for water supply (with filtration). The remainder is Class AA (T), with a designated best use for water supply (without filtration). The T designation indicates that the waters support a trout or salmon fish community.

When adverse water quality conditions are detected, and have the potential to affect designated use, NYSDEC adds the lake or stream to its list of priority water bodies. Most problems in the Cayuga Watershed are found at the extreme southern end of Cayuga Lake, although Salmon Creek is a source of significant sediment and nutrient loading where it enters the lake. After heavy rainfall events, the southern end of Cayuga Lake is brown with suspended sediment that is transported from the surrounding watershed by several major tributaries. These tributaries include Fall Creek, Cascadilla Creek, Six Mile Creek, and Cayuga Inlet.

The Bolton Point Water System takes its water from the lake near Bolton Point (south of Salmon Creek mouth). Presently, the area does not appear to be affected by sedimentation from Salmon Creek, however NYSDEC has classed the water supply as threatened by turbidity.

Bathing use of Cayuga Lake is classified by NYSDEC as stressed due to the high levels of turbidity; the beach at Stewart Park has been closed for 20 years because turbidity is too high for safe swimming. After a heavy rainfall, the low transparency of the water causes unsafe conditions at other beaches as well. The warm water fishery is classed as stressed because the water is too turbid to support rooted aquatics that provide habitat for fish.

In addition to sedimentation, there are other non-point pollution sources of concern. Salmon Creek is greatly affected by agriculture; it is a prime area for dairy production in both Cayuga and Tompkins Counties. Cayuga Inlet, Cascadilla Creek, and Six Mile Creek suffer from stream bank and road bank erosion, erosion from construction and land development, urban runoff, and some cropland erosion. Fall Creek has several sources of erosion in its watershed, including stream bank, road bank, development, and agricultural areas.

Cayuga Lake's water quality is generally high, as evidenced by its use a public drinking water source for much of Tompkins County; its use as a recreational fishing resource valued for the variety of sport fish present; and its use as an economic resource, attracting people to waterfront recreational, tourist, and residential opportunities.

The Cayuga Lake Intermunicipal Organization (IO) has developed the *Cayuga Lake Watershed Restoration and Protection Plan* (July 2001). The *Restoration and Protection Plan* serves as a working guide for the management of the water resources of Cayuga Lake.

During its investigation of the Cayuga Lake Watershed, the IO concluded that sedimentation is the most significant water quality impairment issue. Sedimentation directly affects the clarity of the lake and its aesthetic appeal for recreational and economic activities. Sedimentation indirectly promotes additional aquatic weed growth by increasing the shallow areas near tributary mouths. Sediments also carry other types of contaminants into the lake, including phosphorus, organic compounds, and heavy metals.

The *Restoration and Protection Plan* identifies streambank erosion as the most important source of sedimentation in the watershed. Geology, soil conditions, and slopes within a watershed all contribute to the extent of erosion and sedimentation. Areas with erodible soils and steep slopes, such as the Fall Creek and Six Mile Creek watersheds, are naturally vulnerable to streambank erosion. In the early 1900s, destruction of extensive wetland areas along southern Cayuga Lake exacerbated the lake's sedimentation problems by removing the natural filtration systems that captured sediment from waters before they flowed into the lake.

A detailed streambank survey was conducted by the IO documenting the severity and linear extent of streambank erosion in the southern tributaries to Cayuga Lake. Cayuga Inlet was found to have the most severe streambank erosion problems in the entire basin. Other watersheds with severe erosion problems identified were Salmon Creek, Fall Creek, Virgil Creek, and Six Mile Creek. The *Cayuga Lake Watershed Restoration and Protection Plan* identifies specific sites with very severe erosion problems and recommends remediation for these sites.

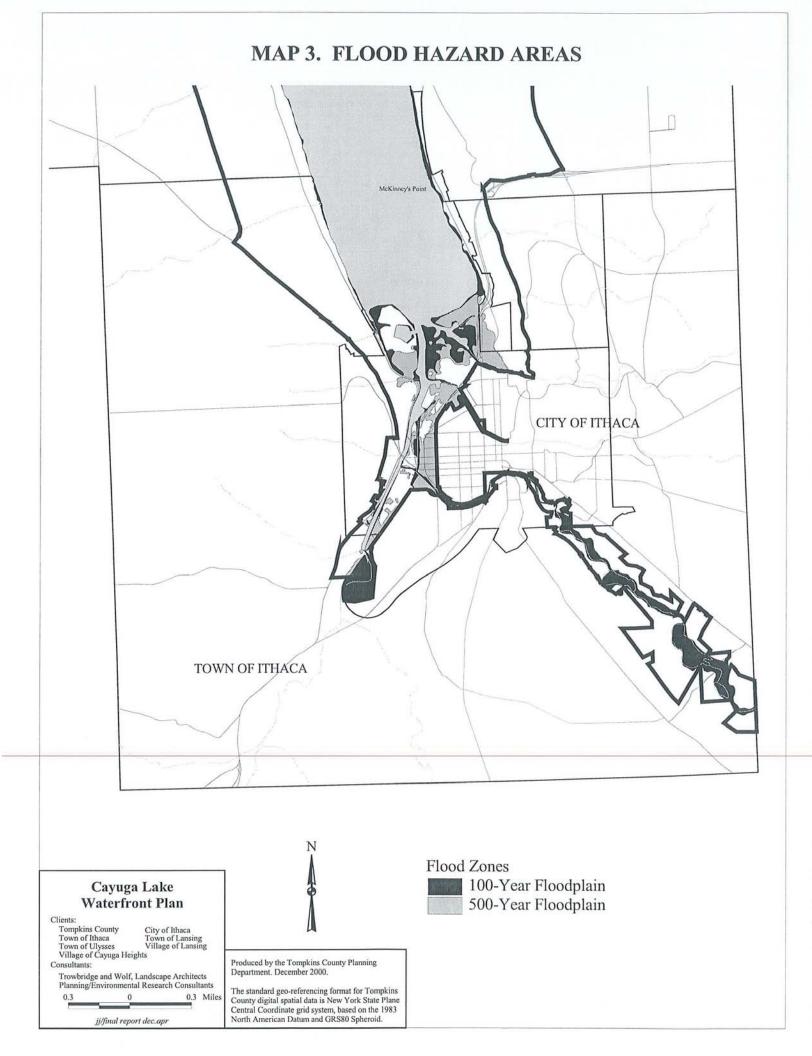
Other threats to the quality of water in Cayuga Lake have been identified.

- *Phosphorus*. Phosphorus is the limiting nutrient for algal growth in Cayuga Lake, as it is for most inland lakes in the Northeast. NYSDEC has adopted a phosphorus guidance value for lakes to protect recreational uses. Cayuga Lake meets the NYSDEC total phosphorus guidance value of 20 mg/l, measured at a mid-lake station. However, phosphorus concentrations in the Class A segment of Cayuga Lake occasionally exceed the 20 mg/l guidance value. There is strong evidence that these elevated concentrations reflect sediment-borne phosphorus from tributaries as well as dissolved phosphorus in the discharges from the two wastewater treatment plants.
- *Exotic Species*. Cayuga Lake is connected to the Great Lakes through the Oswego River system, and therefore vulnerable to invasion by exotic (non-native) species of plants and animals. Over the years, a number of exotic species have invaded Cayuga Lake. Three recent invaders (zebra mussels, quagga mussels and a predatory cladoceran zooplankton) are under scrutiny for their potential to alter the food web. The macrophyte Eurasian water milfoil is yet another introduced species that is a nuisance in Cayuga Lake.
- *Agriculture*. Agricultural chemicals have been detected both in tributary streams and the lake itself. Presently, measured levels do not exceed water quality standards associated with human health or ecosystem protection. However, the data provide evidence that pesticides and herbicides are carried into the lake via runoff transported by the tributaries.
- *Heavy Metals*. Heavy metals are present in the stream sediments of Fall Creek in concentrations exceeding NYSDEC assessment criteria. Seven heavy metals (chromium, copper, iron, lead, manganese, nickel, and zinc) were detected during 1995-1996 monitoring. Sediments along the shore of Cayuga Lake also exhibit elevated concentrations of some heavy metals. These data suggest the need for improved stormwater management in developed areas.

Flood Hazard Areas

Within the Waterfront Revitalization Area, there are several flood hazard areas defined by the Federal Emergency Management Agency (FEMA). Outside the urbanized area (City of Ithaca) there is a thin band of 100-year floodplain located along the lakeshore. Areas along the shoreline with larger extents of floodplain areas are Myers Point and Taughannock Point. In addition, several of the tributaries to the lake have defined floodplains. These are Salmon Creek, Taughannock Creek, and Trumansburg Creek.

Within the City of Ithaca, both 100-year and 500-year floodplains have been mapped (See Map 3). The 100-year floodplain extends along the entire water edge within the City. In addition, there are larger areas of 100-year floodplain in the area near Hog Hole and Cass Park, in the Negundo Woods area, in the area near the municipal golf course and biological station, and in Stewart Park and the Fuertes Bird Sanctuary.



There are also defined 100-year floodplains along Fall Creek, Cascadilla Creek, Six Mile Creek, and the flood control channel. There are significant areas of 500-year floodplain within the City of Ithaca east of the Inlet. In addition, there is a large area in the 500-year floodplain in the Cass Park area.

Wetlands

Wetlands are a critical component of natural ecosystems and provide society with a variety of benefits. A functioning wetland filters surface and stormwater runoff, removing harmful toxins, sediment and nutrients; it stores floodwaters and helps reduce the magnitude of flood events; it promotes groundwater recharge; and it provides valuable habitat for a diversity of wildlife and vegetation communities, including many rare, threatened, and endangered species. Also, nationwide many industries are directly or indirectly supported by wetlands. Manufacturing industries make use of wetlands to treat wastewater and approximately two-thirds of the fish and shellfish species harvested commercially in the U.S. rely on wetlands for some portion of their life cycle. Recreational uses associated with wetlands are diverse, and include hunting, fishing, and non-consumptive uses, providing direct economic benefits to local communities. Because the value of wetlands is so diverse and crucially important for both society and the natural ecosystem, wetlands are highly regulated.

New York State Freshwater Wetlands maps are created and updated by NYSDEC. These maps show all state-regulated wetlands that are 12.4 acres or larger in size. NYSDEC has classified regulated freshwater wetlands according to their respective functions, values and benefits. Of the four classes, Class 1 wetlands are the most valuable and are subject to the most stringent regulations.

There are three NYSDEC regulated wetlands within the Waterfront Revitalization Area. These are:

- LD-5 A Class 2 wetland located upland of the lake in the Town of Lansing, south of Algerine Road and west of Route 34B (Ridge Road).
- TW-5 A Class 1 wetland located adjacent to the lake in the City of Ithaca in the biological station north of Newman Golf Course.
- TW-6 A Class 1 wetland located adjacent to Fall Creek in the City of Ithaca in the Fuertes Bird Sanctuary.

NYSDEC is also considering an application to designate the Hog Hole area as a state-regulated wetland.

National Wetlands Inventory maps are created and updated by the U.S. Fish and Wildlife Service. The maps show the general location and type of wetlands throughout the United States, but do not show legal boundaries of wetlands for regulatory purposes. Instead, the information is best used as an indicator that wetlands are present, and that an on-ground, site-specific investigation by a qualified wetland specialist is warranted.

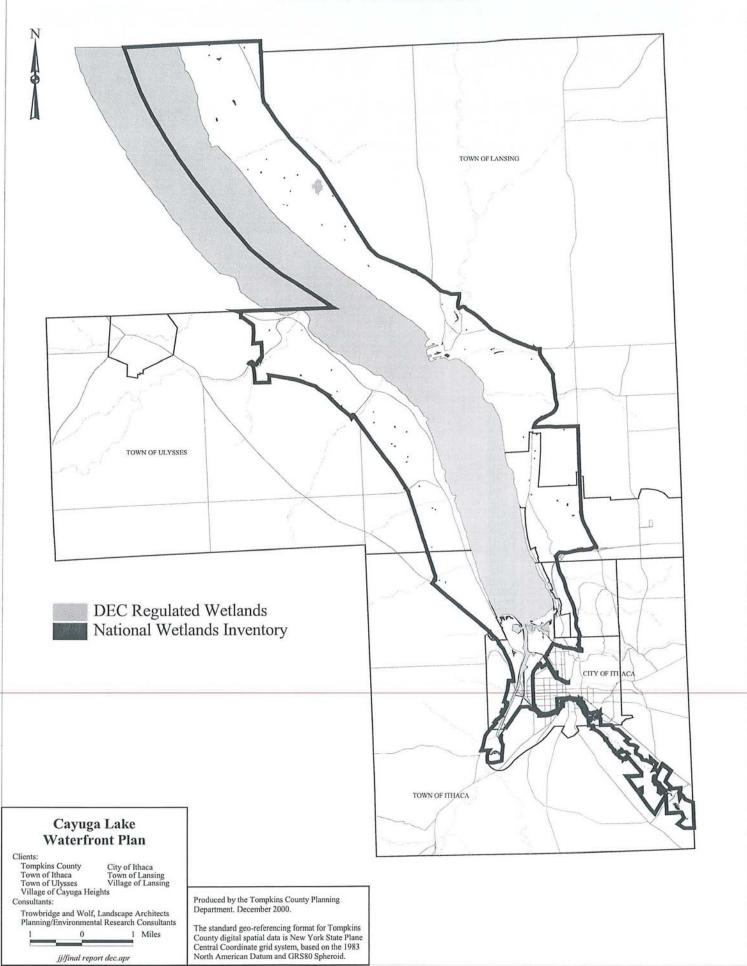
The National Wetlands Inventory has identified nearly 100 wetlands within the Waterfront Revitalization Area. Most of these are scattered, small wetlands located upland of the lake. Some worth noting are located on Myers Point, Hog Hole, and Negundo Woods. Map 4 shows the location of NYSDEC-regulated wetlands and National Wetland Inventory wetlands.

Significant Environmental Areas

Fish Community

Cayuga Lake has two interrelated assemblages of species, one in the littoral (shallow) zone and the second in the deep-water zone. The littoral zone is limited to the southern lake basin and a narrow fringe along the lake margins where light reaches the bottom.

MAP 4. WETLANDS



The littoral zone is home to a warm water fish community dominated by smallmouth bass. Other important predator fish in the littoral community include largemouth bass and northern pike. These species prey on yellow perch, pumpkinseeds, bluegills, rock bass, and minnows. Southern Cayuga Lake supports a spawning population of white suckers.

Lake trout, rainbow trout, brown trout, and landlocked salmon are the dominant predators in the deepwater community. Of these salmonids, only the lake trout is native to Cayuga Lake. Populations of the salmonids are maintained or supplemented by stocking. Juvenile salmonids prey on zooplankton. The quantity of zooplankton is considered to be the limiting factor for the growth and survival of stocked juvenile lake trout, Cayuga Lake's most important sport fish. Older predator fish feed mainly on other fish, principally alewife. Other prey species include rainbow smelt, troutperch, and slimy sculpin.

Distribution of fish reflects thermal preferences, predator-prey relationships, and predictable migrations for spawning. It is also variable with life stage and season of the year.

Birds

The National Audubon Society initiated the New York Important Bird Areas Program in the spring of 1996, with the support of the American Bird Conservancy. In 1997, New York State passed a law based on the Important Bird Areas (IBAs) Program, which allows the designation of State-owned IBAs as Bird Conservation Areas. The IBA Program identifies significant bird habitats based on at least one of the following criteria:

- sites where birds concentrate in significant numbers when breeding, in winter, or during migration;
- sites for endangered, threatened, or special concern species;
- sites containing assemblages of species characteristic of a representative, rare, threatened, or unique habitat; or
- sites for long-term avian research or monitoring.

Cayuga Lake has been identified as an IBA. It supports a very diverse bird community, providing important bird habitat to migrating and wintering waterfowl (at least 37 species of ducks and geese) and rare or endangered species. Of state protected species, two endangered (Bald Eagle and Black Tern), two threatened (Pied-billed Grebe and Common Tern), and two special-concern (Common Loon and Osprey) are known to use Cayuga Lake for either wintering or migratory habitat.

Unique Natural Areas

Unique Natural Areas (UNAs) are sites with outstanding environmental qualities that have been identified by the Tompkins County Environmental Management Council as deserving special attention for preservation and protection. UNAs include such natural features as gorges, woods, swamps, fens, cliffs, and streams.

Unique Natural Areas are recognized because of the outstanding qualities that render them unique within Tompkins County. Often, the characteristics that make a site unique are extremely vulnerable to a wide range of both direct and indirect impacts. The quality of a UNA may be compromised by disturbances to the site. Although Unique Natural Areas are not regulated, they have been identified as special places in the County and efforts are made to protect them.

There are 26 UNAs located wholly or partially within the Waterfront Revitalization Area. Maps 5-A and 5-B show the locations of these UNAs. Table 2-1 lists the UNAs and provides a brief description of each.

Natural Heritage Areas

The New York Natural Heritage Program is a cooperative effort of NYSDEC and The Nature Conservancy. The program seeks to establish and maintain an up-to-date inventory of the location and status of New York's rarest animal and plant species and the highest quality examples of all our natural communities. The release of detailed information concerning the location of these animal and plant species is highly controlled to protect their habitats from over-visitation. Only the Natural Heritage Program can authorize release of the data.

Several Natural Heritage Areas are within, or in close proximity to, the Waterfront Revitalization Area. A number of sites with threatened or endangered species have been identified. In addition, other rare and sensitive species and communities have been listed.

Finger Lakes Land Trust

The Finger Lakes Land Trust owns one preserve within the Waterfront Revitalization Area. The Lauman Preserve is located on the west shore of Cayuga Lake, approximately 1.5 miles south of Taughannock Falls State Park. This small shoreline preserve includes a mature forest of hemlocks, oaks, and beeches.

Fall Creek Recreational River

The *New York State Wild, Scenic, and Recreational River System Act* protects unique water bodies in New York State. Its purpose is to preserve and protect designated water bodies (including rivers, streams, creeks, runs, kills, rills, branches, or lakes) and their immediate environs for present and future generations. Depending on the class of river (Wild, Scenic, or Recreational), regulations allow different uses by right, by permit, or prohibit them altogether.

In 1990, the State of New York designated a stretch of Fall Creek a Recreational River at the request of the City of Ithaca. Running from the west face of the footbridge between Thurston Avenue and Beebe Lake to its confluence with Cayuga Lake, it is the only body of water designated under this law in Tompkins County. NYSDEC delegated administration of the Fall Creek Recreational River to the City of Ithaca Planning Department.

The designation of Fall Creek as a Recreational River mandates that management must preserve and restore its natural, scenic, and recreational qualities. There are a number of prohibited uses including:

- modification of the waterway by impoundment, diversion, rip-rap, bulkheads, structures or improvements impeding or altering the natural flow of water or free-flowing condition of the river,
- private dwellings, mobile homes and multiple family dwellings located within the 100-year floodplain or within 150 feet of the river and/or tributary bank,
- forest management roads or tributary bridges within 150 feet of the river and/or tributary bank, and
- waste treatment, storage, or disposal, except in temporary storage containers.

Permits are required for some other land uses and developments within the Recreational River boundary, such as dwellings, docks, and private wells.

Table 2-1 – Unique Natural Areas

UNA-23	DEC Mapped Wetland (LD5) (32 ac)
	A mosaic of wetland shrub thicket and disturbed marsh. Shrubs include dogwoods,
	sumac, and willows. Reed canary grass and sedges are abundant throughout the site. This
	is a very disturbed wetland. Areas have been logged.
UNA-24	Lake Cliffs, North of Myers Point (358 ac)
	Long section of lake cliffs. Slopes are moderate, limestone outcrops and talus slopes
	found along the railroad. Largely forested with oak-hickory forests dominating. Some
	forest stands are undisturbed oak forest with large trees. On cliffs and talus slopes, a
	number of rare and scarce plants are found.
UNA-25	Hidden Glens (55 ac)
	Small creeks drop down from the hilltop to the lake via a pair of glens with ice- and frost-
	carved amphitheaters. The upland plant communities are typical for the lake cliffs area.
	White, red, black, scarlet, and chestnut oaks are good quality, undisturbed examples. A
	locally scarce fern is found there. Blueberries are common.
UNA-53	Portland Point Quarry (113 ac)
	Cited as the most important geological site in the County, with unique exposures of
	igneous dikes and thrust or reverse faults. Noted for its Devonian fossils.
UNA-54	Minnegar Brook Woods (120 ac)
	Creeks, including Minnegar Brook, cross the area exposing underlying shales. Mature
	forest on fairly steep slopes. Forested ravines are largely undisturbed mature forests of
	good quality dominated by hemlocks.
UNA-55	Lower Salmon Creek (82 ac)
	Forested site including steep slopes along Salmon Creek and floodplain forest along
	creek and lake shores. Floodplain vegetation is typical for the area. In shrubby areas and
	lake and stream edge vegetation found are locally scarce species. The stream is noted for
	its rich fish fauna. Primary nesting site for resident birds. Resting site for migratory birds.
	Rare wading birds and diversity of migratory shorebirds and waterfowl are found.
UNA-56	Taughannock Gorge (334 ac)
	Includes Taughannock Gorge with its large waterfall, rock cliffs, stream, streambed, and
	adjacent forested slopes. The creek is an important fishing area. Rare birds are noted.
UNA-61	Willow Creek Glen and Lake Slopes (256 ac)
	Steep-sided gorge and waterfalls at Willow Creek Gorge and adjacent forested slopes.
	Very high diversity of forest tree species with a diverse herbaceous cover.
UNA-62	Maplewood Glen and Lake Slopes (208 ac)
	Maplewood Glen and the adjacent forested slopes. The gorge has excellent, undisturbed
	oak woods and other high-quality forest examples.
UNA-63	Shurger Glen (122 ac)
	Forested gorge valley with waterfalls. Rare species are reported for this glen. Rough-
	winged swallows are found nesting in cavities on the gorge walls. The cliffs at the lower
UNA-64	end of the gorge are noted fossil sites.
UNA-04	Lake Cliffs, South of Portland Point (159 ac) Limestone cliffs with long exposures of Tully limestone and Moscow shales, both very
	fossil-rich. Narrow band of forest above the lake cliffs. Along the talus slopes and cliffs, shrubs and small trees dominate.
UNA-89	Lake Cliffs, McKinney's Point to Bolton Point (64 ac)
UINA-07	Lake cliffs and forested upland on dry west-facing slopes. Extensive rock outcroppings of
	siltstone. Numerous rare and scarce plants are present, especially in the ravines and rocky
	slopes.
	stopes.

MAP 5-A. UNIQUE NATURAL AREAS

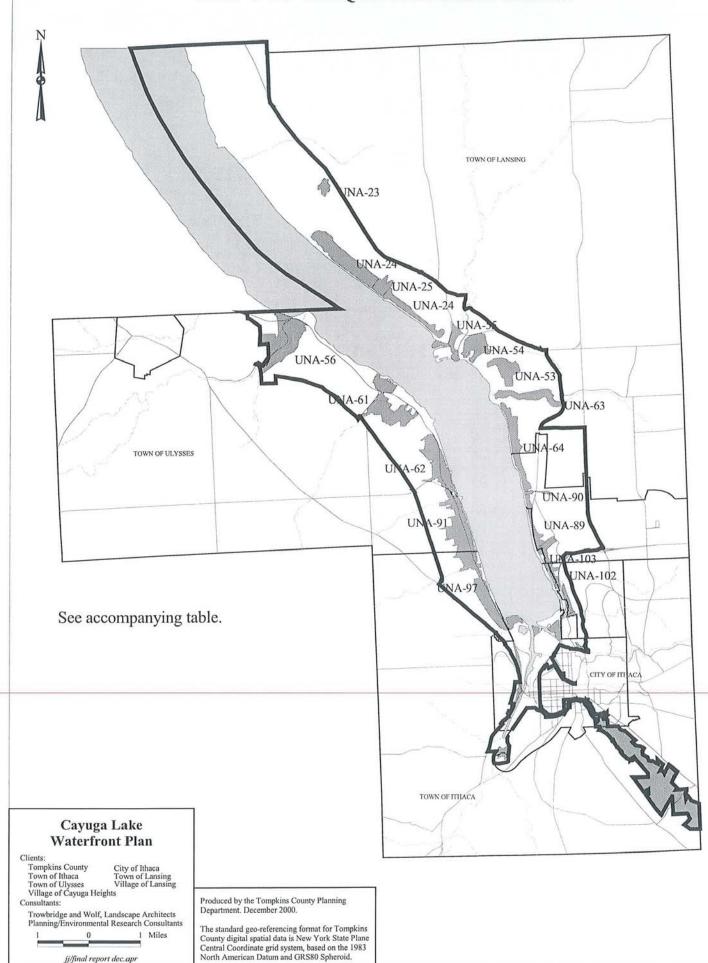


Table 2-1 – Unique Natural Areas, continued

UNA-90	Esty's Glen (14 ac) Steep-sided rocky gorge. On the rocky cliffs, and in open areas of the dry forest, a
	number of rare and scarce plants are found.
UNA-91	Glenwood Ravine and Lake Slopes (246 ac)
	Glenwood Ravine and adjacent forested slopes. The gorge at Glenwood has excellent,
	undisturbed oak woods and other high-quality forest examples.
UNA-92	Poyer Orchard Diatreme (1 ac)
	Consists of a natural forest, a small glen, rock outcroppings, and a stream. Considered historically valuable. There was an attempt to mine diamonds in the 1930s, as the mineral content of the diatreme area resembles that of South African diamond-bearing soils. No diamonds were found. Some uncommon minerals were found.
UNA-97	Indian Creek Gorge and Lake Slopes (226 ac)
	Mature forests and the small stream gorges at Indian Creek. Present are shrub thickets and young forests growing on abandoned farm fields that are very common vegetation types in this area. Near Indian Creek, the best forests are in the steep gorges following three small streams.
UNA-98	The Hog Hole (39 ac)
	Floodplain forest and wetland with a lagoon. Hackberry, locally scarce, is found. Rare and scarce plants are few, but the site is very diverse. The number of species present is unusually high. Provides lakeside vegetation and habitat for birds, especially migrants. Noted for rich bird and fish fauna.
UNA-99	Biological Station (15 ac)
	Remnant of lake forest and marsh formerly widespread at the base of Cayuga Lake. Located on a delta built of sediments deposited by Cayuga Inlet and Fall Creek. Trees are festooned with vines. Noted for its rich bird fauna, both for nesting and migratory species. A Cornell natural area (Lighthouse Point).
UNA-100	Stewart Park Woods (Fuertes Bird Sanctuary) (31 ac)
	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 significant birding area, rich for both nesting and migratory (especially warblers) species. Wild bees are noted for the site.
UNA-101	Newman Tract (8 ac)
UNA 103	Small but diverse forest area extending from the floodplain of Cayuga Lake up to the crest of the hill in Cayuga Heights. The west-facing site is open and dry, with exposed bedrock. Bounded by two small scenic ravines, the oak forests are quite undisturbed. Hackberry, a locally scarce species, is found on the sheltered slope neat the bottom of the ravines. Noted for its rich bird fauna.
UNA-102	Renwick Slope (74 ac) Largely lake cliff and dry oakwood above the Lake. Small ravines cut across the slope
	into the cliffs. Fairly open forest canopy near the cliff edge and where rock outcrops are present. Hackberry, locally scarce, is sheltered near the base of the cliffs. Spring wildflowers are abundant. Some very rare species have been reported, however development along the lake is affecting the probability of their survival. A Cornell natural area.
UNA-103	alea. McKinneys Twin Glens and Lake Cliffs (45 ac)
01111 105	Two steep-sided gorges, with a high point between, cut through this forested site. Quite variable and very rich in rare plant species.

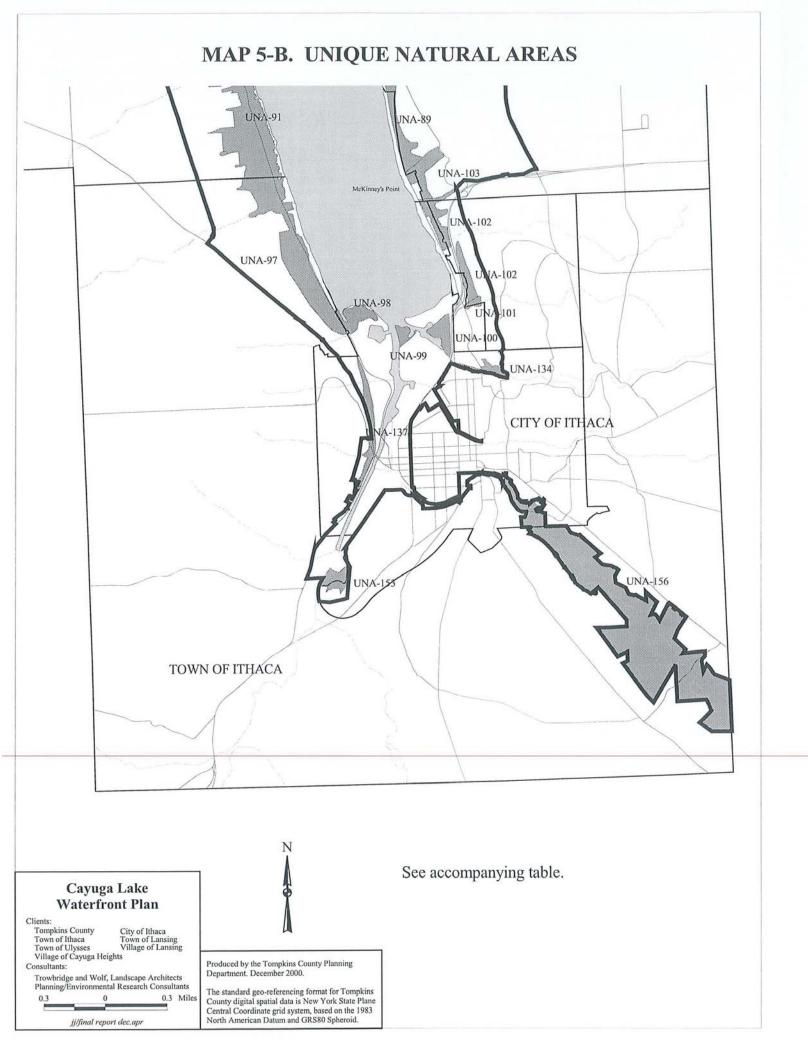


Table 2-1 – Unique Natural Areas, continued

UNA-134	Fall Creek Gorge, Ithaca Falls (18 ac)
	Forested and rocky slopes from Triphammer Falls at Beebe Lake to Ithaca Falls. Largest stream gorge entering Cayuga Lake. The creek flows between sheer cliffs and drops over
	a series of waterfalls. Northern rough-winged swallows, a locally scarce species, nest in
	the crevices of the rocky cliffs. A rich area for fish and an important spawning and
	nursery area.
UNA-137	Octopus Cliffs (46 ac)
	Steep forested slope containing many small gorges with cliffs and streams. Soils are
	shallow with rock outcrops. Kentucky coffeetree, a locally rare species, persists here.
UNA-153	Negundo Woods (28 ac)
	Fertile and moist raised floodplain forest with some large old trees. Scarce plants are
	noted and some rare or very rare plants have been reported, but not seen recently.
	Located beyond the channelized portion of the Inlet with a deep stream channel
	containing gravel bars. An important fish site and noted birding site.
UNA-156	Six Mile Creek Valley, Ithaca (705 ac)
	Includes the wooded slopes and open areas on both sides of Six Mile Creek and three
	city-owned reservoirs. Also present are streams, gorges, waterfalls, marshland, forest and
	abandoned farm fields at various successional stages.

NOTE: Acres represent the size of the UNA within the Waterfront Revitalization Area.

B. Cultural and Land Resources

Land Ownership

Land within the Waterfront Revitalization Area is owned by a variety of public and private entities. As can be seen on Table 2-2, nearly three-quarters of the land in the study area is in private ownership. One-fifth is owned by public agencies and other tax-exempt organizations. Utility and railroad companies own the remainder. Map 6 shows land ownership patterns in the Waterfront Revitalization Area.

The table also shows that ownership patterns vary greatly among municipalities. Land in private ownership ranges from 28% of the land area in the City of Ithaca to well over 90% in the Village of Lansing. Similarly, land owned by government entities ranges from only 1% in the Village of Lansing to over 60% in the City of Ithaca.

			Other	Utilities &
Municipality	Private	Government	Tax-Exempt	Railroads
City of Ithaca	27.8%	62.0%	6.5%	3.7%
Town of Ithaca	37.9%	48.1%	13.4%	0.7%
Vill. of Cayuga Heights	88.6%	5.8%	5.6%	
Town of Lansing	79.8%	1.0%	2.9%	16.3%
Village of Lansing	96.5%	1.1%	1.7%	0.6%
Town of Ulysses	76.2%	18.1%	5.7%	
Study Area Total	73.2%	13.4%	5.0%	8.6%

Table 2-2. Ownership Patterns By Municipality*

* Figures represent the proportion of all land in the municipality within the Waterfront Revitalization Area. Town figures do not include Village figures. Numbers may not add due to rounding. A blank cell indicates that there is no land in that category.

Private Land Ownership

Nearly three-fourths of all land within the waterfront study area is in private ownership. Table 2-3 shows the amount of land in private ownership based on the size of the parcel. This information gives an indication of where new development is more likely to occur, namely in those areas with large land holdings in private ownership. Over half of the waterfront study area land in the Town of Lansing, the Village of Lansing, and the Town of Ulysses is in private ownership and greater than 10 acres in size.

Municipality	< 1 ac.	1 – 10 ac.	10 – 100 ac.	> 100 ac.	Total
City of Ithaca	12.2%	14.0%	1.6%		27.8%
Town of Ithaca	6.1%	13.2%	18.6%		37.9%
Vill. of Cayuga Heights	39.2%	49.4%			88.6%
Town of Lansing	3.6%	17.4%	47.4%	11.4%	79.8%
Village of Lansing	7.0%	34.4%	39.2%	15.9%	96.5%
Town of Ulysses	2.7%	20.4%	53.1%		76.2%
Study Area Total	4.8%	19.3%	42.0%	7.1%	73.2%

Table 2-3. Private Land Ownership by Size of Parcel*

* Figures represent the proportion of all land in the municipality within the Waterfront Revitalization Area. Town figures do not include Village figures. Numbers may not add due to rounding. A blank cell indicates that there is no land in that category.

Government Land Ownership

Local, county, state, and federal government land holdings account for 13.4% of all the land within the Waterfront Revitalization Area.

Local government land holdings are substantial within the study area, particularly in the City and Town of Ithaca. Nearly half of the land within these two municipalities is owned by local governments, practically all of it by the City of Ithaca. The City's lands include Stewart and Cass Parks, Fuertes Bird Sanctuary, the public golf course, the sewage treatment plant, public works facilities, and, in the Town of Ithaca, the Six Mile Creek Watershed and the Southwest Natural Area along Cayuga Inlet. Myers Point Park in the Town of Lansing is another key property owned by a local government.

The State of New York also owns several important properties within the waterfront area. These include recreational lands, principally Allan H. Treman State Marine Park in the City of Ithaca, and Taughannock Falls State Park and the Black Diamond Trail in the Town of Ulysses. Other important State land holdings in the study area include Salt Point in the Town of Lansing and a Department of Transportation maintenance facility in the City of Ithaca.

Tompkins County also owns land within the waterfront area. These include the Biggs office complex in the Town of Ithaca, and the County Public Library and Mental Health Building along the Six Mile Creek corridor.

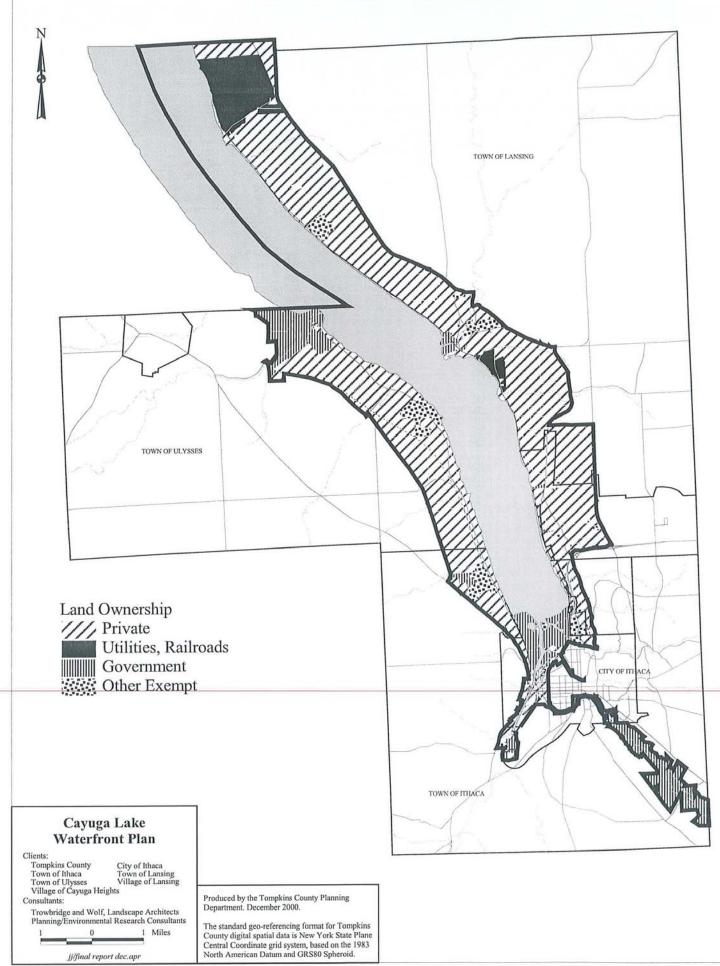
The only federally owned land in the study area is the Army Reserve Center on West Hill.

Other Tax-Exempt Lands

In addition to government-owned lands, there are other tax-exempt lands in the waterfront study area. The Lansing Central School District owns land along Route 34B in the Town of Lansing. The Ithaca City School District owns the Boynton Middle School and the Ithaca High School located, respectively, in the Town of Ithaca and the City of Ithaca.

Cornell University also owns land, including orchard lands in the Town of Lansing, student housing in the Village of Cayuga Heights, a biological station at the southern end of Cayuga Lake, and two boathouses along Cayuga Inlet.

MAP 6. LAND OWNERSHIP



The Lansing Fire District owns property in both the Town and Village of Lansing. Other owners of taxexempt land in the study area include the Girl Scouts of America, Cayuga Nature Center, Cayuga Medical Center, Paleontological Research Institute, and numerous churches and cemeteries.

Utilities and Railroads

There are also several key parcels of land owned by utility or railroad companies within the study area. The largest in size is AES Cayuga (also known as Milliken Power Station). Located in the Town of Lansing, the power station's smokestack is a significant landmark along the lakeshore. In addition, New York State Electric and Gas Company owns a portion of the Cargill Salt Mine, located in the Town of Lansing south of Myers Point.

There is a rail corridor that extends through the City of Ithaca and along the eastern shore of Cayuga Lake to AES Cayuga. This corridor is a significant barrier to landside access to the eastern lakeshore.

Existing Land Use

Development patterns and existing land use in the LWRP area vary greatly from rural areas that are largely open and undeveloped to a complex and fully developed urban center. On the west shore, most available land between Route 89 and the west shore of Cayuga Lake has been under development for years and is now densely covered by cottages and year-round lakeside homes. In contrast, most land on the east shore, in the Town of Lansing, can be described as undeveloped or agricultural even though there is a fringe of relatively dense non-farm development in many areas and scattered non-farm residential development throughout the uplands.

Between the west and east shores, and joining them on the flat lowland terraces at the head of the lake, the City of Ithaca has evolved from the tiny settlement established in 1789 to the complex, multi-dimensional urban center of Tompkins County. Over its 210 years of growth, the City's waterfront areas have changed from the marshes and meandering waterways of Inlet Valley to the largely developed and mixed land use pattern of today.

East Shore

Nearly 15 miles of the Cayuga Lake waterfront stretch northwesterly in a long "S" curve from the shore of Stewart Park to the Cayuga County line. Several substantial alluvial deposits have formed where streams enter the lake.

Myers Point is the largest fan on the east shore. This point, shaped by Salmon Creek, is an easily accessible area that has become extensively used for public and private recreation. The south side of Myers Point is the location of a private marina and a dense community of seasonal cottages and year-round homes. A heavily used public park and marina, developed by the Town of Lansing, occupies the middle portion of the fan. On the north side of Salmon Creek, the State of New York purchased the property of a discontinued salt mining operation. Known as Salt Point, this conservation area is currently being planned by the State and Town for use as a limited-activity public recreation area.

McKinney's Point near the south end of the lake, and the larger Lake Ridge Point at the northern end of the Town of Lansing, are privately-owned alluvial deposits that have been extensively developed as residential communities. For the most part, seasonal cottages have given way to year-round homes, particularly at McKinney's Point. Portland Point, just south of Myers Point and created by silt deposits from Gulf Creek, was an industrial site used for many years as a cement processing and storage area. The industrial storage structures on this site have been largely removed.



Myers Point in Lansing has Lansing Town Park and Salt Point; both are important waterfront public access resources. Future use of Salt Point (area on the left side of Salmon Creek) is now being considered. The open hillside up to Route 34B has residential development potential.

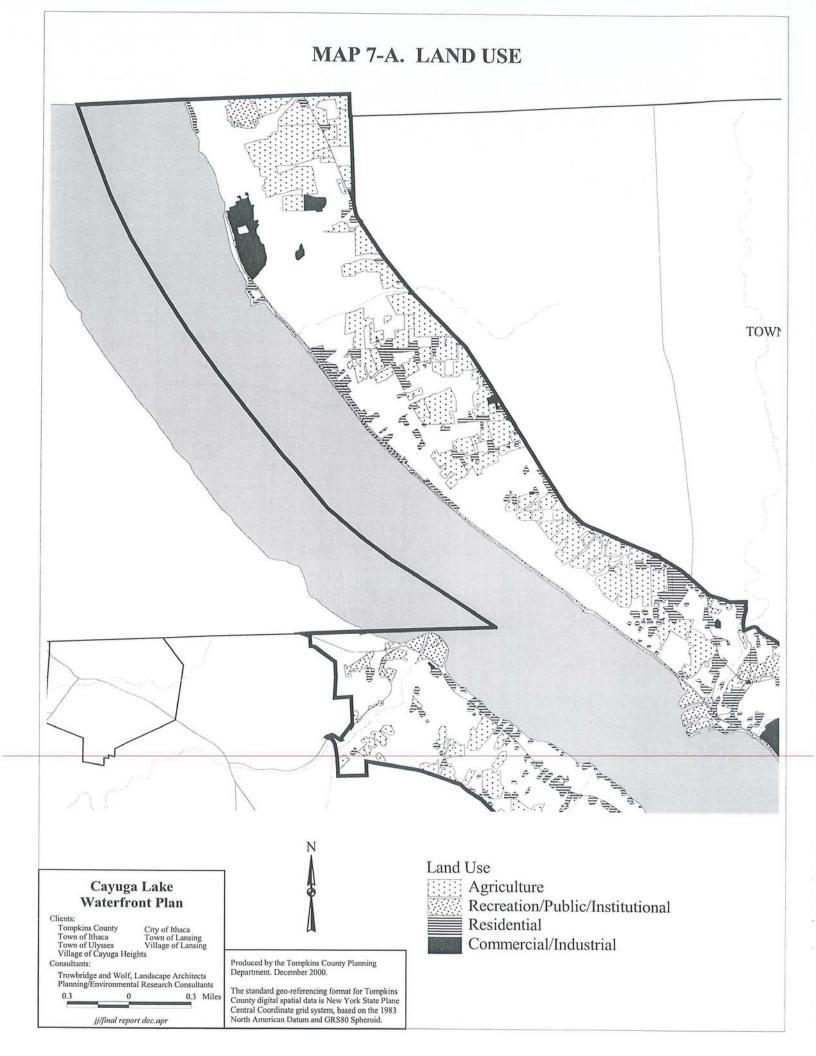
Between the alluvial fans, development and use of waterfront land on the east shore is substantially constrained and otherwise influenced by rock cliffs, steep slopes and a single-track railroad running at or very close to the shoreline for most of its length. The railroad right-of-way prevents unimpeded access to the water for most areas south of the Milliken Station power plant. There are limited short strips of land along Lansing Station Road and between McKinney's Point and Stewart Park where the track is located a short distance from the water's edge, and where development of the shoreline has occurred. Both areas are densely developed strips of seasonal cottages or year-round homes located between the railroad and the lake.

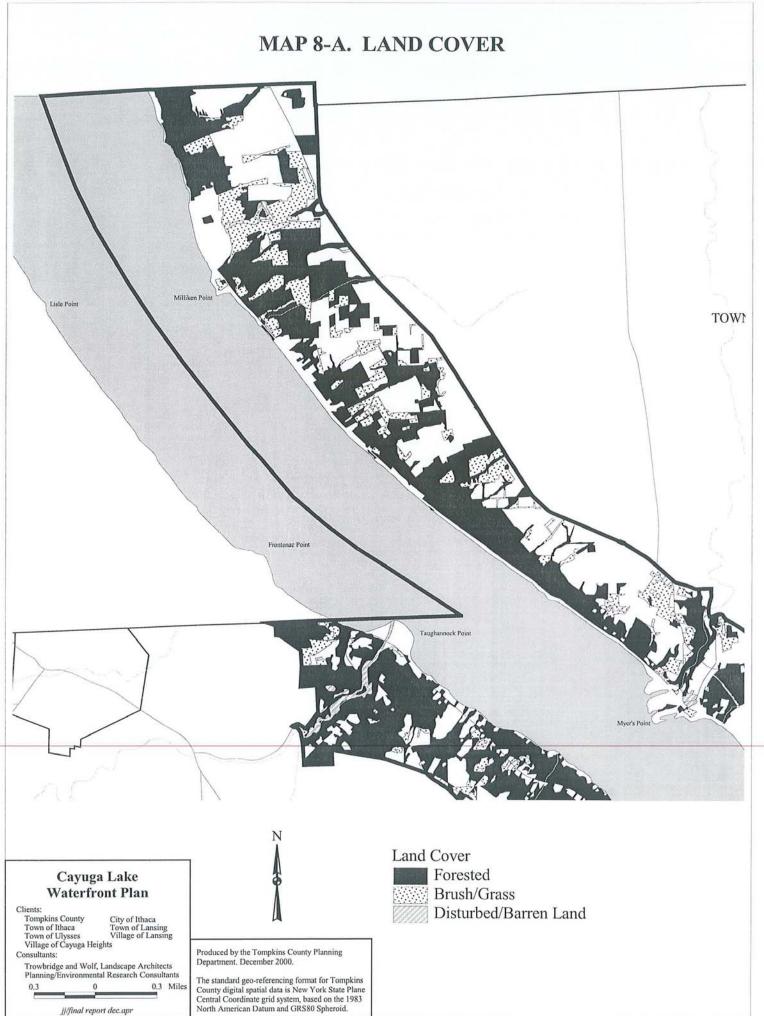
On some of the extensive east shore uplands that are undeveloped, wooded or used for agriculture, there is increasing interest in the development of year-round home sites with lake views. This is particularly true in the Lansing Heights area north of Myers Point and on the upland slopes just south of Portland Point. To get access to the water, some of these home sites have constructed long, elaborate flights of steps and have built private docks and small boathouses.

Other concentrations of year-round and seasonal housing can be found in the northern part of town between Lansing Station and Algerine Roads. Just south of the Cayuga County boundary there is a small but developing community of shoreline homes that can have direct lake access because the railroad no longer extends this far north. Cedar View golf course has been built on upland slopes in this area.

South of McKinney's Point, concentrated residential development is found along the shoreline in the Town of Ithaca. This area also includes the East Shore Sailing Club, a private marina and a boat rental facility. Two large industrial operations, two private and two public utility structures are located on Cayuga Lake's east shore. These six activities involve structures of considerable size and mass; most are highly visible focal points along the lake.

Milliken Station, the electric power generator at Lake Ridge Point, is a huge structure that dwarfs everything else in the area. In addition to the generating plant, the utility owns several hundred acres of undeveloped land immediately to the north. This area is partially wooded, partially farmed, and has over 400 feet of accessible waterfront.





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Concentrated lakeshore residential development in Lansing between Lansing Point (foreground) and Lake Ridge/Milliken Station (background). Upland is predominantly agriculture.

Between Myers and Portland Points, mining of large salt and gravel deposits has produced a large industrial area of several hundred acres with over 3,000 feet of shoreline. The salt processing plant and a huge Quonset-type storage structure constructed broadside to the shore are dominant and highly visible land use elements in this area. Closer to the City of Ithaca, an intermunicipal water supply facility near Bolton Point and the Cayuga Heights sewage treatment plant are located on hillside sites overlooking the lake. New to the waterfront is Cornell University's Lake Source Cooling Heat-Exchange Facility.

While industrial land uses on the east shore are not particularly harmonious in scale and appearance with existing residential and recreational development, their presence is long established and generally accepted in the County. Other than the visual anomaly, the impact of these large installations on future development along the lake is not expected to be great.



Milliken Station at Lake Ridge in Lansing. Milliken and Cargill Salt are the only large industrial developments on the lakeshore. Most upland areas around Milliken have moderate slopes and are still used for agricultural purposes. The railroad terminates at this point.

Urban Area

The Cayuga Lakefront, the Cayuga Inlet, the flood control channel and three major watershed tributaries give the City of Ithaca a variety of waterfront conditions and land use patterns. The dominant use of land located directly on the water is public recreation and preserved natural areas.

Historic development interests in waterfront land and far-sighted leadership in the city have resulted in a unique and diverse pattern of current-day land uses. Huge areas of lowlands at the head of the lake were created by filling marshes. This area includes a remarkable complex of publicly owned recreational land. Cass Park, Treman Marina, Newman Golf Course, Stewart Park, Fuertes Bird Sanctuary and Cornell's Biological Field Station represent deliberate decisions to preserve the waterfront and improve it for public use and enjoyment.

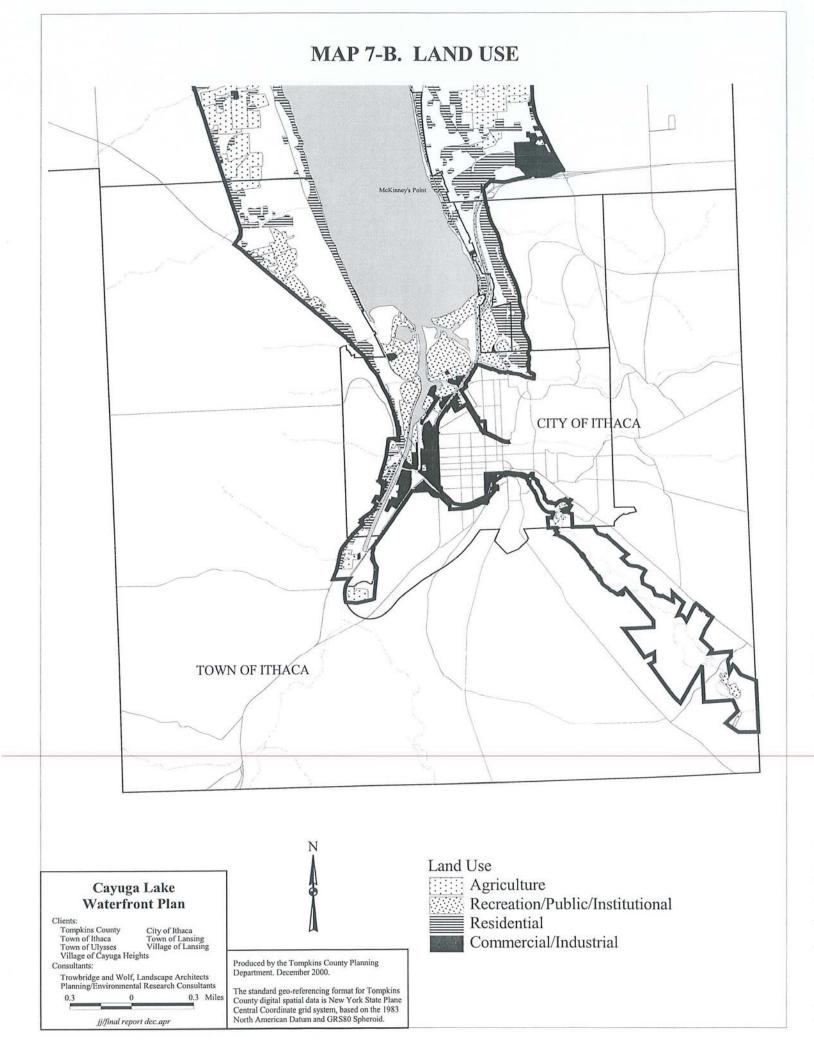
The flood control channel, completed in 1970, added over 2.5 miles of new shoreline in the Inlet Valley. The channel also created Inlet Island, which is currently an area of commercial, light industrial, and marine development. From Six Mile Creek south to the fish ladder, land along the east side of the flood channel is currently used for light industry and the railroad-switching yard. North of Six Mile Creek, redevelopment plans for Inlet Island call for a land use mixture combining commercial, residential, and marine development with increased opportunities for public access along the waterfront. The west side of the flood channel is used primarily for public recreation with a wedge of single family housing at the southern end.

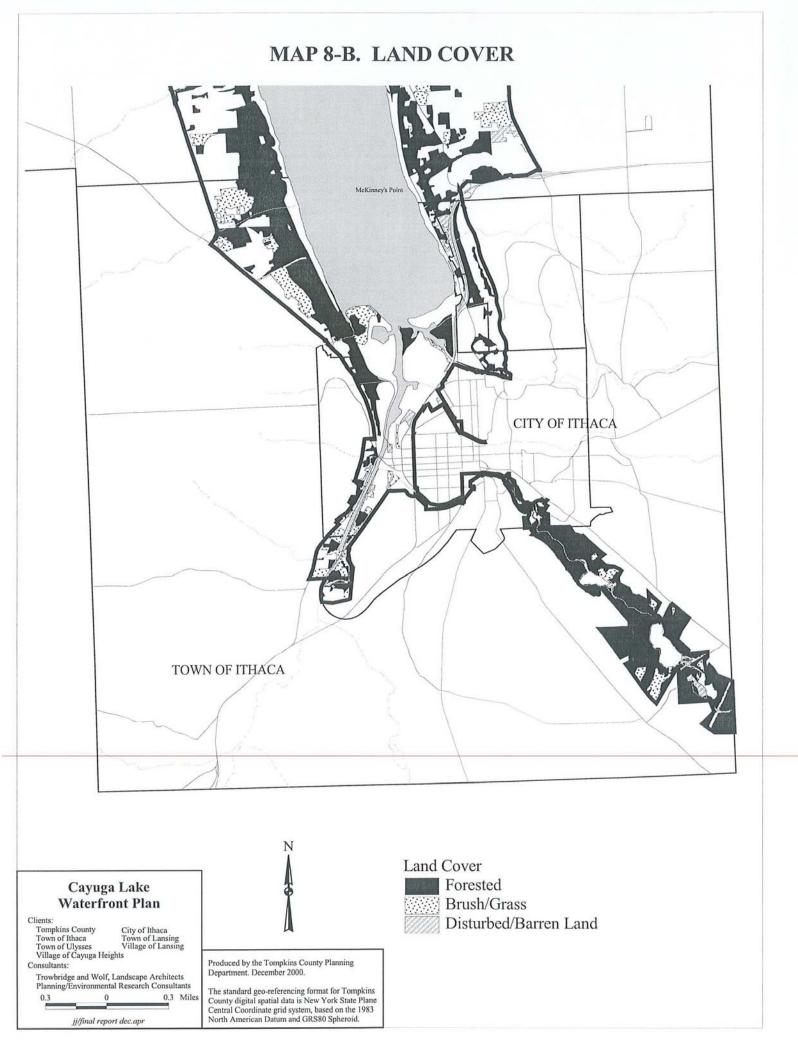
Between Inlet Island and the lake, the west side of the inlet is intensively used for public recreation purposes including the playing fields of Cass Park, Treman Marina, and a large open area for passive recreation stretching from the marina to the lake. The inlet's east bank contains Cornell's biological field station at the lakeshore, Newman Golf Course, a commercial marina, a regional wastewater treatment plant, a farmer's market, a NYS Department of Transportation garage and storage site, a petroleum distributor, and boathouse facilities for the Cornell University and Ithaca College crews.

On the east side of Inlet Island the inlet channel narrows to 100 feet or less. Land on the east side of this narrow channel is used for commercial, light industrial, and service uses, as well as for the railroad right-of-way.



City of Ithaca waterfront on Cayuga Lake and Cayuga Inlet.





Three creeks carry upland runoff into the inlet: Fall Creek on the north, Cascadilla Creek (just south of Fall Creek) and Six Mile Creek (much farther to the south). These creeks all drain significant watersheds and carry floodwater and considerable silt to the inlet and lake. Fall Creek, between the lake and Ithaca Falls, has natural banks and is bordered by Cornell's heavily wooded Biological Field Station, the Newman Golf Course, Stewart Park, Ithaca High School, and several blocks of single-family residences in the Fall Creek neighborhood. In contrast, Cascadilla Creek has been channelized as it runs through the city. Land use along this channel consists of some commercial development but is primarily dense single-family housing. A private marina, intermunicipal sewage treatment plant, and the Ithaca Farmers' Market are located on the lower end of Cascadilla Creek.



Cascadilla Creek as it enters the Inlet. Johnson's Boatyard, Steamboat Landing (Farmers' Market) and a DOT maintenance facility occupy the Inlet's east shore.

Six Mile Creek has also been channelized as it runs through the city's south side residential neighborhoods and the southern edge of downtown. East of the downtown Commons, Six Mile Creek traverses the substantial gorge it has created as it flows to the lake. The city currently uses Six Mile Creek as its primary water source and has purchased land for several miles upstream to protect the watershed. Most of this watershed area is undeveloped conservation land and the lower portion has become an attractive wildflower preserve.

West Shore

Most available land in the roughly eight miles of waterfront stretching from Cass Park to the Seneca County line has been subdivided into narrow parcels and intensively built up. Unlike the east side of the lake, land use on the west shore is almost entirely residential or recreational. Historically, the narrow strip of land between Route 89 and the lake has been more popular than the east shore as a location for summer cottages and year-round homes. An ability to get directly to the water - not possible at most east shore locations because of the railroad - has been a major factor driving west shore development in the past.

West shore uplands have not been extensively developed to date. Farming, woods, undeveloped open space, and scattered non-farm housing are the predominant uses of land west of Route 89. While some of these upland areas have excellent views of the lake, steep slopes, the expense of obtaining access to the lake, and the desire to be closer to the water have combined to restrain development.



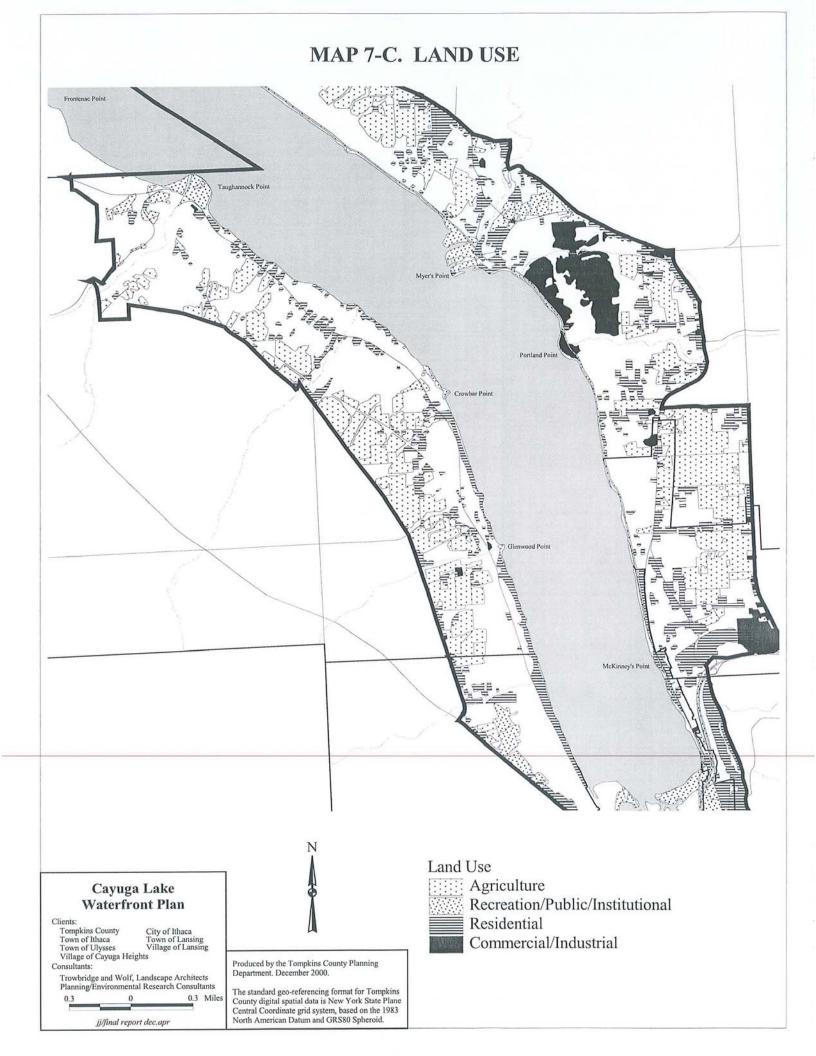
Continuous shoreline residential development has occurred on the Town of Ithaca's west shore. Lots vary greatly but are generally narrow, long, and steep. Typical of the waterfront, private boathouses and piers abound.

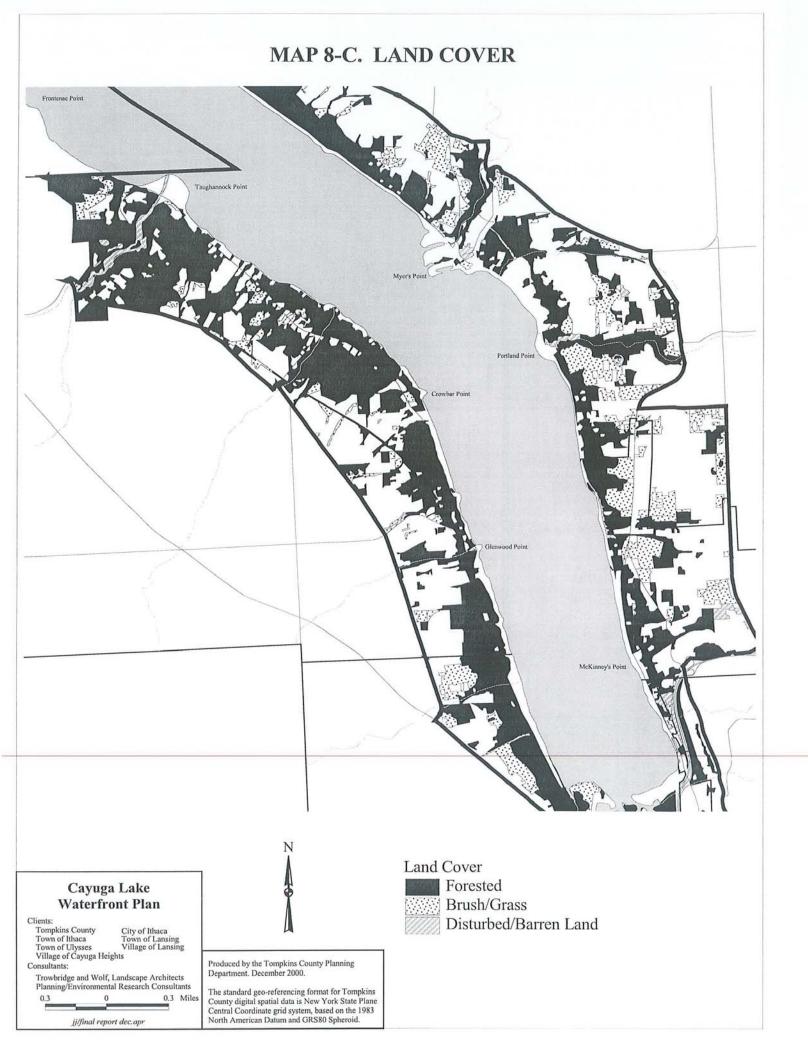
In several locations along the west shore, fan-shaped alluvial deposits formed where streams, emerging from the watershed, deposited eroded soil into the lake. These fans have become attractive locations for concentrated lakeside development. The largest is Taughannock Point near the Seneca County line. Taughannock has become a focus of public recreation and lake access - the only such public area on the west shore. Early in the 1900's, New York State purchased the point as well as the spectacular Taughannock Creek gorge and significant areas of adjacent land. This purchase led to the creation of the heavily used Taughannock Falls State Park.

Smaller alluvial deposits at Willow Creek, Maplewood, and Glenwood are also completely developed as private residential communities or, in the case of Glenwood, as a private yacht club with a substantial marina facility.



The Ithaca Yacht Club is located oat Glenwood Point in the Town of Ulysses. A popular location for social and recreation activities, the Yacht Club provides visual and architectural variety in a long stretch of densely developed waterfront housing.







Multi-use public recreational opportunities are available at Taughannock Falls State Park in Ulysses. Residential development south of the Park is relatively dense but has been limited by the steep rock escarpment.

Development density is significantly higher in the southern half of the west shore. This area is closest to the employment center of the urban core, a factor that influenced early settlement patterns. Because access to the lake has been the basic objective of land subdivision, most lots are long and narrow. Cottages and homes built on these narrow lots are generally located as close to the water as possible and are separated from the highway by a steep and heavily-wooded hillside. In recent years, there has been some development interest closer to the City that involves the acquisition of several adjacent small lots, removal of existing structures, and construction of larger residences with boathouses and docks.

While land use in the northern half of the west shore is also almost exclusively residential, lots are generally larger and there is more space between structures. Steep cliffs along the shoreline just south of Taughannock Park have prevented major construction at the water's edge, but homes have been built at the top of these cliffs and steps provide access to the water.

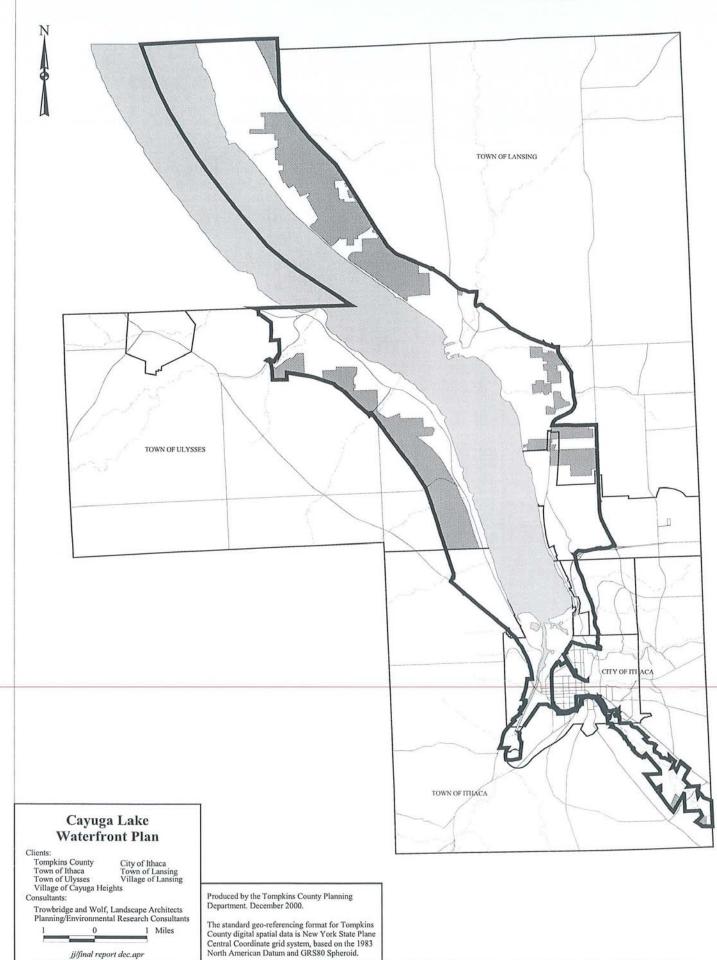
At approximately mid-point on the west shore there is a large sparsely developed area known as Camp Comstock. The camp belongs to the Girl Scouts of America; it is approximately 60 acres in size and has almost 4,500 feet of lake frontage. To accommodate summer camping programs, the Scouts have constructed sleeping, dining, and recreation facilities on this site. While these facilities can be seen from the water, Camp Comstock land provides a substantial visual and physical break in the otherwise continuous development pattern of lakeside land on the west shore.

Immediately across Route 89 from Camp Comstock, a not-for-profit organization, Cayuga Nature Center, has assembled almost 200 acres of land that is used for a variety of educational purposes related to the Center's mission. While some of this acreage has been farmed, much of it is wooded and undeveloped.

Agriculture

Agriculture is an important part of Tompkins County's history as well as its future. Agriculture plays a large role in the county's economic mix and in the use of land in the county. From a land use perspective, much of the land in the northern portion of Tompkins County is used for agricultural purposes. Driving along the roads in rural Tompkins County, one sees evidence of dairy and beef production, cropland, as well as agribusinesses, like Genes, a dairy and beef cattle genetics firm.

MAP 9. AGRICULTURAL DISTRICTS



According to the Tompkins County Economic Development Strategy, agriculture is a \$90 million industry, representing 2.4% of the local gross product. Agriculture is an export industry for the county, bringing in income from outside the county. While historically a dairy area, agricultural production in Tompkins County is shifting more toward fruits, vegetables, horticulture, and animal product specialists, resulting in a shift from an export industry to a local economic sector, providing goods and services to the local market.

Within the study area, agriculture represents a relatively small portion of the total land use. This can be largely attributed to the physiographic conditions in most of the area, steep slopes rising from the shoreline. However, in the Town of Ulysses and Lansing, where the study area extends away from the shoreline for some distance, agricultural lands are common (See Maps 7-A, 7-B, and 7-C).

Tompkins County has established agricultural districts in order to support agriculture in the County. Within the study area, these districts are located in the Towns of Ulysses and Lansing (see Map 9).

Existing Zoning

Each community that makes up the LWRP study area has a zoning ordinance in place. Each of the five ordinances was developed independently. The Towns of Ithaca and Ulysses are currently in the process of revising their ordinances. Proposed revisions have also been reviewed for this section.

Eighteen different conventional zoning districts are currently regulate the use of waterfront land in the study area. The City has 7 and the Town of Lansing has 5; the Town of Ithaca has 4, and Ulysses and the Village of Lansing each have 1. The Town of Ithaca is considering reducing its conventional lakefront districts from three to two.

In addition to the conventional zoning districts, the Town of Ithaca can, and has, established two Special Land Use Districts and the Towns of Lansing and Ulysses have provisions for Planned Development Districts. These special districts can be created specifically to accommodate unique development proposals, including mixed uses, not already covered by conventional districts and regulations.

Town of Lansing

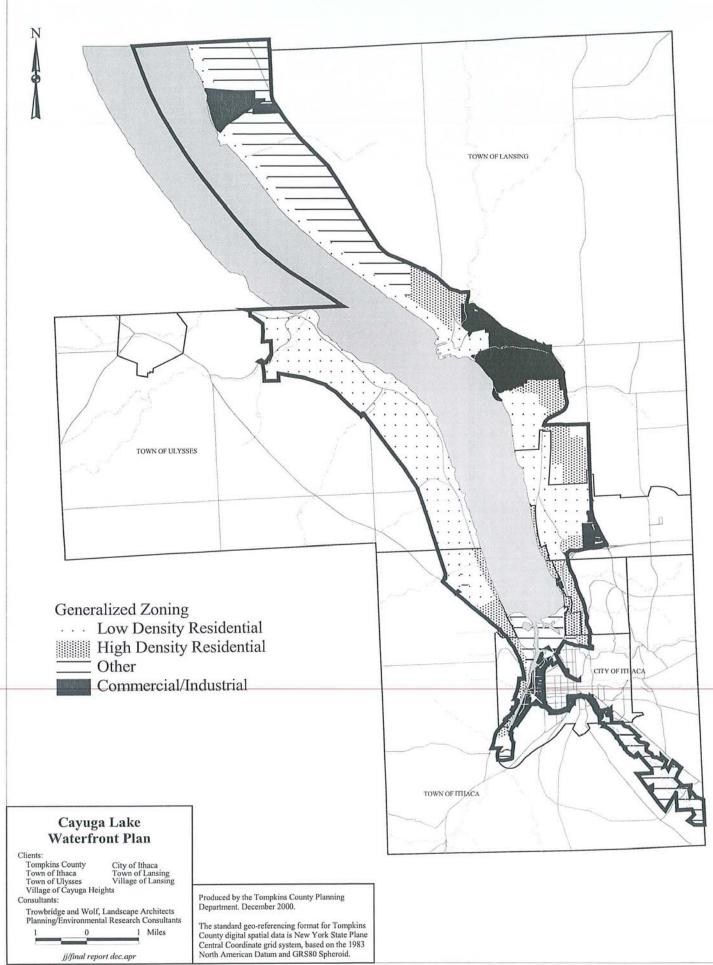
The current Lansing zoning ordinance was adopted in July 1998. There are five different zoning districts that affect development of the LWRP area: Lakeshore, Rural Agricultural, Residential-Low Density, Residential-Moderate Density, and Industrial/Research. All of these zones border the shoreline at some point but the Lakeshore zone is dominant, controlling approximately 2/3 of the Town's 13 miles of shoreline.

Lakeshore

With the exception of about a mile of shoreline in the Milliken Station area, the Lakeshore zone is a long, thin band stretching from Myers Point to the Seneca County line. In addition, all of the Myers Point area is in this zone. North of Myers Point, the boundary for most of the Lakeshore zone is fixed at 1,000 feet (measured horizontally) from the centerline of the railroad.

As described in the ordinance, the intent of the Lakeshore zone is "to designate areas that are adjacent or have access to the shoreline of Cayuga Lake and are environmentally sensitive. Continued residential and limited nonresidential developments are appropriate uses for such areas. Regulations and development standards are aimed at minimizing environmental damage to natural resources, preventing erosion and responding to potential problems related to steep slopes and inadequate water and sewer services."

MAP 10. GENERALIZED ZONING



Minimum lot size for all land uses in the Lakeshore zone is to be determined by the Tompkins County Health Department. In other words, if Health Department minimum standards for sewerage disposal system installation and separation from water supplies can be met, the lot size is adequate. Lot frontage along a road must be a minimum of 75 feet. Minimum yard setbacks are 20 feet for a front yard (for waterfront properties, the yard adjacent to the lake is the front yard) and 10 feet for both side and rear yards. Maximum building height is 35 feet above grade on the high side of any structure.

Crop farming is permitted in the Lakeshore zone but dairy, poultry, and livestock farming are not. A full range of residential land uses, including mobile homes, is permitted, along with motels, professional and governmental offices, general and fast food restaurants, convenience marts, and specialty sales (antiques, crafts, etc.). Retail sales, service and storage uses that are not marine or water-oriented are not permitted; neither are industrial or research activities. Very few of the permitted uses require site plan approval as a precondition.

Rural Agricultural

Land between the Lakeshore zone and Route 34B is zoned Rural Agricultural (RA). This reflects existing development and the character of this area, which is predominantly rural, especially those areas farther from the lake, which are less steep and suitable for farming. None of the RA zoned land touches the lakeshore but lake access from RA zoned areas is possible in various locations by lots or roads that pass through the Lakeshore zone. In addition, some of the land in the RA zone provides excellent views of the lake.

The intent of the RA zone is "to designate areas where farming and farm related businesses are the predominant and desired land use activities. Some low-density housing has occurred, is anticipated in the future, and is appropriate." By design, the RA zone is the least restrictive in the Town of Lansing. Like the Lakeshore zone, minimum lot size for nonagricultural land use is determined by Health Department regulations for the installation of sewerage systems. Minimum road frontage is only 20 feet, a width that would not accommodate a public road and is barely adequate for access to a single lot. Minimum front yard setback is 30 feet (60 feet from Route 34B); side and rear yard setbacks are each 10 feet, and there is no maximum building height.

Very few land uses are excluded from the RA zone. All types of agricultural, residential, and commercial land uses are permitted. Some nonagricultural uses (mobile home park, motel, truck or motor freight terminal, junk yard, for example) have special conditions attached or require a special permit from the Town Board.

Industrial/Research

Just over two miles of Lansing's shoreline is zoned Industrial/Research (I/R). This zone is located in two separate areas. One area stretches from south of Myers Point to the south end of Portland Point and includes areas that have traditionally been used for industry - primarily mining and storing of salt, gravel, and cement. The second I/R zone runs for about 6,000 feet north of Milliken Station Road. While the southern portion of this area is actively used by the electric power plant, the northern part is undeveloped and in its natural state. The northern reach of the railroad line terminates in this area.

The intent of the I/R zone is to "designate areas where some form of light manufacturing, fabrication, assembly or research, mining and power generation utilities are appropriate and desired land uses."

As with Lakeshore and Rural Agricultural zones, minimum lot size in I/R zones is to be determined by Health Department requirements. Like RA requirements, minimum road frontage is 20 feet. A front yard set back of 30 feet is required and side and rear yard set backs must be 10 feet unless reduced through site plan review. There is no maximum building height in the I/R zones.

Land uses that can be located in I/R districts include all types of farming, commercial recreation, motels and hotels, professional offices, a broad variety of retail sales, service and storage activities (including marine and water oriented sales and service uses), commercial excavation, warehousing, light manufacturing, truck terminals, industrial or educational research, public utilities, and communication towers. While the variety of land use possibilities in I/R districts is broad, most of the uses that could occur in this district would likely be located in areas that are not on the waterfront.

Most of Lansing's lakeshore land that is zoned Industrial/Research has been owned for many years by large single-use landowners; the limited number of industrial uses along the water are long established and accepted. Nevertheless, these long stretches of shoreline could be subdivided and sold in the future and some of the uses that are now permitted by zoning would not be appropriate.

Residential - Low Density

A Residential - Low Density (R-1) zone is located from the south side of Portland Point southward to the Village of Lansing line. Most of the developable land in this area is located at the top of the steep escarpment rising from the railroad line at the water's edge. There is little or no developable land along the shoreline and much of the land at the top of the escarpment has been subdivided and developed for large, low-density single-family homes.

The intent of the R-1 zone is "to designate areas where agriculture is still occurring...and where small concentrations of non-farm development, primarily residential have also occurred."

Minimum lot size in the R-1 zone is 20,000 sq. ft. when there is public water or sewer services available, Health Department approval when there are no public utilities. Road frontage must be at least 100 feet. The minimum front yard setback is 30 feet; side yards must be at least 12 feet and rear yards 25 feet. Maximum building height is 35 feet.

Uses permitted in the R-1 district are limited primarily to all types of housing (except mobile homes) but also include crop farming, commercial recreation, government buildings, and schools.

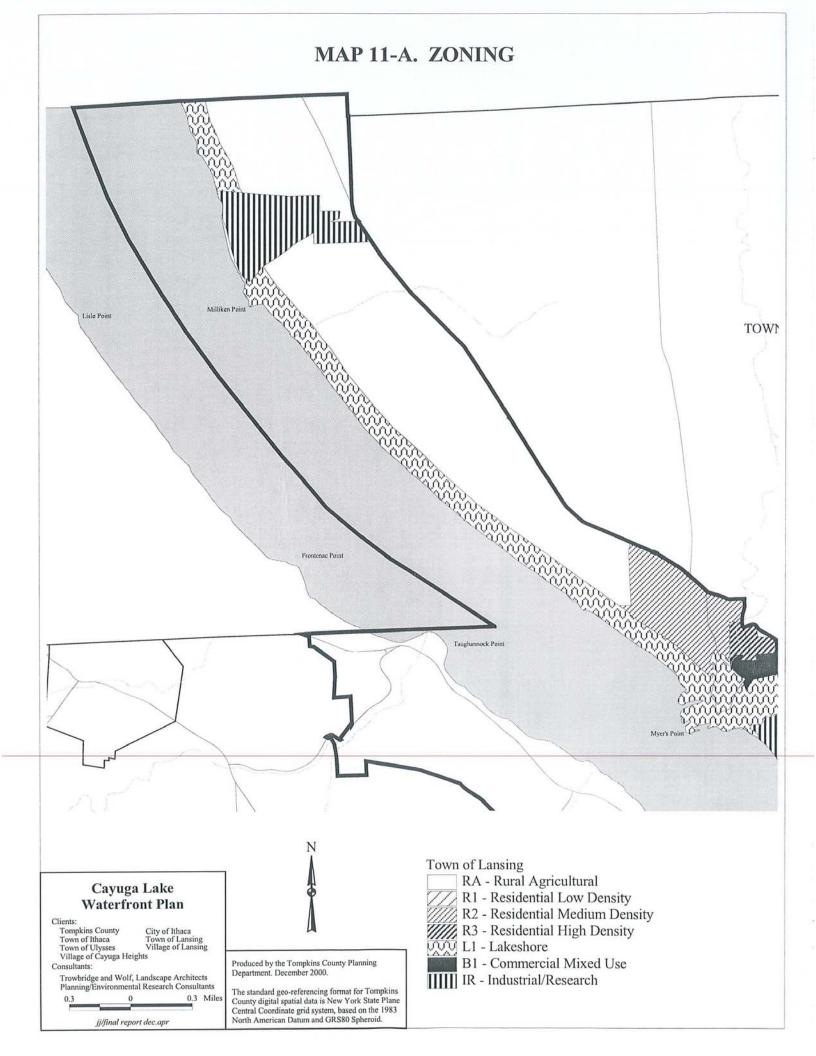
Residential - Moderate Density

An isolated sliver of Town of Lansing lakeshore land lies between the Village of Lansing and the Town of Ithaca. While legally part of the Town of Lansing and regulated by the Town's zoning ordinance, this area has no physical connection to the rest of the Town. It is zoned Residential - Moderate Density (R-2). For the most part, this sliver is located between East Shore Drive (Rt. 34B) and the lake. It is quite steep and separated from the lake by the railroad right-of-way.

The intent of the R-2 zone is "to designate areas where the expected and desired use of land is a mixture of varied types of residential development at a somewhat higher development density."

Minimum lot area in the R-2 zone is 10,000 sq. ft.; multifamily dwellings must provide 6,000 sq. ft. of lot area per dwelling unit. When public water or sewer services are not present, Health Department regulations for lot size prevail. Minimum road frontage in the R-2 zone is 75 feet; front yard setback is 30 feet (60 feet along state highways) and side and rear yard setbacks vary from 10 to 40 feet depending on use. Minimum building height is 35 feet from the uphill side of the lot.

For the most part, permitted uses in R-2 mirror those of the R-1 zone. A notable difference is the type of nonresidential uses permitted in R-2 but excluded from R-1. These include professional offices and, in the industrial land use categories, warehousing, wholesaling, printing and publishing, small-scale commercial assembly, and light manufacturing.



A second area of R-2 zoned land is located between the Lakeshore zone north of Myers Point and Route 34B in the Fiddlers Green-Sperry Lane area. There has been steady residential development in this part of town in recent years. Lake views are exceptional and an adequate water supply - a previously limiting factor - is now available, indicating that future development is likely.

Village of Lansing

All lakeshore land in the Village of Lansing is zoned Low Density Residential (LDR). The intent of the LDR district is to establish regulations "in areas where public utilities are limited and where low-density, predominantly single-family residential development and agriculture are desired as the basic land use pattern." Much of the land overlooking the lake is vacant. A public water system is available to serve this area but public sewers are not available at this time. The railroad runs along the water's edge throughout this zone and steep slopes or rock escarpments prevent direct access to the waterfront in most locations.

Minimum lot size in non-sewered areas is 60,000 sq. ft. for a one-family dwelling, 90,000 sq. ft., for a two family dwelling and 30,000 sq. ft. for a small number of other permitted, nonresidential uses. Maximum lot coverage for all lots in the LDR zone is 10%; minimum street frontage is 200 feet for a two-unit residence and 150 feet for all other uses. Residences must have a 40-foot front yard set back; for all other uses a 75-foot set back is required. Principal uses must be kept at least 25 feet from side lot lines and 40 feet from rear lot lines. Accessory buildings can be located somewhat closer to the side and rear lot lines. Thirty-five feet is the maximum building height, measured from the lowest point of the building to the highest point of the roof.

In the LDR zone permitted uses are limited to one and two family residences and natural parks. Uses permitted by special permit include some types of farming, mobile homes, schools, religious facilities, cluster housing, outdoor recreation (golf, tennis, boating, swimming and similar commercial recreation), home occupations, and so-called mixed use.

City of Ithaca

The largest of the City's seven zoning districts in the Waterfront Revitalization Area is Public and Institutional. Other districts are Marine Commercial, Waterfront, Industrial, Service Business, Residential, and Floodway.

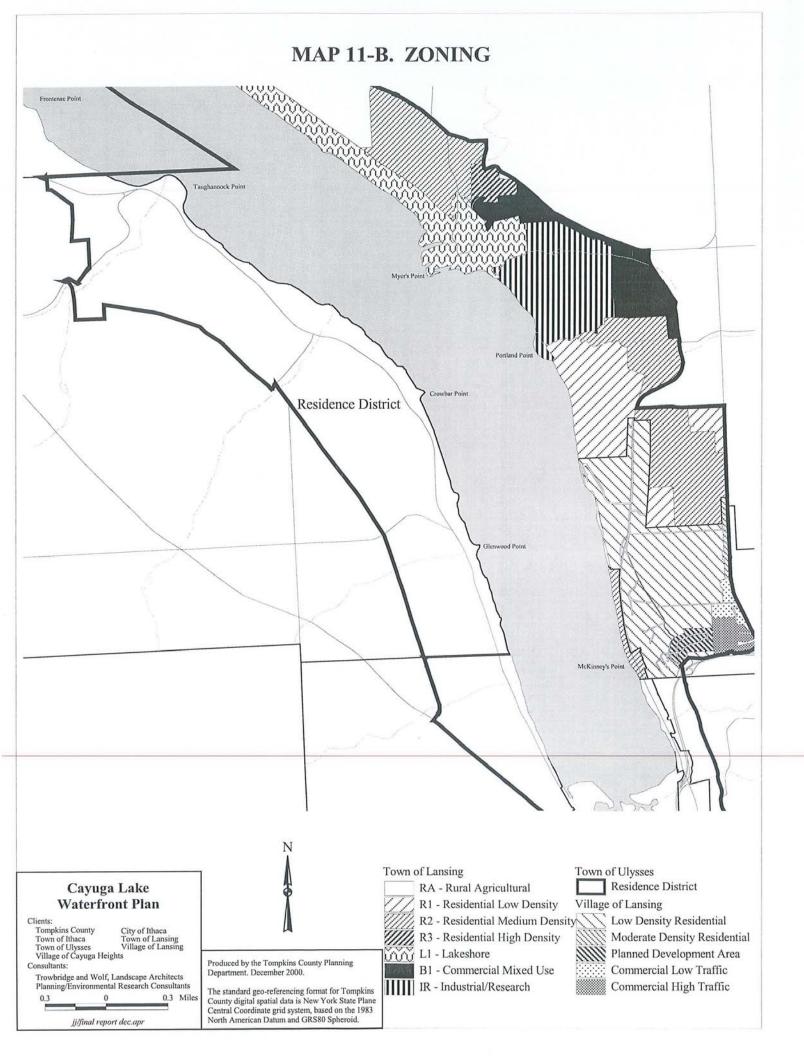
The City of Ithaca's zoning ordinance is cumulative, meaning that "higher" zones allow all uses permitted in "lower" zones. So, uses permitted in the B-2 zone include those permitted in the B-1 zone, which include uses permitted in the R-3 zone and so forth.

Public and Institutional

The Public and Institutional (P-1) district includes some large parcels in the Cayuga Inlet area: Cass and Treman Parks, Stewart Park, Fuertes Bird Sanctuary, Cornell's Biological Field Station, Newman Golf Course, the DPW and TCAT garages, the waste water treatment plant, Southwest Park, a narrow strip of park land between Floral Avenue and the flood channel, and a small area bounded by Cayuga Inlet, Six Mile Creek, and West Clinton Street.

As the name implies, public recreation, municipal buildings and functions, and public and semi-public educational institutions and uses are permitted in the P-1 district. Most P-1 land is owned and controlled by the City or the State. Development that occurs in this district is, therefore, under direct public control and most of this zone is already used for park and recreation purposes.

The minimum lot area for a P-1 use is 3,000 sq. ft. and 30 feet at the street line is the minimum lot width. There is no maximum building height in this district; maximum lot coverage by buildings is 35 percent. Small yard setbacks (25 feet) are required for any building that is located on a public street.



Marine Commercial

Marine Commercial (M-1) zoning applies to all of the east side of Cayuga Inlet from Buffalo Street north to Pier Road and Newman Golf Course. It extends eastward along the north bank of Cascadilla Creek to Route 13. The intent of the M-1 district is "to ensure the enhancement and enrichment of the City of Ithaca and to permit the growth of marine-related uses which could not viably exist except in close proximity to this particular body (Cayuga Inlet) of navigable water." The City's general plan (1971) says that the Inlet should be developed to exploit its unique water character and view and its tourist potential; the Marine District was created to implement this objective.

Because of the City's cumulative-use zoning, there are a number of land uses that are permitted in the M-1 zone that have no need to be near water and are not necessarily enhanced by it. Thus, while permitted primary uses specifically include such things as boatels, fishing piers, yacht clubs, light manufacturing of marine products, and sale of marine equipment products, a number of other uses are permitted because of the cumulative zoning approach (e.g., retail store, business or professional office, bowling alley, funeral home, dormitory, school, housing). Also, printing is specifically listed as a permitted primary use in the M-1 district, probably because a printing business has been located in this zone for a number of years.

The minimum lot size in the M-1 zone is 3,000 sq. ft. and minimum lot width, along the street or the water, is 30 feet. To encourage somewhat higher buildings in this area, a *minimum* building height for new development is established at 25 feet; some types of land use (housing, hotel, etc.) can be as high as 50 feet.

In addition to the minimum height requirement, several other zoning regulations have been created specifically for the M-1 zone. At least 20% of any site facing a waterway must be landscaped to reflect and preserve the visual and physical character of the waterfront; NYS Barge Canal bulkhead requirements must be met, and no piers or other structures are permitted beyond the bulkhead line. All structures not having a direct waterfront-related function must be set back at least 20 feet from the average water level line.

Waterfront

A new zoning district has recently been adopted for Inlet Island - area defined by the flood control channel and Cayuga Inlet. The new zone establishes a Waterfront zone designated generally as WF-1 and further subdivided into four sub-zones: WF-1a, 1b, 1c, and 1d. The stated purpose of the new zone is to allow for more public access, to enhance the value of waterfront property, to provide an area near the water for multi-story, mixed-use development, and to enhance views of and from waterfront areas.

Permitted primary uses in the WF zone are similar to the Marine Commercial zone except that "printing" has been specifically omitted (see Marine Commercial above). The cumulative provision used in the City ordinance has been retained, however. This opens the waterfront area to a wide variety of permitted uses, some of which may not need, nor be appropriate in, a waterfront setting.

A basic purpose of the WF zone, and one reason for its division into four sub-zones, relates to building height. No buildings are allowed in WF-1a, which roughly parallels the east bank of the flood control channel. Maximum and minimum building heights vary in the other three sub-zones increasing from a maximum of one story (for a small area of WF-1b where a restaurant is proposed) to a maximum of five stories in the WF-1d zone. A minimum of two stories is required in the WF-1c zone and three stories in the WF-1d zone. The aesthetic objective of these height regulations is to achieve a varied skyline with no buildings at the water's edge and higher buildings near the center of the island and on its west side. The current M-1 Marine Commercial zone already permits some development as high as 50 feet and contains a minimum building height provision of 25 feet. However, this minimum height regulation applies only to structures that would have a building footprint of over 500 sq. ft.

There are no off-street parking or loading requirements in the WF-1 district and no front or side yard setback requirements. Up to 100% of the lot area can be covered by a structure. New structures must be set back at least 40 feet from the average water level of the flood channel and 12 feet from the Inlet unless they have a functional need to be directly on the water. Regulations for lot area and lot width are the same as in the Marine Commercial district.

Service Business

A small area between the railroad, the inlet, and Buffalo and State Streets is zoned for service business (B-4), as is the south end of Inlet Island that is proposed to be rezoned to WF-1d (see above). As the name implies, the service business zone permits gas stations, motor vehicle storage, sale and service activities, and printing, heating, plumbing and similar businesses. While off-street parking and loading must be provided in the B-4 zone at present, the West End Urban Design Plan recommends that parking requirements be eliminated west of Meadow Street.

The City's West End Urban Design Plan included zoning changes that have been formalized and adopted. The general intent of zoning amendments would be to create a "street wall" of structures that would be at least 35 feet high and set back 15 or 20 feet from the curb. Off-street parking located in the interior block spaces would be encouraged but not required.

Industrial

A large area paralleling the east side of the Flood Control Channel, between Cayuga Inlet and the south City line, is zoned Industrial (I-1). This area is defined on the east by the railroad right-of-way and switching yards. The center portion of this area is currently the location of the Cherry Street Industrial Park that is to be expanded in the future.

Dwellings are excluded from the industrial zone but virtually all other land uses are permitted if performance standards related to such impacts as noise, vibration, smoke, odors, and outside storage can be met. A minimum lot size of 50' x 100' (5,000 sq. ft.) is required and a maximum of 50% of a lot may be covered by buildings.

In industrial districts, all uses that are not permitted by right require a special permit from the Zoning Board of Appeals. In addition, all development proposals are subject to site development plan review by the Planning Board and it is through this process that issues such as physical appearance and landscaping are determined.

Residential

A stretch of about 2,000 ft. along the west bank of the flood control channel in the southwest corner of the City is zoned residential (R-3a). All types of dwellings including apartments, townhouses, and garden apartments are permitted in the R-3a district. Minimum lot size depends on the type of development; and, buildings can cover 35% of the lot area and 40 feet is the maximum building height. Any development containing more than 5 dwelling units or having a floor area of more than 5,000 sq. ft. is subject to site development plan review by the Planning Board. All new structures must be set back at least 20 feet from the average water level.

Town of Ithaca

At present, waterfront land in the Town of Ithaca falls into four conventional and two special zoning districts: R30 Residence, R15 Residence, Multiple Residence, Business E, and Special Land Use Districts 5 and 11. Zoning in the Town is currently being extensively revised, however. Because the Town will most likely adopt zoning revisions that will affect future development of waterfront areas, pertinent proposals for those revisions will also be reviewed in this section.

R30 Residence

At the extreme southern end of the study area several parcels of land lying between the railroad and Cayuga Inlet are zoned R30 Residence. This area is not developed and is part of the inlet floodplain. One and two family residences are permitted by right and a variety of nonresidential uses are permitted if a special approval is obtained from the Zoning Board of Appeals. Minimum lot area is 30,000 sq. ft. and minimum lot width is 100 ft. Buildings can cover up to 10 percent of the lot area. Front yards must be at least 60 feet deep and side yards at least 40 feet wide. Parts of this area are to be used as "substitute" parkland for the City's Southwest Park area, which is proposed for commercial/industrial development.

R15 Residence

The R15 Residence zone regulates the entire West Shore and about half of the East Shore of the Town of Ithaca. On the west side of the lake, the upland boundary of the R15 zone is the former railroad right-of-way uphill from Route 89. Town of Ithaca land on the east side of the lake is a thin strip located between the water's edge and Cayuga Heights' boundary. The northern and southern portions of this East Shore strip are zoned R15.

The intent and purpose of various zones is not specifically spelled out in the ordinance and there are no special regulations that would differentiate lakeshore land from other R15 areas of the Town. Land uses permitted in the R15 zone include one and two family dwellings, public utilities, day care facilities, elder cottages, home occupations, and offices; and, by special approval, churches, public and institutional buildings, public parks, and golf courses are also permitted.

Minimum lot area in R15 is 15,000 sq. ft.; minimum width at a distance of 50 feet from the street line is 100 feet; lot depth must be at least 150 feet. The front yard set back is at least 25 feet but no more than 50 feet; side yards are to be at least 15 feet each.

MR Multiple Residence

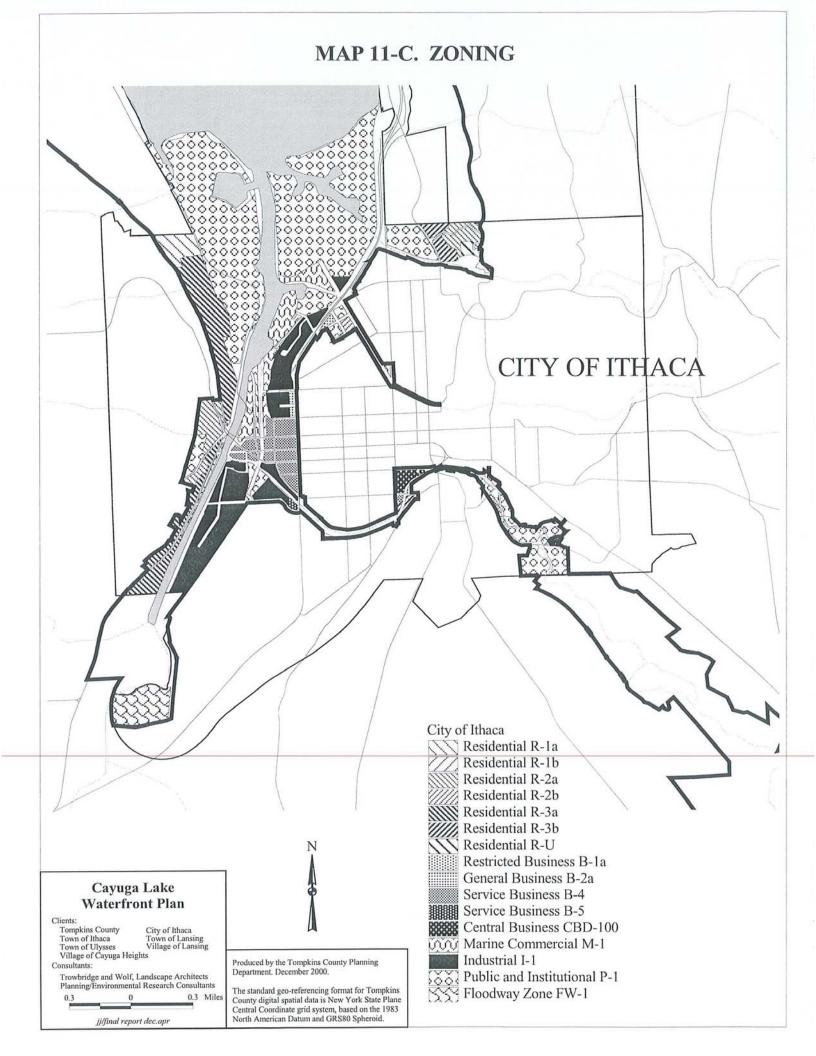
Current zoning regulations in the Town of Ithaca provide for the establishment of multiple residence districts by the Town Board after an application from a property owner has been submitted. Such applications can be approved directly by the Town Board or can be submitted to the Planning Board for a recommendation. In either case, a site plan related to the proposed development must be prepared by the applicant and approved by the Town Board before the district is initially established. After the district is established, the Planning Board must approve a detailed final site plan.

A small area of land on the uphill side of Route 34 is zoned for multiple residences. One, two, and multiple family dwellings, along with related accessory uses, are permitted. Minimum lot area is one acre regardless of use. Minimum lot area per dwelling unit is 2,500 sq. ft., meaning that, in theory, 17 dwellings could be constructed on the required one-acre parcel. Buildings can cover no more than 30% of the lot, however, and can be no higher than 36 feet (3 stories). While these two requirements place some limits on the number of units that can be built on a lot, it appears that 14 or 15 dwelling units per acre would still be possible.

Front yards must be at least 50 feet deep, measured from the street right-of-way. Minimum side and rear yard dimensions are 15 and 30 feet respectively, and can be more depending on the height of the nearest structure.

Business E

Business districts are also established by application to, and approval by, the Town Board after a site plan has been approved. One such district is located on the east shore of Cayuga Lake, bisected by Route 34. At present this district is largely occupied and used by a small marina and sailing club.



In addition to boat harbors and marinas, restaurants, hotels, and motels are permitted uses in Business E districts. Clubhouses and lodges are permitted but only by approval of the Zoning Board of Appeals. Also, by special approval from the Board of Appeals, a day care center can be established in the Business E zone.

Two acres is the minimum site area that can be considered for a business district; buildings can cover up to 30% of the lot. Minimum usable open space (land that is not to be used for buildings, parking and driveways) has to be at least 30% of the lot area and is to be landscaped. Building height is limited to 36 feet.

Special Land Use Districts

Special Land Use Districts were established in 1984 for the purpose of permitting mixed-use development or other land uses that were not normally permitted by the zoning ordinance. They are, in effect, floating zones that are established by the Town Board on a case-by-case basis. Development proposals are submitted to the Town Board, which can refer the request and site plan to the Planning Board for recommendation. After public hearing the Town Board can act to amend the zoning ordinance and establish a Special Land Use District. Generally such districts are for individual lots only.

Two Special Land Use Districts on the Town's eastern lakeshore have been created. District 5 was established in 1988 to permit construction of a Chamber of Commerce office building on a site that was formerly in an R15 Residence District. The most recent Special Land Use District was established in 1997 to permit Cornell University to construct a heat exchanger for its Lake Source Cooling project near the marina and sailing club facility on East Shore Drive.

Lakefront Commercial and Lakefront Residential

These two zones are proposed as replacements for the R15 and Business E zones described above. Lakefront Commercial would replace the Business E zone. The purpose of this new business zone is to provide for "coherent development of commercial facilities that are uniquely related to the shore front of Cayuga Lake." Boat harbors and marinas are the only uses permitted by right; restaurants, hotels, motels, and clubhouses or lodges are permitted by special permit. Like all commercial districts in the Town, the Lakefront Commercial district would be unique, to be created by the Town Board after extensive review. The minimum size of any such zone is two acres; there are regulations for such things as lot area, lot width, setbacks, coverage, open space and parking. Approval of a site plan would be required.

The proposed Lakefront Residential zone will control development of most shoreline land in the Town of Ithaca. The purpose of this new zone is "to minimize excessive and undesirable development in fragile lakefront areas, to protect the natural beauty and ambience of the lake shore...and to enhance the experience provided to those living near, and those who use...Cayuga Lake".

Permitted uses include one and two family dwellings, publicly owned parks, municipal or public utilities, day care homes, and community residences. Churches, libraries, schools, fire stations, hospitals, clubhouses, lodges, and bed and breakfast facilities are also permitted by special permit. "Fishing piers, docks, wharves, boathouses, cabanas, sea walls and similar waterfront structures..." are listed as accessory uses authorized by special permit only and after site plan approval. In addition to applicable state and federal regulations and approvals, there are extensive town standards and requirements that apply to the granting of a special permit.

The proposed zone includes a full range of area and bulk regulations (building height, lot area, yards, setbacks, parking, etc.) controlling both permitted uses and accessory uses. The Town is also interested in controlling the size, number, appearance and location of piers, docks, and wharves. In addition, there are restrictions on the number, use, and location of mooring buoys in the district.

Town of Ulysses

Ulysses is currently in the process of reviewing and modifying its zoning ordinance in an effort to implement some of the land use objectives of the town's Comprehensive Plan. The amended ordinance is to be enacted in the near future. Currently there are two zoning districts in the town: business and residence. Most of the town and the entire shoreline is in the residence zone.

Residence

Since few areas in the town, including the lakeshore, have access to public water and sewer service, the ultimate lot size is one that can meet the standards of the Tompkins County Health Department for the installation of sewerage systems. In areas which have public sewers, or in the event that Health Department requirements are not a concern, there are two standards for minimum lot size, with the determinant being the date of purchase of the property.

For properties purchased prior to August 17, 1977, the minimum lot area is 30,000 sq. ft. for a one family dwelling with incremental increases for each additional dwelling on the lot. Minimum frontage is 150 feet. If the lot has public water and sewer service, the minimum lot area is reduced by 50 percent to 15,000 sq. ft. and minimum frontage is reduced to 100 feet.

For properties purchased after August 17, 1977, and having no municipal water and sewer service available, the minimum lot size is one acre (43,560 sq. ft.) of usable area and all Health Department regulations must be met. Minimum lot frontage is 200 feet. When water and sewer service is available the minimum lot size is reduced to 15,000 sq. ft. for a one family dwelling with lot frontage of 100 feet.

Minimum yard setback requirements for lake property in the residence district are: front yard (facing the lake), 50 feet; side yard, 5 feet on each side; and rear yard 35 feet. Regardless of the requirement that buildings be set back 50 feet from the lake, they are not required to be farther back than the neighboring property as long as a yard depth no less than 20 feet can be provided. The lake level from which such yard setback is measured is not stated in the ordinance.

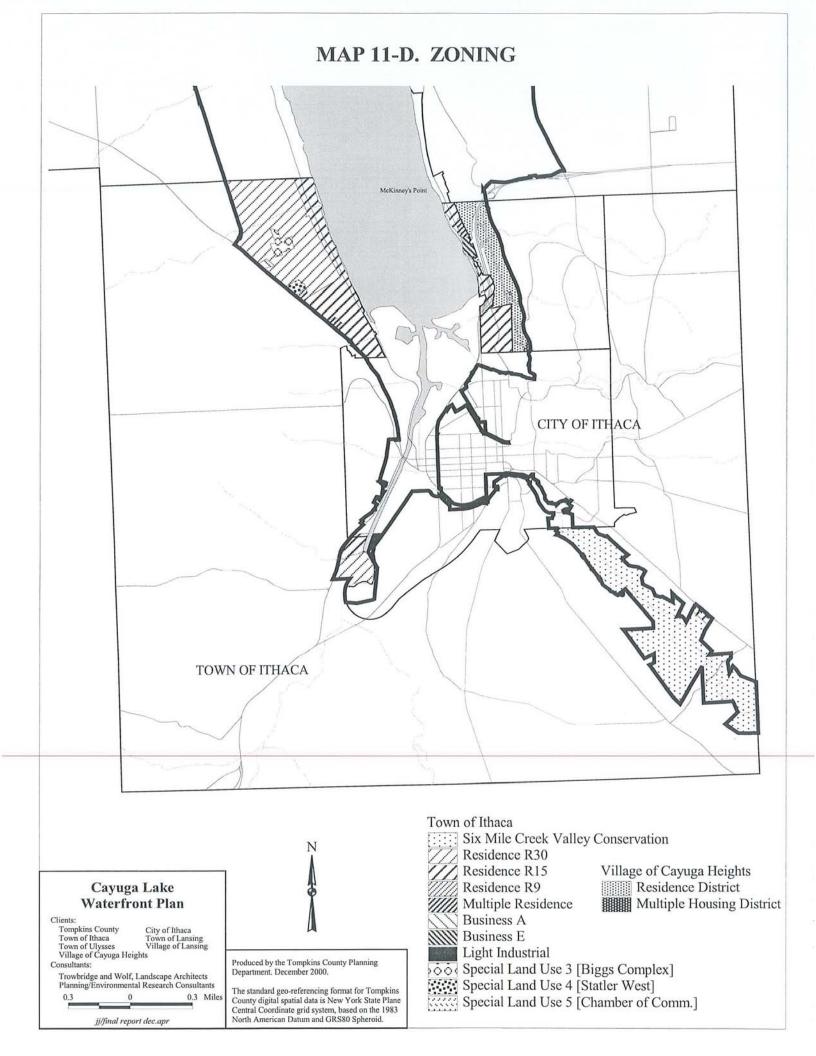
There is a broad range of uses that are permitted in the residence district. Farming, as defined in the ordinance, is exempt from regulations but "harboring farm animals" is only permitted under specified conditions. In addition to dwellings, public parks, and tourist homes - permitted uses that could benefit from a lake side location - there are other permitted uses that would not normally need or seek to be on the water. Mobile homes are permitted but only if located in a mobile home park. Boathouses are considered accessory buildings that are permitted in the front yard of properties abutting Cayuga Lake.

The Ulysses ordinance requires a minimum floor area for a permanent dwelling of 750 sq. ft. of enclosed livable space. Smaller summerhouses, cottages, and camps are permitted by special permit. These uses are not defined, however.

Development Districts

The planned development technique is permitted in the Towns of Lansing, Ithaca, and Ulysses. In the Town of Ithaca this is referred to as a Special Land Use District. This approach to land use regulation could affect any lakeshore property in these three towns. Ultimate control over the types of activities that might be permitted, and under what circumstances or conditions, rests with the Town Board in its determination to amend the ordinance and create the planned district or deny the developer's proposal.

The minimum lot size for a planned development district is two acres in the Towns of Lansing and Ithaca, and three acres in Ulysses. Plans for the proposed district are prepared by the applicant upon direction from the Town Board. These plans are referred to the Town Planning Board for review and a recommendation.



In making its review, the Planning Board must determine that there is a need for the proposed development, that existing neighborhood character would not be seriously compromised, and that negative impacts on the environment would be minimized. After reviewing the proposed planned development and negotiating conditions with the developer, the Planning Board makes a recommendation to the Town Board. Following a public hearing, the Town Board acts to approve, with or without conditions, or disapprove the proposal. In Ulysses, a majority-plus-one vote of the Town Board is needed to override a negative recommendation from the Planning Board.

Public Facilities

Water Supply and Treatment Systems

The Waterfront Revitalization Area is served by two public water systems: Bolton Point and the City of Ithaca.

Bolton Point Water System

The Bolton Point water system provides public water within the eastern portion of the Waterfront Revitalization Area. Its service area includes the entirety of the Villages of Cayuga Heights and Lansing within the Study Area. In the Town of Lansing, the system provides water along Routes 34 and 34B (as far as Milliken Station) and out towards Myers Point. It serves the eastern portion of the Town of Ithaca within the study area.

The Bolton Point system, formally known as the Southern Cayuga Lake Intermunicipal Water Commission, was established in the early 1970's and began operation in July 1976. It is a quasigovernmental water authority comprised of the Towns of Ithaca, Dryden, and Lansing and the Villages of Cayuga Heights and Lansing.

The plant is located on East Shore Drive in the Town of Lansing. The Bolton Point Water system uses Cayuga Lake as its source of supply via an intake structure 400 feet offshore. The water is chemically treated to assist with sedimentation of solid matter and then filtered. The water is then chlorinated to destroy pathogens and pumped to clearwells (large underground concrete reservoirs) for storage.

The water treatment plant, rated at 6 MGD (million gallons per day), could be increased to approximately 9 MGD. Currently, the plant operates in the range of 2.0 to 2.4 MGD. Therefore, there is 3.6 to 6.6 MGD excess capacity at the plant. The major requirement for extended service would be additional water transmission mains, pumping stations, and storage reservoirs.

City of Ithaca Water System

Within the Waterfront Revitalization Area, the City of Ithaca's water system serves all of the City of Ithaca and the western portion of the Town of Ithaca. It extends only as far as the border with the Town of Ulysses.

The City's water treatment plant, built in the early 1900's on Water Street, has been expanded and improved several times over the years. The source of supply is Six Mile Creek at the 60-foot dam. Water is piped to the plant, treated with chemicals to aid sedimentation of solid particles, and filtered to remove remaining solids and other contaminants. The water is disinfected with chlorine and stored in clearwells from which it is either piped by gravity, or pumped, to the users.

The City water treatment plant has a capacity of about 6 MGD, although the source of supply appears to have a yield limit of about 5 MGD. Current demand is approximately 4.9 MGD, leaving no appreciable excess capacity.

Future Water Supply and Treatment

The Bolton Point water system clearwells and the City of Ithaca Water Treatment Plant are located at similar elevations making interconnections between the two systems possible. In fact, such interconnections do exist, both for normal sharing of water where such sharing is expeditious, and for emergency interconnections should an emergency render part or all of either system inoperable.

Currently, consideration is being given to major renovations to the City of Ithaca water system. This could include replacing the existing plant, rehabilitating both the dams and replacing the old distribution pipelines. However, these plans, if carried out, would not increase the source capacity beyond the 5 MGD available now.

The Bolton Point water system has the potential capacity to handle all of the City's needs in addition to its own. Use of the Bolton Point system, however, would mean reliance on pumping since the source of supply is Cayuga Lake; all users are situated at higher elevations. The City plant, in contrast, utilizes an upland water supply that is conveyed to the plant by gravity, then by gravity to many of the users. This is a significant operating cost saving in addition to providing increased reliability against interruption in supply due to electrical outages, pump failure, and other problems that must be addressed by the Bolton Point system.

Wastewater Collection and Treatment Systems

The Waterfront Revitalization Area is served by two public wastewater systems: The Ithaca Area Wastewater Treatment Facility and the Cayuga Heights Wastewater Treatment Plant.

Ithaca Area Wastewater Treatment Facility

The Ithaca Area Wastewater Treatment Facility (IAWWTF) provides most of the wastewater treatment within the Waterfront Revitalization Area. The IAWWTF serves the entirety of the City of Ithaca and the western portions of the Town of Ithaca within the study area.

The City of Ithaca, Town of Ithaca, and Town of Dryden jointly own the IAWWTF. The IAWWTF was placed in service in 1987, replacing an older plant.

It treats wastewater using a biological process (activated sludge); phosphorus is removed using a chemical process. Sludge resulting from these processes is treated in digesters and finally hauled to the former County landfill site in the Town of Spencer in Tioga County. The effluent from the plant is chlorinated to reduce bacteria and then dechlorinated (to avoid damage to aquatic life) before it is discharged into Cayuga Lake. The plant is located on Third Street in the City of Ithaca.

The plant is allowed, under permit from the NYS Department of Environmental Conservation to treat an average of 10 MGD of wastewater. It has been demonstrated, however, that the plant can easily treat 13 MGD, with minor pump and classifier upgrades. Presently the average daily flow into the plant is approximately 7.5 MGD, leaving a potential for 2.5 to 5.5 MGD of additional capacity.

Cayuga Heights Wastewater Treatment Plant

The Cayuga Heights Wastewater Treatment Plant serves the Village of Cayuga Heights, the Village of Lansing, and a small portion of the Town of Ithaca within the Waterfront Revitalization Area.

The Village of Cayuga Heights Wastewater Treatment Plant was originally constructed in 1956, then upgraded and expanded in 1975. The plant includes trickling filters, a biological process, followed by a tertiary process (contact air and ferrous sulfate addition) to remove phosphorus. The effluent is chlorinated to reduce bacteria and discharged to Cayuga Lake via an outfall pipe. Sludge is treated in digesters; the dewatered sludge is then hauled away and disposed of through land application under DEC

permit. The plant is located on Route 34, just north of the City of Ithaca. A private contractor operates the treatment plant.

The plant capacity is 2.0 MGD, with plans to expand capacity to 2.5 MGD. An average of 1.8 MGD is presently being treated. This leaves an excess capacity of 0.7 MGD with the planned improvements.

Future Wastewater Collection and Treatment

The City of Ithaca, the Towns of Ithaca, Lansing, and Dryden, and the Villages of Cayuga Heights and Lansing are working together to provide additional sewer service. Within the Waterfront Revitalization Area, the plans call for the extension of sewer service as far north as Myers Point, which could serve the entire waterfront south of that point. The municipalities are developing a joint proposal for State funding assistance for the improvements that would be needed to the treatment plants as well as for the construction of service lines and ancillary facilities. This proposal would take advantage of the excess capacity available at the IAWWTF and the Cayuga Heights Treatment Plant.

The proposed regional approach for wastewater collection and treatment for the six municipalities would cost \$25 million. It would extend sewer service to the Town of Lansing, construct trunk sewers to direct flows to existing treatment plants, install intercepting sewers to eliminate wet weather overflows, and construct advanced treatment facilities for phosphorus removal.

This project would result in two major changes affecting the Waterfront Revitalization Area. The first is the extension of wastewater services north into the Town of Lansing with the principal transmission main being located along Route 34. This will likely encourage further development along the southern Lansing shoreline. The project would also result in removal of much of the phosphorus from the two treatment plant discharges. Phosphorus is the most significant cause of algae blooms in the south end of Cayuga Lake and the primary pollutant of concern for the NYS Department of Environmental Conservation.

Transportation Systems

State Highway System

Several State Routes serve the Waterfront Revitalization Area:

- Route 34B (Ridge Road), extending from Cayuga County to the north to its intersection with Route 34 in South Lansing;
- Route 34 (East Shore Drive), extending from its intersection with Route 34B south to Route 13 in the City of Ithaca;
- Route 13 extending primarily southward from the Village of Lansing at Triphammer Road to Route 34 in the City of Ithaca;
- Routes 89 (Taughannock Road) and 96 (Trumansburg Road) extending from Seneca County to the north to the City of Ithaca; and,
- Route 13A (Floral Avenue), extending along Cayuga Inlet from the Town of Ithaca into the City of Ithaca.

These routes all ultimately converge in that portion of the City of Ithaca locally known as the Octopus. Highway improvements to the Octopus in the 1990's have improved traffic operations in this area primarily by separating traffic bound for Routes 89 and 96.

Most of the above mentioned routes are two-lane roads with shoulders. Exceptions are in the City of Ithaca, where most roads do not have shoulders and roadway width varies from two to four or more lanes, with additional lanes at major intersections. Route 13 (and in the City of Ithaca, Route 13/34) is a limited access divided-highway along its northernmost stretch.

Traffic congestion is of limited concern in a few locations. The areas in and around the Octopus, downtown Ithaca, shopping centers (both on South Meadow Street and in the Village of Lansing), and major employers are susceptible to congestion during the peak hours. Overall, traffic capacity is sufficient in the Waterfront Revitalization Area.

County Roads

There are several County roads serving the Waterfront Revitalization Area. These roads are all two-lane paved roads; most have little paved shoulder area. Major ones are:

- In the Town of Ulysses, Duboise Road (also located in the Town of Ithaca) and Willow Creek Road, which form a portion of the Waterfront Revitalization Area Boundary, and Kraft Road and Perry City Road.
- In the Town of Lansing, Lake Ridge Road, Milliken Drive, and Milliken Station Road in the north; Ludlowville Road and Brickyard Road in the vicinity of Ludlowville; and Portland Point Road.

There are no County roads in the City of Ithaca or the Villages of Cayuga Heights or Lansing.

Future Road Improvements

There are several road construction projects planned for the Waterfront Revitalization Area between 2000 and 2005. These range from relatively small projects (e. g., culvert replacements) to major roadway reconstruction projects.

- Add four-foot shoulders to Portland Point Road, in the Town of Lansing [Tompkins County].
- Replace culvert on Route 34B (near Lake Ridge Road), in the Town of Lansing [NYS DOT].
- Install four-foot gravel shoulders on Agard Road, in the Town of Ulysses [Tompkins County].
- Repave Route 96, in the Town of Ithaca [NYS DOT].
- Lagoda Park Road railroad crossing, in the Town of Lansing [NYS DOT].
- North Triphammer Road rehabilitation, road reconstruction, in the Town of Lansing [Tompkins County].
- North Triphammer Road reconstruction, bus pull-offs, bike lanes, sidewalks, in the Village of Lansing [Village of Lansing].
- Railroad crossings at Third Street and at Cecil A. Malone Drive, in the City of Ithaca [NYS DOT].
- Inlet Road railroad crossing, in the Town of Ithaca [NYS DOT].
- Duboise Road culvert extension, guiderail extension, in the Town of Ulysses [Tompkins County].
- Route 89 bridge replacement, near Perry City Road, in the Town of Ulysses [NYS DOT].
- Route 89 culvert replacement, near the Seneca County line. in the Town of Ulysses [NYS DOT].

Cayuga Lake Scenic Byway

The Counties of Cayuga, Seneca, and Tompkins, through their tourism promotion agencies, have proposed the establishment of a scenic byway encircling Cayuga Lake. Within Tompkins County, this Cayuga Lake Scenic Byway would follow Route 34B, Route 34, and Route 89. The entirety of the Cayuga Lake Scenic Byway in Tompkins County is located within the Waterfront Revitalization Area.

A nomination package was submitted in 2000 to the New York State Department of Transportation Scenic Byway Advisory Committee. Formal designation of the scenic byway by New York State is anticipated in 2001.

Public Transportation

Public transportation in Tompkins County is provided by TCAT (Tompkins Consolidated Area Transit). Within the Waterfront Revitalization Area, several routes are available.

• Bus 36 serves the east shore of Cayuga Lake outside the urban area. This bus runs along Routes 34 and 34B as far north as Algerine Road. The bus operates on weekdays, twice in the morning and twice in the evenings.

- There are several bus routes that serve the Pyramid Mall area of the Village of Lansing regularly.
- Bus 22 serves the west shore of Cayuga Lake outside the urban area. This bus serves Taughannock Falls State Park via Cass Park and the Cayuga Nature Center. This bus runs only in the summer.
- Another bus serves Trumansburg via Route 96 and runs hourly on weekdays.
- Within the urban area, the principal bus route that operates along the waterfront has stops at the Ithaca Youth Bureau (at Stewart Park) and Aldi's, near the Ithaca Farmers' Market. This route operates hourly on weekdays and Saturdays.
- Another bus serves Cass Park in the summer.
- Several other buses serve the Inlet Island area.

Rail Transportation

There is only one active railroad service in Tompkins County. This is the freight service to Milliken Station that runs along the east shore of Cayuga Lake. The plant receives regular coal shipments. This same line is also used occasionally to transport salt.

Solid Waste

Solid Waste Disposal

Most solid waste in Tompkins County is taken to the Tompkins County Recycling and Solid Waste Center, either directly by County residents and businesses or via commercial pickup services. The Recycling and Solid Waste Center is located on Commercial Avenue in the City of Ithaca. Solid waste is transported out of the county for disposal in a permitted landfill. Current capacity at the Center and at the landfill is adequate for the foreseeable future.

Abandoned Landfills

There are no known abandoned landfills within the Waterfront Revitalization Area. There is an abandoned landfill located on private property just outside of the study area in the City of Ithaca. This landfill has been subject to recent testing and no hazardous wastes were found. The City of Ithaca continues to monitor the site.

Private Utility Facilities

There are two major private utility facilities located on, and using, Cayuga Lake in Tompkins County: AES Cayuga and Cornell University's Heat-Exchange Facility.

AES Cayuga

AES Cayuga is a 306-megawatt power generating plant located in northern Lansing. Formerly owned by NYSEG, the facility (known as Milliken Station) is a coal-fired power plant sold in response to the NYS Public Service Commission's strategy to deregulate the energy marketplace.

The power plant is a fixture on the waterfront and in the local economy. The power plant and its smokestack are visible from the lake and dominate the views from the western shore of Cayuga Lake. The plant is also the principal customer of the railroad that runs along the eastern shoreline. From an economic perspective, the plant employs about 90 persons and is the largest individual tax assessment in the Town of Lansing, the local fire district, and the local school district.

Heat-Exchange Facility

Cornell University has recently constructed a Lake Source Cooling system to serve its main campus. The heat-exchange facility is located just south of the Cayuga Heights Wastewater Treatment Plan on East Shore Drive.

The Lake Source Cooling system draws cold water from about 250 feet deep in Cayuga Lake and circulates it through the Heat Exchange Facility. A separate closed-loop pipeline extends from Cornell's central campus cooling system to the Heat Exchange Facility. Heat exchangers in the facility transfer the heat from the cooling system pipeline to the circulating lake water. The now-chilled water in the cooling system pipeline is used to provide cooling on the Cornell campus. The warmed lake water is then returned to the upper waters of Cayuga Lake. Water used to cool campus facilities is not mixed with lake water.

The development of the Lake Source Cooling system was controversial. Opponents expressed concern about the impact of the system on Cayuga Lake, particularly on the potential to promote additional algae growth on the lake. A water quality monitoring program has been established by Cornell University to track changes in the lake.

Historic Resources

Prehistory and Archaeological Sites

The area around Cayuga Lake has a long history of occupation throughout prehistory. The prehistory of the area began about 12,000 years ago when hunting bands migrated into the area. Archaeologists believe that these small bands of people moved their camps seasonally among the rivers, tributary streams, lakes, and swamps. By 1000 AD, prehistoric groups practiced horticulture and sedentary villages replaced the nomadic hunting camps. Given this background, it is to be expected that the Cayuga Lake waterfront and its vicinity were indeed populated by American Indians prior to the arrival of Euro-American settlers.

There are dozens of known prehistoric sites located near the Waterfront Revitalization Area. This also suggests that the area is likely to have been used for long- and short-term occupation in prehistory: villages, base camps, campsites, and processing locations. However, much of the area has been disturbed over the years due to development, utility and road construction. Any areas that have not been so disturbed should be investigated for possible historical and archeological resources prior to development activities.

National Register of Historic Places

There are three listings on the National Register of Historic Places located within, or partially within, the Waterfront Revitalization Area. These are the Cascadilla School Boathouse (described in the next section), the Lehigh Valley Railroad Station, and a portion of the Cornell Heights Historic District.

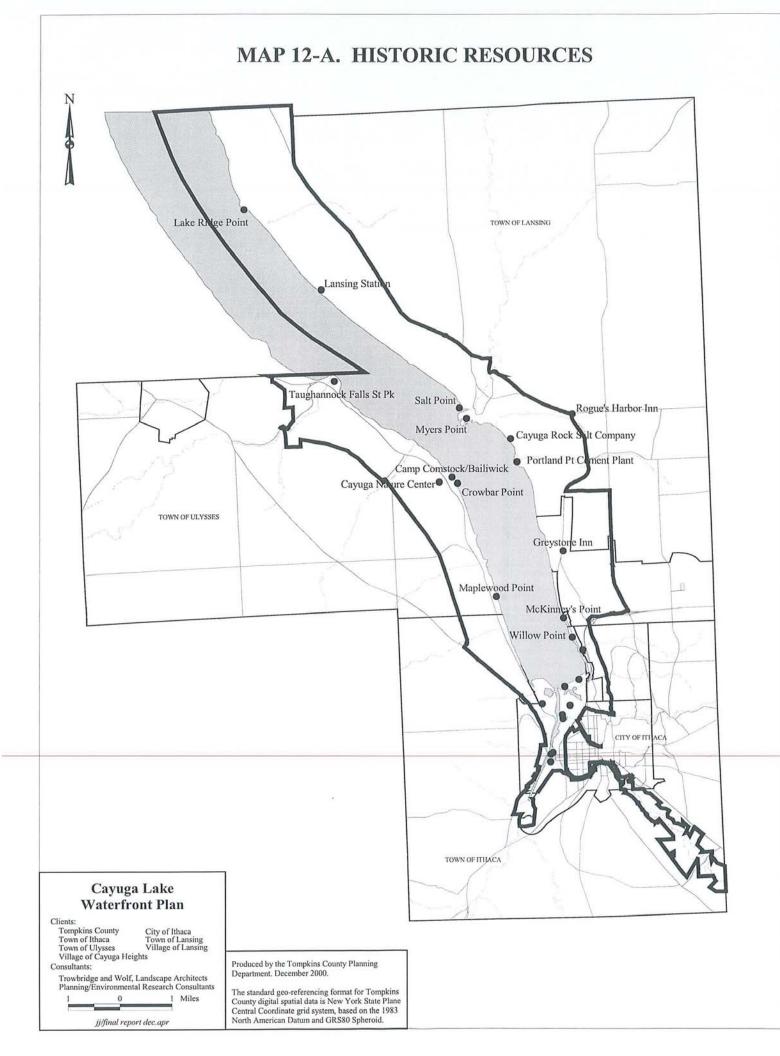
The Lehigh Valley Railroad Station is located on the corner of West Buffalo Street and Taughannock Boulevard in the City of Ithaca. The Lehigh Valley Railroad Station served Ithaca from 1885 to 1961. The site was bought in 1965 and converted to The Station Restaurant. This site was included on the National Register of Historic Places in 1974.

The Cornell Heights Historic District was listed on the National Register of Historic Places in 1989. A portion of this district is located within the Waterfront Revitalization Area - those properties fronting on Stewart Avenue and Edgecliff Place, north of Fall Creek. The district is an example of a turn-of-the-century planned residential suburban development. The subdivision was established as a result of land purchases in 1896 and 1901 and most houses were constructed between 1898 and 1937.

Regional Overview

Transportation On Cayuga Lake

Large steamboats plied the waters of Cayuga Lake between 1820 and 1907. In the early to mid-19th century, timber, salt, and gypsum were transported to the south and coal was shipped from Pennsylvania north to Cayuga Lake and beyond. Cayuga Lake's communities prospered from the commerce generated



by lake transportation during this period. Before the railroads, passengers used the lake steamers as one leg of their journey between New York City and Buffalo. The Cayuga Lake Steamboat Company operated a daily two-boat schedule that serviced major lake communities on a regular schedule. After the arrival of train service, the steamers were scheduled to meet the arrival and departure times of trains in Ithaca and Cayuga Bridge, at the north end of the lake. The era of large steamboat travel ended in 1907 when the *Frontenac* dramatically burned off of Farley's Point, towards the north end of the lake.

Ferries crossed Cayuga Lake in five locations during the era of steamboat travel. Lansing Station was the only ferry landing in Tompkins County and was linked to Frontenac Point, just north of Taughannock Falls State Park.

Small steamboats continued to operate between Ithaca and west shore cottages. The *Colonel J.H. Horton*, constructed at the Tabor Boatyard on Cayuga Inlet in Ithaca, delivered ice, mail, groceries, and guests to summer cottages and was used by businessmen for their daily commute to the City. The service operated until 1925, when automobiles and private boats became more common.

Commercial Boating

With the opening of the Erie Canal in 1825, the Cayuga Inlet became a busy commercial waterway attracting boatmen and water-borne trade. When the railroads arrived, the Inlet was an important railcar-to-barge transfer point for coal on its northbound journey from Pennsylvania to the Great Lakes. When the Erie Canal was enlarged to create the Barge Canal in 1911, the City of Ithaca was successful in having the Cayuga Inlet included as part of the Cayuga and Seneca Barge Canal. Thus the State assumed responsibility for the dredging operations required for commercial use of the Inlet. However, commercial use of Cayuga Lake and the Inlet diminished significantly beginning in the 1920's.

Recreational Boating

Since the 1870's, Cornell University has been involved in competitive rowing on Cayuga Lake. During the late 19th and early 20th centuries, Cornell had great success and the races were popular events for Ithaca residents. Many watched the races aboard a spectator train that followed the progress of the rowers, while others watched from yachts, rowboats, canoes, and the lakeshore. The Cornell crew had some periods of notable success in the 20th century. In 1957, for instance, the Cornell crew was undefeated and won the world title at the Henley Royal Regatta in London. For a time, the two-mile racecourse on Cayuga Lake began at the old hospital smokestack and ended at the Ithaca Yacht Club. In 1970 the flood control channel was completed, providing a sheltered channel for rowing and Cornell University opened a new boathouse at its current location on the east bank of the Inlet.

In 1896 the Cascadilla School, a prep school for Cornell University, opened the Cascadilla Boathouse, a shingle-style boathouse and gymnasium at the confluence of Fall Creek and Cayuga Lake. Ithaca architects Clinton L. Vivian and Arthur N. Gibb designed the shingle-style building, completed in 1896. The building is on the National Register of Historic Places. The City of Ithaca purchased the Boathouse in 1923 for inclusion in Stewart Park. The Cascadilla Boat Club (CBC), a community boat club to teach rowing and provide facilities for the community, was begun in 1982. CBC continues to operate out of the Cascadilla Boathouse, although they are currently looking to relocate in a new facility on the Inlet.

East Shore

Lake Ridge Point

Lake Ridge Point has been the site of lake cottage development since the 1920's. Between 1952 and 1958, New York State Electric and Gas constructed Milliken Station, a coal-burning power plant at the north end of the Norfolk Southern (formerly Conrail) railroad line. The plant receives regular coal shipments via railroad. AES Cayuga, LLC, recently purchased the plant.

Lansing Station

From the 1840's to the 1880's, the ferry *Wide Awake* operated between Frontenac Point on the west and Taughannock Landing on the east. The area in the vicinity of the eastern landing became known as Lansing Station, after the local Lehigh Valley Railroad station. The area contains more than a mile of cottages developed at the top of a ten to twenty-foot-high bank. Today, most of the cottages have been remodeled and winterized for year-round residences.

Myers Point

The area known as Myers Point is a large delta of silty alluvial material from Salmon Creek. The Myers family built a gristmill on Salmon Creek and operated a boat building business during the 19th century. In 1885, at the peak of the steamboat era, Lagoda Park was constructed on the south shore of the point. The owner, Cr. William Barr, built a dance platform, dining hall, bathhouses, and a long pier. In the 1930's, the Lagoda Park cottages were built on the site. Many have been, or are in the process of being upgraded and winterized.

Between 1890 and 1962, the International Salt Company operated a facility north of Salmon Creek on the land commonly referred to as Salt Point. When the facility closed, the company sold twenty acres to New York State for the development of a fish hatchery and donated 24 acres south of the Creek to the Town of Lansing for the development of a public park.

Cayuga Rock Salt Company

The Cayuga Rock Salt Company operated between 1925 and 1968 on Cayuga Lake between Myers and Portland Points. Cargill Incorporated purchased both Cayuga Rock Salt Company and the Watkins Salt Company in 1970. The salt mine is still served by the railroad.

Portland Point

The Portland Point Cement Company was formed in 1900 to process high-grade cement from the underground Tully Limestone. Portland Cement was delivered throughout the eastern United States by barge and railroad. A village of a dozen houses was constructed for workers, with a school, store, restaurant, and a hotel. The Lehigh Valley Railroad stopped three times per day at Portland Point. Then owner, the Penn-Dixie Cement Co., closed the plant in 1947. The silos were recently demolished.

East Shore Cottage Communities

Willow Point, just north of the Tompkins County Chamber of Commerce/Visitors' Center is a small point of land formerly known as 'Old Drydock,' a winter drydock for 19th century lake steamboats. Numerous 12-foot wide cottages were constructed on what came to be known as Willow Point, after the willows that line the edge of the point.

McKinney's Point was developed during the 1890's on the site of the former mill operated by James M. McKinney. Ezra Cornell's son, Franklin C. Cornell, and other Ithaca businessmen constructed 13 cottages on large lots. Most are still in existence.

Remington Salt Mine

Remington Salt Company was opened in 1900 on a point one mile north of Renwick Park (Stewart Park). This is now the site for Cornell University's Lake Source Cooling Project heat exchange facility and the East Shore Sailing Club. The large salt processing facility closed in 1928. The owner's family also developed the popular Remington typewriter and other associated office equipment.

Lehigh Valley Railroad Line

The Cayuga Lake Railroad began construction of the railroad line at the foot of the escarpment along the east side of Cayuga Lake in 1871. Construction was costly and hindered by landslides and flooding. The Lehigh Valley Railroad purchased the line in 1877 and provided service to the Remington Salt Company

(on the site of the East Shore Sailing Club), the Portland Cement Company at Portland Point, and the Cayuga Rock Salt Company and International Salt Company at Myers Point. The access provided by the railroad made lake front cottage development feasible.

Urban Area

Stewart Park

The City's historic lakefront park has been open for use by the public since the 1890's when Cascadilla School constructed the Cascadilla Boathouse. Also in the 1890's, the Cayuga Lake Electric Railway purchased 40 acres of lakefront east of the Cascadilla Boathouse to construct an amusement park. The park was to be connected to the downtown by an electric trolley. They hired Vivian and Gibb to design the complex of pavilions, water tower, bandstand, teahouse, and pier. The park was opened to the public in 1894 and the buildings completed in 1895.

Renwick Pier, an 880-foot long pier with a covered steamboat landing at the far end, became the main steamboat landing for Ithaca. The park evolved during the next decade to include amusements, a merry-go-round, roller skating rink, and the renovation of the dance pavilion to create a vaudeville, and later, a motion picture theater. However, by 1908 trolley ridership and park usage declined dramatically and the Cayuga Lake Electric Railway Company was dissolved. The park closed in 1915.

The Wharton Studios operated out of the dance pavilion between 1915 and 1919, producing many of the era's most notable silent films. Fifty-five acres of the park were set aside as a bird sanctuary, maintained by the Cayuga Bird Club. The sanctuary was later named the Fuertes Bird Sanctuary after the Cayuga Bird Club's first president.

The City purchased the lakefront park and bird sanctuary from the Renwick Park and Traffic Association in 1921. The park was named after Mayor Edwin C. Stewart after his death, in honor of his efforts to establish a lakefront municipal park. The City purchased the Cascadilla Boathouse and its 40-acre site in 1923. A memorial flagpole and associated formal gardens for Mayor Stewart were designed by Arthur Gibb and constructed in 1927 with funds from private donations.

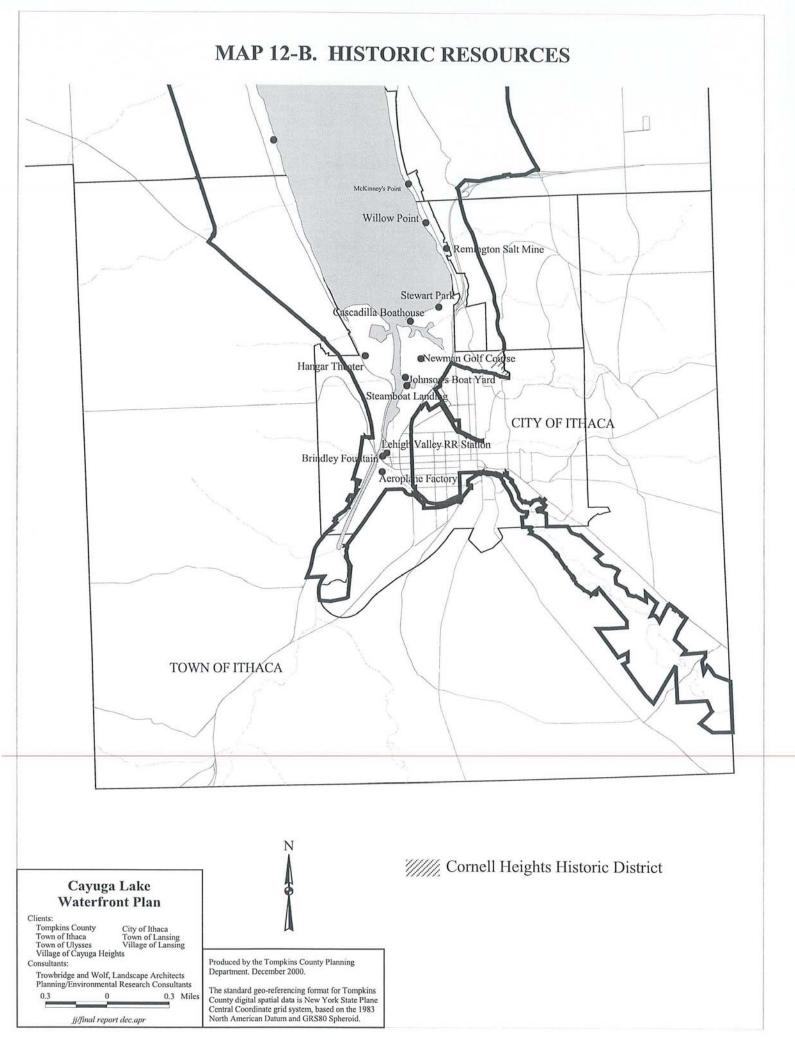
In 1934, a master plan for the park was developed. The WPA was involved in dredging and major park improvements. The master plan laid the groundwork for the development of Newman Golf Course and the Biological Field Station, across Fall Creek from the park proper. However most of the formal details and circulation concepts outlined in the 1934 plan were never realized.

Additions to the park between 1934 and 1987 included the development of the carousel, playground, and the spray pool. The water tower was demolished in the 1950s, after serious hurricane damage. In 1961, swimming in Cayuga Lake was eliminated from the park due to safety issues related to poor visibility caused by high turbidity of the lake waters.

In 1987, consultants prepared the *Stewart Park 1987 Preservation Goals and Guidelines*, which outlined processes for preserving and restoring historic park buildings and landscapes. The City Parks Commission was formed as a result of one of the report's recommendations.

Newman Golf Course

The Newman Golf Course is a nine-hole municipal course constructed between 1933 and 1935 on a former city ash dump. The course was developed at the time that the 1934 Stewart Park Master Plan was developed. The 1934 plan showed the golf course in its current location, however road connections and course layout were not constructed as shown.



Johnson's Boat Yard

The covered boat slips still in use at Johnson's Boatyard are shown at their Cascadilla Creek location in photographs of the city ash dump prior to golf course construction in the mid-1930's.

Steamboat Landing

The site of the Ithaca Farmers' Market at the confluence of Cascadilla Creek and the Cayuga Inlet is known as Steamboat Landing. During the heyday of the lake steamboat era, the area at the mouth of Cascadilla Creek was Ithaca's major steamboat landing until the construction of Renwick Pier in 1893. Travelers between New York and Buffalo made the transfer from coach to steamboat at this location. Historic photographs show large hotels at this location.

West Shore

West Shore of Cayuga Lake

The industrial development found on the Lake's east shore never occurred on the west shore of the Lake. Victorian summer hotels and summer cottages were constructed during the 19th century and accessed primarily by small steamboats, like the *Horton* described above. Two large state parks were created on the lakeshore during the 1920's, Taughannock Falls State Park and Cayuga Lake State Park (in Seneca County). Three Boy and Girl Scout summer camps were also developed on the lake's west shore.

West Shore Cottage Development

The steep, wooded west shore of Cayuga Lake was dotted with summer cottages from the mid-19th century due to the access provided by small steamboats, like the *Horton* described above. Access by horse and carriage was very treacherous on the dirt roads that negotiated the steep terrain and many ravines. In the 1920's, when automobile travel became more common, the lakeside cottage residents formed the Cayuga Lakeside Cottage Association and lobbied their municipalities to improve road access to their summer residences. Governor Franklin Roosevelt visited Ithaca in 1930 and lent his support to the development of a level roadway - Taughannock Boulevard (Route 89) - between Ithaca and Taughannock Falls State Park. Since the 1950's, people have been gradually converting the lakeside summer cottages to year-round residences. In the 1980's and 1990's it has become common to see old summer cottages purchased, demolished, and replaced by large and very expensive multi-story residences, often with piers and boathouses.

Glenwood Point and the Ithaca Yacht Club

Glenwood Point was a popular summer resort beginning in the 1870's. The lakeside hotel, built in 1871 and rebuilt in 1891, and the dance hall were a regular stop for lake steamboats and frequented by visitors from Pennsylvania and New York City. Both structures were damaged during the flood of 1935. The Ithaca Yacht Club formed in 1923 and constructed its first building in 1929 on Glenwood Point land donated by Ithaca Architect Arthur Gibb. The former hotel property was sold to the Yacht Club in 1945 to provide space for facility expansion.

Maplewood Point

Maplewood Point is located south of and is visible from Crowbar Point. It was a planned community of nine lots subdivided and sold between 1892 and 1896. The Maplewood Point Association jointly constructed and maintained a Victorian covered pier.

Crowbar Point, Camp Comstock, and Bailiwick

The Cornell family owned Crowbar Point from 1843 until they donated the land to the Ithaca Council of Girl Scouts in 1926. Liberty Hyde Bailey purchased 4 acres of lakeshore property contiguous to the Cornell property in 1912 and constructed a stone cottage known as Bailiwick. He sold the property and cottage to the Girl Scouts in 1929. Camp Comstock is one of the oldest operating Girl Scout camps in the country.

Taughannock Falls State Park

The Taughannock House was a hotel located on the north rim of Taughannock Falls. Guests visited the hotel by steamboat, landed at a pier on Taughannock Point and were transported by carriage along the rim of the gorge to the hotel. Guests could descend to the bottom of the falls on a 200-step ladder.

The Finger Lakes Parks Commission purchased sixty-four acres in 1925. Subsequent land acquisitions have increased the size of the park to its present 745 acre size.

Recreation Resources

Town of Lansing

Salt Point

<u>Site History</u>. The lakeshore point north of Salmon Creek was a floodplain forest until the early 19th century when the area was cleared for the development of a gristmill. A salt refinery, constructed on the site after the gristmill closed, operated until 1962. Cornell University then used the site for fisheries research, until it was purchased by the New York State Department of Environmental Conservation (NYSDEC) to provide fishing access to Salmon Creek and Cayuga Lake.

<u>Existing Conditions</u>. The site is currently a scrubby, unmaintained landscape used by people looking for a quieter alternative to Lansing Town Park - birders, fishermen, and waterfowl hunters. Town of Lansing officials and residents are concerned about the site's use as an unsupervised teenage gathering place and for underage drinking. The site accumulates significant amounts of litter and debris and site cleanup efforts are, at best, inconsistent. The lack of site surveillance and maintenance is, in part, due to the lack of a clear agreement between the owner, NYSDEC, and the Town of Lansing.

<u>Proposed Improvements</u>. Currently the Town of Lansing, NYSDEC, and a citizens group - The Friends of Salt Point - are negotiating a long-term lease under NYSDEC's 'Adopt a Natural Area Program' that will allow the Town to manage and maintain the site. The Friends of Salt Point, with the Lansing Rod and Gun Club and the Lansing Schools, are advocating preservation of the site for activities such as fishing, bird watching, walking, environmental education, canoe/kayak launching, hunting, and simply viewing the lake in a quiet, less developed environment. A management plan identifying strategies for habitat restoration, site maintenance, limited vehicular access, and access for car top launch for canoes and kayaks will be developed after the agreement with NYSDEC is finalized.

See *Chapter Four* for concept plans, project descriptions and cost estimates for the proposed improvements to Salt Point.

Lansing Town Park at Myers Point

Existing Facilities. Lansing Town Park is the Town's largest and most heavily used park and recreation facility. The park, 34 acres in size, is located at Myers Point, a lakefront delta formed at the mouth of Salmon Creek. It has excellent views of the lake and evening sunsets. Admission to the Park is free for Town of Lansing residents and \$2.00 per car for non-residents on weekends. The park has the following facilities:

- Camping 30 campsites are available, all with water and electric hookups.
- Pavilions 5 pavilions are available for rental.
- Marina 68 boat slips are available (assignment is determined by a lottery system).
- Boat launch launch is available for both non-residents and residents for a fee.
- Car top launch a canoe/kayak launch off an existing parking lot allows small boat access into the mouth of Salmon Creek. There is no fee for this car top launch facility.

- Concession stand.
- Swimming with lifeguards.
- Myers Point Lighthouse community members constructed a new lighthouse on the south point of the park in the spring of 1999. Landscape improvements around the lighthouse will be installed during 2000 and 2001 depending on the availability of funding and volunteer labor.
- Other recreation facilities include a playground, volleyball net, basketball court, and horseshoe pits.

<u>Proposed Park Improvements</u>. Two projects are currently under discussion in the Park. First is to implement the landscape improvements around the recently constructed Myers Point Lighthouse. These include installation of walkways, lighting and landscaping. Second is the construction of a small band shell for performances in the park. Project descriptions, plans, sketches and cost estimates for these projects are provided in *Chapter Four*.

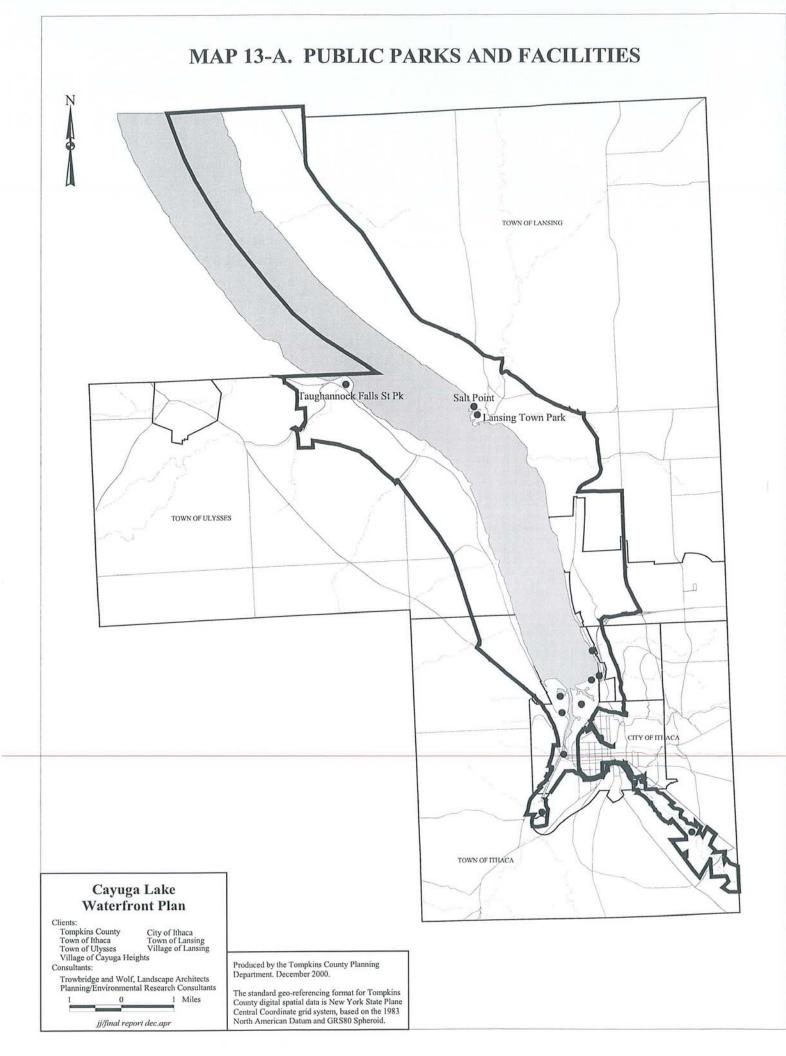


Aerial view of Myers Point with Salt Point on the left and Lansing Town Park on the right, bisected by Salmon Creek.

Town of Ithaca

East Shore Town Park

Cornell University purchased the point of land that contains Noah's Marina and East Shore Sailing Club to construct the heat exchange facility for its Lake Source Cooling Project. The heat-exchange facility is located on the east side of Route 34. Cornell has given a long-term license (99 years) to the Town of Ithaca for use of the northern portion of the site for public access and as a scenic overlook. The park was constructed by Cornell University for the Town of Ithaca after the placement of outflow and intake piping was complete underneath the park site. The small park features panoramic views overlooking the Lake, a small gravel parking area, and picnic pavilion.





Aerial view of point which is now the site of Cornell's Lake Source Cooling Heat Exchange Facility,, Noah's Marina, and the new East Shore Town Park.

Cornell is currently undergoing a feasibility study and site master planning process to determine the longterm uses of the parcel south of the Town Park where Noah's Marina is located. Noah's Marina will likely continue to operate under different management. However, the East Shore Sailing Club operated for the last time during the 2000 boating season. Cornell is considering all appropriate water-dependent and water-enhanced uses for the site including a marina, sailing instruction through Cornell Outdoor Education, a restaurant, housing, and a conference center. Cornell has given the Town of Ithaca the 'Right of First Offering' for their land on the west side of East Shore Drive in the event they choose to sell the property. This gives the Town 45 days to consider the purchase of the parcel at Cornell's offering price. If the Town does not make a written offer, Cornell is free to offer the property to a third party and accept any offer so long as it is not less that 90% of the price offered the Town. If the price is below 90%, the Town has 7 days to meet the third party offer.

The site's previous use as a community boating center was an excellent use of the site. The site is very close to the City, yet far enough from the south end of the lake to be well suited for use by small sailboats and sailboards.

Southwest Natural Area

The Southwest Natural Area is a 60-acre natural area assembled by the City of Ithaca as substitute parkland for proposed commercial development. The *Southwest Natural Area Master Plan* was recently completed and includes an inventory of wetlands, vegetation, faunal habitat, and the Cayuga Inlet that passes through the site. Recommendations address vehicular access to the site, location of pedestrian trails and the Black Diamond Trail, which passes through the site, and strategies for vegetation management. The visual and environmental impacts of proposed adjacent commercial development are addressed.

City of Ithaca

The City of Ithaca has more than three hundred acres of waterfront open space including Stewart Park, Fuertes Bird Sanctuary, Newman Golf Course, Cass Park, and the Allan H. Treman State Marine Park. This ensemble of parks and recreation facilities provide a range of services to residents of the City of Ithaca and Tompkins County.

Stewart Park

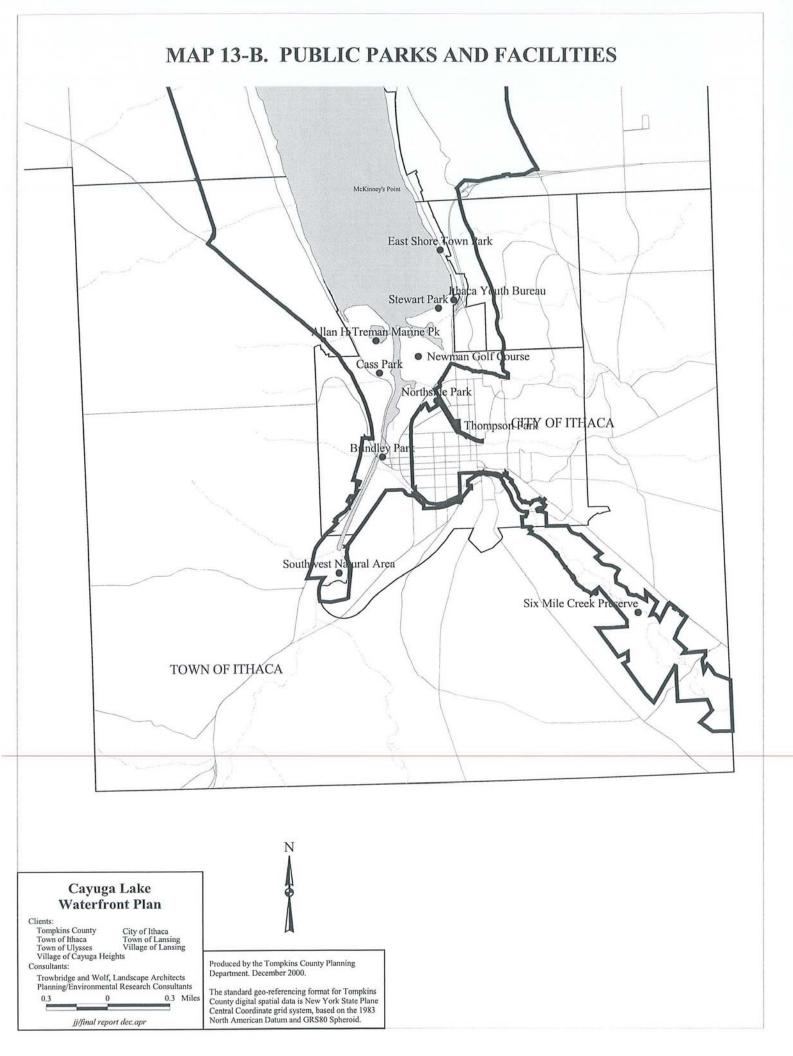
<u>Existing Conditions</u>. In general, park buildings are in need of restoration and improved maintenance. The lake edge has severe erosion problems, accumulates large amounts of lake debris, and is in need of stabilization and visual enhancement. The park has endured two consecutive summers of dense weed mats that accumulate at the southern end of Cayuga Lake. Weed decomposition creates an odor that has detracted from the park's use for much of the past two summers. Playground equipment is being upgraded on an on-going basis to meet current safety codes.

The Cascadilla Boat Club currently operates out of the Cascadilla Boathouse; however, it is developing plans to construct a new facility on the Cayuga Inlet. The reasons for relocating the program to the Inlet are twofold. First, the difficulty and expense involved in renovating an historic boathouse to meet the program's current and anticipated needs has proven to be a limiting factor in CBC's operations and expansion plans. Second, rowers are required to row in lake waters around the lighthouse pier to access the calm waters of the Inlet. There are many days, nearly half during autumn afternoons, when this is not possible due to high winds and waves.

In 1997, \$200,000 of local and state funds was spent to stabilize the Cascadilla Boathouse. The building foundation was reconstructed and key structural elements of the building were repaired. An historic preservation consultant recently completed an *Historic Structures Report* for the City's Department of Planning and Development. The report documents the building's history, surveys the buildings existing condition, and identifies restoration and NYS Building Code issues that will need to be addressed in any plans for continued rehabilitation, and outlines costs for various building improvement scenarios. The City is considering a variety of future uses for the boathouse including recreational and educational programming. The use of the building as rental space for special events is of particular interest to the City. The picnic pavilion is booked throughout the summer and it appears that there would be a significant demand for the Boathouse's potentially elegant second floor space.



Aerial view of Stewart Park.



<u>Proposed Improvements</u>. Many of the park's facilities are more than twenty-five years old and in need of repair and upgrading to meet current building codes. City staff and the City Parks Commission have discussed the need for a park master plan to develop and prioritize recommendations regarding existing and new park facilities. See *Chapter Four* for a proposed scope of services, study process, project area, and fee for the preparation of a Cass Park Master Plan. Specific improvements identified for Cass Park include:

- Replace the skating rink's chiller and slab.
- Replace existing playground facilities. The City has designated \$50,000 from its 1999-2000 capital budget to begin replacing and relocating the existing playground facilities.
- Construct new playing fields to meet the high demand for facilities. Consideration should be given to balancing the large demand for athletic fields with the demand for water-dependent uses, such as the Cascadilla Boat Club Boathouse.
- Work with the Cascadilla Boat Club to develop a site plan for the new boathouse facility in the park.
- Reconfigure the 'runway' parking lot to make it more efficient and to reduce the amount of pavement.

The City recently received \$150,000 in New York State funding to construct the first phase of the Cayuga Waterfront Trail in Cass Park. The Cass Park section of the waterfront trail will be a 2-mile loop that will replace the existing six-foot wide trail with a ten-to twelve-foot asphalt trail. The City will provide \$275,000 in matching funds towards the construction of the trail. Construction of the Cass Park Trail will be complete in October 2002.



Aerial view of Allan H. Treman State Marine Park.

Allan H. Treman State Marine Park

<u>Existing Conditions</u>. The Finger Lakes Region of the Office of Parks, Recreation, and Historic Preservation (OPRHP) purchased 91 acres from the City of Ithaca in the early 1970's for the development of Allan H. Treman State Marina. Park facilities include:

- a 413 boat marina;
- a boat launch with parking for 109 car/ trailer spaces and 30 parking spaces for seasonal dry-slip rentals;

- a comfort station with restrooms and showers; and
- the Hog Hole natural area with associated managed tall grassland.

<u>Proposed Improvements</u>. OPRHP'S Finger Lakes Region has prepared a master plan for the park that includes the following features:

- Marina expansion to include 40 new boat slips.
- Expanded boat launch parking to accommodate 50 additional car-trailer spaces.
- A new park entry north of the Hangar Theater and road network separated from Cass Park.
- Trail development to link the proposed Cayuga Waterfront Trail to the Treman Memorial Mound, north of the marina.
- A new transient docking area with associated picnic area and restroom facility along the north bulkhead of marina.

Master plan implementation is contingent upon the sale of the City-owned 'Festival Land' parcel to New York State Parks.

Town of Ulysses

Black Diamond Trail

The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) is planning to construct a 15-mile non-motorized multi-use trail through the Town of Ithaca, City of Ithaca, and Town of Ulysses in Tompkins County. The trail, known as the Black Diamond Trail, will connect the four state parks, Robert H. Treman, Buttermilk Falls, Allan H. Treman, and Taughannock Falls.

The trail plan has been under consideration by OPRHP since the early 1970's. In 1993, OPRHP received a federal enhancement project grant under the Intermodal Surface Transportation Efficiency Act (ISTEA). The agency received the grant to complete planning, design, acquisition, and begin construction phases of the trail project.

OPRHP is coordinating design and construction of the trail segment connecting Allan H. Treman State Marine Park to Buttermilk Falls State Park with the Town of Ithaca and City of Ithaca. The responsibilities of each of the three entities are guided by a tripartite agreement signed in 1983.

The trail will be constructed on undeveloped stream valley land, urban flood control channel land, and an abandoned railroad bed. The trail will carry users through a variety of rural and urban landscapes including open fields, wet meadows, floodplain forest, urban commercial and industrial areas, hillside forest, active agricultural fields, and rural residential areas. Procurement of the trail corridor will be accomplished through fee simple acquisition and grant of easement.

The proposed development plans include:

- A 10-foot wide stone dust trail surface path and with 2-foot wide grass shoulders on each side through the rural areas.
- A 10-foot wide asphalt trail corridor with 2-foot wide grass shoulders on each side through the urban area.
- Required bridges, culverts and swales.
- Trailhead parking at the four state park locations and one at a private nature center, an interpretive program including a restored caboose and trailside signs.
- Orientation, safety and traffic control signs, and traffic and security bollards and fencing.



Aerial view of Taughannock Falls State Park in the Town of Ulysses.

Taughannock Falls State Park

Taughannock Falls State Park is a 745-acre park purchased by the Finger Lakes Region of OPRHP in 1925. Taughannock Falls is classified a Scenic Park in *New York State Park's Land Classification System* (OPRHP, 1980). The park features a 215-foot waterfall; one of the largest falls in the eastern United States. There is a charge for park entry. The park has the following facilities: swimming beach with lifeguards; transient docking at park pier; comfort station; two picnic shelters; hiking trails in the gorge and along the rim of the gorge; camping facilities for cabins, trailers, and tents; and a small boat marina and boat launch.

State Park's staff has identified the renovation of the existing park pier as an important short-term need for the park. The pier has deteriorated and can be enhanced for transient boat use and adapted as an accessible fishing pier.

Boating on Cayuga Lake

Overview Of Existing Boating Activity

Cayuga Lake is a popular boating destination both for residents of Tompkins County and for visitors from the region residing south of Ithaca, including the Southern Tier region of New York and Pennsylvania. Tompkins County has numerous public and private marinas (see list of boating facilities on following pages) and boat launches that serve sail and motorboat operators. Boating activity on the lake is typically concentrated near these facilities and at public waterfront parks.

The Cayuga Inlet has the highest concentration of boat traffic in the county due to its four marinas, McPhersons, Johnson's Boat Yard, Ithaca Boating Center, and Allan H. Treman State Marine Park. The Treman Park boat launch is the most heavily used launch in the County. In addition, there are marina slips located in the Old Port Harbour area, with transient docking found at Old Port and along the east edge of the Inlet Island. As Inlet Island redevelopment continues, boating activity will likely continue to increase.

Ithaca has a storied and still vibrant tradition of crew racing on the Inlet and the flood control channel. Cornell University and Ithaca College have boathouses on the Cayuga Inlet and participate in both men's and women's interscholastic competition. Cornell University is a Division I program with women's crew and light and heavyweight men's crew teams. Ithaca College is a varsity Division III program for both men and women. On practice days, crew boats typically stay to the right of the flood control channel or Inlet, traveling back and forth primarily in single file conducting their practice runs. In calm waters, the crew teams may practice along the west side of the lake, north of the Inlet. On race days, crews race three teams wide, starting near the south end of the flood channel and finishing in the vicinity of the Farmers' Market pier. Races are typically held on Saturday mornings during the spring, before the peak season for recreational sailing and power boating. During the fall, there tends to be more conflicts between rowers and recreational boaters as the seasons overlap in September and early October.

The Cascadilla Boat Club (CBC) is an independent, non-profit organization that provides an opportunity for high school students and adults to participate in muscle-powered boating activities. Since 1982 they have operated out of the Cascadilla Boathouse in Stewart Park. Their rowing occurs primarily on the Inlet and flood channel so they must row from Stewart Park around the lighthouse levee to the Inlet. This route can be hazardous in rough lake waters, which are common in the late afternoon. CBC plans to relocate to a new location directly on the Inlet at some point in the future. The process of planning and fund-raising for siting and constructing a new boathouse facility is underway. The peak use periods for CBC members are in the early morning, for adult members, and right after school for high school rowers. CBC high school students typically complete their afternoon practice sessions as the Cornell and Ithaca College programs are taking to the water.

The interaction between motorboats and the low-profile crew-racing shells can create conflicts between users, particularly due to the wake that larger boats can create. The posted speed limit on the Inlet is 8 miles per hour and boats are not allowed to create a wake.

At the south end of the Lake, boat traffic is concentrated in a north-south navigation channel at the mouth of the Inlet. Other concentrations of boating activity (from south to north) are as follows:

- *Noah's Marina* located on the east shore of Cayuga Lake in the Town of Ithaca, Noah's Marina is a small operation with approximately 50 boat slips.
- *Ithaca Yacht Club* located at Glenwood Point on the west shore of the lake in the Town of Ulysses, the Yacht Club has sailboat races west of their facility throughout the boating season. In addition, there is a lot of boat travel to and from the docks throughout the season.
- *Myers Point* located on the east shore of Cayuga Lake in the Town of Lansing, Myers Point is the site of Lansing Town Park's Marina and Boat Launch and the Finger Lakes Marina. Boat traffic to and from the marinas and launch creates a concentration of boating activity. Boaters will often moor offshore of the park and use park facilities. In addition, personal watercraft use is concentrated in the vicinity of the park.
- *Taughannock Falls State Park* located on the west shore of Cayuga Lake in the Town of Ulysses, Taughannock Falls State Park has a small boat marina and boat launch. In addition, it is a destination for boaters who can dock at the public pier or moor off of the beach to use park facilities.

Existing Boating Regulations (from the New York State Navigation Law)

Following is a summary of the existing boating regulations that affect boating on Cayuga Lake.

- All pleasure vessels propelled wholly or in part by mechanical means must be registered with the NYS Department of Motor Vehicles.
- Vessel speed is limited to 5 mph within 100 feet of the shore, a dock, pier, raft, float, or anchored boat on all New York State water bodies. Cayuga Lake currently has no speed limit outside of this 100-foot zone.
- Age of legal operation To operate a boat in NYS without adult supervision, individuals must be at least 18 years of age or have successfully completed a safe boating course and be between the ages of 10 and 18. (Boating safety certificate must be worn by minors when operating a boat). Individuals

less than 18 who have not completed a boating safety course may only operate a vessel while under the direct supervision of an individual who is over 18 years of age.

• Vessel Engine Noise: Vessel engine noise shall not exceed 90 decibels at a stationary test or 75 decibels while moving. It is against the law to remove, alter, or modify a muffling system that will cause the vessel to operate in violation of these standards.

The U.S. Coast Guard Auxiliary teaches boating safety courses in this area. The Coast Guard Auxiliary anticipates a large increase in attendance in their boat safety courses in 2004 when personal watercraft (jet ski) operators will be required to take the course.

Existing Enforcement on Cayuga Lake

NYS Park Police have statewide jurisdiction and are the coordinating organization for navigation law in New York State. Currently, the State Park Police have two patrol boats on Cayuga Lake. The boat operating out of Cayuga Lake State Park operates seven days a week during the peak boating seasons and the boat at Allan H. Treman State Marine Park patrols only on summer weekends and holidays. A new patrol boat with increased staffing has been requested in this year's state budget to increase State Park Police presence at the south end of the Lake to seven days per week. State Parks also has four jet skis used for patrolling purposes.

Other local boating patrols include the Tompkins County Sheriff's Department, which operates on weekends and holidays, and the Ithaca Fire Department's Rescue Boat, which is docked at the Allan H. Treman State Marine Park and responds to emergency calls. The U.S. Coast Guard Auxiliary also has the authority to enforce NYS Navigation Law and is available for emergency rescue operations.

Boating Facilities

Marinas

Lansing Town Park Myers Point, Lansing, NY 68 marina slips.

Finger Lakes Marine Service 44 Marina Drive, Lansing, NY Facilities include 200 marina slips, gas, boat hoist, ship store, and boat storage facilities.

Noah's Marina

1000 East Shore Drive, Ithaca, NY Facilities include approximately 50 boat slips and winter boat storage.

McPherson's Sailing Products, Inc.

730 Willow Avenue, Ithaca, NY Facilities include 20 boat slips and a ship store.

Ithaca Boating Center

435 Taughannock Boulevard, Ithaca, NY Facilities include 47 covered slips (the Finger Lake's largest boathouse facility), 15 uncovered marina slips, boat hoist, transient docking, gas, pump out station, and ship store. Johnson's Boat Yard and Marina

101 Pier Road, Ithaca, NY

Facilities include 116 boat slips (90 on Cascadilla Creek), boat hoist, boat storage, ship store, gas, and pump out station.

Allan H. Treman State Marine Park

Route 89, Ithaca, NY

The largest inland marina in New York State. Facilities include 399 slips, 2 pump-out stations, showers, and restrooms. Associated facilities include transient docking, picnic areas, fishing areas, and boat launch.

Ithaca Yacht Club

Glenwood Road, Ithaca, NY Private yacht club with 200-boat marina.

Taughannock Falls State Park

Route 89, Ulysses, NY Small boat marina with 54 boat slips. Associated facilities include a boat launch and transient docking.

Boat Rental and Community Boating Facilities

<u>Stewart Park</u>. Currently boat access is provided in two locations at Stewart Park – at the Cascadilla Boathouse and near the large pavilion. Plans under consideration for each site are summarized below.

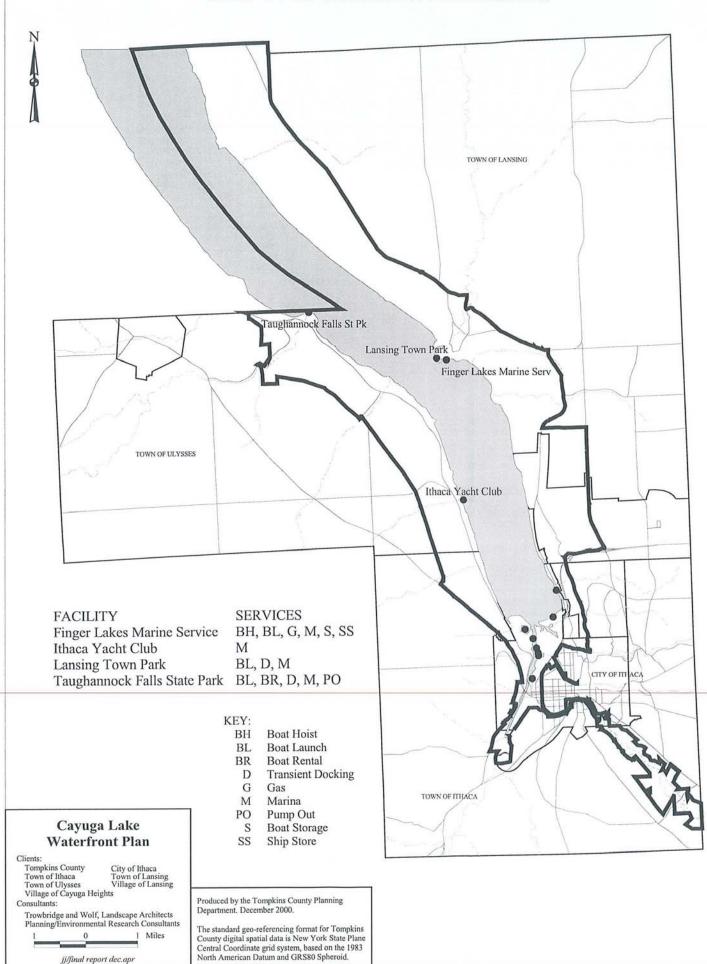
Cascadilla Boathouse. Cascadilla Boat Club (CBC) currently operates out of the historic Cascadilla Boathouse in Stewart Park. CBC is a twenty-year-old public, not-for-profit organization providing basic rowing education, advanced training, and competitive rowing to high school and college students, and to the general adult population in Tompkins County. For a variety of reasons, CBC is developing plans to relocate its program to a location on the Cayuga Inlet. The City has recently completed a study on the restoration and reuse of the Boathouse. The City is considering the use of the first floor for public boat rentals after the relocation of the Cascadilla Boat Club.

Stewart Park Public Pier. The Stewart Park Day Camp is a summer day camp for elementary school children operated by the Ithaca Youth Bureau. Boating is one of the activities offered to participants. Small boats are stored on outdoor racks and launched in the vicinity of the large pavilion. A new public pier constructed with floating docks was recently installed in the vicinity of the large pavilion by a private vendor. The pier is used for public boat rentals, a boat landing for the Stewart Park Day Camp, and a ferry to Cass Park.

<u>Puddledockers</u>. Located on the east bank of the Cayuga Inlet between Buffalo Street and the Old Port Harbour site, Puddledockers is a privately owned kayak and canoe rental facility.

<u>Cass Park</u>. A series of floating docks was installed in Cass Park during the summer of 1999 by a vendor operating a ferry between Cass Park and the Farmers' Market. One of the LWRP's short-term projects is to develop a concept plan and cost estimate for the development of Cass Park Landing, a permanent dock with a covered pavilion that matches the Farmers' Market dock pavilion. Floating docks could be tied to this permanent dock structure.

MAP 14-A. BOATING FACILITIES



Cass Park is being considered as the site for the Cascadilla Boat Club's new boathouse. The proposed site is east of the large existing parking area, due south of the Treman Park boat launch. This facility would provide rentals and use of a variety of muscle-powered boats, including canoes, kayaks and crew racing shells.

Boat Manufacturing and Repair

Cayuga Wooden Boats

435 Taughannock Boulevard, Ithaca, NY Manufactures custom wooden boats. Repairs and restores antique wooden power and sail boats.

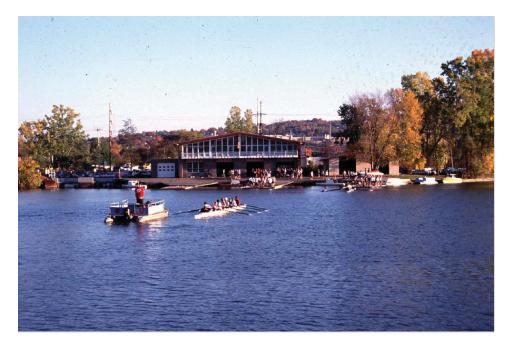
Johnson's Boat Yard 101 Pier Road, Ithaca, NY Repair of power and sailboats.

Boathouses for Rowing

<u>Cascadilla Boathouse</u>. Cascadilla Boathouse is an historic boathouse located in Stewart Park. The building is on the National Register of Historic Places. Currently it houses the Cascadilla Boat Club (CBC), however CBC would like to relocate to a planned new facility directly on the Cayuga Inlet. Sites under consideration include Cass Park and the NYSDOT site.

<u>Collyer Boathouse and the Doris Robinson Shell House</u>. The Collyer Boathouse and the Doris Robinson Shell House, located on the Cayuga Inlet just south of the NYSDOT site, are Cornell University's racing shell storage, training, and practice facility. Cornell has women's, men's lightweight, and men's heavyweight crews competing in NCAA Division I. A capital project is currently underway to raise funding for the renovation and expansion of the Cornell boathouse facilities.

<u>Haskell Davidson Boathouse</u>. Haskell Davidson Boathouse is home to Ithaca College's men's and women's crew teams who compete in NCAA Division III. Ithaca College's boathouse is located on Cornell property, south of the Cornell facility.



Cornell University Collyer's Boathouse and Doris Robinson Shell House on Cavuoa Inlet.

Tour boats and Water Ferries

<u>MV Manhattan</u>. The *MV Manhattan* is a touring and dinner boat that has been in operation in Ithaca since 1988. The 65-foot boat is licensed to hold 110 passengers. It is operated out of Old Port Harbour Restaurant, however the restaurant has recently been sold.

<u>Cayuga Inlet Ferry Service</u>. A Cayuga Inlet Ferry Service between Cass Park and the Farmers' Market has been discussed. The proposed service may also ferry children from the Stewart Park Day Camp to the Cass Park Pool. One potential operator is in the process of acquiring the appropriate navigation licenses and insurances.

Boat Launches

- Lansing Town Park at Myers Point
- Noah's Marina
- Allan H. Treman State Marine Park
- Taughannock Falls State Park

Car top Launches

- Lansing Town Park
- Salt Point (Proposed)
- Farmers' Market (informal)
- Cass Park (at the proposed Cascadilla Boat Club Boathouse)
- Taughannock Falls State Park

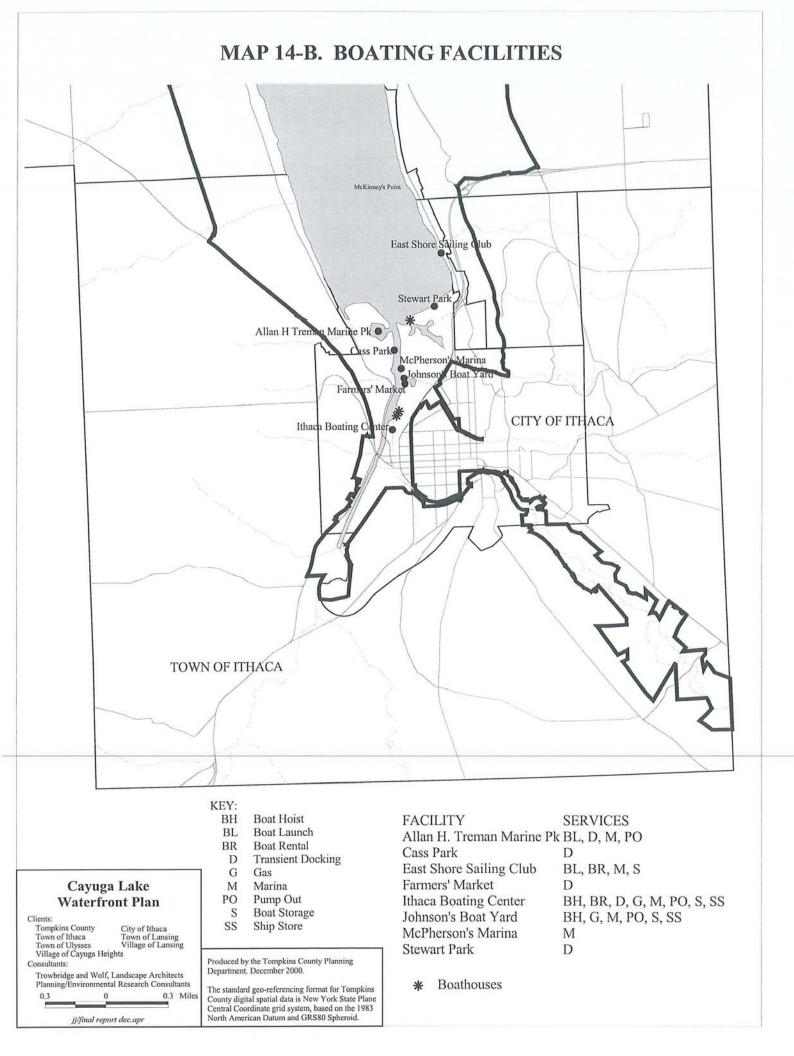
Transient Docking Facilities

- Lansing Town Park
- Stewart Park (proposed)
- Farmers' Market
- Bistro Q (former Old Port Harbour Restaurant)
- Inlet Island
- Cass Park Landing
- Allan H. Treman State Marine Park
- Taughannock Falls State Park

Scenic Resources

An inventory of scenic resources in the Waterfront Revitalization Area is related primarily to views of Cayuga Lake from the shoreline and upland hillsides. To this must be added the gorges, waterfalls and steep escarpments in some locations that are natural resources with great scenic value produced by the same geologic forces that created the lake.

The study area's scenic quality is a difficult characteristic to map, measure or evaluate objectively since it is largely in the eye of the beholder. Nonetheless, the topographic form produced by glacial action and centuries of scouring and erosion has created numerous opportunities and ways for residents and visitors to enjoy the lake and its dramatic geographic environment.



From many locations along the steep hillsides and roads bordering the lake, views of the water and the opposite shore are possible. In other places, views are fleeting or can be obscured entirely by dense tree growth. In some areas the curving configuration of the shoreline produces dramatic long views up the lake or down into the urban area. Map 15 identifies the location of particularly scenic views of the lake. Reference numbers in the following text relate to this map.

West Shore

Excellent long views across, up, and down the lake are available from picnic and beach areas of Taughannock Park. One of the more spectacular scenic resources in the area is Taughannock Falls, the gorge, and the huge amphitheater at its base. The drive down Park Road from the falls overlook provides long lake views toward north Lansing and Cayuga County [View 1].

From the shoreline of Camp Comstock, Girl Scouts have broad views of Myers Point, the salt plant, Portland Point and the hillsides of Lansing [View 2]. Similar sweeping views of the east shore and urban area are present from Glenwood Point, home of the Ithaca Yacht Club. Views of the lake from west shore uplands are available in certain locations and from some roads, but are restricted in number and less dramatic than those described above. Warren Overlook, a vehicular pull-off on Route 89 above the Yacht Club [View 3], is a convenient place for motorists or bicyclists to enjoy scenic views. However the overlook is in poor condition and currently not an attractive location for viewing the lake.

Sporadic glimpses of the lake are possible in many locations for travelers along Route 89 and users of the future Black Diamond Trail. Extensive tree growth and, in some locations, development effectively block lake views along much of the route from Taughannock Park to Ithaca. This is especially true in summer when trees are in leaf.

Urban Area

One of the principal features of the lakefront in the City of Ithaca is the opportunity for unobstructed views of Cayuga Lake and the wide and active Cayuga Inlet. In particular, lake views from Allan H. Treman State Marine Park [View 4] and Stewart Park [View 5] are spectacular. Most of this shoreline is highly scenic, open, and available for public enjoyment. There are very few obstructions to impede long views up the lake and the glacial impact on the landscape is very apparent from the urban shoreline.

Because this entire area at the head of the lake is essentially flat, lake views are best near the shoreline and diminish as the distance from the water increases. While the lake surface cannot be seen from many parts of Cass Park and the golf course, the lake valley is very apparent. The inlet, several hundred feet in width, becomes a scenic water feature of great value in this area.

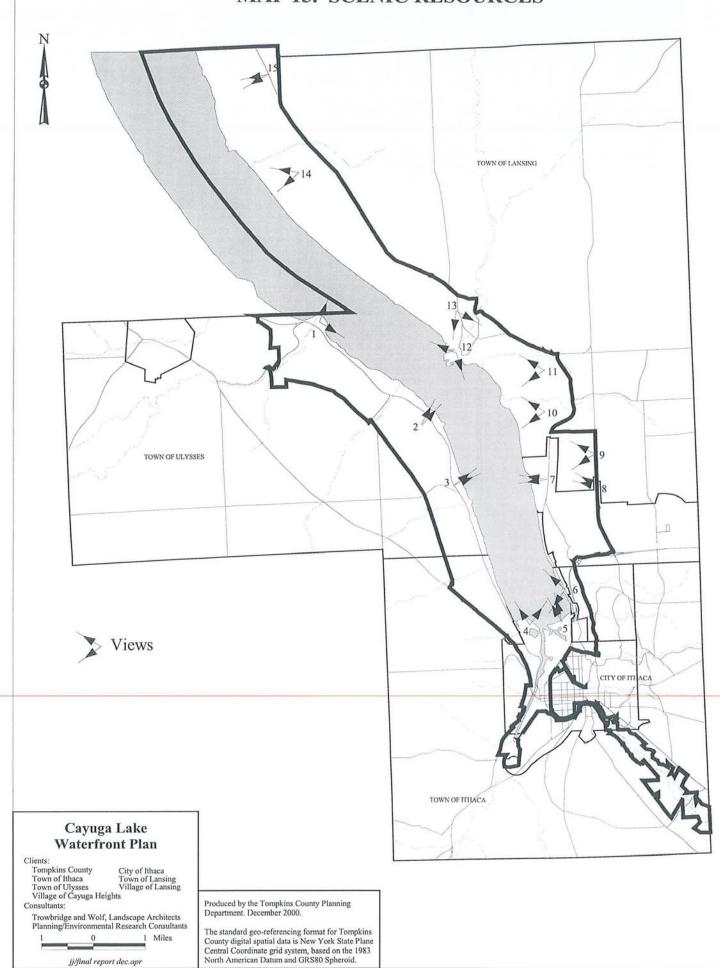
Development and use of the inlet and the wide channel created to control flooding have evolved over the past decades. As the scenic, recreational, and economic value of waterfront land is increasingly recognized, recent development and use of land along the Inlet has reflected this value.

Six Mile Creek in the City and Town of Ithaca and its associated gorge and natural area include some of the area's fine scenic attractions. This area is especially valued because it offers a unique natural resource accessible on foot from the City's commercial center.

East Shore

Scenic resources on the east shore of the study area are numerous and varied. The southern end of Route 34 was built near the water's edge and provides over a mile of scenic lake views as it approaches the City [View 6]. Views of the long lake valley stretching to the northwest are exceptional from sections of Route 34 at the top of the hill [View 7] and from North Triphammer Road as well [Views 8 and 9]. Open slopes above and to the south of Portland Point also offer dramatic views up the lake to the growing number of large-lot single family housing that are being built in this area [Views 10 and 11].





In the public park area of Myers and Salt Points, it is possible to get to the water's edge for unobstructed views of the lake in all directions [View 12]. Salmon Creek, responsible for the creation of the Myers Point alluvial fan, has also produced the lovely scenic resource of Salmon Creek Gorge. The hillside north of Myers Point, an area known locally as Myers Heights and Lansing Heights, is in transition from open, agricultural land to housing [View 13]. Excellent views of the City and State parks at the head of the lake are available from many parts of this hillside and additional residential development is likely. Outside the study area, Lansingville Road offers spectacular long views of the lake as it slopes down from the north to its intersection with Route 34B.

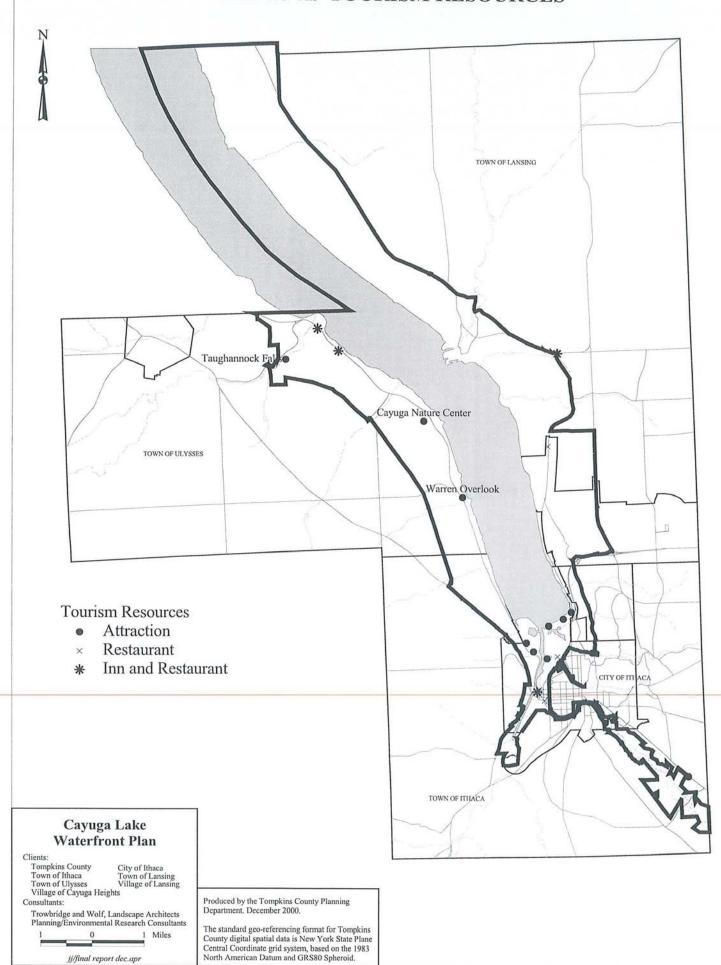
Other east shore scenic resources exist along Algerine Road [View 14] and on Lake Ridge Road [View 15] at the top of the long hillside owned by the utility company. Excellent lake views are available in both these locations but especially from Lake Ridge Road. The power plant stack can be seen over the hill but the otherwise unrestricted lake panorama is extraordinary.

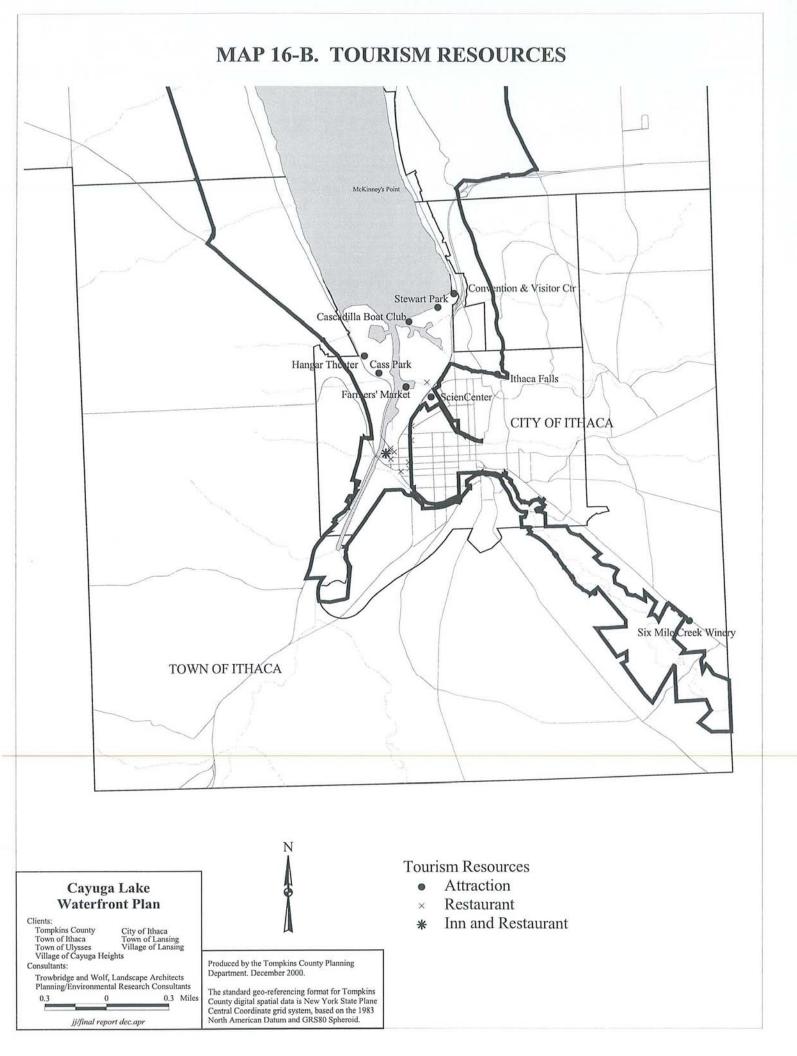
Because of the geography and spectacular geology of the study area, unique scenic resources will always exist in spite of man-made changes to the environment. There are, and will continue to be, good opportunities to capitalize on these resources, however, and local regulations and action plans should acknowledge their uniqueness and take advantage of their value.

Tourism Resources

Visitors' Information Center
Tompkins County Visitors' Center
904 East Shore Drive (Route 34)
Ithaca, NY
Scenic Overlooks
Warren Overlook
Route 89 (near Glenwood Pines Restaurant and Glenwood Point
Ulysses, NY
Restaurants/Food/Drink
Rogues Harbor Steak and Ale
Routes 34 and 34B
Lansing, NY
Ithaca Farmers' Market
Steamboat Landing (Third Street)
Ithaca, NY
Roma Pizzeria
710 Hancock Street (off Route 13)
Ithaca, NY
Vito's Pizzeria
503 North Meadow (Route 13)
Ithaca, NY
Hai Hong Restaurant
602 West State Street (at Route 13)
Ithaca, NY







6.	Supper Club 35 West State Street (corner of Route 13) ansing, NY
7	(former Old Port Harbour Restaurant) 02 West Buffalo Street thaca, NY
8	estaurant and Sleeping Cars 06 West Buffalo Street at Taughannock Boulevard (Route 89) thaca, NY
	Grill Id Taughannock Boulevard (north tip of Inlet Island) thaca, NY
8	alley Restaurant 01 West Buffalo Street (at Taughannock Blvd) haca, NY
3	ockside Cafe 19 Taughannock Boulevard thaca, NY
	d Pines 213 Taughannock Boulevard Between Ithaca and Taughannock Falls State Park
2	nock Farms Inn & Restaurant 030 Gorge Road (Route 89 across from Taughannock Falls State Park) rumansburg, NY
8	estaurant and Sleeping Cars 06 West Buffalo Street at Taughannock Boulevard (Route 89) thaca, NY
	d B&B 662 Taughannock Boulevard (Route 89) Ilysses, NY
2	nock Farms Inn & Restaurant 030 Gorge Road (Route 89 across from Taughannock Falls State Park) rumansburg, NY
ScienCen 6	n/Entertainment Destinations ter 01 First Street (off Route 13) thaca, NY
14	Vature Center 420 Taughannock Boulevard (Route 89) Ilysses, NY

Hangar Theatre

Taughannock Boulevard at Allan H. Treman State Marine Park Ithaca, NY

Thematic Trails

Information on the following thematic trails is available at the Tompkins County Visitors' Center.

- Natural Heritage Trail
- Cayuga Wine Trail
- Discovery Trail
- Mulholland Wildflower Preserve

For information on parks, historic resources, tour boats, crew racing, and other possible destinations for visitors to the region, see the relevant inventory section.

C. Key Issues and Opportunities

The following are major points of consensus among the participants in the *Cayuga Lake Waterfront Plan* focus groups and public meetings. The public participation process is described in *Chapter Seven*.

- The water quality of Cayuga Lake is the most important issue and key to the success of all waterfront projects and programs.
- The water edge is in poor condition and needs improvement.
- The waterfront has not been effectively used for stimulating tourism and economic development in Tompkins County.
- Public access opportunities to the lake should be increased.

Three questions were used to help identify issues and opportunities to be addressed in detail in this *Waterfront Plan*:

- Can the work be accomplished within the time frame of the *Plan*?
- Are there other organizations better suited to address the work?
- How likely is it that a degree of consensus can be reached?

Five priorities were identified for more detailed study in the Cayuga Lake Waterfront Plan.

Waterfront Public Access

The need for increased public access to the lake was identified for a number of different activities - places to fish, launch a canoe, dock a boat, swim, and sit and watch waterfront activities. The Plan identifies sites for these uses. The Plan also develops criteria for the public acquisition of properties with opportunities to increase lake access and preserve important views.

The *1997 Tompkins County Waterfront Study* identified several trail opportunities along the waterfront. The *Plan* develops more detailed proposals for the Cayuga Waterfront Trail, which will extend from the Chamber of Commerce to Cass Park. Connections with other trail systems, such as the Black Diamond Trail, are also addressed. Phase I of the Waterfront Trail was constructed in 2002 and the City of Ithaca received TEA-21 Enhancement Program funding in October 2002 for Phase II.

Waterfront parks currently provide the best opportunities for public access to the Lake. Short-term park improvement projects are described in *Chapter Four* for Salt Point, Lansing Town Park, Stewart Park and Cass Park.

Noise Control and Boating Regulations

Noise from boats, personal watercraft and larger motorboats, was identified as a concern by a large number of individuals who live on Cayuga Lake and who frequent lakefront public parks. The *Plan* proposes speed limits and limited hours of operation for personal watercraft as one strategy to reduce noise and increase safety. Additional policies and regulations to address noise reduction should be explored by municipalities in the waterfront zone to respond to issues within their jurisdiction.

Dredging

Dredging the Cayuga Inlet will be necessary during the next 2 to 3 years to maintain boat access to Inlet Island, the Farmers' Market, Johnson's Marina, and Allan H. Treman State Marine Park. Dredging is also mandated by the Army Corps of Engineers to maintain the effectiveness of the flood control channel. Identifying a permanent dredge spoil site within a mile and a half of Cayuga Inlet has proven a daunting task for local, county, and state officials. A process for selecting dredge spoil sites is described in the *Plan*.

Water-Dependent and Water-Enhanced Development

Most new economic development projects proposed in the *Plan* are located in the City of Ithaca along the south end of Cayuga Inlet on Inlet Island and in the City's West End. The City of Ithaca adopted both the *Inlet Island Urban Design Plan* and the *West End Urban Design Plan* that together outline a vision and development guidelines for Inlet Island and the West End. New restaurants, the Boatyard Grill and Bistro Q, along with successful existing establishments, like the Station Restaurant, Maxie's Supper Club, Kelly's, and the Lehigh Valley House, are leading a resurgence in the popularity of Inlet Island and the West End. The City is developing plans for the Inlet Island Promenade, a walkway along the west edge of the Island.

The NYSDOT site in the City of Ithaca is very important to the economic revitalization of the urban waterfront area. The six-acre site is located adjacent to the Ithaca Farmers' Market. Tompkins County has led the effort to relocate the NYSDOT facility making this site available for water-dependent or water-enhanced development. Many uses have been discussed for the site including a hotel/conference center, waterfront commercial/residential development, and a boat building and restoration facility with an associated Finger Lakes boating museum.

Water Quality of Cayuga Lake

The protection and improvement of the water quality of Cayuga Lake is critical to the success of all waterfront projects and initiatives outlined in the *Cayuga Lake Waterfront Plan*. This plan describes the ongoing watershed management efforts being undertaken by the Cayuga Lake Intermunicipal Organization and the County Planning Department.

Policy 1: Foster a pattern of development within the LWRP study area that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of the waterfront, and minimizes adverse effects of development.

Tompkins County is a waterfront community with nearly 30 miles of frontage on Cayuga Lake and Cayuga Inlet, not including the frontage on numerous smaller creeks that drain into the Lake. Ithaca is on the New York State Canal System and water transportation has played a major role in its economic and physical development. Within the past five years the City and County have conducted important waterfront planning efforts that include the preparation of the *Tompkins County Waterfront Plan*, the *Inlet Island Design Guidelines*, and this *Local Waterfront Revitalization Program*. These planning efforts have focused on three overall goals:

- 1. Creation of a Cayuga Lake Port facility and waterfront commercial district on, and in the vicinity of, Inlet Island in the City of Ithaca;
- 2. Increasing public access to the waterfront around the lake for all users, including boaters, fishermen, bikers, hikers, joggers, mobility-impaired users, and people who simply want to enjoy parks, restaurants, shops, and other waterfront activities; and
- 3. Preservation and enhancement of the environmental and scenic quality of Cayuga Lake and its associated waterways, as well as the land adjacent to and visible from these water bodies.

The character of the Cayuga Lake waterfront varies greatly along the shoreline. As described earlier in this report, land uses along the shoreline in the Towns of Ulysses, Lansing, and Ithaca are largely residential in nature, with cottages and year-round residences located where they can access the lake. Exceptions to this include industrial sites along the east shore (Milliken Station, Cargill Salt, Bolton Point Water Treatment Plant) and recreation areas at Myers Point and Taughannock Point. The largest expanse of unprotected open space along the shoreline is a parcel north of Milliken Station. The waterfront in the Towns of Lansing and Ulysses are generally not served with public water or wastewater systems. The LWRP recommends that land use in the Towns of Lansing, Ithaca, and Ulysses continue this same general pattern.

In the City of Ithaca, the land use pattern changes significantly. Much of the shoreline in Ithaca is in public ownership and is used for recreational purposes (Stewart Park, Cass Park, Allan H. Treman State Marine Park, Newman Golf Course). The remainder of the shoreline is generally used for water-enhanced and water-dependent uses, or for commercial and industrial uses that are not water-related. Full public water and wastewater services are available to the land in the City.

1.1 Concentrate waterfront redevelopment in the City of Ithaca to revitalize underutilized waterfront land, ensure that new waterfront development makes beneficial use of its waterfront location, and minimize adverse impacts.

The City of Ithaca is aggressively pursuing the development of the Cayuga Lake Port at Inlet Island. The City has adopted the *Inlet Island Urban Design Plan* that describes a vision and implementation strategies for the redevelopment of Inlet Island into a vibrant Cayuga Lake Port with dense mixed-use development, public access to the water edge, and improved transient docking facilities.

HUD's Canal Corridor Initiative provided grants and low-interest loans for two waterfront restaurant projects in the Inlet Island area. The Boatyard Grill recently opened at the northern tip of Inlet Island on a

former brownfield site. The City has recently begun construction of the Inlet Island Promenade, a public walkway along the west edge of the Island. The City plans to promote mixed-use development adjacent to this public waterfront promenade. Another HUD-assisted waterfront restaurant - Bistro Q - also recently opened. Docking and water edge improvements in the vicinity of Bistro Q are currently underway.

1.2 Maintain and enhance waterfront recreation areas and open spaces.

Waterfront parks should, where possible, be linked with a network of trails that will allow residents and visitors to experience the water and waterfront in new ways. Increased opportunities for rental and use of canoes, kayaks, and other forms of muscle-powered small boats should be encouraged to increase water access in the most environmentally-friendly manner. Improved fishing access, including the development of handicap fishing facilities, in parks and along proposed trails should be encouraged. The development of the Cayuga Lake Scenic Byway, an auto and on-road bicycle-touring route around the lake, will provide a new means for visitors to experience existing and proposed waterfront parks and facilities.

Downtown residential neighborhoods will be connected to the waterfront and waterfront trail through the urban creek corridors and proposed trail system connectors. These neighborhoods are located in close proximity to this emerging public waterfront, within easy biking and walking distance.

1.4 Maintain and enhance natural areas.

Unique natural areas, described in *Chapter Two*, are to be preserved for their habitat and environmental value.

1.5 Protect stable residential areas.

The most common concern expressed by residents of waterfront residential areas was the noise caused by the operation of personal watercraft and high-powered boats. In part to address noise concerns, new boating regulations for Tompkins County waters are recommended. Specifically the recommendations, described in more detail in *Chapter Four*, are to:

- 1. Adopt a 25 mph nighttime speed limit;
- 2. Adopt a 55 mph daytime speed limit; and
- 3. Adopt limited hours of operation for personal watercraft.

Policy 2: Protect existing water-dependent uses, promote siting of new water-dependent uses in suitable waterfront locations, and support efficient harbor operation.

The intent of this policy is to protect existing water-dependent commercial and recreational facilities and to ensure that viable new water-dependent development can be sited along the water edge. Orderly harbor operation is critical to safe and efficient use of the water surface for motorized and non-motorized boating activities.

2.1 Protect and improve the economic viability of existing water-dependent uses.

One of the most critical objectives of the LWRP is to create a Cayuga Lake Port in the Inlet Island area of the City of Ithaca. This requires that the infrastructure required for boating operations be preserved and significantly enhanced. In addition, new water-enhanced uses, such as waterfront restaurants and shops, are being encouraged in the Port area to create a waterfront that will attract water-based and land-based visitors.

Dredging of Cayuga Inlet is critical to protect and enhance water-dependent uses in the City of Ithaca. New waterfront commercial destinations, such as the Boatyard Grill and Bistro Q, are also dependent on a navigable channel to accommodate boat traffic. While most visitors will access Inlet Island by car, it is critical that boat access be available to create a port atmosphere for all visitors to the area.

New York State Canal Corporation plans to dredge the Inlet are contingent on identifying a suitable disposal site for dredge spoils. City, county, and state officials have held numerous meetings during the past five years to identify a suitable site.

Options under study for the disposal of dredge spoil material include:

- 1. Wetland construction to restore the natural character and improve fish habitat along the edge of Cayuga Lake in Treman State Marine Park.
- 2. Create new land in Stewart Park and along the southernmost sections of the east and west sides of the lake to enhance public waterfront access.
- 3. One-time use for landscape fill in Southwest Park commercial development and/or filling and edge repair of the NYSDOT site, Cass Park, Stewart Park, and Allan H. Treman State Marine Park.
- 4. Truck dredge material to a suitable disposal site outside of waterfront area as done for recent flood control channel dredging by the U.S. Army Corps of Engineers.

Redevelopment of Inlet Island should be undertaken so as not to displace water-dependent commercial activities that are currently located on Inlet Island, such as the Ithaca Boating Center (the Finger Lakes' largest enclosed marina facility) and Cayuga Wooden Boat Works.

Existing rowing facilities, including the Cornell and Ithaca College boathouses and the Cascadilla Boat Club, must remain on the water to encourage this important and historically significant use of Ithaca's waterways. The Cascadilla Boat Club (CBC) is developing plans to construct a new facility on Cayuga Inlet in Cass Park. The City should work with CBC in developing a site plan for the facility that fits with other existing recreational programs in Cass Park.

The *MV Manhattan* is a tour and dinner boat that operates out of Bistro Q Restaurant in the Inlet Island area. As new water-enhanced development and transient docking facilities are developed, the tour boat's convenient and safe operation must be protected.

Boat rentals provide access to the water for the large majority of residents and visitors who do not own boats. Water-enhanced development should not displace boat rental operations that are dependent on their waterfront location.

2.3 Promote the siting of new water-dependent uses at suitable locations and provide for their safe operation.

Tompkins County is advancing plans to relocate the New York State Department of Transportation (NYSDOT) Regional Maintenance Facility, located adjacent to the Ithaca Farmers' Market, to free up this site for the development of a water-dependent or water-enhanced use. Relocation of Cayuga Wooden Boat, Inc., from its current site on Inlet Island to the NYSDOT site would allow for the expansion of this growing operation. The site could also be used for the development of a Finger Lakes Maritime Museum that would highlight the history of Cayuga Lake boating. Another water-dependent use for the site that has been considered is the development of new boathouses for the Cascadilla Boat Club and Cornell University. A range of water-enhanced uses, including hotel, conference center, residential, waterfront commercial, and mix-use development, is also being considered for the site.

New transient docking facilities will be needed as Ithaca's Cayuga Lake Port emerges as a destination for lake and NYS Canal System boaters. New docking has been constructed at the Boatyard Grill Restaurant on Inlet Island and funding and preliminary plans are in place for the development of new docking at Bistro Q Restaurant. As other water-enhanced development occurs in this area, it is critical that transient docking and public promenades be provided on the water edge to allow boat and pedestrian access.

While many boating facilities are concentrated in the urban area, several facilities are located in the rural area, including Taughannock Falls State Park, the Ithaca Yacht Club, Lansing Town Park, and Finger Lakes Marine Service. Additional small boat access points are recommended at many of these facilities.

2.4 Allow water-enhanced uses which complement or improve the viability of water-dependent uses.

Improvements to the Cayuga Lake Port envisioned in the City of Ithaca will involve the development of a range of water-enhanced uses in a mixed-use pattern of dense development. Existing marina and other water-dependent uses are sufficient to support this increased waterfront activity, with the exception of transient docking facilities, which must be included where possible in all new waterfront development projects.

The Ithaca Farmers' Market is an excellent example of a successful water-enhanced use that has taken advantage of its waterfront site to create a pleasant experience for visitors. The Farmers' Market has developed a pier for transient docking, small tour boats, and landside market visitors to view the water.

2.5 Promote the efficient management of surface waters and underwater lands.

Current boating levels do not warrant the development of a detailed harbor management plan for Cayuga Lake or Cayuga Inlet. However this could change, particularly on Cayuga Inlet, if boating activity increases significantly. This is primarily due to the conflict between rowing (crew racing) activity, which requires very calm waters, and the use of powerboats, which create wake and disturb rowing operations. This conflict can be more than just an inconvenience; novice rowers in unstable racing shells on the Inlet need to practice their skills in calm waters. In addition, during racing events a calm surface is critical to the outcome of a race. Fortunately, the competitive crew racing season and the peak recreational boating season do not coincide.

Policy 3: Protect existing agricultural lands in the study area.

This policy aims to protect existing agricultural land in the Waterfront Revitalization Area for the economic benefits they generate, for the rural character that is so prized by residents of the county, and for their scenic value.

- 3.1 Protect existing agriculture and agricultural lands from conversion to other land uses which would eliminate agricultural production or potential agricultural production.
- 3.2 Minimize adverse impacts on agriculture from unavoidable conversion of agricultural land or agricultural production to other land uses.
- 3.3 Establish and maintain favorable conditions that support existing or promote new agricultural production.
- 3.4 Preserve scenic and open space values associated with agricultural lands.

Tompkins County and its municipalities have several programs under way to help protect agriculture. These efforts should be continued. The *Tompkins County Agriculture and Farmland Protection Plan* identifies actions to be taken in three major areas: education, government policy (primarily land use

planning and taxation policies), and agricultural economic development. Key recommendations of the *Agriculture and Farmland Protection Plan* have also been incorporated into the *Tompkins County Economic Development Strategy*.

Tompkins County has two agricultural districts under the provisions of the New York State Agricultural Districts Law. While the Law does not seek to preserve farmlands, it does create an economic and regulatory climate that encourages farmers to continue farming. Portions of each of the two agricultural districts in Tompkins County are located within the study area.

The Town of Ithaca has a Purchase of Development Rights (PDR) program to protect viable agricultural lands. The Town's PDR program does not target any lands in the study area. However, the Town's program, as well as the State's Purchase of Development Rights program, has spurred interest in the County as a whole to explore the feasibility of a broader PDR program.

The Town of Lansing has a Rural Agricultural zoning district in the northern portion of the study area, between the Lakeshore zoning district and Route 34B. This reflects the existing development pattern and the character of the area, which is predominantly rural. The intent of the district is to designate areas where agriculture is the predominant and desired land use activity.

Currently, the Town of Ulysses has taken a different approach to zoning for agricultural uses. Its Residence zoning district applies to all of the land within the study area. Within that district, a wide range of land uses is permitted. However, in order to support agricultural uses, the Town has exempted farming from regulations.

Policy 4: Promote sustainable use of fish and wildlife resources.

Fishing in Cayuga Lake is primarily recreational. The National Audubon Society has identified Cayuga Lake as an Important Bird Area (IBA) because it provides bird habitat to migrating and wintering waterfowl and several rare and endangered species. The purpose of this policy is to preserve the region's living resources both for their inherent value and their importance to the region's economy and quality of life.

Cayuga Lake and its tributaries boast some of the most varied recreational fishing opportunities in the Finger Lakes region. Charter fishing boats and fly-fishing play important roles in the County's tourism industry. Many creeks feed Cayuga Lake, including Salmon, Fall, Six Mile, and Cayuga Inlet, with significant populations of trout and salmon using the streams for spawning and as nurseries. Participants at LWRP community meetings identified improved fishing access, particularly for shoreline fishing, as an important outcome of the study to ensure that county residents who do not own boats can enjoy lake fishing.

The biggest threat to this important economic and recreational resource is the degradation of water quality in the lake. While the lake's water quality is generally very good, weed growth and algae blooms in the southernmost reaches of the lake have interfered with the enjoyment of the resources. Watershed management plans, such as those described in *Chapter Two*, should be implemented.

Policy 5: Protect and restore ecological resources, including wetlands and rare ecological communities.

The intent of this policy is to avoid any adverse impacts to the waterfront ecosystem. Unavoidable adverse impacts should be minimized and mitigated.

Twenty-six Unique Natural Areas (UNA's) located in the waterfront study area are listed and described in *Chapter Two: Inventory and Analysis*. These include state and federal freshwater wetlands; lake cliffs on the east edge of Cayuga Lake; numerous creeks, gorges and waterfalls in the Cayuga Lake watershed; and both upland and floodplain/ swamp forests.

Three state-regulated wetlands are found within the Waterfront Revitalization Area. One is an upland wetland not directly contiguous with the Lake in the Town of Lansing and the other two are swamp forests in the City of Ithaca at the Fuertes Bird Sanctuary and Cornell's Biological Field Station. There are more than one hundred federal wetlands identified in the National Wetlands Inventory in the study area. Most are found upland of the lake; however, wetlands are also found at Myers Point in Lansing and the Hog Hole and Negundo Woods in the City of Ithaca.

The New York Natural Heritage Program maintains an up-to-date inventory on the rarest plant and animal species and the highest quality natural communities. While the information is guarded to protect habitat from visitation, many areas are located in the waterfront revitalization area and in the County's Unique Natural Areas.

5.1 Protect and restore freshwater wetlands.

Wetlands are a critical component of the lake's ecosystem - they filter surface water and stormwater runoff, removing harmful toxins, sediment and nutrients; they store floodwaters and help reduce the magnitude of flood events; and they provide valuable habitat for a diversity of wildlife and vegetation communities including many rare, threatened, or endangered species. Because the value of wetlands is so diverse and crucially important for both society and the natural ecosystem, filling and development of wetlands should be discouraged.

5.2 Preserve Fall Creek natural, scenic and recreational qualities.

The section of Fall Creek that falls within the Waterfront Revitalization Area was designated a Recreational River under the *New York State Wild, Scenic, and Recreational River System Act* in 1990 at the request of the City of Ithaca. It is the only river with this designation in Tompkins County. This mandates that its natural, scenic and recreational qualities must be preserved through procedures described in *Chapter Two*.

Policy 6: Protect and improve water resources.

The goal of this policy is to protect the water quality of the Cayuga Lake and its tributaries. The water quality of Cayuga Lake is generally considered to be good. The shallow, southern section of the lake, south of McKinney's Point, is rated Class A by NYSDEC and is suitable for water supply with filtration. The deep sections of the lake, north of McKinney's Point in Tompkins County, is Class AA(T), suitable for public water supply without filtration and able to support a trout or salmon fish population. Despite the relatively good water quality, there are documented threats to the lake's water quality including sedimentation, phosphorus, exotic species, agricultural and urban runoff, and the presence of heavy metals in stream sediments.

The water quality of Cayuga Lake depends largely on the quality of the water from its many tributaries. The main water quality problems in the watershed are found at the south end of the lake and are due to the significant quantities of nutrient-loaded sediments carried into the lake. This is apparent after heavy rainfall events when turbidity turns lake waters brown. It is natural that streams will slowly erode their banks and carry sediments down the watershed - this is the process that has formed our dramatic gorges and waterfalls during the past 10,000 years. However, the rate of erosion and concentrations of nutrients

being carried in sediments have increased due to development and intensive agriculture in the lake's watershed.

Water pollution sources are generally classified as point source or non-point source. Point-source pollution is easy to identify and isolate, thus it can be effectively treated and mitigated. Non-point source pollution, such as agricultural or urban runoff is a more insidious problem because by its very nature it is difficult to isolate and treat.

Cayuga Lake is the source for the Bolton Point Water System that provides public water for significant portions of the County's population. Lake water is chemically treated to assist with sedimentation of solids, filtered, then chlorinated and pumped to large underground concrete reservoirs for storage. The City of Ithaca and western portions of the Town of Ithaca are served by the City's water system. The water source is a reservoir along Six Mile Creek southeast of the city center.

- 6.1 Prohibit direct or indirect discharges which would cause or contribute to contravention of water quality standards and targets.
- 6.2 *Minimize non-point pollution of inland waters and manage activities causing non-point pollution.*
- 6.3 **Protect and enhance water quality of inland waters.**
- 6.4 Limit the potential for cumulative and secondary impact of watershed development and other activities on water quality and quantity.
- 6.5 Protect and conserve quality and quantity of potable water.

Improving water quality in the Waterfront Revitalization Area is one of the most important goals identified by residents and participants at public meetings held both for this study and the *Tompkins County Waterfront Plan*. Water quality is an over-arching issue that impacts all other water-dependent and water-enhanced use and natural resources in the area. Numerous initiatives are currently underway to address this critical issue. The Tompkins County Water Resources Council updated the *Tompkins County Water Quality Strategy Plan* in 1999 to "guide policy and activities related to water issues in the County." The Cayuga Lake Intermunicipal Organization is an ongoing effort to develop a watershed management plan for Cayuga Lake and its watershed. The organization has conducted numerous public forums and completed a *Preliminary Watershed Characterization* (November 1999), a working document developed to present the current state of scientific understanding of the watershed and to describe the current efforts underway to improve the watershed. Recently, they published *Issues in the Cayuga Lake Watershed*, an attractive newsletter that summarizes and illustrates the issues described in their first publication. Currently the Tompkins County Planning Department is developing a watershed management plan for the whole county that includes the Cayuga Lake watershed.

Ongoing watershed management efforts should be supported and coordinated. Specific watershed management implementation programs should emphasize the following elements (described in greater detail in *Chapter Four: Proposed Land and Water Uses*):

- Improved streambank erosion control;
- Modifications to road maintenance practices to minimize the erosion from roadside ditches;
- Development and enforcement of more stringent stormwater management practices in developed areas;
- Improved agricultural practices that minimize erosion and nutrient runoff into streams; and
- More stringent requirements for minimizing erosion and runoff from construction sites.

The community is taking aggressive steps to ensure effective treatment of municipal wastewater. The City and Town of Ithaca, the Towns of Lansing and Dryden, and the Villages of Lansing and Cayuga Heights are working together to extend sewer service north to Myers Point, serving all of the Waterfront Revitalization Area between Ithaca and Myers Point in Lansing. Improvements to the existing wastewater treatment plants in Ithaca and Cayuga Heights would increase capacity, eliminate wet weather overflows, and construct advanced treatment facilities for phosphorus removal from effluent prior to its discharge into Cayuga Lake.

Sound environmental practices must be integral to all waterfront redevelopment efforts. Such practices include maintaining buffer strips along the waterfront, limiting impervious surfaces immediately adjacent to the shoreline, and ensuring the proper functioning of septic systems and sewers in the waterfront area.

An essential component of any watershed management program is ongoing sampling and monitoring of water quality to establish a benchmark, determine water quality trends, and measure progress in achieving water quality goals.

Policy 7: Minimize loss of life, structures, and natural resources from flooding and erosion.

This policy aims to minimize flooding and erosion hazards and protect life, structures, and natural resources by implementing several management measures described below. The Federal Emergency Management Agency (FEMA) has identified several flood hazard areas within the Waterfront Revitalization Area. The City of Ithaca has 100-year floodplain throughout the park and open space along the Cayuga Inlet and at the south end of Cayuga Lake. In addition, floodplains are mapped along Six Mile, Cascadilla, and Fall Creeks and along the flood control channel. North of the City, there is a thin band of 100-year floodplain along the east and west shores of the lake with larger areas at Myers and Taughannock Points. Salmon, Taughannock, and Trumansburg Creeks also have some 100-year floodplain mapped along their banks.

Downtown Ithaca, commonly known as 'The Flats,' is constructed largely on filled marsh and wetlands. By its very nature it is prone to flooding. Many floods occurred during the 19th and 20th centuries as the City has developed. Dikes and walls have been constructed to raise the banks of Cascadilla Creek, Fall Creek, and Six Mile Creek in the City. The U.S. Army Corps of Engineers completed a major system of dikes, channels, and floodwalls in 1970 to contain the floodwaters of Cayuga Inlet.

Erosion problems are evident at the south end of the lake due to the high volume and velocity of water draining into the lake from Ithaca's many creeks and waterways. This is most evident along the flood control channel and Cayuga Inlet. In 1999, the U.S. Army Corps of Engineers stabilized the banks along the southern half of the flood control channel with riprap in conjunction with dredging procedures. Stewart Park's lake edge is severely eroded by wave action from Cayuga Lake resulting in an unattractive edge and loss of valuable parkland.

Flooding of property in the lowlands along the lake's shore results from rising lake levels. Lake levels are controlled, in part, by the Canal Corporation's operation of the Canal System.

- 7.1 Minimize losses of human life and structures from flooding and erosion hazards by using the following management measures, presented in order of priority:
 - A. Dredge Cayuga Inlet between Inlet Island and the southern end of Cayuga Lake to allow the free flow of water from the flood control channel to the Lake.
 - **B.** Minimize potential damage by locating development and structures away from flooding and erosion hazards.

- C. Use vegetative non-structural measures which have a reasonable probability of managing flooding and erosion based on shoreline characteristics including exposure, geometry, and sediment composition. Use vegetative measures to increase protective capacities of natural protective features at every opportunity.
- D. Enhance existing natural protective features and use non-structural measures which have a reasonable probability of managing erosion.
- E. Use hard structural erosion protection measures for control of erosion only where essential due to intense urban development and vegetative approaches have proven to not be effective. Where used, limit size to the minimum size necessary and ensure they are properly engineered.
- 7.2 Preserve and restore natural protective features along water edges.
- 7.3 Protect public lands when undertaking all erosion or flood control projects.
- 7.4 Comply with the provisions of any municipal erosion management plan, consistent with the provisions of this policy.

Many new development projects will occur within the 100-year floodplain in the City of Ithaca. Some are proposed water-enhanced waterfront development projects proposed in this study. The City has a rigorous site plan review procedure to ensure that development will be protected from flooding hazards and that development in waterfront areas does not exacerbate the flooding problem in other areas of the City.

Streambank and lake edge erosion problems in the City of Ithaca are to be addressed in park master plans recommended for both Stewart and Cass Parks (*See Chapter Four: Proposed Land and Water Uses*).

Policy 8: Protect and improve air quality.

Tompkins County is an attainment area under the Clean Air Act. The County meets the National Ambient Air Quality Standards. There is no ongoing monitoring of air quality standards in Tompkins County.

One coal-fired power plant, Milliken Station, is located in the Town of Lansing at the northern edge of the Waterfront Revitalization Area and near the Tompkins/Cayuga County border. NYSEG, the previous plant owner, added new burners and electrostatic precipitators between 1993 and 1995 that reduced nitrogen oxide emissions from the stacks by 40%. At the same time, new desulfurization equipment was installed to reduce sulfur dioxide by nearly 90%. AES/Cayuga, which recently purchased the plant from NYSEG, has announced an aggressive program to further reduce impurities resulting from their coal-fired burning processes. An additional 90% of nitrogen oxide emissions will be eliminated and the quantity of coal ash significantly reduced.

Another air quality improvement will result from Cornell University's Lake Source Cooling Project that began operating in 2000. This project uses water from Cayuga Lake for cooling the Cornell campus, dramatically reducing the amount of chlorofluorocarbons used in refrigerants and eliminating the use of electrically powered evaporators used to cool water. This will result in reducing the amount of coal burned by 10,000 tons per year. This project has generated considerable local controversy, as many residents are concerned about the potential impact on the water quality and ecology of Cayuga Lake. Cornell and the Town of Ithaca have begun long-term monitoring of the project's impact on lake temperature, nutrient levels, and overall ecology to detect any environmental impacts on the lake.

Policy 9: Promote appropriate use and development of energy and mineral resources.

The goal of this policy is to promote the production and use of energy and mineral resources that minimizes adverse effects on the environment.

9.1 Conserve energy resources and promote alternative energy sources that are self-sustaining, including solar and wind-powered energy generation.

Local energy conservation initiatives focus on improving the region's multi-modal transportation system. Many of the concepts for creating a Cayuga Lake Port, waterfront trails, and water ferries in the City of Ithaca will encourage the use of non-motorized or more environmentally-friendly modes of travel, including walking, biking, in-line skating, and the use of water ferries. This will have the overall effect of reducing motorized travel in the region.

9.2 Minimize adverse impacts from fuel storage facilities.

One small private oil storage and distribution company is located directly east of the NYSDOT site. This facility is neither water-dependent nor water-enhanced and is incompatible with other uses in the immediate area, including the Cornell and Ithaca College boathouses. In addition, while no major environmental problems have been reported, the potential impact of tank leakage or spills on the water quality of the Cayuga Inlet and Lake is a serious concern. Steps should be taken to encourage the relocation of the oil storage and distribution facility to a non-waterfront site.

9.3 Minimize adverse impacts associated with mineral extraction.

The only mineral extraction uses in the Waterfront Revitalization Area are Cargill Salt and Cayuga Crushed Stone. Due to the Finger Lake Region's unique geology, there are huge underground salt deposits in the vicinity of Cayuga Lake. Cargill Salt operates a salt mine and ships unprocessed salt via train and truck to destinations throughout the northeastern United States. Adjacent to and upland of Cargill Salt, Cayuga Crushed Stone is a surface mining, crushing and processing operation that ships processed, crushed stone used for various types of construction activity. Crushed limestone is shipped by truck throughout the region. These mineral extraction facilities have been operating in their current locations throughout much of the 20th century. While they are visual eyesores and generate a significant volume of truck traffic, they are important to the Town of Lansing economy and have become an accepted element of the local landscape.

Policy 10: Minimize environmental degradation from solid waste and hazardous substances and wastes.

This policy aims to minimize or eliminate environmental impacts associated with handling of solid waste and hazardous substances through proper management of solid and hazardous wastes and appropriate siting of solid and hazardous waste facilities.

10.1 Manage solid waste to protect public health and control pollution.

10.2 Manage hazardous wastes to protect public health and control pollution.

Tompkins County has a state-of-the-art solid waste and recycling facility with the capacity to handle household and commercial hazardous wastes.

10.3 Protect the environment from degradation due to toxic pollutants and substances hazardous to the environment.

Cayuga Lake and its tributaries have been the driving forces in the region's development. Water has been used for driving mills and producing electricity, for transportation of goods and people, and for industrial cooling. Because of the intensity of historic industrial and transportation-related uses on the waterfront, these sites often include hazardous wastes.

The redevelopment of former industrial lands in the City of Ithaca and elsewhere on the waterfront presents an opportunity for remediation of waterfront brownfield sites. While this creates significant additional expense in the planning and construction phases of these projects, the benefits clearly outweigh the costs. State and federal grants are often available to offset some of these costs. The end result of these redevelopment efforts is a cleaner waterfront, increased development in the urban core where infrastructure is already in place, creation of a concentration of water-dependent and water-enhanced activities, and reduction of sprawl in the surrounding countryside.

For instance, remediation of a brownfield site was required prior to the construction of the Boatyard Grill Restaurant on Inlet Island. Similarly, NYSEG recently cleaned up a coal tar waste site adjacent to the Old Port Harbour Restaurant, which is currently under renovation with HUD Canal Corridor Initiative funding.

10.4 Transport solid waste and hazardous substances and waste using routes and methods which protect the safety, well-being, and general welfare of the public and the environmental resources of the state; and protects continued use of all transportation corridors and highways and transportation facilities.

Cayuga Lake is no longer used for freight transportation. Wastes and hazardous substances are generally transported on the County's highway network. The municipalities and the Ithaca-Tompkins County Transportation Council monitor and plan for the safe transport of solid and hazardous waste materials in Tompkins County.

10.5 Site solid and hazardous waste facilities to avoid potential degradation of coastal resources.

The existing Tompkins County Solid Waste and Recycling Center is not within the Waterfront Revitalization Area. There are no plans for new solid waste or hazardous waste facilities within the Waterfront Revitalization Area.

Policy 11: Provide for public access and recreational use of Cayuga Lake, its associated tributaries, rivers, and creeks; public lands; and resources in the waterfront area.

The goal of this policy is to enhance the recreational use of Cayuga Lake and its tributaries by improving public access at existing public facilities and protecting land with potential for new recreational uses.

There are numerous public access facilities on Cayuga Lake and along Cayuga Inlet in the City of Ithaca.

While there are attractive, publicly owned waterfront areas, the vast majority of the lakefront land is privately-owned, lakefront cottages or inaccessible due to steep natural terrain. The east side of the lake has a very steep escarpment that has severely limited the development of lakefront cottages and residences. A railroad line, the Lehigh Valley Railroad, was developed in the 1870s at the foot of the escarpment along the east side of the lake. The Norfolk Southern Railroad currently operates on the line delivering coal to the AES/Cayuga Station at the north end of the county and salt from Cargill Salt south to Pennsylvania.

The west side of the lake is heavily wooded, sloping to the lakeshore at gradients that challenge, but do not restrict residential development. The shoreline was densely developed with summer cottages during the late 19th and early 20th centuries. Most of the cottages have been winterized and expanded into year-round residences. The Girl Scouts of America own and operate Camp Comstock with more than a mile of lake frontage between the City and Taughannock Falls State Park.

In the City of Ithaca, the waterfront was used for transportation, shipping, boat building, railroads, and related industry. Much of this former working waterfront has been developed by the City of Ithaca for recreation. While the City owns significant parks and open spaces on the Lake and Inlet, linkages between these parks have not been developed. In addition, NYS Route 13 is a significant physical barrier between the city's residential neighborhoods and the waterfront.

- 11.1 Promote appropriate physical public access and recreation throughout the Waterfront Revitalization Area.
- 11.2 Provide public visual access to the region's lake and waterways at all sites where physically practical.
- 11.3 Preserve public interest in and use of lands and waters held in public trust by the state and other government levels.
- 11.4 Provide access and recreation which is compatible with natural resource values.

Four main strategies have been identified for improving public access and recreational use of Cayuga Lake and associated waterways in the Waterfront Revitalization Area. Specific recommendations are described more fully in *Chapter Four: Section D - Waterfront Projects and Initiatives*.

- 1. Improve existing waterfront park facilities.
- 2. Improve public access to the water edge.
- 3. Develop new trails and water ferries.
- 4. Create a program to acquire waterfront land.

Policy 12: Enhance visual quality and protect outstanding scenic resources.

The purpose of this policy is to protect scenic resources of lake and waterway viewsheds in order to protect the visual quality of the study area. Maintaining and enhancing the visual quality of the natural and built environment is fundamental to the region's quality of life and to the vision described in this plan. Views of Cayuga Lake, its tributary creeks, and some spectacular waterfalls and gorges within the Waterfront Revitalization Area are described and mapped in *Chapter Two: Inventory and Analysis*.

Nearly two hundred years of industrial and transportation activities have left their mark on the visual quality of the waterfront, particularly in the City of Ithaca. In some cases historic uses leave a positive impact, where outstanding historic buildings have been restored and create an attractive and historically significant marker along the waterfront. A good example is the restored Station Restaurant on Inlet Island. In other cases, remnants of the waterfront's industrial history are eyesores waiting to be restored, renovated, or replaced by more attractive and appropriate facilities. Witness the unattractive views of Cayuga Inlet and Inlet Island buildings from the Old Port Harbour Restaurant.

Residential development on the east side of Cayuga Lake has increased dramatically during the past decade primarily due to the dramatic lake views. Development has been somewhat slowed by the lack of public water and sewer infrastructure. New houses are typically large, single-family, two-story structures. This type of development has a significant impact on the view of the lake and lake basin from the roadway and on views of the land from boats. No longer is the landscape the traditional patchwork of woodland and agricultural fields. It is becoming a landscape of woodland, with large homes tucked under the forest canopy, and single-family, large-lot, suburban development of open fields.

On the lake's west side residential development has been primarily in the form of seasonal lakeside cottages since the late 19th century. While many of these structures have been winterized for year-round use and some have been demolished and rebuilt into much larger homes, the general character of west side development has stayed the same.

12.1 The policy should protect and improve visual quality throughout the waterfront area. 12.2 The policy should protect aesthetic values associated with recognized areas of high scenic quality.

Protection of scenic resources and enhancing the visual quality within the Waterfront Revitalization Area is addressed through the projects, programs and initiatives described in detail in *Chapter Four: Section D* - *Waterfront Projects and Initiatives*. Following are four recommended strategies that will address this policy:

- 1. Improve existing waterfront park facilities.
- 2. Redevelopment of former waterfront industrial lands.
- 3. Cayuga Lake Scenic Byway.
- 4. Development of a program to acquire land along the waterfront.

Policy 13: Protect Historic Resources in the Waterfront Area.

Preserving, restoring, and interpreting our regions waterfront historic resources is critical in the revitalization of the waterfront. Much of the natural and cultural history of Ithaca and Tompkins County revolves around water. Water provided power for early mills and factories and transportation for people and goods. Later, water became the focus for recreation and entertainment through recreational boating and through the development of waterfront parks. Two notable historic buildings in the Waterfront Revitalization Area are on the National Register of Historic Places - the Station Restaurant on Inlet Island and the Cascadilla Boathouse in Stewart Park. There are numerous other buildings and landscapes that remain to tell the story of the importance of water in our region. These include Stewart Park, the Hangar Theater, Taughannock Falls State Park, Ithaca Falls and its remnant hydro-works, and the Cargill Salt and Portland Point area.

A. Proposed Land Uses

This long-range plan for the use of land in the Cayuga Lake waterfront area has evolved from the process of data gathering and analysis, identification of local needs and opportunities, into specific proposals outlined in this chapter. Such a plan must necessarily acknowledge the diverse patterns of development that have already occurred as well as the particular interests of each municipality. The ability to incorporate existing conditions and trends into a plan for the future and to make improvements in certain areas as opportunities arise is key to the success of the *Cayuga Lake Waterfront Plan*.

There are a number of proposed projects and initiatives described at the end of this chapter. They relate to specific actions that could be taken by a combination of State and local governments and private interests. Such actions would modify existing uses of land directly or put into motion events that would capitalize on current or future opportunities to use waterfront land for the most appropriate purposes.

Future land use is shown on Map 17. The following factors were used to develop this map:

- *Existing land use*. Already developed areas were identified. Most of these areas were assumed to continue in their present-day use into the future.
- *Unique natural areas*. Unique natural areas were identified and, if not already developed, were included as recreation/open space uses on the Future Land Use Map.
- *Local land use plans and zoning ordinances*. Local plans and ordinances were consulted to identify how the community wished to have the remaining areas developed.

Map 17 represents one way (but not the only way) that the Waterfront Revitalization Area could develop in a manner consistent with this *Plan*. The Future Land Use Map is very generalized and, thus, illustrates a pattern of future land use and not a lot-by-lot proposed land use plan.

The map includes several categories of land use:

- *Agricultural*. Lands used for the production of crops or livestock. Agricultural land uses are shown in the Towns of Lansing and Ulysses.
- *Recreation/Open Space*. Lands used for public or private outdoor recreation and other open spaces. Existing parks and recreation lands were included in this category, as well as undeveloped portions of unique natural areas. Recreation/open space land uses are shown in the Town of Lansing (Cedar View Golf Course, Myers Point, and lake cliff areas); Town of Ithaca (unique natural areas on both sides of the lake); the Town of Ulysses (Taughannock Falls State Park, unique natural areas along Route 89); and the City of Ithaca (Cass Park, Stewart Park, Allan H. Treman State Marine Park, and Newman Golf Course).
- *Rural Mixed-Use.* Lands used for a variety of rural-scale development, including agricultural; low density residential; and scattered, low intensity commercial. Extensive areas of rural mixed-use land uses are shown in the Towns of Lansing and Ulysses, as well as the Village of Lansing.
- *Residential*. Lands used nearly exclusively for moderate density residential development. Most existing subdivisions in the area are included in this category. Residential land uses are shown along the lakeshore in the Towns of Lansing and Ulysses; in much of the Villages of Lansing and Cayuga Heights; and in the West Hill portion of the Town and City of Ithaca.
- *Institutional*. Lands used for public and institutional uses. Institutional land uses on the map include the Lansing School District facilities on Route 34B, the Ithaca City School District facilities on Cayuga Street, and the Tompkins Community Hospital and County Biggs complex on Route 96.

- *Urban Mixed-Use*. Lands used for a variety of urban-scale development, including higher density residential, commercial, industrial, and institutional uses. Urban mixed-use areas are shown in the City of Ithaca (Inlet Island, Steamboat Landing, and Titus Avenue area) and in South Lansing (in the Town of Lansing at the intersection of Routes 34 and 34B).
- *Commercial/Industrial*. Land used for a variety of commercial and industrial operations. Commercial/industrial areas shown on the map are: Milliken Station, Cargill Salt Mine, Cayuga Crushed Stone, Portland Point, Pyramid Mall area, West End of the City of Ithaca, and Cherry Street Industrial Park.

East Shore

Because of its length and its state of relatively limited development, the east shore offers a variety of short- and long-term opportunities for future land use development. Despite major constraints of steep escarpments and an active railroad line along most of the length of Cayuga's east shore, there are several locations where significant land use changes at the waterfront are possible.

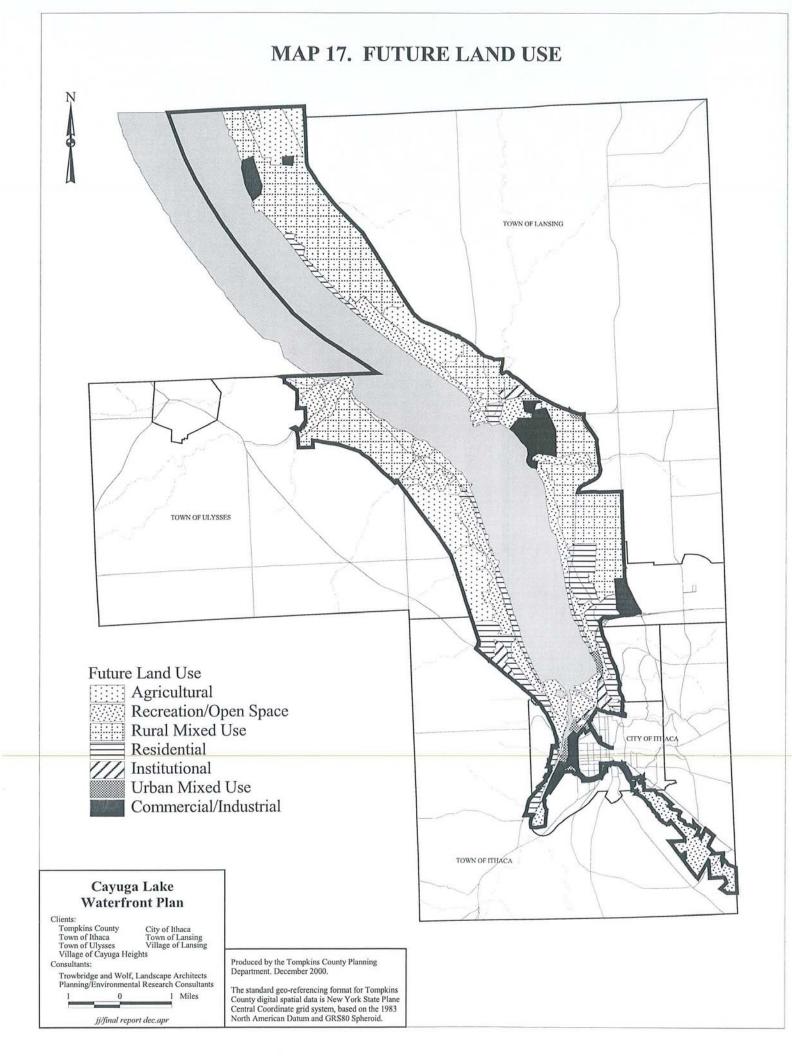
Salt Point, on the north bank of Salmon Creek, is State-owned and available for some form of future public use. Maintaining and enhancing the natural character of this area, and limiting more intensive recreation uses to Myers Park on the south side of the creek, are suggested as an appropriate future use of Salt Point. Basic facilities for non-motorized camping and fishing activities could be provided. Myers Park, as the Town of Lansing's premier public lakeside recreation space, would continue as a highly active facility to be further improved as opportunities arise.

South of Myers Point, Portland Point provides an excellent opportunity for private-sector development of a unique multi-purpose shoreline facility. A marina, restaurant, reception pavilion, dock, and boat storage complex have been proposed for phased development. The absence of public sewage disposal could be a limiting factor for the future development of this area.

Industrial use of land between Myers and Portland Points is expected to continue for the foreseeable future. Well-established salt and gravel mining operations are dominant land uses in this area and have done little to discourage the residential development of adjacent land. The hillside south of Gulf Creek and overlooking Portland Point offers some of the best lake views in the area and would be suitable for housing if suitable access can be provided.

The potential for development of land between Portland Point and Stewart Park lies mainly in housing. Parts of this area between Route 34 and the top of the escarpment have already been subdivided for lowdensity single-family building lots and a number of homes have been built. There is additional land available in this area in both the Town and Village of Lansing. When public sewers become available, it is likely that these slopes overlooking the lake will become even more desirable as housing sites, even though topography and the railroad line restrict direct access to the shoreline.

Land use along the eight-mile stretch of lakeshore north of Myers Point is expected to vary depending on access and proximity to the water. Extensive new subdivision activity is not anticipated except for the south-facing hillside at Lansing Heights (immediately north of Myers Point). Scattered development of seasonal and year-round homes is likely on the slopes between Myers and Lake Ridge Points and additional housing will be located in strip fashion along Lansing Station and Bill George Roads. The existence of a public water line along Route 34B could eventually become a catalyst for additional residential development but extensive land subdivision is not anticipated in the near future.



The several hundred acres of land north of Milliken Station will probably remain in its natural state as long as the utility company owns it. This land has significant development potential, however, due to its proximity to Cayuga Lake, its attractive shoreline with no railroad right-of-way to obstruct access, and its proximity to Cedar View golf course. Some form of limited public use of much or all of this attractive area would be highly desirable.

Urban Area

Significant opportunities exist for change in waterfront land use patterns in the City of Ithaca. The City's *Inlet Island Urban Design Plan* has been adopted and zoning regulations have been amended to promote this plan. Mixed residential and commercial development, which requires or is substantially enhanced by a waterfront location is being promoted. The City is complementing this proposed development by constructing the Inlet Island Promenade along the west edge of the Island and in promoting the Cayuga Waterfront Trail. The City also has adopted the *West End Urban Design Plan*, which outlines zoning and development guidelines for the area adjacent to Inlet Island and the waterfront.

Future land use of a prime waterfront parcel presently occupied by a maintenance and storage facility of the NYS Department of Transportation is now under active consideration by Tompkins County. A new use that will capitalize on the site's several hundred feet of shoreline on Cayuga Inlet is most likely. Possibilities include water-dependent uses such as the expansion of an existing wooden boat repair facility, maritime museum, and a boater services center; or water-enhanced uses such as restaurants, waterfront commercial or residential development, and a hotel/conference center.

Dredging of Cayuga Inlet to reestablish a workable depth for boating will be undertaken in the next several years. This action will ensure the Inlet's future navigability, enhancing operations of existing marinas and other water-dependent commercial land uses. Planning for the disposition of dredge spoils in the vicinity of the Inlet is underway, although this is clearly a very difficult issue to resolve.

Shoreline improvements in Stewart Park are proposed to improve the attractiveness and usability of this popular recreation area. Continued heavy public use of Stewart and Cass Parks as well as Treman State Marina and related parkland is suggested as the most appropriate land use at the foot of Cayuga Lake. The continued redevelopment and use of the Hangar Theatre in Cass Park is an effective cultural component that complements, and is enhanced by, the marina and recreation uses.

The Southwest Natural Area is a 60-acre site at the south end of the flood control channel. A master plan was recently completed and has been approved by the City. The plan identifies areas to preserve along with trails and access points for visitors to the site. NYS Parks' Black Diamond Trail will pass along the edge of the Southwest Natural Area, linking it to a proposed network of pedestrian and nature trails.

Efforts to enhance the banks of Cascadilla and Six-Mile Creeks will turn these resources into attractive neighborhood features. Landscaped creek bank trails will become additions to the extensive system of public trails proposed for Cayuga Inlet and the lakeshore parks.

West Shore

Continued development of lakeshore residences is seen as most appropriate for west shore land stretching from the City of Ithaca to Taughannock Falls State Park. Since most of this land has already been developed, it is likely that future land development will consist of infilling the few remaining vacant parcels or subdivision of some of the larger parcels in the Town of Ulysses to create additional lakeside lots. Since public water and sewer service is generally not available in this part of Ulysses, the minimum size of any new lots would be determined by the ability of the land to effectively dispose of sewage effluent.

In the Town of Ithaca, future west shore land use will likely be exclusively residential. To compensate for the limited amount of land, future land use will continue the practice of assembling several smaller parcels and replacing older, sometimes seasonal, cottages with new year-round residences.

The opportunity for major new development or increased public access is severely limited on the west shore. While it is unlikely in the foreseeable future, the securing of part of the undeveloped Camp Comstock for public access and use would be an important step towards improving public access to the lake on the west shore.

Land use in other parts of the west shore study area will change slowly as agricultural or wooded land is subdivided into scattered building lots. Those areas that offer dramatic views of the lake will be attractive targets for this limited subdivision activity; zoning will define the type and density of future development. Most of the area that is currently undeveloped or used for agriculture will likely remain that way, however.

B. Proposed Water Uses

The main issues of concern regarding boat use on Cayuga Lake identified at both focus group and public meetings were:

- 1. Noise generated by personal watercraft and large powerboats on the lake, particularly near public parks and lakeside cottages.
- 2. Potential for conflict between crew racing boats and larger sail and power boats traveling to and from various marinas and docking facilities on Cayuga Inlet.
- 3. Need for increased enforcement of boating regulations.

Noise

Of these issues, noise was discussed with the most frequency and urgency at public meetings. In 1993, New York State adopted federal noise standards to provide uniformity after numerous different standards found throughout the state proved difficult to enforce. The standards include a stationary threshold of 90 decibels and a shore side standard of 75 decibels. According to the Finger Lakes State Park Police, approximately 6% of boats on the lake are now out of compliance with this standard. Because current noise standards were recently adopted to achieve statewide consistency, it is unlikely that the thresholds could be lowered on Cayuga Lake. There are, however, several steps that the community can take to address boating noise indirectly.

Harbor Management Plan

A Harbor Management Plan is a plan for the use of the water surface. In particular, a harbor management plan can provide for the systematic planning of a water body for recreational boating, including watercraft noise as well as future development, natural areas, and swimming areas, as well as the maintenance of channels and shorelines for waterway use.

Given the current moderate levels of boating activity in Tompkins County, no lake-wide Harbor Management Plan is recommended at this time. As Cayuga Inlet is developed as a tourist destination and boating levels increase, such a plan may need to be developed for the urban waterfront area.

Speed Limits

Establishing speed limits for boats on Cayuga Lake would help to address noise and safety issues that have been raised during the preparation of the *Waterfront Plan*. At present, there are neither daytime nor nighttime speed limits on Cayuga Lake. Many communities in New York State have established such

speed limits. For example, Lake George has adopted a 45 mph daytime speed limit and a 25 mph nighttime speed limit. Keuka and Canandaigua Lakes have a 25 mph nighttime speed limit. Blue Mountain Lake, Eagle Lake, and Indian Lake have 45 mph daytime and 25 mph nighttime speed limits.

Off-Shore Speed Limit

New York State has established a 5 mph speed limit within 100 feet of lake edges. This speed limit applies to Cayuga Lake. Other communities have extended this speed limit further into their lakes. For example, Lake George has extended that speed limit to 500 feet from the shoreline.

The extension of this speed limit would do very little to address the concerns expressed by the public during the preparation of the *Waterfront Plan*. The principal advantage to extending this regulated area would be to establish areas of the lake where muscle-powered boats (canoes and kayaks) would be less threatened by faster moving boat traffic. Also, shoreline wildlife and birds would also have an extended area with limited disturbance.

Limited Hours of Operation

At present jet-skis are limited, by state law, to operation between dawn and dusk. However, many persons expressed concern that early morning jet-ski operations interfered with their enjoyment of their lakeside homes.

Implementing Changes to Navigation Law

There are two means to adopt regulations to govern water bodies locally. The first is to create a 'Vessel Regulation Zone' within 1500 feet of the shoreline to regulate boat speed and hours of operation. A county, city, or village under Section 46 of the current NYS Navigation Law can do this. If a vehicle regulation zone is established, it is recommended that the standards be consistent among municipalities on Cayuga Lake so that boaters and enforcement agencies are operating under clear and consistent rules and regulations.

The second method is to amend NYS Navigation Law. If the municipalities in Tompkins County want to regulate the whole surface of the lake, beyond the 1500-foot zone from the shore, the State Legislature will need to amend the NYS Navigation Law for the whole lake surface in Tompkins County. An advantage of this approach is that it ensures consistency among different municipalities. If the State Legislature were requested to amend the NYS Navigation Law, it would be appropriate to explore the coordination of these regulations with other Cayuga Lake municipalities in Cayuga and Seneca Counties.

Regulating Personal Watercraft and Specialty-Prop Craft

Cities and incorporated villages can establish 'Vessel Regulation Zones' for the purpose of regulating personal watercraft and specialty prop-craft. The NYS Navigation Law allows for the establishment of such zones within 1500 feet of a lake adjacent to such city or incorporated village. The law specifically allows the regulations to include "a prohibition of their use provided such prohibition does not prevent access to federally maintained and designated navigation channels." Thus, within the Cayuga Lake waterfront area, the City of Ithaca and the Village of Lansing may adopt such regulations.

Recommendations

Creating a Vessel Regulation Zone is faster and easier than amending the NYS Navigation Law. However, as discussed above, there are two drawbacks to this approach. The first is the importance of consistency among municipalities. Second, the vessel regulation zone can only extend 1500 feet from the shoreline. This leaves more than 3000 feet in the center of Cayuga Lake unregulated. Therefore, it is recommended that the local state legislators sponsor an amendment to the NYS Navigation Law for Cayuga Lake in Tompkins County. It is recommended that a uniform speed limit be established for the Lake (or at least that portion in Tompkins County) as follows:

- A 25 mph nighttime speed limit
- A 55 mph daytime speed limit

No extension of the offshore speed limit zone is recommended at this time.

In addition, it is recommended that the hours of operation for personal watercraft be limited to between the hours of 9:00 AM and dusk.

Conflicts in Cayuga Inlet

Given the current moderate levels of boating activity in Tompkins County, no lake-wide Harbor Management Plan is recommended at this time. As Cayuga Inlet is developed as a tourist destination and boating levels increase, such a plan may need to be developed for the urban waterfront area. Of particular need to address is the conflict between casual recreational boating and crew practices and racing in Cayuga Inlet.

Enforcement

The recommended changes in boating regulations are designed to increase boater safety and to reduce noise levels for lakefront park users and residents. These new regulations will increase the responsibility of local, county, and state police. As requested by the Finger Lakes State Park Police in recent budgets, it is recommended that State Park Police staffing be increased to have a seven day per week presence at the south end of the lake during the peak summer boating season.

C. Watershed Management

Overview

Cayuga Lake is at the heart of the *Waterfront Plan*. The quality of the water in Cayuga Lake is critical to the success of any waterfront revitalization program. If the quality of the water is poor, revitalization will be difficult, if not impossible.

Early in the preparation of the *Cayuga Lake Waterfront Plan*, meetings were held with several focus groups. Nearly every focus group identified the water quality of Cayuga Lake as central to the success of revitalization efforts.

- Boating and fishing interests were concerned with the effect of excess aquatic vegetation growth.
- Waterfront development interests were concerned with the attractiveness of the water.

• Environmental interests were concerned with the health of fisheries and the ecology of the Lake. As noted in *Chapter Two*, Cayuga Lake's water quality is generally very good. This is due, in large part, to the moderate to high water quality of the many tributaries of the lake. Thus, the key to protecting the quality of the lake's water is the protection of the quality of water in its tributaries. This requires a watershed-wide approach.

A number of specific water quality concerns have been identified. Of particular concern is sedimentation. The largest sources of sedimentation are the lake's tributaries, primarily from streambank erosion and poor highway maintenance practices (particularly roadside ditching).

Other water quality concerns include:

- phosphorous and nitrogen, including sediment-borne phosphorus and nitrogen, as well as dissolved phosphorus in the discharges of the two wastewater treatment plants;
- exotic species, including zebra and quagga mussels, predatory cladoceran zooplankton, and Eurasian water milfoil;
- pesticide and herbicide runoff from agriculture, golf courses, and private lawns; and
- heavy metals, probably the result of poor stormwater management in developed areas.

Watershed Management

These water quality concerns have more to do with practices in the upper reaches of the watershed than with activities along the waterfront itself. Most sedimentation, sediment-borne phosphorous, agricultural chemicals, and heavy metals are generated upstream and then transported to Cayuga Lake via general runoff and lake tributaries.

Accordingly, the most effective way to address water quality in Cayuga Lake is to address water management issues within the entire watershed. There are efforts already underway to address watershed management. The Tompkins County Water Resources Council, in 1999, updated the *Tompkins County Water Quality Strategy Plan*. The intention of this *Strategy Plan* is "to guide policy and activities related to water issues in the County."

The Cayuga Lake Intermunicipal Organization was formed to prepare a *Cayuga Lake Watershed Management Plan.* This multi-jurisdictional effort, extending well beyond the borders of Tompkins County, will "comprehensively identify water quality problems and solutions. It will make recommendations to restore, protect and enhance the water resources in the watershed - and thereby, protect public health, the economy, and the quality of life in the watershed."

The County Planning Department has also been charged with developing a watershed management plan for the County. This watershed management plan will address not only the Cayuga Lake watershed, but also the Upper Susquehanna watershed, which covers the southern third of the County.

There are also two local watershed planning groups in Tompkins County. The Caroline Watersheds Committee works to address watershed management in all watersheds within the Town of Caroline. The Committee focuses its efforts to protect property from erosion, in part to protect the City of Ithaca's water supply downstream on Six Mile Creek. In addition, a Fall Creek Watershed Committee has been recently established to help monitor water quality in that watershed.

Recommendations

To preserve and improve the current and future integrity of water quality in the lake, these watershed planning efforts should be supported. It is also important for these various planning efforts to coordinate their activities to protect the lake. High priority should be assigned to those recommendations and activities that most affect the quality of Cayuga Lake's waters.

Specifically, watershed management programs should emphasize:

Streambank erosion control. Examples of such programs include:

- continuation and expansion of Tompkins County's flood hazard mitigation program;
- development of comprehensive plans to address streambank erosion along particular reaches of Cayuga Lake's tributaries;

- landowner education; and
- development of local riparian buffer program guidelines.

Road maintenance practices. Examples of potential programs are:

- education of highway maintenance personnel on practices that protect water quality, such as proper seeding and care of drainage ditches;
- proper road ditching techniques;
- maintenance of drainage systems; and
- acquisition of appropriate equipment.

Stormwater management. Examples of appropriate programs are:

- provision of training on the newest stormwater management regulations and techniques;
- maintenance of stormwater management facilities;
- development of local stormwater management guidelines; and
- education of local government officials, particularly public works officials, planning board members, and elected officials, on best management practices.

Sedimentation and erosion control, for construction projects. Possible programs include:

- provision of training for local civil engineers;
- preparation of model regulations for local governments; and
- education of local permitting agencies and contractors.

Agricultural practices. Examples of such programs are:

- promotion of Best Management Practices for agriculture, including nutrient management;
- continuation of programs of the Tompkins County Soil and Water Conservation District;
- landowner education; and
- training opportunities with Cornell Cooperative Extension.

Also very important, watershed management programs should include sampling and monitoring of water quality to establish benchmarks, determine water quality trends, and measure progress in achieving goals.

As noted above, most of the major Cayuga Lake water quality concerns are related to upstream activities. However, it is important to note that waterfront redevelopment efforts have the potential to impact the lake's water quality. Sound environmental practices, designed to preserve water quality, should be integral to all waterfront development and revitalization efforts. Such practices would include maintaining protective buffer strips along the waterfront, limiting impervious surfaces immediately adjacent to the shoreline, and ensuring the proper functioning of septic systems and sewers in the waterfront area.

D. Waterfront Projects and Initiatives

Following are the priority projects and initiatives for the Cayuga Lake Waterfront. The first section, *County-Wide Projects and Initiatives*, addresses broad issues that affect the whole waterfront area. Sections that describe east shore, west shore, and urban area projects follow.

County-Wide Projects and Initiatives

There are several programs underway in Tompkins County that involve broad and creative concepts of intermunicipal cooperation and regional planning. How land use changes occur and possible new methods for providing services and sharing costs on a multi-municipal basis are issues currently under review at a

new level of intensity. These initiatives indicate a high degree of interest in the regional impact of future development. A related program addresses the need for a more effective structure for the delivery of some human service programs, such as recreation.

Some of the recommendations included in this *Cayuga Lake Waterfront Plan* would benefit from intergovernmental cooperation and the County's current emphasis on a regional approach to growth, development and the provision of services. While only five of Tompkins County's municipalities have a location directly on Cayuga Lake, a strong case can be made for providing all County residents with increased opportunities for use and enjoyment of the lake's unique resources.

Several specific proposals, described below, relate to the twin objectives of increasing public access opportunities and preserving open space along the lakeshore. Members of the public voiced these objectives frequently during the focus group discussions, public meetings, and open house. The affected parcels are large and not currently in the public domain, however. Action on their future development and use would, most likely, require implementation measures that are well beyond the resources, and possibly the interests, of the local community. Therefore, Tompkins County, through continued efforts to achieve a more effective level of intermunicipal planning, is seen as the most logical level of government to consider and orchestrate action on these plan proposals.

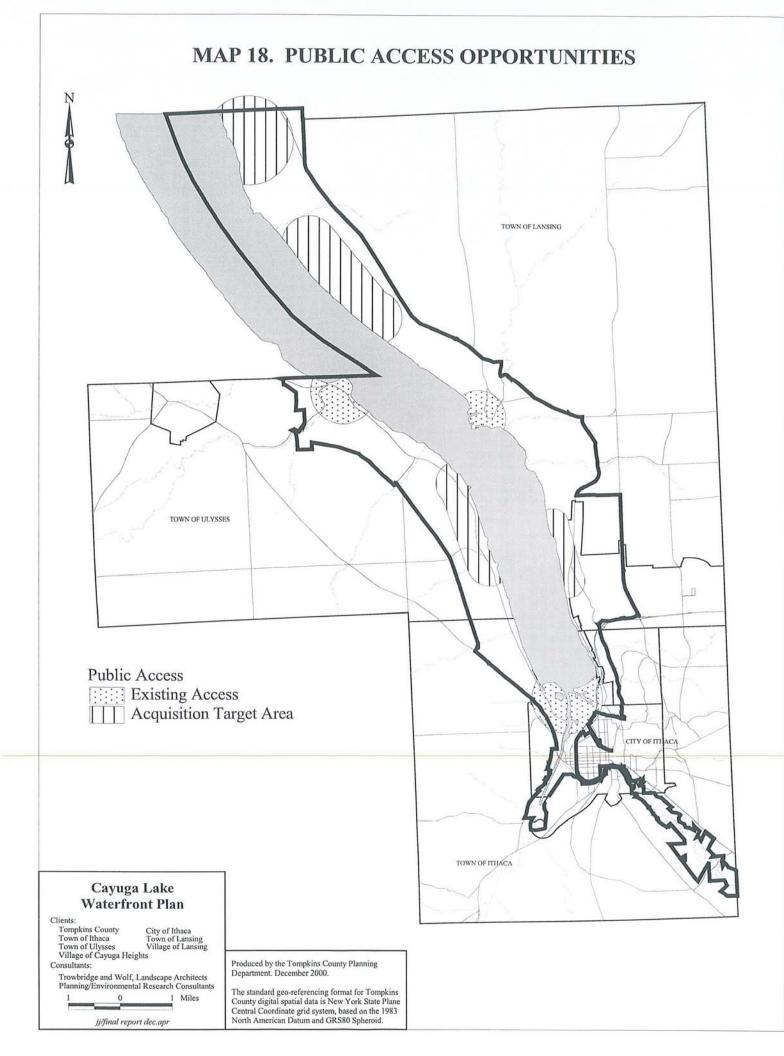
Open Space Preservation Program

It is recommended that Tompkins County and other local municipalities establish an Open Space Preservation Program for the purpose of increasing opportunities for public use of key parcels. In effect, this program would become an open space land bank. Initially focused on the area's premier natural resource, Cayuga Lake, the program could then be expanded as appropriate to incorporate land resources in all parts of the County. While the acquisition of new public access is an obvious target of such a program, it also raises the issue of the County's support for the City of Ithaca's major recreation facilities now used extensively by all County residents.

Selected parcels could be identified and preserved for future use by several methods: fee-simple purchase, purchase of development rights, right-of-first-refusal, long term land lease, or purchase of access easements. Ideally, the program would also establish management practices for future use of the parcels.

There are several target areas that should be considered as ideal initial projects for a preservation program. These include the following:

- 1. Several hundred acres of utility company land with about 3/4 mile of shoreline unimpeded by the railroad is located between Milliken Station and the Cedar View golf course in the Town of Lansing. Uplands are currently farmed on a lease basis; steeper, wooded slopes near the lake are unused. Securing all or part of this land as a natural area or campground with lake access would add great value to the waterfront resources of Tompkins County.
- 2. In the Town of Ulysses, land owned by the Girl Scouts of America has been protected from the dense waterfront development that characterizes most of the west shore. While it is not anticipated that the Girl Scouts would ever want to sell all or part of this remarkable site, the opportunity to obtain limited public access rights through easements, or to secure a right of first refusal should the land ever be for sale, would help preserve public interest in a unique west shore asset.



3. Rail transport of coal and salt in Tompkins County will most likely be a viable activity for decades to come. Nevertheless, it is possible to imagine that this century could see an end to railroad transportation along the east shore of the lake. An agreement for the County to purchase rights to the railroad right-of-way could be negotiated well in advance of any need. This would preserve the opportunity to create a public lake shore trail on the east side as spectacular as the Black Diamond Trail is expected to be on the west shore.

In considering proposals of the type and magnitude described above, there are basic issues that must be addressed.

First, Cayuga Lake must be considered a resource for all county residents. If the concept of accessibility to all is not accepted as viable or important, the idea of expending county tax revenue to provide public access cannot be sustained. County efforts to secure long term preservation of substantial areas of open space along the shore of Cayuga Lake, whether in its natural state or for recreation purposes, must have value to all municipalities in Tompkins County and not just those along the lake.

Second, County involvement and the use of public resources in programs to secure private land for some level of public purpose will require the consent and cooperation of the municipalities in which the private land is located. Issues of lost tax revenues, local opposition, and environmental impacts must be weighed against the long-term benefits of public ownership.

Third, policy makers at all levels must be convinced that long-term support of projects aimed at open space preservation and the development of recreation resources and programs is a worthwhile function for Tompkins County government. The value of such support to County residents must be seen as comparable to the value of other county-wide programs such as transportation infrastructure, public transit, solid waste disposal, crime prevention, education services, and other human-services programs.

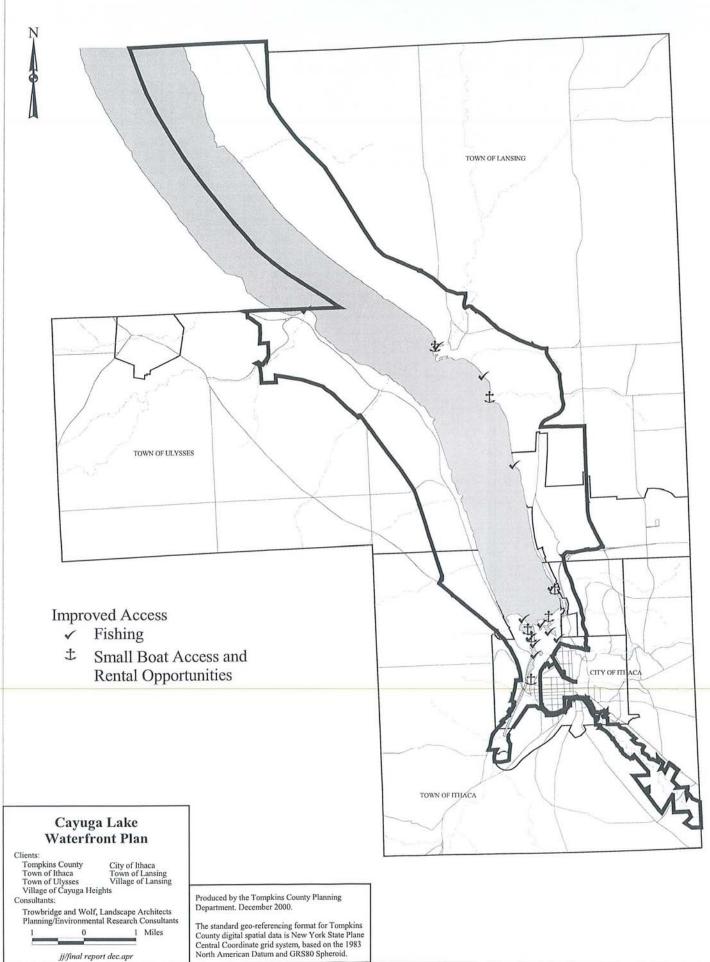
Acceptance of the open space preservation program outlined above will ultimately lead to implementation actions. To provide an effective level of financial resources for this program, it is recommended that the County consider establishing and funding a capital reserve account in the annual budget. Placing \$50,000 into such an account each year, for example, would, in a relatively short period of time, enable the County to accumulate sufficient funds to act decisively and positively to protect the public interest in Cayuga Lake.

Shoreline Fishing Access

Improving landside-fishing access, including the provision of accessible fishing facilities, is an important objective of the *Local Waterfront Revitalization Program*. 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. Possible locations for the development of accessible fishing facilities include:

- Lansing Town Park (along the Salmon Creek edge of the park)
- Cargill/Portland Point Area
- Bolton Point
- Town of Ithaca Park at East Shore Sailing Club
- Stewart Park (along Fall Creek)
- Fall Creek (off of Pier Road near pedestrian bridge to Stewart Park and on north bank west of Cayuga Street, near the high school)
- Newman Golf Course (along Cayuga Inlet off of proposed Cayuga Waterfront Trail)

MAP 19. IMPROVED FISHING/BOATING ACCESS



- Farmers' Market
- Cass Park
- Allan H. Treman State Marine Park
- Taughannock Falls State Park (incorporate handicap fishing improvements into proposed pier renovation)

Small Boat Access and Rental Opportunities

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 may be located in close proximity to launch facilities. Possible sites for canoe and kayak launch and rental facilities include:

- Salt Point
- Lansing Town Park
- Portland Point
- East Shore Sailing Club (existing rental facility)
- Stewart Park
- Inlet Island
- Cass Park
- Allan H. Treman State Marine Park

East Shore Projects and Initiatives

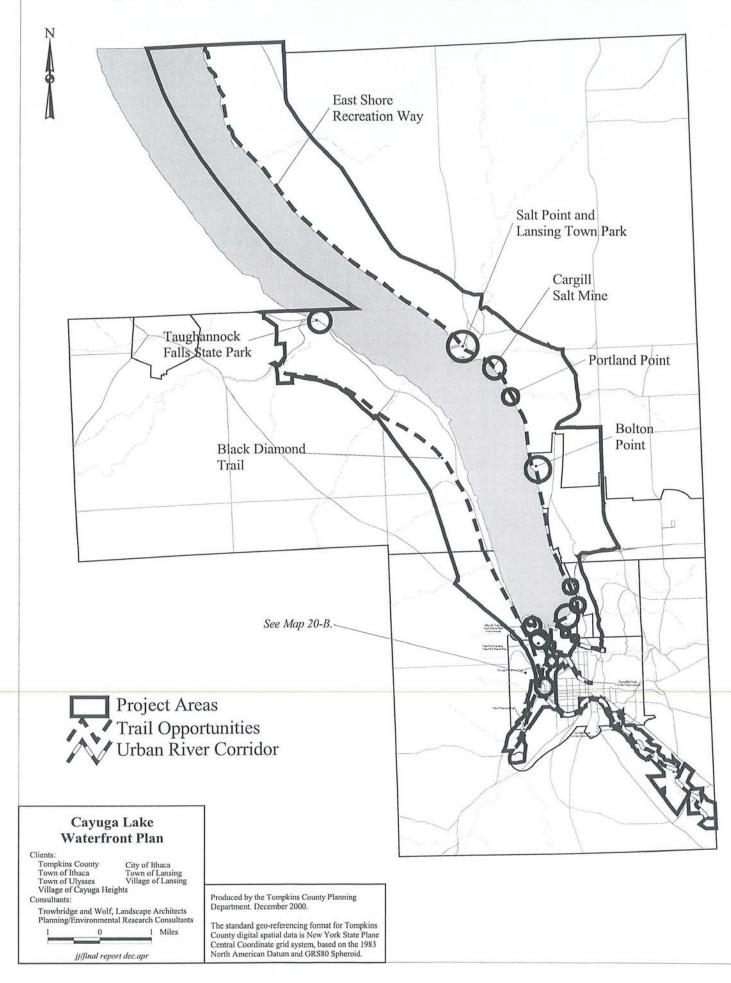
The east shore includes the Town of Lansing, the Village of Lansing, and the Village of Cayuga Heights.

East Shore Railroad Corridor

The Norfolk Southern railroad line (former Conrail line) serves two customers on the east side of the lake, Milliken Station and Cargill Salt. Use of the line is infrequent, usually one run in each direction daily depending on the season. The line is located at the foot of the steep escarpment that runs along the majority of the east side of the lake. Views of the lake from the corridor are spectacular and the rail line is essentially flat between Ithaca and Milliken Station. The corridor is narrow and there is no possibility of developing a trail parallel to the existing railroad track. Ideas for use and reuse of the corridor that have been considered are:

- Development of a Cayuga Lake excursion train between Ithaca and Lake Ridge. The Village of Watkins Glen and the Finger Lakes Railway are currently developing an excursion train on an active line that serves Cargill Salt in the village. A Cayuga Lake excursion train could link the Inlet Island, Farmers' Market, Stewart Park, and the Visitors Center to Myers Point and Lake Ridge. The concept would be strengthened if there were a significant commercial destination in the vicinity of Myers Point, such as a restaurant at Portland Point.
- Future conversion of the railroad line to the East Shore Recreation Way, a multi-use trail between Lansing and Ithaca. This trail would be one of the most spectacular trails in New York State. It would serve as an important recreation and transportation connection between the City of Ithaca and Myers Point in the Town of Lansing.

MAP 20-A. RECOMMENDED WATERFRONT PROJECTS



Myers Point Improvements

Salt Point

The Town of Lansing and the Friends of Salt Point are in the process of negotiating a long-term agreement with NYSDEC (the current owner) to manage and maintain the parcel for fishing, birding, hunting, canoe/kayak launching, walking, and viewing the lake. A parking area and car top launch are proposed east of the railroad tracks. Vehicular access to the site would be controlled by the installation of gates, bollards, and fencing along the east edge of the railroad right-of-way. A management plan should be developed to manage site vegetation for bird habitat, to stabilize the lakeshore, and to develop pedestrian trails on existing dirt roadways and paths. See *Short-Term Projects* at the end of this chapter for project description, concept plans, and cost information.

Lansing Town Park

A community lighthouse was recently designed and constructed in the park by a group of volunteers. Associated site improvements, including walkways, interpretive signs, railings, lighting, seating, landscaping, and parking improvements are proposed by the same volunteers to complete the lighthouse project. In addition, plans are under discussion for the development of a band shell pavilion north of the existing swimming area. See *Short-Term Projects* at the end of this chapter for project description, concept plans, and cost information.

Lake Access at Portland Point/Cargill Shoreline

The shoreline along Cargill Salt Mine and Portland Point is approximately one mile in length and privately owned. Improving public access in this area could be achieved through the construction of a fishing access pier at the Cargill site and developing boating and fishing access at the Portland Point site.

Fishing in the shallow waters in front of the Cargill plant is reportedly very good. The primary issues are acquiring permission for this type of facility from Cargill Salt and for an at-grade crossing of the railroad line from the Norfolk Southern Railroad.

Portland Point was the site of a proposed marina and restaurant/banquet facility. In March 1999, a private developer submitted plans to the New York State Department of Environmental Conservation. The property already includes a deep harbor port that was used for shipping and is seemingly well suited for the development of a marina. Several concerns have been raised about the project, including access across the railroad tracks, potential site contamination, sedimentation and erosion control, stormwater discharge, shoreline stabilization, dredge material disposal, septic system design, and floodplain development. Implementation of this plan or a scaled-back proposal that enhances public, fishing and boat access to the lake would be a significant improvement over its existing condition.

Village of Lansing Greenway System

In May 1994, the Village of Lansing adopted the *Village of Lansing Greenway Plan*. The *Greenway Plan* is intended to create a "walking Village" by serving as a guide for the development of a comprehensive network of recreation systems: bikeways, walkways, park land, and designated natural areas. There are two elements of the *Greenway Plan* directly related to the Cayuga Lake waterfront:

• The *Greenway Plan* recommends a community park along the lake to preserve as much of the lakeshore as possible in its natural state with trails leading to the lakeshore and to Bolton Point. To quote from the *Greenway Plan*, "This large site offers over seven and a half acres for development as public open space, and represents the northwestern most anchor of a Village Greenway system. Key to this parcel is access to Bolton Point recreation area, with pedestrian and bicycle trails leading to the point, and the possible development of lakeshore camping. Views to the lake within the parcel itself should be preserved."

• The *Greenway Plan* proposes a lakeside trail starting at the northwest corner of the Village (Poison Ivy/Bolton Point area) and extending southward along the lake to the Town of Ithaca. This corresponds with the East Shore Recreation Way described above. The *Village of Lansing Greenway Plan* also recognizes that this is a long-term vision, as development of the trail at this time does not seem feasible. However, the *Greenway Plan* emphasizes the importance of this trail segment to the overall village greenway system.

Urban Area Projects and Initiatives

Town Park at East Shore

Cornell is donating a long-term license to the Town of Ithaca for a one-acre parcel with parking and a picnic area on the north edge of the Cornell-owned lakefront parcel. The small lakefront park sits on top of the Lake Source Cooling Project's intake and outflow pipes. The remainder of the site, formerly East Shore Sailing Club and Noah's Marina, is owned by Cornell University and is currently operated by Johnson's Marina. Cornell's Outdoor Education Program continues teach sailing classes from the site.

Cornell University is currently exploring options for this site. Options under consideration range from the preservation of the existing marina and sailing education program to the development of water-enhanced facilities, such as a restaurant or housing.

Pedestrian and Bicycle Trail Between Visitors' Center and Town Park at East Shore

The feasibility of developing a trail west of the railroad line from Stewart Park to the Town Park at East Shore should be explored as plans for the Cayuga Waterfront Trail are developed. The trail would improve pedestrian and bicycle linkages between the proposed Cayuga Waterfront Trail and the Town's lakeside picnic and fishing area. This trail presents significant design challenges due to the dense private development along the shoreline just north of the Chamber of Commerce and the active railroad track located between the NY Route 34 and the water edge.

Cayuga Waterfront Trail

The Cayuga Waterfront Trail is a proposed 5-mile multi-use trail that will link waterfront destinations in the City of Ithaca, including the Visitors' Center, Stewart Park, Newman Golf Course, Farmers' Market, Inlet Island, Cass Park, and Allan H. Treman State Marine Park. More than 75% of the waterfront land in the City of Ithaca is publicly owned park and open space. The waterfront is home to Ithaca's most popular waterfront destination - the Farmers' Market. New waterfront development, including restaurants, waterfront promenade and transient boat docking is occurring on and near Inlet Island.

The proposed trail is a 10-foot wide asphalt trail designed to accommodate a wide range of users, including walkers, joggers, bicyclists, in-line skaters, skateboarders, mobility-impaired users, and persons pushing strollers or baby carriages. The creation of a safe NYS Route 13/Meadow Street crossing for trail users between the city's residential neighborhoods and the waterfront will be a critical feature of the trail. In February 2001, the City received a \$150,000 New York State Environmental Protection Fund grant to construct the Cass Park section of the trail. In addition the Chamber of Commerce received a grant from a local foundation for the Cayuga Waterfront Trail Initiative, a project to develop a trail master plan and raise construction funds for the trail.

Chamber of Commerce/Visitors' Center

The Visitors' Center should improve its physical connection to the water edge so that visitors can experience the lake while gathering tourist information about the County. The development of a water ferry stop and public pier/dock to provide boat access to the facility should be studied. A trailhead facility for the Cayuga Waterfront Trail should be developed at the southern edge of the existing parking lot.

Stewart Park

Stewart Park is Ithaca's historic waterfront park located at the south end of Cayuga Lake. While its site is spectacular, with stunning views of the lake, the park landscape and its ensemble of historic buildings are in a state of decline. Priorities for improving the park have been identified by the City Parks Commission and discussed at LWRP committee and public meetings. They are as follows:

- Prepare a Lake Edge Improvement Feasibility Study as described in *Short-Term Projects*.
- Restore the Cascadilla Boathouse to accommodate expanded public use of the building for public gathering, education, and other uses.
- Restore the historic dance and picnic pavilions, develop a plaza in the parking area between pavilions, develop a municipal pier on the water edge at the pavilions, and make associated landscape and accessibility improvements in the pavilion area.
- Restore the small pavilion.
- Develop a loop multi-use trail within the park that is linked to the Cayuga Waterfront Trail to allow people to walk, jog, bike, and skate in the park. Currently walkers, young cyclists, and in-line skaters use the park road.
- Upgrade park plantings and furnishings.
- Monitor the proliferation of weed and algae growth that resulted in serious odor problems during the summers of 1998 and 1999.

There has been interest in reinstating swimming at Stewart Park ever since it was banned 40 years ago due to excessive silt build-up and extreme turbidity. A City Public Works plan to dredge a large off-shore pool protected by a man-made island to reduce turbidity was approved by the County Health Department in 1964 but never implemented. Twenty years later, the City again examined the swimming possibility in some detail. Extensive sediment and debris carried in Fall Creek and the Inlet flows into Cayuga Lake. As inlet and creek currents diminish, sediment is affected by wind and a weak natural counter-clockwise lake current produced by the earth's rotation (Coriolis forces). Sediment is, therefore, carried naturally to the east. It loses velocity and begins to settle to the bottom or is washed ashore along the Stewart Park shoreline. Several ways to reduce this sediment build-up have been examined in some detail, including the man-made island noted above. It has been concluded that the initial and continuing costs involved, combined with the uncertain effectiveness of such measures and possible adverse environmental impacts, do not warrant the reintroduction of swimming at Stewart Park.

Cascadilla Creek Corridor Improvements

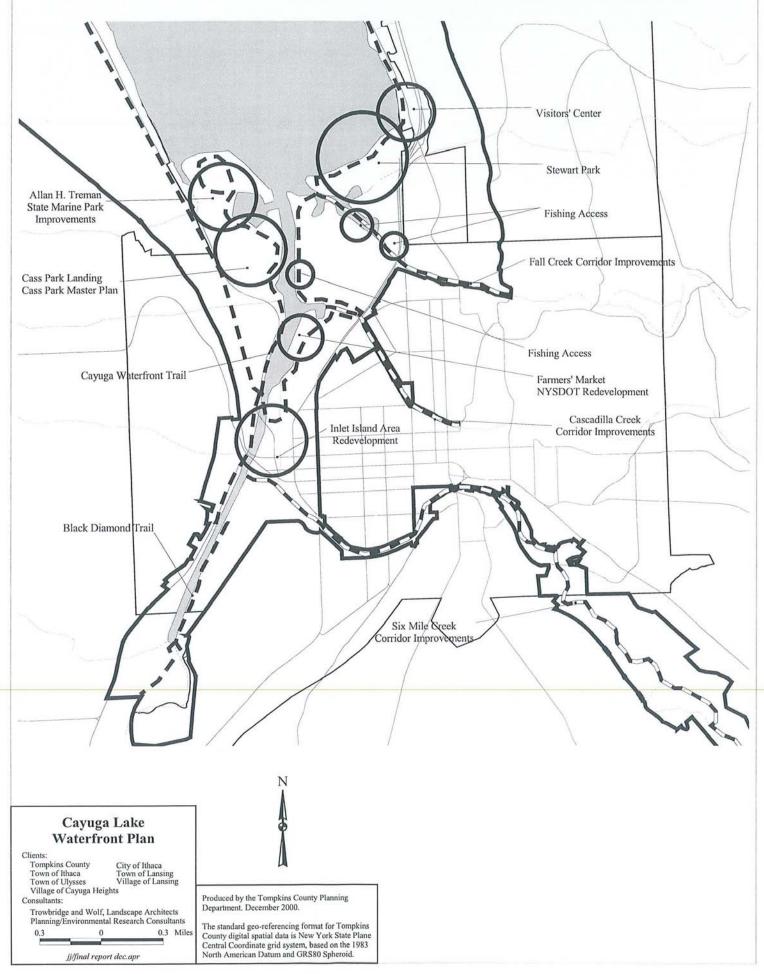
Cascadilla Creek is the historic connection between Steamboat Landing (current Farmers' Market site) and the city center. It has many attractions along its length, including the Farmers' Market, Johnson's Boat Yard, The Haunt, the ScienCenter, Cooperative Extension, Neptune Park, Thompson Park, and the Sagan Planetwalk. Historically the creek banks were planted in Japanese Tree Lilacs and Forsythia, creating a striking civic design and spectacular seasonal floral displays. The City Parks Commission, Leadership Tompkins, and Historic Ithaca are developing plans for rejuvenating creek bank planting and for improving the parks and walkways along the creek.

Steamboat Landing Improvements

Farmers' Market

Ithaca's Farmers' Market received a \$20,000 Canal Corridor Initiative Grant for site improvements including the construction of a brick terrace between the structure and the pier, parking lot landscape improvements, and construction of a children's play structure. The Market also includes an informal canoe and kayak launch (off the north end of the lot into Cascadilla Creek). Long-term plans include the winterization of the structure to extend the use of the facility. The Market could provide valuable services for the Cayuga Waterfront Trail, including bike and blade rental, food, restrooms, and parking.

MAP 20-B. RECOMMENDED WATERFRONT PROJECTS



NYSDOT Site Redevelopment

The County is negotiating with NYSDOT and the Town of Dryden to find a site suitable for the location of a new facility. This will free the existing NYSDOT site for water-dependent and/or water-enhanced development that will provide economic benefits to the City and the County. Projects that are under consideration include the relocation of Cayuga Wooden Boatworks to the site, waterfront commercial, residential and/or mixed-use development, and a waterfront hotel and conference center. Any project would be required to provide public access to the edge of the Inlet for the siting of the Cayuga Waterfront Trail. NYSDOT site plans should be coordinated with plans for adjacent properties, including Carpenter Business Park, Ithaca Farmers' Market, and the university boathouses.

Waterfront Development on Inlet Island and in the West End

Cayuga Inlet has been a focal point for transportation, industry, and commerce in Ithaca since the early 19th century. The opening of the Erie Canal in 1825 caused a boom in water transportation and boat building along the Inlet. Railroads and associated industrial development transformed the Inlet landscape during the second half of the 19th century. Passenger and freight rail service and associated industry steadily declined throughout the 20th century, making waterfront lands in the vicinity of the Inlet Island available for other uses. The Inlet Island, as we know it today, was formed by the construction of the flood control channel in the late 1960s. Following the completion of the flood control channel, Cass Park was expanded to include former railroad and airport lands along the west side of the Inlet. A vision for developing the Inlet Island as a vibrant, mixed-use waterfront destination has evolved during the past thirty years. However, development activity on the Island was stymied while planning occurred for the reconstruction of NY Route 89, 96, and 79 crossings over both the Inlet Island *Land Use Committee* that outlined the planning and design framework for Inlet Island redevelopment after the construction of new roadways and bridges.

In the early 1990s, New York State developed the *Canal Recreationway Plan* outlining a vision for converting the 512-mile New York State Canal System into a world-class tourist destination and recreation facility. The *Canal Recreationway Plan* identified seven canal harbors and numerous smaller canal ports, including the City of Ithaca. Canal harbors and ports are typically existing villages and cities on the canal where a package of infrastructure improvements are proposed to encourage boaters and trail users to stop, visit and take advantage of the community's services. Port improvements can include transient docking facilities with water and electrical hookups, showers and restrooms, and information directories and signage to direct visitors to village/city centers and services.

In 1997, Tompkins County, in cooperation with six local municipalities, completed the *Tompkins County Waterfront Plan* to ensure that Ithaca and Tompkins County waterfront planning efforts were in step with the statewide effort to improve and enhance tourism on the Canal System. The *Waterfront Plan* described in more detail the vision of the Inlet Island area as the Cayuga Lake Port. Transient docking facilities and a continuous waterfront promenade were proposed to help support a diverse mix of waterfront commercial and residential development.

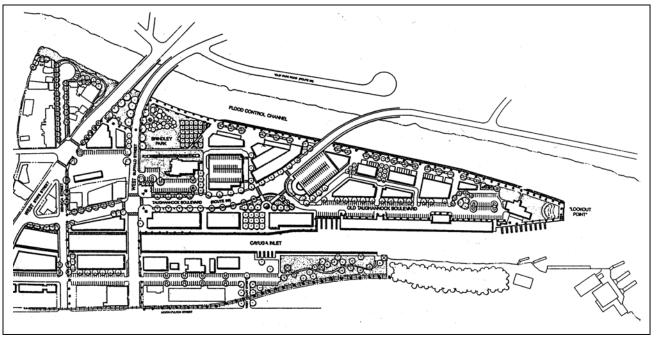
In 1997, road and bridge construction on the Inlet Island neared completion. The City of Ithaca prepared development guidelines for Inlet Island and acquired funding to begin redevelopment of key waterfront parcels. The *Inlet Island Urban Design Plan*, adopted by Ithaca's Common Council in 1998, outlined design guidelines and implementation strategies for the development of Inlet Island. Shortly thereafter, the City prepared and adopted the *West End Urban Design Plan* that similarly described a vision and implementation strategies for the West End neighborhood. The *Design Plans* articulate a vision of dense, mixed-use development with commercial development on the ground levels and mixed office and residential uses on upper levels. Design ideas for a public promenade, first proposed in the 1992 plan, are shown for the west bank of Inlet Island, adjacent to the flood control channel. The promenade ends at

Lookout Point, a small park at the north point of the island with a spectacular view of the Inlet and the Cornell and Ithaca College Boathouses. Improving transient docking facilities and maintaining public access to the edge of the water are other key objectives of the Inlet Island plan.



Cascadilla Boat Club high school student rowers in front of the newly opened Boatyard Grill.

Overall Concept Plan included in the Inlet Island Urban Design Plan, January 1998.



The U.S. Department of Housing and Urban Development created the Canal Corridor Initiative (CCI) in 1997 to provide low interest loans and grants for economic and tourism development projects along the New York State Canal System. The City of Ithaca received funding for two projects in the Inlet Island area - the Boatyard Grill, a restaurant that recently opened at the north end of Inlet Island, and Bistro Q, an existing restaurant across from Inlet Island that was renovated and reopened. The City has also received state and federal funding for the design and construction of a seawall and waterfront promenade on the west bank of the Inlet Island. The promenade will link the Cayuga Waterfront Trail to the Lookout Point at the north tip of the Inlet Island. Lookout Point will be the site of a public park and pier with scenic views of the Cayuga Inlet to the north.

The *Cayuga Lake Waterfront Plan* supports this vision of Inlet Island as the Cayuga Lake Port - the focal point for waterfront development in Tompkins County. This area can become a vibrant waterfront center that brings together boaters, trail users, residents, and visitors to enjoy restaurants, shops, and the waterfront promenades and parks. The majority of the land proposed for waterfront development is former industrial and railroad land. Inlet Island development will facilitate the cleanup and reuse of these lands. Redevelopment efforts on Inlet Island will benefit West End development projects. Linkages between Inlet Island and the West End should be developed for all modes of transportation.

Southwest Natural Area

The Southwest Natural Area (SWNA) was assembled by the City of Ithaca primarily as substitute parkland for the designated Southwest Park located adjacent to the proposed SWNA. The City completed a master plan for SWNA in September 2000 that included the following elements:

- An inventory of wetlands, plant communities, faunal habitat, and site hydrology.
- Site access and circulation was analyzed. Schematic design proposals were developed including trailhead parking and internal trail networks. A route for the Black Diamond Trail was proposed.
- Vegetation management strategies were proposed to minimize maintenance, strengthen native plant community regeneration, and enhance wildlife habitat.

Six Mile Creek Corridor Improvements

Six Mile Creek connects the City Reservoir, Mullholland Wildflower Preserve, the downtown, and Inlet Island while passing through residential neighborhoods in the City. Plans are being considered for a trail to connect these destinations along this scenic natural corridor and to improve fishing and access to the creek.

Cass Park Improvements

Cass Park was expanded in 1972, after the flood control channel was completed in the late 1960s. It has many active recreational facilities, including a skating rink, swimming pool, playground, and numerous athletic fields. Water-dependent or water-enhanced activities should be given priority when decisions are made regarding the location or relocation of facilities. Projects that improve public access to the water currently being considered include the following:

- Cass Park Master Plan City staff and the Parks Commission have discussed the need for an updated park master plan for Cass for a number of years. This plan would address renovations to many of the major facilities and the increasing demand for new facilities in the park. See *Short-Term Projects* for a more thorough description of the Master Plan proposal.
- Cascadilla Boat Club (CBC) Boathouse The City Parks Commission has reviewed a Cass Park location for a new CBC boathouse south of the Treman State Marine Park boat launch and east of the existing, large parking area. Concerns to be addressed as the plans are developed include the preparation of an ownership and management agreement between the City and the CBC, building architecture, providing waterfront access for the Cayuga Waterfront Trail in front of the boathouse, and ensuring that the facility serves a wide range of potential boaters, including inexperienced users of canoes and kayaks.
- A Boating Emergency Response Center is also being considered in the same general location as the CBC Boathouse. This will be jointly developed and operated by NYS Parks, the Tompkins County Sheriff's Department, and the Ithaca Fire Department who currently operate from different locations. Site plan coordination of the CBC Boathouse and the Emergency Response Center will be critical to preserve the integrity of the park in this location.

- The Cayuga Waterfront Trail will follow the water (east) edge of the park from the State Street Bridge to Treman State Marine Park. A connecting trail that follows the west edge of the park will also be constructed to create a two-mile loop. The City of Ithaca received \$150,000 in Environmental Bond Act funding from New York State to construct the trail.
- Cass Park Landing A private vendor has created a ferry landing, boat rental facility, and canoe/kayak launch in the cove area east of the swimming pool. Eventually, as funding allows, the current floating docks will be replaced with a permanent pier similar to the Farmers' Market pier. This location can be a landing for a ferry between the west side of the Inlet and the Farmers' Market and between the Stewart Park Day Camp and the Cass Park Pool.

Allan H. Treman State Marine Park

A master plan for the park was created by the New York State Office of Parks, Recreation and Historic Preservation and adopted by the State. However, implementation of many of the Plan's recommendations is contingent upon state purchase of the City-owned festival lands, which is not imminent. Short-term projects identified in the master plan that could be implemented immediately include:

- Develop a transient docking facility at the north end of the existing marina.
- Develop an extension of the Cayuga Waterfront Trail from Cass Park to the proposed picnic area and Treman Memorial Mound.
- Install a Romtec (waterless) toilet facility at the proposed picnic area.

Cost figures provided by the Finger Lakes Region of OPRHP indicated that approximately \$75,000 is needed to make these improvements. The park will be the major destination on the Cayuga Waterfront Trail, providing spectacular lake views to hundreds of daily trail users.

Inlet Ferry Service and Water Taxi

The development of a ferry service between Cass Park, the Farmers' Market, Stewart Park, and Inlet Island can be an important tourist attraction for the area and an enjoyable way for County residents to experience the water. In addition, it can serve as an important seasonal transportation route for west shore residents who want access to the Farmers' Market and for youth day campers who shuttle between Stewart Park and the Cass Park pool.

Dredging

The Need for Dredging

The Cayuga Inlet has numerous marinas, transient docking facilities, tour boats, and boat repair facilities dependent on maintaining a navigable channel to Cayuga Lake. As envisioned in the *Tompkins County Waterfront Plan*, the Inlet Island area is emerging as the Cayuga Lake Port with restaurants, transient docking, and public promenades creating a vibrant waterfront destination.

Cayuga Lake and Cayuga Inlet are part of the New York State Canal System, connected to the historic Erie Canal by the Cayuga-Seneca Canal. It is the responsibility of the Canal Corporation, a subsidiary of the NYS Thruway Authority, to conduct periodic dredging operations along the canal system to maintain navigability. Dredging at the south end of Cayuga Lake last occurred in 1982 and dredge spoils were deposited in the Treman State Marine Park, northwest of the marina. These spoils were dewatered, then graded and seeded, creating new parkland that has now become an integral element of the park. In focus group and public meetings, marina operators and boat owners have identified dredging of the Inlet as a critical and immediate need.

The U.S. Army Corps of Engineers coordinated the dredging of the flood control channel between the fish ladder and the northern tip of Inlet Island during the summer of 1999. More than 75,000 cubic yards of spoil material was mechanically excavated, placed on a barge for dewatering, and trucked to approved disposal sites in the Town of Ithaca. The dredge spoils were tested in 1997 by NYSDEC during the planning and permitting phase and found to be clean, Class A materials. The Corps of Engineers has recently expressed concern to NYSDEC that sedimentation in the Inlet is beginning to create a bottleneck and raise flood levels in the upper Inlet (south of the flood control channel) by several inches. Thus, dredging is not only important for navigation, but also critical to the proper functioning of the Corps of Engineers' flood control system in Ithaca.

Preparing for Dredging

NYSDEC tested the sediment quality of future dredge spoil material during the summer of 2001 in four locations. Two of the tests were in the Inlet, one in Six Mile Creek and one in Cascadilla Creek. If Inlet tests indicate contamination, creek testing will assist in identifying the contaminant source. The creeks are a concern due to the industrial facilities that are or have been located on the creeks. Because of the clean sediments recently found in the flood control channel, NYSDEC expects that the sediments will be clean, Class A, materials. If this is the case they can be hydraulically dredged to a spoil site(s) for dewatering, the typical dredging process undertaken by the Canal Corporation on the Canal System. If the materials were toxic and rated Class B or C, they would likely have to be mechanically dredged and trucked off-site.

The Canal Corporation took soundings throughout the Inlet during the summer of 2001 to determine the quantity and particle size of sediment likely to be removed during dredging. They anticipate that approximately 300,000 cubic yards of material will need to be removed from the Inlet. This will require one or more dewatering sites totaling 20 to 30 acres in size. Sites must be located within 1 to 1½ miles of the Inlet to be within range of the Canal Corporation's hydraulic dredging equipment.

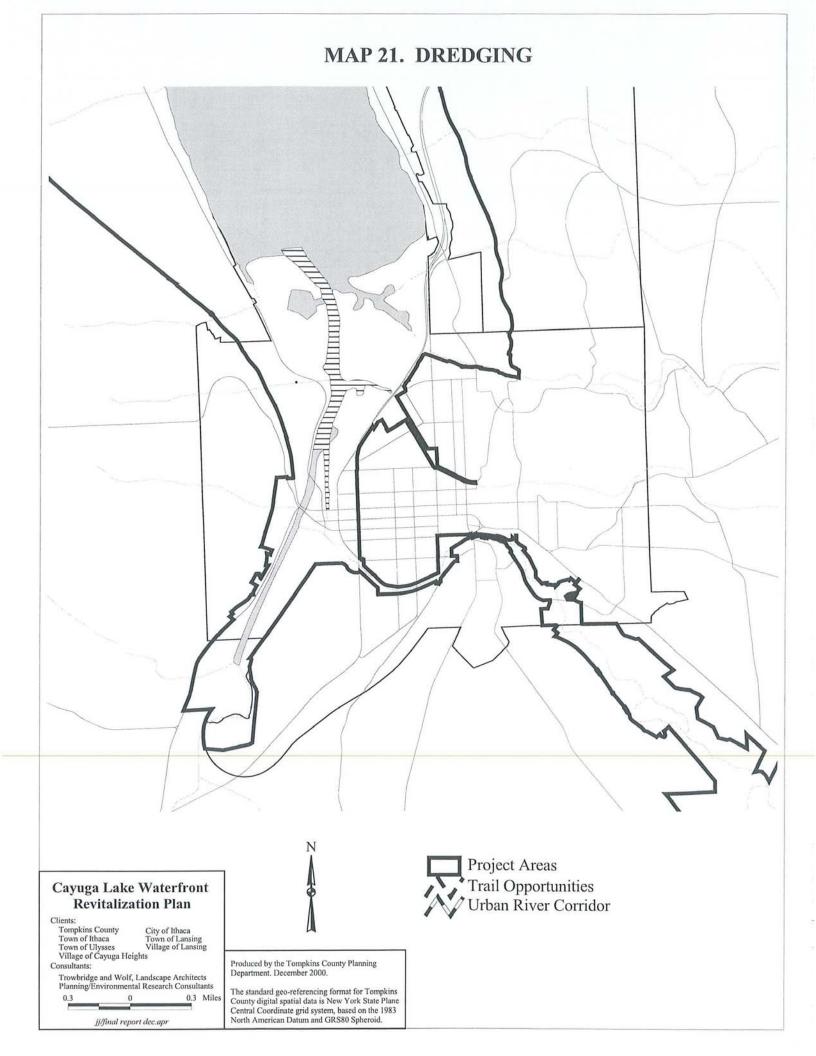
Identifying a Dredge Spoil Site

Several interested parties, including NYSDEC, the Canal Corporation, NYSOPRHP, the City and Town of Ithaca, and Tompkins County will work together to identify permanent disposal sites in the area. Dredging is anticipated to occur during the summer of 2003 or 2004, if a suitable site or sites are identified. The process for selection of a disposal site is as follows:

- 1. NYSDEC will review the results of sediment quality tests taken during the summer of 2001.
- 2. The Canal Corporation analyzes soundings to determine the quantity of material to be removed.
- 3. Draft and sign a Memorandum of Understanding between City, Town, County and State that outlines a site selection and approval process. The goal of this process is to find a long-term solution (100 year +/-) to the dredge spoil disposal problem. This does not preclude the possibility of using some or all of the materials for one-time uses if feasible, such as for landscape fill in Southwest Park.
- 4. NYSDEC will review the environmental and permitting issues related to several potential sites. Local municipalities will likely form a site selection committee to oversee the selection and develop design concepts for the site.
- 5. The Canal Corporation and NYSDEC will work with local municipalities to develop final designs, permitting and site preparation in anticipation of dredging operations.

Issues Related to Dredging

Edge stabilization of both banks of the Cayuga Inlet should be coordinated with dredging operations. Riprap was placed along both banks of the flood control channel prior to dredging by the Army Corps of Engineers. Evidence of bank erosion is most apparent in Cass Park and at the NYSDOT site.



The Canal Corporation typically begins lowering the lake level in late September or early October to prepare for possible fall flooding. Given the sedimentation that has occurred in the Inlet, this creates a hardship for boat owners who often use their boats well into October. Marina operators have requested that lake levels be retained at their summer level until late October or early November until the dredging is completed in 2003 or 2004.

Cascadilla Boat Club Relocation

Ithaca has a rich tradition of rowing on Cayuga Lake and the Inlet. Since 1972, the flood control channel has become the practice and racing course for both Cornell University and Ithaca College crew teams. The Cascadilla Boat Club (CBC) was formed in the 1980s to provide the opportunity for the community to participate in this sport. The club has more than 100 members and serves over 200 junior and high school students.

Currently, CBC is housed in the historic Cascadilla Boathouse in Stewart Park. It is hazardous for crews to row from Fall Creek around the lighthouse pier to the Inlet when the lake is rough. This is particularly problematic for youth programs that are scheduled during fall afternoons when winds are at their peak. In addition, the Cascadilla Boathouse is on the National Register of Historic Places, making building expansion to meet the current and anticipated needs of the club logistically difficult and expensive.

CBC is developing plans for a new boathouse to be located on Cayuga Inlet. The City Parks Commission has reviewed a proposed Cass Park location for the facility just south of the Treman State Marine Park's boat launch and directly east of a large parking lot. CBC continues to study the feasibility of locating its facility on the east side of the Inlet to be more easily accessible to student participants.

Coast Guard Auxiliary Relocation

The Coast Guard Auxiliary is currently located on Inlet Island. The City, County, and State should cooperate to locate an alternative waterfront site for this organization. Site requirements include docking for one to three rescue boats and office/storage space in close proximity. Classroom space would ideally be located at the same site; however, space is available at other existing facilities throughout the area. The feasibility of incorporating the Coast Guard Auxiliary into the Boating Emergency Response Center will be explored as plans are developed for these programs.

Boating Emergency Response Center

The City of Ithaca Fire Department, NY State Park Police, and the Tompkins County Sheriff's Department are planning to construct a Boating Emergency Response Center. Currently these agencies have emergency/rescue boats in different locations, making a coordinated response logistically difficult. The City's Fire Department is leading the effort to find a suitable waterfront site for this facility. They are currently exploring the use of the northeast corner of Cass Park, just south of the Treman Boat Launch. The feasibility of a coordinated approach that includes the Coast Guard Auxiliary and the Cascadilla Boat Club is being considered.

West Shore Projects and Initiatives

The west shore includes lake frontage in the Town of Ithaca and the Town of Ulysses.

Black Diamond Trail

The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) is proceeding with the planning and construction of a 15+/- mile multi-use trail through the Town of Ithaca, City of Ithaca, and the Town of Ulysses. The Black Diamond Trail will connect four state parks - Robert H. Treman, Buttermilk Falls, Allan H. Treman, and Taughannock Falls. In 1993, OPRHP received an ISTEA Enhancement Grant to acquire and construct the trail. OPRHP has been involved in lengthy negotiations to acquire critical sections of the right-of-way. The trail master plan will be complete in 2002 and trail construction is anticipated to begin in 2003 or 2004.

Taughannock Falls State Park

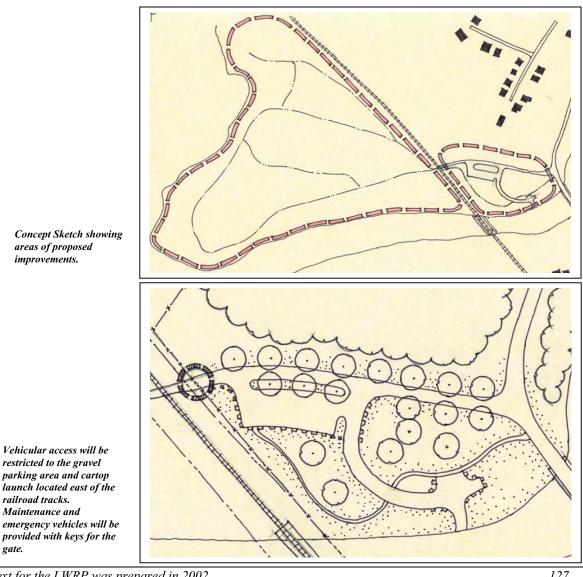
State Park planners have identified the renovation of the existing pier, east of the swimming beach, as an important short-term project for the park. Pier renovation is necessary to repair the aging structure and will allow modifications to serve boaters and fishermen. Costs for pier renovation are estimated at \$150,000 by Finger Lakes Region staff.

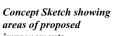
E. Short-Term Projects

Salt Point Improvements

Background

Salt Point is a twenty-two acre, undeveloped lakefront site located on Myers Point, north of Salmon Creek and Lansing Town Park. It is a former industrial site that has been cleared and vacant for nearly 40 years. There appears to be a general consensus in the community that the site should remain in an undeveloped condition for passive uses, however, no management plans or long-term use agreements have been developed or adopted for the site. The Town of Lansing and the Friends of Salt Point are in the process of negotiating a long-term agreement with NYSDEC (the current owner) to manage and maintain the parcel for passive activities, including seasonal fishing and hunting, birding, canoe/kayak launching, walking, and enjoying the lake. A management plan and associated site improvements should be prepared after a long-term agreement is adopted for use of the site.





The text for the LWRP was prepared in 2002.

Proposed Site Improvements

The proposed site improvements focus on two areas, the entrance to Salt Point between the railroad tracks and Myers Road, and the lakefront site west of the railroad tracks.

Salt Point Entrance Area

The small existing gravel parking area east of the railroad tracks will be the primary vehicular parking area for Salt Point. A lockable gate that can be opened seasonally or by maintenance and emergency vehicles will restrict vehicular access across the railroad tracks. Pedestrians will pass through bollards or, if deemed necessary, through more restrictive gates designed to limit site access by ATV's, motorized dirt bikes, and mountain bikes. A wood post and rail fence will be installed along the east line of the railroad line to control access to the site. A dense vegetative barrier reinforced with boulders could be installed in lieu of the fence. A sign with site rules and regulations should be prominently posted in the vicinity of the gates. Further site enhancements include the placement of boulders to delineate parking areas, landscaping, installation of interpretive signs, and improvements to the gravel roads, paths, and parking areas by the Town of Lansing.

Anticipated Cost: \$36,220.

Salt Point Natural Area

A management plan should be prepared for the lakefront parcel of Salt Point to optimize the use of the site for fishing, hunting, birding, nature education, and simply enjoying the lake. An assessment of the site's existing vegetation and natural resources should be prepared and recommendations developed for enhancing the site for bird and wildlife habitat. Strategies for stabilizing the lakeshore should be developed. Other program items to be considered include formalizing the existing pathway network, siting an outdoor classroom, and developing design strategies for accommodating limited vehicular access.

The Town should consider hiring a consultant with expertise in ecological restoration and site planning to develop a management plan for the site. The outcome of the proposed study will include an inventory of existing vegetation and site habitat, a site plan, including existing and proposed vegetation communities and wildlife habitats, and estimated costs for proposed site improvements.

Anticipated Cost: \$20,000.

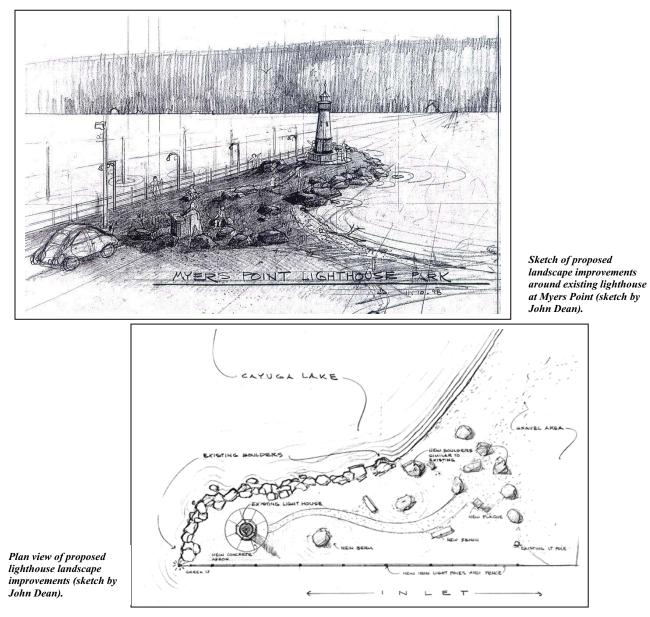
Lansing Town Park Improvements

Lansing Town Park shares the south half of Myers Point with Salt Point described above. It is a popular lakefront park with facilities that include swimming, a marina and boat launch, picnic pavilions, a playground, and camping.

Lighthouse Point Landscaping

In 1999, a group of volunteers designed, fundraised and constructed a lighthouse at the point marking the entrance to the marina. The next phase of the lighthouse project is to make site improvements at lighthouse point. A site plan for the area has been prepared. The plan includes an accessible stone dust walkway between the existing parking area and the lighthouse, interpretive signage, benches, sculptural boulders and mounds, and native tree, shrub, and groundcover plantings. Funding for construction of the proposed improvements will be sought during the next year.

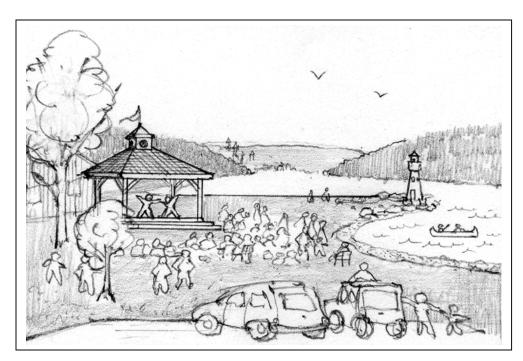
<u>Anticipated Cost</u> (without railing or lighting): \$23,340. <u>Anticipated Cost</u> (with railing and lighting): \$41,340.



Waterfront Performance Pavilion

The same group of volunteers is currently developing plans for a performance pavilion or band shell located north of the swimming area. The structure would be a 20ft x 20ft covered wood pavilion with electricity that would allow both boaters and landside users to enjoy performances. The materials required for construction include: lumber for framing, decking, rails and finish carpentry; roofing; wiring; pathway surfacing; and, landscaping.

Anticipated Cost: \$25,200



Sketch of proposed pavilion north of the existing swimming beach (sketch by John Dean).

Stewart Park Lake Edge Improvement Study

The view of Cayuga Lake from the northern edge of Stewart Park is one of the most beautiful vistas in Tompkins County. However, the Park's lake edge is in very poor condition due to the accumulation of debris and shoreline erosion. In addition, there are no accessible routes between parking areas, park facilities, and the lake edge.

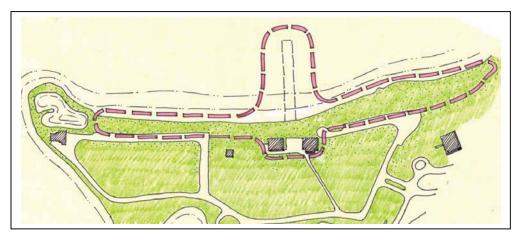
For the above reasons, it is recommended that the City undertake a study of Stewart Park's lake edge. Parking areas, the lake edge, the Cascadilla Boathouse, and the park's eastern property line, as shown in the accompanying diagram, border the study area. The feasibility study will develop schematic designs and cost estimates for the following elements:

- 1. Permanent municipal pier in the vicinity of the Pavilions. This will require the services of both a landscape architect and a structural engineer. Pier uses to be considered are a ferry landing for the Cayuga Inlet ferry, handicap fishing access, non-motorized boat docking and launching, and general public access.
- 2. Treatments for improving the lake edge to stabilize and visually enhance the lake edge, enhance landside public access between parking areas and the edge, and to improve existing seating facilities. Treatments can include the use of native bluestone boulders, gently ramped 'beach' areas, blanket gabions (like those used on Fall Creek), and vegetative bioengineering solutions. (See *Appendix 3*).

- 3. Cayuga Waterfront Trail location and treatment within the study area.
- 4. Treatments for improving the asphalt parking area between the Pavilions.

Products of the Feasibility Study: Schematic plan for study area, pier and lake edge sections and sketches; testing and permitting requirements; environmental assessment; and a construction cost estimate for both the pier and lake edge treatments.

Anticipated Cost: \$15,000.



The study area for the Stewart Park Lake Edge Improvement Study is from the Cascadilla boathouse to the Tompkins County Visitors' Center.

Cass Park Master Plan

Cass Park is used heavily by City and County residents for a range of activities. Most of the major facilities in the park are more than 25 years old and in need of repair. Demands for new facilities are increasing. The operating budget for staffing and maintaining the park is \$675,000. Revenues from the rink, pool, and field use are approximately \$425,000. City staff and the Parks Commission have identified the need for a park master plan update to make recommendations regarding park facilities and park operations. The following issues should be addressed in the Master Plan:

- A schematic plan and cost estimate for the relocation of NY Route 89 to the west edge of the park at the base of West Hill between the rink and the Route 89 bridge.
- Determine existing parking demand and develop plans for reconfiguring existing parking facilities to maximize their efficiency, increase parking supply, if needed, and create more usable park space.
- Study future park programming needs, staffing requirements, and building/facility requirements. Criteria for evaluating park programs based on their dependence on water should be developed. Park program elements currently being discussed include: basketball courts, playground expansion, Cascadilla Boat Club's new boathouse, Children's Garden, Cass Park Landing, transient docking facilities, dog park, accessible fishing facilities, and additional playing fields.
- Develop menu of shoreline stabilization treatments.
- Develop recommendations regarding strategies for increasing revenues from the skating rink and the swimming pool. Look at comparable projects in other cities.
- Make recommendations regarding the anticipated replacement of the skating rink's concrete slab floor (projected cost of \$350,000) and replacement of chillers (projected cost of \$150,000). Recommendations should include less costly alternative treatments if feasible, and financing strategies.

The Master Plan should be a cooperative effort and should involve representatives from the following departments and organizations:

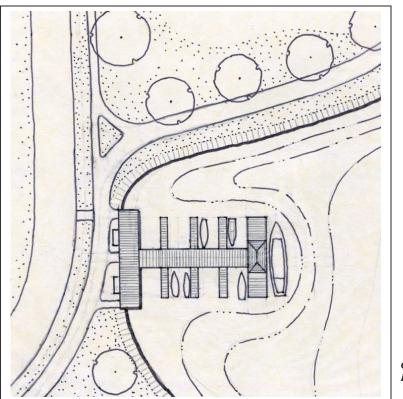
- City of Ithaca representatives: Department of Planning and Development, Planning Board, Ithaca Youth Bureau, Department of Engineering, Department of Public Works, Parks Commission, Board of Public Works, and Bicycle and Pedestrian Advisory Council.
- Representatives from the soccer, softball, baseball, football, and other groups that use the park fields and park facilities.
- Representatives from the NYS Parks and the Center for the Arts (Hanger Theatre).

<u>Anticipated Cost</u>: \$40,000 to \$60,000. Fees for standard landscape architectural services including developing alternative site plans, facilitating public meetings, and developing cost estimates would range from \$20,000 to \$30,000. Developing recommendations to increase pool and skating rink revenues and to replace skating rink slab and chillers will require the input of specialists. Fees for these services range from \$20,000 to \$30,000.

Cass Park Landing

A private vendor in Cass Park installed floating docks in 1999 to operate a water ferry and boat rentals. The installation of a permanent dock with a covered pavilion like the Farmers' Market pavilion would help to define the current location as the 'Cass Park Landing' for a proposed Cayuga Inlet Ferry Service. A permanent structure would also enhance accessibility and the physical appearance of the site. The pier's use for accessible fishing access should be considered when detailed designs are developed.

Anticipated Cost: \$79,200



Concept plan of the Cass Park Landing pier.

Cayuga Waterfront Trail

Background

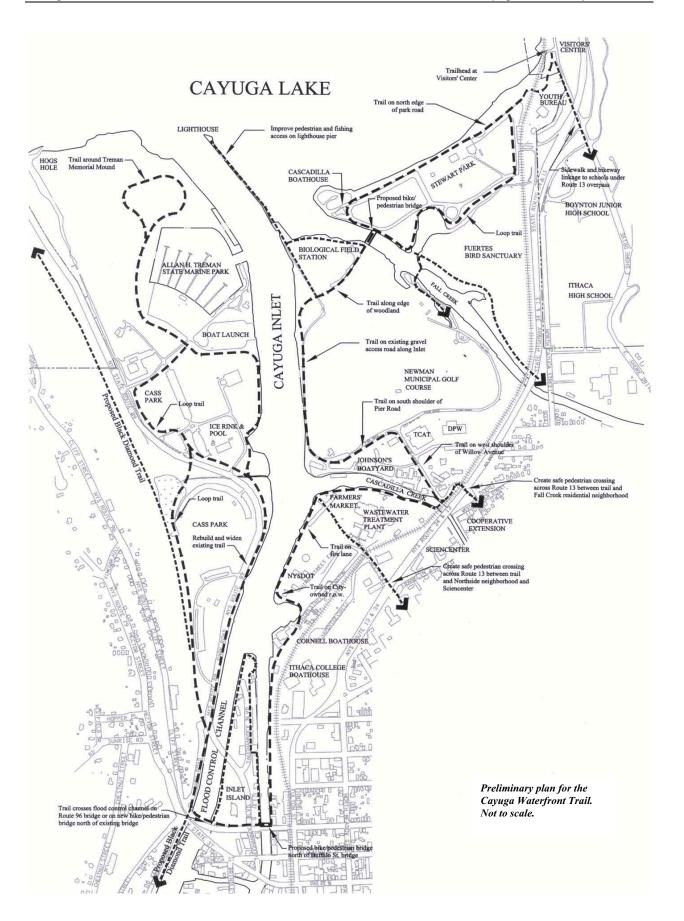
The Cayuga Waterfront Trail is a proposed six-mile trail that will link waterfront destinations within the City of Ithaca, including the Visitors' Center, Stewart Park, Newman Golf Course, Farmers' Market, Inlet Island, Cass Park, and Allan H. Treman State Marine Park. More than 75% of the shoreline land in the City of Ithaca is publicly owned park and open space. The waterfront is home to Ithaca's most popular waterfront destination - the Farmers' Market. New waterfront development, including a restaurant, waterfront promenade, and transient boat docking is occurring on Inlet Island and along the east side of Cayuga Inlet.

The proposed trail is a 10-foot wide asphalt trail designed to accommodate a wide range of users, including walkers, joggers, bicyclists, in-line skaters, skateboarders, mobility-impaired users, and persons pushing strollers or baby carriages. The creation of safe NYS Route 13/Meadow Street crossings for trail users between the city's residential neighborhoods and the waterfront will be a critical feature of the trail.

The City received \$150,000 in NYS Environmental Protection Funding and has committed \$275,000 of its own funds for Phase I of the Waterfront Trail in Cass Park. This section of the trail will be completed by October 2002.

Anticipated Cost:	
Chamber trailhead to Stewart Park	\$120,000.00
Stewart Park - Complete loop trail in park	\$250,000.00
Fall Creek bike/pedestrian bridge	\$250,000.00
Newman Golf Course to University Boathouses	\$290,000.00
Golf Course Modifications	\$500,000.00
Boathouses to Buffalo Street	\$65,000.00
Buffalo Street bike/pedestrian bridge	\$120,000.00
Inlet Island Trail (along Buffalo and Rt. 96 bridge)	\$60,000.00
Cass Park (Route 96 Bridge to State Park)	\$400,000.00
Treman State Marine Park	\$120,000.00
SUB-TOTAL	\$2,175,000.00
Contingency -20%	\$435,000.00
Design/Engineering - 10%	\$261,000.00
SUBTOTAL (Main Trail)	\$2,871,000.00
Additional Spurs*	
Biological Field Station and Pier Loop	\$220,000.00
Contingency – 20%	\$44,000.00
Design – 15% (Sub-total + contingency)	\$39,600.00
SUBTOTAL (Additional Spurs)	\$303,600.00
TOTAL CONSTRUCTION COST	\$3,174,600.00

*Includes trail surface, furnishings, signs, directories, bridges and small trailside pocket parks



A. Zoning Changes

Each of the waterfront communities currently has the capability to regulate land use and development along its waterfront by means of zoning. Existing controls and requirements vary greatly in complexity, the content of land use regulations, and the procedures used for review and approval of development proposals. In the City of Ithaca and the Towns of Ithaca and Ulysses, where most shoreline properties have been developed for many years, regulations are useful primarily for infill, redevelopment, and upgrading activities. Both the Town and Village of Lansing, in contrast, need effective regulations to deal with substantial opportunities for new development in the future.

Serious shortcomings in existing zoning regulations (or proposed revisions) are not evident. Possible modifications that should be considered by the waterfront communities include:

Town of Lansing

The existing ordinance is currently under review by the Planning Board and amendments are anticipated. It is recommended that the following modifications be made:

- a. Change Section 503.0 Schedule I as follows:
 - (1) In the Lakeshore (L1) District, land use categories A12, B3, C6, C7, C18, and C19, which are now "Permitted as of Right", should be changed to "Special Condition" or "Special Permit" uses, as appropriate, with "Site Plan Review" requirements.
 - (2) In the Lakeshore (L1) District: land uses B1, C9, C11, C13, C14, C15, C17, C30, C33, and C34 do not need, and would not be enhanced by a waterfront location and should not be permitted uses in the L1 District.
- b. Change Section 504.0 Schedule II as follows:
 - (1) For purposes of establishing lot area, road frontage and side yard set back requirements, and to reduce problems of nonconformity, it is recommended that the Lakeshore (L1) zone be divided into Lake Frontage (lots on the water) and Upland designations.
 - (2) Minimum lot area for Lakeshore lots with public water or sewers should be set at 20,000 sq. ft.; because they are not on the shoreline and nonconformity is a less serious problem, lots in the Upland part of the L1 District should have a minimum lot area of 40,000 sq. ft.
 - (3) Minimum road frontage should be 150 ft. for the larger Upland lots and remain at 75 ft. for the smaller Lake Frontage lots. Front yard set back requirements for Lake Frontage lots should be measured from the average high water mark of Cayuga Lake and not from the access road.
- c. Change Section 701.4.7. Off-site Impacts to read "Potential off-site impacts such as noise, odor, vibration and, for lake side development, unnecessary obstruction of important lake views shall be identified and....."

Village of Lansing

Existing regulations are considered to be adequate to accomplish LWRP objectives.

Town of Ithaca

The Town will be well served by replacing existing waterfront zoning regulations with those that are now under consideration. Specifically, it is recommended that:

- a. R-15 Residence Districts located along the shoreline be replaced by a Lakefront Residential (LR) zone. Although this area is now almost totally built up, renovation and reconstruction is occurring and the proposed revised regulations would apply to such development. The purpose of this special zone should be "To minimize excessive and undesirable development in fragile lakefront areas, to protect the natural beauty and ambiance of the lake shore and to enhance the experience provided to those living near, and those who use, the resources provided by Cayuga Lake." Permitted uses should be limited to one and two family dwellings, public parks and necessary utilities. Permitted accessory structures and uses should include "off-street garage or parking spaces no less than 100 feet from any shoreline, private swimming pool, or tennis court and similar recreation facility, up to two accessory storage buildings not to exceed a total of 600 sq. ft. in area."
- b. It is recommended that a Lakefront Commercial Zone that would be compatible with adjacent lakeshore development replace the current Business E District located on the Town's east shore. The purpose of this district should be "to provide areas in the Town for coherent development of commercial facilities that are uniquely related to the waterfront of Cayuga Lake." Recommended permitted uses should be "boat harbor, marina, restaurant or other place for serving food, hotel or boatel, and mixed commercial/residential."

City of Ithaca

The City should consider modification or elimination of the "cumulative-use" provisions that are incorporated in the recently enacted Waterfront Zone. This simple action would short-circuit future proposals for development that would not benefit from a location on or near the water. Some uses that are permitted in the four zones incorporated by reference as Permitted Primary Uses in the WF-1 zone (examples: church, funeral home, dental clinic) would not be appropriate and could be eliminated from consideration by deleting the cumulative-use reference.

Section 325-8: District Regulations Chart, indicates permitted uses and bulk regulations (minimum lot size, set backs, building coverage and height, etc.). It is recommended that Section 325-8 be further amended so that the Permitted Primary Uses would read as follows:

- a. For the recently created Waterfront (WF-1) Zone Section 325-8 states that "Any use permitted in B-2" would be permitted in WF-1. This should be changed as follows: "Any use permitted in B-2 that needs or would be enhanced by a location on or near the waterfront as determined by the Planning and Development Board."
- b. For the Marine Commercial (M-1) zone Section 325-8 should be amended to read: "Any use permitted in B-2 that needs or would be enhanced by a location on or near the waterfront, as determined by the Planning and Development Board, except establishments where food or drink is intended to be served to or consumed by persons in automobiles."

Town of Ulysses

A comprehensive review of the zoning ordinance is currently in process. Consideration is being given to creating two residential districts along the lake. An R1 Moderate Density Residence District would extend from the Town of Ithaca line northward to the south boundary of Camp Comstock and southward from

the boundary of Taughannock Park for a distance of approximately 4,500 feet. The area between these two moderate-density residential districts is less intensively developed at present and would become an R2 Rural Residence District. Adoption of these new districts would be consistent with the proposed *Cayuga Lake Waterfront Plan*.

- a. A minimum lot size of 2 acres in R2 Districts and 32,000 sq. ft. in R1 Districts (1 acre if there is no public water or sewer service) is being recommended. Minimum lot widths of 160 feet' in R1 and 250 feet' in R2 are also recommended. There will be two front yards on waterfront properties. A set back of 50 feet from the mean high water level is being considered and is recommended in this *Plan*.
- b. Some existing lots in the proposed R1 and R2 districts along the lake will not comply with the minimum regulations for lot area, lot width, and yard setbacks for these districts. Some lots will be too small and, if developed or otherwise improved, will most likely not be able to provide required yard setbacks. To permit new development or modification of existing development on such undersized lots requires an area variance. To clearly accommodate these situations it is recommended that a definition of non-conforming lot be added to Article III.

"Non-conforming lot. A lot existing at the time of enactment of this ordinance that does not comply with the area, yard, setback, height, or other dimensional regulations of the district in which such lot is located. Use or modification of a non-conforming lot is subject to an area variance granted by the zoning board of appeals."

- c. At present, marinas, boat services, and similar water-oriented uses located along the lake do not conform to the Ulysses zoning ordinance and are, therefore, nonconforming. It is recommended that the proposed B1 district be established along the lake in accordance with the Town's comprehensive plan and that marinas; clubhouses; and boat sales, service, rentals, and repairs be permitted by special permit, as proposed. Because there are other uses, similar to those listed, that could be suitable in a waterfront environment, it is recommended that the following be added to the list of uses permitted by special permit. Similar land uses that would benefit from, or be enhanced by, a waterfront location as determined by the Board of Appeals."
- d. The current 5-foot side yard requirement for lakeside property has promoted dense development in some areas. The proposal to increase the minimum side yard to 15 feet is more appropriate but will probably result in a number of nonconforming lots and development. The recommended language for nonconforming lots (above) will be helpful in addressing this likely problem.

B. Consistency Review

There should be created a local process for reviewing proposed waterfront activities for consistency with the *Cayuga Lake Waterfront Plan*. It is recommended that this consistency review process be the responsibility of the appropriate planning board.¹

The consistency review should apply to the following municipal and county actions within the Waterfront Revitalization Area:

- Direct municipal or county action (for example, capital construction, plan adoption, agency regulation, land transaction);
- Municipal or county financial assistance (for example, grant, loan, subsidy, tax relief);

¹ The appropriate planning boards as of this writing are: City of Ithaca Planning and Development Board, Tompkins County Planning Advisory Board, Town of Ithaca Planning Board, Town of Lansing Planning Board, Town of Ulysses Planning Board, Village of Cayuga Heights Village Trustees/Planning Board, and the Village of Lansing Planning Board.

- Permits or approval issued under any zoning ordinance or local law (including special use permits, site plans, use or area variances, and subdivisions);
- Adoption or amendment of a plan, zoning ordinance or local law applicable within the Waterfront Revitalization Area.

No ministerial action should be subject to a consistency review.

In undertaking a consistency review, the appropriate planning board should make a determination whether the proposed action is consistent with the *Cayuga Lake Waterfront Plan*. In making this determination, the planning board should consider the policies and recommendations of the *Cayuga Lake Waterfront Plan*. A proposed action should be evaluated for both its beneficial and adverse effects on the waterfront area.

The planning board should first determine whether the proposal has a significant relationship to the *Waterfront Plan*. If not, further review is not necessary. If the planning board finds a significant relationship, the action should be analyzed in more detail. In conducting its review, the planning board may recommend modifications to the proposal. The planning board's recommendation should be based on a determination that the action is consistent, to the maximum extent practicable, with the *Waterfront Plan*. If the proposal cannot be certified as consistent with the *Waterfront Plan*, it should not be undertaken.

In order to provide an opportunity for all partners in this *Waterfront Plan* to participate in the consistency review, the planning board should forward a copy of the proposal (and appropriate supporting documentation) to the planning boards of all the other partners. The other planning boards should be given at least thirty days to review and comment upon the proposal's consistency with the *Waterfront Plan*.

Introduction

State and Federal actions will affect and be affected by implementation of the LWRP. Under state law and the *U.S. Coastal Zone Management Act*, certain state and federal actions within or affecting the local waterfront area must be "consistent" or "consistent to the maximum extent practicable" with the enforceable policies and purposes of the LWRP. This makes the LWRP a unique, intergovernmental mechanism for setting policy and making decisions. While consistency requirements primarily help prevent detrimental actions from occurring and help ensure that future options are not foreclosed needlessly, active participation on the part of state and federal agencies is also likely to be necessary to implement specific provisions of the LWRP.

The first part of this section identifies the actions and programs of state and federal agencies that should be undertaken in a manner consistent with the LWRP. This is a generic list of actions and programs, as identified by the NYS Department of State; therefore, some of the actions and programs listed may not be relevant to this LWRP. Pursuant to the *State Waterfront Revitalization and Coastal Resources Act* (Executive Law, Article 42), the Secretary of State individually and separately notifies affected state agencies of those agency actions and programs that are to be undertaken in a manner consistent with approved LWRP's. Similarly, federal agency actions and programs subject to consistency requirements are identified in the manner prescribed by the *U.S. Coastal Zone Management Act* and its implementation regulations. The lists of state and federal actions and programs included herein are informational only and do not represent or substitute for the required identification and notification procedures. The current official lists of actions subject to state and federal consistency requirements may be obtained from the NYS Department of State.

The second part of this section is a more focused and descriptive list of state and federal agency actions that are necessary to further implement the LWRP. It is recognized that a state and federal agency's ability to undertake such actions is subject to a variety of factors and considerations; that the consistency provisions referred to above, may not apply; and that the consistency requirements cannot be used to require a state and federal agency to undertake an action it could not undertake pursuant to other provisions of law. Reference should be made to *Chapters Four and Five*, which also discuss state and federal assistance needed to implement the LWRP.

State and Federal Actions and Programs That Should Be Undertaken In a Manner Consistent With the LWRP

1. STATE AGENCIES

OFFICE FOR THE AGING

1.00 Funding and/or approval programs for the establishment of new or expanded facilities providing various services for the elderly.

DEPARTMENT OF AGRICULTURE AND MARKETS

- 1.0 Agricultural Districts Program
- 2.0 Rural Development Program
- 3.0 Farm Worker Services Program
- 4.0 Permit and Approval Programs:
 - 4.01 Custom Slaughters/Processor Permit
 - 4.02 Processing Plant License
 - 4.03 Refrigerated Warehouse and/or Locker Plant License

ALBANY PORT DISTRICT COMMISSION (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.

DIVISION OF ALCOHOLIC BEVERAGE CONTROL/STATE LIQUOR AUTHORITY

- 1.0 Permit and Approval Programs:
 - 1.01 Ball Park Stadium License
 - 1.02 Bottle Club License
 - 1.03 Bottling Permits
 - 1.04 Brewer's Licenses and Permits
 - 1.05 Brewer's Retail Beer License
 - 1.06 Catering Establishment Liquor License
 - 1.07 Cider Producer's and Wholesaler's Licenses
 - 1.08 Club Beer, Liquor, and Wine Licenses
 - 1.09 Distiller's Licenses
 - 1.10 Drug Store, Eating Place, and Grocery Store Beer Licenses
 - 1.11 Farm Winery and Winery Licenses
 - 1.12 Hotel Beer, Wine, and Liquor Licenses
 - 1.13 Industrial Alcohol Manufacturer's Permits
 - 1.14 Liquor Store Licenses
 - 1.15 On-Premises Liquor Licenses
 - 1.16 Plenary Permit (Miscellaneous-Annual)
 - 1.17 Summer Beer and Liquor Licenses
 - 1.18 Tavern/Restaurant and Restaurant Wine Licenses
 - 1.19 Vessel Beer and Liquor Licenses
 - 1.20 Warehouse Permit
 - 1.21 Wine Store License
 - 1.22 Winter Beer and Liquor Licenses
 - 1.23 Wholesale Beer, Wine, and Liquor Licenses

DIVISION OF ALCOHOLISM AND SUBSTANCE ABUSE SERVICES

- 1.0 Facilities, construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Permit and approval programs:
 - 2.01 Certificate of approval (Substance Abuse Services Program)
- 3.0 Permit and Approval:
 - 3.01 Letter Approval for Certificate of Need
 - 3.02 Operating Certificate (Alcoholism Facility)
 - 3.03 Operating Certificate (Community Residence)
 - 3.04 Operating Certificate (Outpatient Facility)
 - 3.05 Operating Certificate (Sobering-Up Station)

COUNCIL ON THE ARTS

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Architecture and environmental arts program.

DEPARTMENT OF BANKING

- 1.0 Permit and Approval Programs:
 - 1.01 Authorization Certificate (Bank Branch)
 - 1.02 Authorization Certificate (Bank Change of Location)
 - 1.03 Authorization Certificate (Bank Charter)
 - 1.04 Authorization Certificate (Credit Union Change of Location)
 - 1.05 Authorization Certificate (Credit Union Charter)
 - 1.06 Authorization Certificate (Credit Union Station)
 - 1.07 Authorization Certificate (Foreign Banking Corporation Change of Location)
 - 1.08 Authorization Certificate (Foreign Banking Corporation Public Accommodations Office)
 - 1.09 Authorization Certificate (Investment Company Branch)
 - 1.10 Authorization Certificate (Investment Company Change of Location)
 - 1.11 Authorization Certificate (Investment Company Charter)
 - 1.12 Authorization Certificate (Licensed Lender Change of Location)
 - 1.13 Authorization Certificate (Mutual Trust Company Charter)
 - 1.14 Authorization Certificate (Private Banker Charter)
 - 1.15 Authorization Certificate (Public Accommodations Office Banks)
 - 1.16 Authorization Certificate (Safe Deposit Company Branch)
 - 1.17 Authorization Certificate (Safe Deposit Company Change of Location)
 - 1.18 Authorization Certificate (Safe Deposit Company Charter)
 - 1.19 Authorization Certificate (Savings Bank Charter)
 - 1.20 Authorization Certificate (Savings Bank De Novo Branch Office)
 - 1.21 Authorization Certificate (Savings Bank Public Accommodations Office)
 - 1.22 Authorization Certificate (Savings and Loan Association Branch)
 - 1.23 Authorization Certificate (Savings and Loan Association Change of Location)
 - 1.24 Authorization Certificate (Savings and Loan Association Charter)
 - 1.25 Authorization Certificate (Subsidiary Trust Company Charter)
 - 1.26 Authorization Certificate (Trust Company Bank)
 - 1.27 Authorization Certificate (Trust Company-Change of Location)
 - 1.28 Authorization Certificate (Trust Company Charter)
 - 1.29 Authorization Certificate (Trust Company Public Accommodations Office)
 - 1.30 Authorization to Establish a Life Insurance Agency
 - 1.31 License as a Licensed Lender
 - 1.32 License for a Foreign Banking Corporation Branch

NEW YORK STATE BRIDGE AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities and related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.

BUFFALO AND FORT ERIE PUBLIC BRIDGE AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.

CAPITAL DISTRICT TRANSPORTATION AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.
- 3.0 Increases in special fares for transportation services to public water-related recreation resources.

CENTRAL NEW YORK REGIONAL TRANSPORTATION AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.
- 3.0 Increases in special fares for transportation services to public water-related recreation resources.

DEPARTMENT OF CORRECTIONAL SERVICES

1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

DORMITORY AUTHORITY OF THE STATE OF NEW YORK

- 1.0 Financing of higher education and health care facilities.
- 2.0 Planning and design services assistance program.

DEPARTMENT OF ECONOMIC DEVELOPMENT

- 1.0 Preparation or revision of statewide or specific plans to address State economic development needs.
- 2.0 Allocation of the state tax-free bonding reserve.

EDUCATION DEPARTMENT

- 1.0 Facilities construction, rehabilitation, expansion, demolition or the funding of such activities.
- 2.0 Permit and approval programs:
 - 2.01 Certification of Incorporation (Regents Charter)
 - 2.02 Private Business School Registration
 - 2.03 Private School License
 - 2.04 Registered Manufacturer of Drugs and/or Devices
 - 2.05 Registered Pharmacy Certificate
 - 2.06 Registered Wholesale of Drugs and/or Devices

- 2.07 Registered Wholesale-Repacker of Drugs and/or Devices
- 2.08 Storekeeper's Certificate

EMPIRE STATE DEVELOPMENT CORPORATION and its subsidiaries and affiliates

- 1.0 Acquisition, disposition, lease, grant of easement or other activities related to the management of land under the jurisdiction of the Corporation.
- 2.0 Planning, development, financing, construction, major renovation or expansion of commercial, industrial, and civic facilities and the provisions of technical assistance or financing for such activities, including, but not limited to, actions under its discretionary economic development programs such as the following:
 - (a) Tax-Exempt Financing Program
 - (b) Lease Collateral Program
 - (c) ©Lease Financial Program
 - (d) Targeted Investment Program
 - (e) Industrial Buildings Recycling Program
- 3.0 Administration of special projects.
- 4.0 Administration of State-funded capital grant programs.

ENERGY PLANNING BOARD AND ENERGY OFFICE

1.0 Preparation and revision of the State Energy Master Plan.

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

1.0 Issuance of revenue bonds to finance pollution abatement modifications in power-generation facilities and various energy projects.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of lands under the jurisdiction of the Department.
- 2.0 Classification of Waters Program; classification of land areas under the Clean Air Act.
- 3.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 4.0 Financial assistance/grant programs:
 - 4.01 Capital projects for limiting air pollution
 - 4.02 Cleanup of toxic waste dumps
 - 4.03 Flood control, beach erosion and other water resource projects
 - 4.04 Operating aid to municipal wastewater treatment facilities
 - 4.05 Resource recovery and solid waste management capital projects
 - 4.06 Wastewater treatment facilities
- 5.0 Funding assistance for issuance of permits and other regulatory activities (New York City only).
 - Implementation of the Environmental Quality Bond Act of 1972, including:
 - (a) Water Quality Improvement Projects
 - (b) Land Preservation and Improvement Projects including Wetland Preservation and Restoration Projects, Unique Area Preservation Projects, Metropolitan Parks Projects, Open Space Preservation Projects and Waterways Projects.
- 7.0 Marine Finfish and Shellfish Programs
- 8.0 New York Harbor Drift Removal Projects
- 9.0 Permit and approval programs:

6.0

Air Resources

- 9.01 Certificate of Approval for Air Pollution Episode Action Plan
- 9.02 Certificate of Compliance for Tax-Relief Air Pollution Control Facility
- 9.03 Certificate to Operate: Stationary Combustion Installation; Incinerator; Process, Exhaust or Ventilation System.
- 9.04 Permit for Burial of Radioactive Material
- 9.05 Permit for Discharge of Radioactive Material to Sanitary Sewer
- 9.06 Permit for Restricted Burning
- 9.07 Permit to Construct: a Stationary Combustion Installation; Incinerator; Indirect Source of Air Contamination; Process, Exhaust or Ventilation System

Construction Management

9.08 Approval of Plans and Specifications for Wastewater Treatment Facilities

Fish and Wildlife

- 9.09 Certificate to Posses and Sell Hatchery Trout in New York State
- 9.10 Commercial Inland Fisheries Licenses
- 9.11 Fishing Preserve License
- 9.12 Fur Breeder's License
- 9.13 Game Dealer's License
- 9.14 Licenses to Breed Domestic Game Animals
- 9.15 License to Possess and Sell Live Game
- 9.16 Permit to Import, Transport and/or Export under Section 184.1 (11-0511)
- 9.17 Permit to Raise and Sell Trout
- 9.18 Private Bass Hatchery Permit
- 9.19 Shooting Preserve Licenses
- 9.20 Taxidermy License
- 9.21 Permit Article 15, (Protection of Water) Dredge or Deposit Material in a Waterway
- 9.22 Permit Article 15, (Protection of Water) Stream Bed or Bank Disturbances
- 9.23 Permit Article 24, (Freshwater Wetlands)

Hazardous Substances

- 9.24 Permit to Use Chemicals for the Control or Elimination of Aquatic Insects
- 9.25 Permit to Use Chemicals for the Control of Elimination of Aquatic Vegetation
- 9.26 Permit to Use Chemicals for the Control or Extermination of Undesirable Fish

Lands and Forest

- 9.27 Certificate of Environmental Safety (Liquid Natural Gas and Liquid Petroleum Gas)
- 9.28 Floating Object Permit
- 9.29 Marine Regatta Permit
- 9.30 Navigation Aid Permit

Marine Resources

- 9.31 Digger's Permit (Shellfish)
- 9.32 License of Menhaden Fishing Vessel
- 9.33 License for Non-Resident Food Fishing Vessel
- 9.34 Non-Resident Lobster Permit
- 9.35 Marine Hatchery and/or Off-Bottom Culture Shellfish Permits
- 9.36 Permits to Take Blue-Claw Crabs
- 9.37 Permit to Use Pond or Trap Net
- 9.38 Resident Commercial Lobster Permit

- 9.39 Shellfish Bed Permit
- 9.40 Shellfish Shipper's Permits
- 9.41 Special Permit to Take Surf Clams from Waters other than the Atlantic Ocean
- 9.42 Permit Article 25, (Tidal Wetlands)

Mineral Resources

- 9.43 Mining Permit
- 9.44 Permit to Plug and Abandon (a non-commercial, oil, gas or solution mining well)
- 9.45 Underground Storage Permit (Gas)
- 9.46 Well Drilling Permit (Oil, Gas, and Solution Salt Mining)

Solid Wastes

- 9.47 Permit to Construct and/or Operate a Solid Waste Management Facility
- 9.48 Septic Tank Cleaner and Industrial Waste Collector Permit
- 9.49 Approval of Plans for Wastewater Disposal Systems
- 9.50 Certificate of Approval of Realty Subdivision Plans
- 9.51 Certificate of Compliance (Industrial Wastewater Treatment Facility)
- 9.52 Letter of Certification for Major Onshore Petroleum Facility Oil Spill Prevention and Control Plan
- 9.53 Permit Article 36, (Construction in Flood Hazard Areas)
- 9.54 Permit for State Agency Activities for Development in Coastal Erosion Hazards Areas
- 9.55 State Pollutant Discharge Elimination System (SPDES) Permit
- 9.56 Approval Drainage Improvement District
- 9.57 Approval Water (Diversions for) Power
- 9.58 Approval of Well System and Permit to Operate
- 9.59 Permit Article 15, (Protection of Water) Dam
- 9.60 Permit Article 15, Title 15 (Water Supply)
- 9.61 River Improvement District Approvals
- 9.62 River Regulatory District Approvals
- 9.63 Well Drilling Certificate of Registration
- 9.64 401 Water Quality Certification
- 10.0 Preparation and revision of Air Pollution State Implementation Plan
- 11.0 Preparation and revision of Continuous Executive Program Plan
- 12.0 Preparation and revision of Statewide Environmental Plan
- 13.0 Protection of Natural and Man-made Beauty Program
- 14.0 Urban Fisheries Program
- 15.0 Urban Forestry Program
- 16.0 Urban Wildlife Program

ENVIRONMENTAL FACILITIES CORPORATION

1.0 Financing program for pollution control facilities for industrial firms and small businesses.

FACILITIES DEVELOPMENT CORPORATION

1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

OFFICE OF GENERAL SERVICES

1.0 Administration of the Public Lands Law for acquisition and disposition of lands, grants of land and grants of easement of land under water, issuance of licenses for removal of materials from lands under water, and oil and gas leases for exploration and development.

- 2.0 Administration of Article 4-B, Public Buildings Law, in regard to the protection and management of State historic and cultural properties and State uses of buildings of historic, architectural or cultural significance.
- 3.0 Facilities construction, rehabilitation, expansion, or demolition.

DEPARTMENT OF HEALTH

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Permit and approval programs:
 - 2.01 Approval of Completed Works for Public Water Supply Improvements
 - 2.02 Approval of Plans for Public Water Supply Improvements
 - 2.03 Certificate of Need (Health Related Facility except Hospitals)
 - 2.04 Certificate of Need (Hospitals)
 - 2.05 Operating Certificate (Diagnostic and Treatment Center)
 - 2.06 Operating Certificate (Health Related Facility)
 - 2.07 Operating Certificate (Hospice)
 - 2.08 Operating Certificate (Hospital)
 - 2.09 Operating Certificate (Nursing Home)
 - 2.10 Permit to Operate a Children's Overnight or Day Camp
 - 2.11 Permit to Operate a Migrant Labor Camp
 - 2.12 Permit to Operate as a Retail Frozen Dessert Manufacturer
 - 2.13 Permit to Operate a Service Food Establishment
 - 2.14 Permit to Operate a Temporary Residence/Mass Gathering
 - 2.15 Permit to Operate or Maintain a Swimming Pool or Public Bathing Beach
 - 2.16 Permit to Operate Sanitary Facilities for Realty Subdivisions
 - 2.17 Shared Health Facility Registration Certificate

DIVISION OF HOUSING AND COMMUNITY RENEWAL AND ITS SUBSIDIARIES AND AFFILIATES

- 1.0 Facilities construction, rehabilitation, expansion, or demolition.
- 2.0 Financial assistance/grant programs:
 - 2.01 Federal Housing Assistance Payments Programs (Section 8 Programs)
 - 2.02 Housing Development Fund Programs
 - 2.03 Neighborhood Preservation Companies Program
 - 2.04 Public Housing Programs
 - 2.05 Rural Initiatives Grant Programs
 - 2.06 Rural Preservation Companies Program
 - 2.07 Rural Rental Assistance Program
 - 2.08 Special Needs Demonstration Projects
 - 2.09 Urban Initiatives Grant Program
 - 2.10 Urban Renewal Programs
- 3.0 Preparation and implementation of plans to address housing and community renewal needs.

HOUSING FINANCE AGENCY

- 1.0 Funding programs for the construction, rehabilitation, or expansion of facilities.
- 2.0 Affordable Housing Corporation.

HUDSON RIVER VALLEY GREENWAY COMMUNITIES COUNCIL (regional agency)

- 1.0 Greenway Planning and Review
- 2.0 Greenway Compact Activities
- 3.0 Financial Assistance/Grants Program
- 4.0 Greenway Trail Activities

INTERSTATE SANITATION COMMISSION (regional agency)

1.0 Adoption and enforcement of air and water pollution standards within the Interstate Sanitation District.

JOB DEVELOPMENT AUTHORITY

1.0 Financing assistance programs for commercial and industrial facilities.

MEDICAL CARE FACILITIES FINANCING AGENCY

1.0 Financing of medical care facilities.

OFFICE OF MENTAL HEALTH

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Permit and approval programs:
 - 2.01 Operating Certificate (Community Residence)
 - 2.02 Operating Certificate (Family Care Homes)
 - 2.03 Operating Certificate (Inpatient Facility)
 - 2.04 Operating Certificate (Outpatient Facility)

OFFICE MENTAL RETARDATION AND DEVELOPMENT DISABILITIES

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Permit and approval programs:
 - 2.01 Establishment and Construction Prior Approval
 - 2.02 Operating Certificate Community Residence
 - 2.03 Outpatient Facility Operating Certificate

METROPOLITAN TRANSPORTATION AUTHORITY (regional agency)

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Increases in special fares for transportation services to public water-related recreation resources.

DIVISION OF MILITARY AND NAVAL AFFAIRS

1.0 Preparation and implementation of the State Disaster Preparedness Plan.

NATURAL HERITAGE TRUST

1.0 Funding program for natural heritage institutions.

NEW YORK CITY TRANSIT AUTHORITY (regional agency)

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Increase in special fares for transportation services to public water-related recreation resources.

NIAGARA FALLS BRIDGE COMMISSION (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

NIAGARA FRONTIER TRANSPORTATION AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 3.0 Increases in special fares for transportation services to public water-related recreation resources.

OGDENSBURG BRIDGE AND PORT AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION (including Regional State Park Commission)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 3.0 Funding program for recreational boating, safety and enforcement.
- 4.0 Funding program for State and Local historic preservation projects.
- 5.0 Land and Water Conservation Fund programs.
- 6.0 Nomination of properties to the Federal and/or State Register of Historic Places.
- 7.0 Permit and approval programs:
 - 7.01 Floating Objects Permit
 - 7.02 Marine Regatta Permit
 - 7.03 Navigation Aide Permit
 - 7.04 Posting of Signs Outside State Parks
- 8.0 Preparation and revision of the Statewide Comprehensive Outdoor Recreation Plan and the Statewide Comprehensive Historic Preservation Plan and other plans for public access, recreation, historic preservation or related purposes.
- 9.0 Recreation services program.
- 10.0 Urban Cultural Parks Program.

PORT AUTHORITY OF NEW YORK AND NEW JERSEY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 3.0 Waterfront development project activities.

PORT OF OSWEGO AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

POWER AUTHORITY OF THE STATE OF NEW YORK

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.

ROCHESTER-GENESEE REGIONAL TRANSPORTATION AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 3.0 Increases in special fares for transportation services to public water-related recreation resources.

NEW YORK STATE SCIENCE AND TECHNOLOGY FOUNDATION

- 1.0 Corporation for Innovation Development Program.
- 2.0 Center for Advanced Technology Program.

DEPARTMENT OF SOCIAL SERVICES

- 1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.
- 2.0 Homeless Housing and Assistance Program.
- 3.0 Permit and approval programs:
 - 3.01 Certificate of Incorporation (Adult Residential Care Facilities)
 - 3.02 Operating Certificate (Children's Services)
 - 3.03 Operating Certificate (Enriched Housing Program)
 - 3.04 Operating Certificate (Home for Adults)
 - 3.05 Operating Certificate (Proprietary Home)
 - 3.06 Operating Certificate (Public Home)
 - 3.07 Operating Certificate (Special Care Home)
 - 3.08 Permit to Operate a Day Care Center

DEPARTMENT OF STATE

- 1.0 Appalachian Regional Development Program.
- 2.0 Coastal Management Program.
- 3.0 Community Services Block Grant Program.
- 4.0 Permit and approval programs:
 - 4.01 Billiard Room License
 - 4.02 Cemetery Operator
 - 4.03 Uniform Fire Prevention and Building Code

STATE UNIVERSITY CONSTRUCTION FUND

1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

STATE UNIVERSITY OF NEW YORK

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the University.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition or the funding of such activities.

THOUSAND ISLANDS BRIDGE AUTHORITY (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Authority.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.

THRUWAY AUTHORITY/CANAL CORPORATION/CANAL RECREATIONWAY COMMISSION (regional agency)

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land and other resources under the jurisdiction of the Thruway Authority, Canal Corporation, and Canal Recreationway Commission.
- 2.0 Facilities construction, rehabilitation, expansion, or demolition.
- 3.0 Permit and approval programs:
 - 3.01 Advertising Device Permit
 - 3.02 Approval to Transport Radioactive Waste
 - 3.03 Occupancy Permit
 - 3.04 Permits for use of Canal System lands and waters.
- 4.0 Statewide Canal Recreationway Plan

DEPARTMENT OF TRANSPORTATION

- 1.0 Acquisition, disposition, lease, grant of easement and other activities related to the management of land under the jurisdiction of the Department.
 - Construction, rehabilitation, expansion, or demolition of facilities, including but not limited to:
 - (a) Highways and parkways
 - (b) Bridges on the State highways system
 - (c) ©Highway and parkway maintenance facilities
 - (d) Rail facilities
- 3.0 Financial assistance/grant programs:
 - 3.01 Funding programs for construction/reconstruction and reconditioning/preservation of municipal streets and highways (excluding routine maintenance and minor rehabilitation).
 - 3.02 Funding programs for development of the ports of Albany, Buffalo, Oswego, Ogdensburg and New York.
 - 3.03 Funding programs for rehabilitation and replacement of municipal bridges.
 - 3.04 Subsidies program for marginal branchlines abandoned by Conrail.
 - 3.05 Subsidies program for passenger rail service.
- 4.0 Permits and approval programs:
 - 4.01 Approval of applications for airport improvements (construction projects)
 - 4.02 Approval of municipal applications for Section 18 Rural and Small urban Transit Assistance Grants (construction projects)
 - 4.03 Approval of municipal or regional transportation authority applications for funds for design, construction and rehabilitation of omnibus maintenance and storage facilities
 - 4.04 Approval of municipal or regional transportation authority applications for funds for design and construction of rapid transit facilities

2.0

- 4.05 Certificate of Convenience and Necessity to Operate a Railroad
- 4.06 Highway Work Permits
- 4.07 License to Operate Major Petroleum Facilities
- 4.08 Outdoor Advertising Permit (for off-premises advertising signs adjacent to interstate and primary highway)
- 4.09 Real Property Division Permit for Use of State-Owned Property
- 5.0 Preparation or revision of the Statewide Master Plan for Transportation and sub-area or special plans and studies related to the transportation needs of the State.
- 6.0 Water Operation and Maintenance Program Activities related to the containment of petroleum spills and development of an emergency oil-spill control network.

DIVISION OF YOUTH

1.0 Facilities construction, rehabilitation, expansion, or demolition or the funding or approval of such activities.

2. FEDERAL AGENCIES

DIRECT FEDERAL ACTIVITIES AND DEVELOPMENT PROJECTS

DEPARTMENT OF COMMERCE

National Marine Fisheries Services

1.0 Fisheries Management Plans

DEPARTMENT OF DEFENSE

Army Corps of Engineers

- 1.0 Proposed authorizations for dredging, channel improvements, break-waters, other navigational works, or erosion control structures, beach replenishment, dams or flood control works, ice management practices and activities, and other projects to impact coastal lands and waters.
- 2.0 Land acquisition for spoil disposal or other purposes.
- 3.0 Selection of open water disposal sites.

Army, Navy and Air Force

- 4.0 Location, design, and acquisition of new or expanded defense installations (active or reserve status, including associated housing, transportation or other facilities).
- 5.0 Plans, procedures and facilities for landing or storage use zones.
- 6.0 Establishment of impact, compatibility or restricted use zones.

DEPARTMENT OF ENERGY

1.0 Prohibition orders.

GENERAL SERVICES ADMINISTRATION

- 1.0 Acquisition, location and design of proposed Federal Government property or buildings, whether leased or owned by the Federal Government.
- 2.0 Disposition of Federal surplus lands and structures.

DEPARTMENT OF INTERIOR

Fish and Wildlife Service

1.0 Management of National Wildlife refuges and proposed acquisitions.

Mineral Management Service

1.0 OCS lease sale activities including tract selection, lease sale stipulations, etc.

National Park Service

1.0 National Park and Seashore management and proposed acquisitions.

DEPARTMENT OF TRANSPORTATION

Amtrak, Conrail

1.0 Expansions, curtailments, new construction, upgrading or abandonments or railroad facilities or services, in or affecting the State's coastal area.

Coast Guard

- 2.0 Location and design, construction or enlargement of Coast Guard stations, bases, and lighthouses.
- 3.0 Location, placement or removal of navigation devices which are not part of the routine operations under the Aids to Navigation Program (ATON).
- 4.0 Expansion, abandonment, designation or anchorages, lightening areas or shipping lanes and ice management practices and activities.

Federal Aviation Administration

5.0 Location and design, construction, maintenance, and demolition of Federal aids to air navigation.

Federal Highway Administration

6.0 Highway construction.

St. Lawrence Seaway Development Corporation

7.0 Acquisition, location, design, improvement and construction of new and existing facilities for the operation of the Seaway, including traffic safety, traffic control and length of navigation season.

FEDERAL LICENSES AND PERMITS

DEPARTMENT OF DEFENSE

Army Corps of Engineers

 Construction of dams, dikes or ditches across navigable waters, or obstruction or alteration of navigable waters required under Section 9 and 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401, 403).

- 2.0 Establishment of harbor lines pursuant to Section 11 or the Rivers and Harbors Act of 1899 (33 U.S.C. 404, 405).
- 3.0 Occupation of seawall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the U.S. pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408).
- 4.0 Approval of plans for improvements made at private expense under USACE supervision pursuant to the Rivers and Harbors Act of 1902 (33 U.S.C. 565).
- 5.0 Disposal of dredged spoils into the water of the U.S., pursuant to the Clean Water Act, Section 404, (33 U.S.C. 1344).
- 6.0 All actions for which permits are required pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (U.S.C. 1413).
- 7.0 Construction of artificial islands and fixed structures in Long Island Sound pursuant to Section 4(f) of the River and Harbors Act of 1912 (33 U.S.C.).

DEPARTMENT OF ENERGY

Economic Regulatory Commission

- 1.0 Regulation of gas pipelines, and licensing of import or export of natural gas pursuant to the Natural Gas Act (15 U.S.C. 717) and the Energy Reorganization Act of 1974.
- 2.0 Exemptions from prohibition orders.

Federal Energy Regulatory Commission

- 3.0 Licenses for non-Federal hydroelectric projects and primary transmission lines under Sections 3(11), 4(e) and 15 of the Federal Power Act (16 U.S.C. 796(11), 797(11), and 808).
- 4.0 Orders for interconnection of electric transmission facilities under Section 202(b) of the Federal Power Act (15 U.S.C. 824a(b)).
- 5.0 Certificates for the construction and operation of interstate natural gas pipeline facilities, including both pipelines and terminal facilities under Section 7[©] of the Natural Gas Act (15 U.S.C. 717f[©]).
- 6.0 Permission and approval for the abandonment of natural gas pipeline facilities under Section 7(b) of the Natural Gas Act (15 U.S.C. 717f(b)).

ENVIRONMENTAL PROTECTION AGENCY

- 1.0 NPDES permit and other permits for Federal installations, discharges in contiguous zones and ocean waters, sludge runoff and aquaculture permits pursuant to Section 401, 402, 403, 405, and 318 of the Federal Water Pollution Control Act of 1972 (33 U.S.C. 1341, 1342, 1343, and 128).
- 2.0 Permits pursuant to the Resources Recovery and Conservation Act of 1976.
- 3.0 Permits pursuant to the underground injection control program under Section 1424 of the Safe Water Drinking Water Act (42 U.S.C. 300h-c).
- 4.0 Permits pursuant to the Clean Air Act of 1976 (42 U.S.C. 1857).

DEPARTMENT OF INTERIOR

Fish and Wildlife Services

1.0 Endangered species permits pursuant to the Endangered Species Act (16 U.S.C. 153 (a)).

Mineral Management Service

- 1.0 Permits to drill, rights of use and easements for construction and maintenance of pipelines, gathering and flow lines and associated structures pursuant to 43 U.S.C. 1334, exploration and development plans, and any other permits or authorization granted for activities described in detail in OCS exploration, development, and production plans.
- 2.0 Permits required for pipelines crossing federal lands, including OCS lands, and associated activities pursuant to the OCS Lands Act (43 U.S.C. 1334) and 43 U.S.C. 931 © and 20 U.S.C. 185.

INTERSTATE COMMERCE COMMISSION

1.0 Authority to abandon railway lines (to the extent that the abandonment involves removal of trackage and disposition of right-of-way); authority to construct railroads; authority to construct coal slurry pipelines.

NUCLEAR REGULATORY COMMISSION

1.0 Licensing and certification of the siting, construction and operation of nuclear power plans pursuant to Atomic Energy act of 1954, Title II of the Energy Reorganization Act of 1974 and the National Environmental Policy act of 1969.

DEPARTMENT OF TRANSPORTATION

Coast Guard

- 1.0 Construction or modification of bridges, causeways or pipelines over navigable waters pursuant to 49 U.S.C. 1455.
- 2.0 Permits for Deepwater Ports pursuant to the Deepwater Ports Act of 1974 (33 U.S.C. 1501).

Federal Aviation Administration

3.0 Permits and licenses for construction, operation or alteration of airports.

DEPARTMENT OF AGRICULTURE

- 10.068 Rural Clean Water Program
- 10.409 Irrigation, Drainage, and Other Soil and Water Conservation Loans
- 10.410 Low to Moderate Income Housing Loans
- 10.411 Rural Housing Site Loans
- 10.413 Recreation Facility Loans
- 10.414 Resource Conservation and Development Loans
- 10.415 Rural Renting Housing Loans
- 10.416 Soil and Water Loans
- 10.418 Water and Waste Disposal Systems for Rural Communities
- 10.422 Business and Industrial Loans
- 10.424 Industrial Development Grants
- 10.426 Area Development Assistance Planning Grants
- 10.429 Above Moderate Income Housing Loans
- 10.430 Energy Impacted Area Development Assistance Program

- 10.901 Resource Conservation and Development
- 10.902 Soil and Water Conservation
- 10.904 Watershed Protection and Flood Prevention
- 10.906 River Basin Surveys and Investigations

DEPARTMENT OF COMMERCE

- 11.300 Economic Development Grants and Loans for Public Works and Development Facilities
- 11.301 Economic Development Business Development Assistance
- 11.302 Economic Development Support and Planning Organizations
- 11.304 Economic Development State and Local Economic Development Planning
- 11.305 Economic Development State and Local Economic Development Planning
- 11.307 Special Economic Development and Adjustment Assistance Program Long Term Economic Deterioration
- 11.308 Grants to States for Supplemental and Basic Funding of Titles I, II, III, IV, and V Activities
- 11.405 Anadromous and Great Lakes Fisheries Conservation
- 11.407 Commercial Fisheries Research and Development
- 11.417 Sea Grant Support
- 11.427 Fisheries Development and Utilization Research and Demonstration Grants and Cooperative Agreements Program
- 11.501 Development and Promotion of Ports and Intermodal Transportation
- 11.509 Development and Promotion of Domestic Waterborne Transport Systems

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

- 14.112 Mortgage Insurance Construction or Substantial Rehabilitation of Condominium Projects
- 14.115 Mortgage Insurance Development of Sales Type Cooperative Projects
- 14.117 Mortgage Insurance Homes
- 14.124 Mortgage Insurance Investor Sponsored Cooperative Housing
- 14.125 Mortgage Insurance Land Development and new Communities
- 14.126 Mortgage Insurance Management Type Cooperative Projects
- 14.127 Mortgage Insurance Mobile Home Parks
- 14.218 Community Development Block Grants/Entitlement Grants
- 14.219 Community Development Block Grants/Small Cities Program
- 14.221 Urban Development Action Grants
- 14.223 Indian Community Development Block Grant Program

DEPARTMENT OF INTERIOR

- 15.400 Outdoor Recreation Acquisition, Development and Planning
- 15.402 Outdoor Recreation Technical Assistance
- 15.403 Disposal of Federal Surplus Real Property for Parks, Recreation, and Historic Monuments
- 15.411 Historic Preservation Grants-in-Aid
- 15.417 Urban Park and Recreation Recovery Program
- 15.600 Anadromous Fish Conservation
- 15.605 Fish Restoration
- 15.611 Wildlife Restoration
- 15.613 Marine Mammal Grant Program
- 15.802 Minerals Discovery Loan Program
- 15.950 National Water Research and Development Program
- 15.951 Water Resources Research and Technology Assistance to State Institutes
- 15.952 Water Research and Technology Matching Funds to State Institutes

DEPARTMENT OF TRANSPORTATION

20.102 Airport Development Aid Program
20.103 Airport Planning Grant Program
20.205 Highway Research, Planning, and Construction
20.309 Railroad Rehabilitation and Improvement – Guarantee of Obligations
20.310 Railroad Rehabilitation and Improvement – Redeemable Preference Shares

20.506 Urban Mass Transportation Demonstration Grants

20.509 Public Transportation for Rural and Small Urban Areas

GENERAL SERVICES ADMINISTRATION

39.002 Disposal of Federal Surplus Real Property

COMMUNITY SERVICES ADMINISTRATION

49.002 Community Action
49.001 Community Economic Development
49.013 State Economic Opportunity Offices
49.017 Rural Development Loan Fund
49.18 Housing and Community Development (Rural Housing)

SMALL BUSINESS ADMINISTRATION

59.012 Small Business Loans
59.013 State and Local Development Company Loans
59.024 Water Pollution Control Loans
59.025 Air Pollution Control Loans
59.031 Small Business Pollution Control Financing Guarantee

ENVIRONMENTAL PROTECTION AGENCY

66.001 Air Pollution Control Program Grants

66.418 Construction Grants for Wastewater Treatment Works

- 66.426 Water Pollution Control -- State and Areawide Water Quality Management Planning Agency
- 66.451 Solid and Hazardous Waste Management Program Support Grants

66.452 Solid Waste Management Demonstration Grants

- 66.600 Environmental Protection Consolidated Grants Program Support Comprehensive Environmental Response, Compensation and Liability (Super Fund)
- * Numbers refer to the Catalog of Federal Domestic Assistance Programs, 1980 and its two subsequent updates.

State and Federal Actions and Programs Necessary To Further the LWRP In Tompkins County

1. STATE AGENCIES

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

- Assist in developing and approving strategies for dredging of the Cayuga Inlet, disposal of dredge spoils, and stabilization of the banks of the Inlet.
- Assist in permitting for all waterfront access and economic development projects, including the Cayuga Waterfront Trail, NYSDOT site redevelopment, and the Stewart Park Lake Edge Improvement project.
- Cooperate with the Town of Lansing in securing a lease agreement and developing a management plan for Salt Point to enhance both public access and wildlife habitat on the site.
- Cooperate with local municipalities in providing technical assistance and funding for environmental investigation and remediation of brownfield sites in the waterfront study area.

DEPARTMENT OF TRANSPORTATION

- Cooperate with Tompkins County in relocating operations from the waterfront site in Ithaca to a site in Dryden. This will allow the current site to be developed with water-dependent or water-enhanced uses.
- Cooperate with the City of Ithaca in developing, reviewing and approving plans for the Cayuga Waterfront Trail. The trail will interact with NYS roadways in and around the Inlet Island area.
- Assist in implementation of the Cayuga Lake Scenic Byway through designation and funding of specific projects identified in project plans.

DEPARTMENT OF STATE

• Assist in implementation and provide funding for waterfront projects identified in this study.

CANAL CORPORATION OF THE NYS THRUWAY AUTHORITY

- Maintain lake levels at higher, summer levels throughout October, at least until Cayuga Inlet dredging is completed.
- Assist in developing and implementing a viable strategy for dredging Cayuga Inlet, disposing of dredge spoils, and stabilizing the banks of Cayuga Inlet.
- Assist in project review, permitting, and implementation of all waterfront access, docking, and economic development projects identified in the plan.

OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION

- Assist in developing and implementing a viable strategy for dredging Cayuga Inlet and disposing of dredge spoils.
- Work with the City of Ithaca to implement regional multi-use trail projects including the Black Diamond Trail and the Cayuga Waterfront Trail.
- Implement state park improvements described in the study for Allan H. Treman State Marine Park and Taughannock Falls State Park.
- Increase patrol boat activity during peak boating season in the south half of Cayuga Lake to assist in enforcing existing and proposed boating regulations.

GOVERNOR'S OFFICE FOR SMALL CITIES

• Work with Tompkins County and eligible municipalities within Waterfront Revitalization Area to implement economic development programs and projects through the Community Development Block Grants program.

2. FEDERAL AGENCIES

ARMY CORPS OF ENGINEERS

• Assist in planning activities for dredging of the Cayuga Inlet, disposal of dredge spoils, and shoreline stabilization.

Local Commitment

The *Cayuga Lake Waterfront Plan* is the result of the joint efforts of all waterfront municipalities in Tompkins County: the City of Ithaca; the Towns of Ithaca, Lansing, and Ulysses; the Villages of Cayuga Heights and Lansing; and Tompkins County. Each municipality was represented on the committee that directed the preparation of the *Waterfront Plan*. The County Department of Planning was the managing agency for this project.

Major funding for the project was provided to the City of Ithaca by the NYS Department of State through its *Local Waterfront Revitalization Program*. In addition, the Town of Ithaca, the City of Ithaca, and Tompkins County provided matching funds for this program.

An Oversight Committee that consisted of three subcommittees directed the development of the *Cayuga Lake Waterfront Plan*:

- Steering Committee elected officials from each of the co-sponsors, for a total of seven members;
- Planning Committee staff or planning board representatives from each of the cosponsors, for a total of seven members; and
- Review Committee representatives from key stakeholder interests. This committee had nine members.

The *Cayuga Lake Waterfront Plan* was proposed as a result of work on the *Tompkins County Waterfront Study*. The *Waterfront Study* included an extensive public participation effort and a review of past waterfront-related studies. Among the many recommendations of that study was the need for a more comprehensive look at the Cayuga Lake waterfront.

Work on the *Cayuga Lake Waterfront Plan* formally began with a kick-off meeting in September 1998. Members of the Oversight Committee were introduced to the program, the process for completion of the *Waterfront Plan*, and the schedule for plan completion.

At the end of January 1999, focus group meetings were conducted with participants reflecting a wide range of interests. The six focus groups were:

- Boating and fishing
- Environmental
- Recreation and historic preservation
- Waterfront development urban area
- Waterfront development east shore
- Waterfront development west shore

Over 50 persons participated in these focus group meetings.

In mid-May 1999, a public meeting was conducted in Ithaca. Approximately forty persons attended this Saturday morning event. The purpose of this meeting was to discuss the purpose of an LWRP, explaining the relationship between the LWRP and the previously completed *Waterfront Study*, and to share the results of the focus group meetings. Small group discussions were held and comments were recorded.

Following that public meeting, a subcommittee of the Oversight Committee met in June to identify the areas the LWRP should focus on. Those areas were:

- Increased public access
- Noise controls
- Dredging
- NYSDOT site redevelopment
- Trail development
- Stewart Park enhancements

An Open House on the *Waterfront Plan* was held in October 1999. The Open House was conducted from 1:00 to 8:00 PM on a weekday, giving the public an opportunity to "drop by" and spend five minutes to one hour meeting with committee members one-on-one and sharing concerns about the waterfront. The Open House featured inventory maps, proposals for waterfront development and redevelopment, and ideas for other issues, including dredging, noise control, and environmental protection. Over fifty persons attended the Open House.

In addition to these "events," the Oversight Committee and its subcommittees met periodically during the preparation of the *Waterfront Plan*. The Planning Sub-Committee, in particular, was responsible for working closely with the consultants. The Sub-Committee met approximately monthly to oversee the preparation of the *Waterfront Plan*, provide direction to the consultants, and plan meetings of the other Sub-Committees and public events. The estimated time spent on the *Waterfront Plan*, at committee meetings alone, was 350 hours (about half of that time from Planning Committee members).

Consultation

The preparation of the *Cayuga Lake Waterfront Plan* also involved consultation with many individuals and with local, regional and statewide organizations and agencies. These included:

- Tompkins County Department of Planning
- City of Ithaca Department of Planning and Economic Development
- Municipal planning boards
- Tompkins County Planning Advisory Board
- Tompkins County Planning Federation
- Ithaca-Tompkins County Transportation Council
- Local Government leadership group

In addition, the draft Cayuga Lake Waterfront Plan must be adopted by the following:

- City of Ithaca Common Council,
- Town of Ithaca Town Board,
- Town of Lansing Town Board,
- Town of Ulysses Town Board,
- Village of Cayuga Heights Village Trustees, and
- Village of Lansing Village Trustees

Appendix A Waterfront Revitalization Area Boundary Description Detailed Description The following pages describe segments of the Waterfront Revitalization Area Boundary within each of the municipalities included in the Area. Please note that, unless otherwise stated, boundaries that follow a road include the entire right-of-way of that road. Distances are noted to the nearest 0.1 miles.

(1) Town of Lansing

- The boundary extends southward from the municipal boundary with Cayuga County along State Route 34B (also known as Ridge Road), approximately 6.4 miles to its intersection with Ludlowville Road.
- At the intersection of State Route 34B and Ludlowville Road, the boundary extends eastward, then southward, along Ludlowville Road for approximately 0.8 miles to its intersection with Brickyard Road.
- At the intersection of Ludlowville Road and Brickyard Road, the boundary extends eastward for 0.8 miles along Brickyard Road to its intersection with State Route 34B.
- At the intersection of Brickyard Road and State Route 34B, the boundary extends eastward along Route 34B for approximately 1.1 miles to its intersection with State Route 34 (also known as East Shore Drive).
- At the intersection of State Route 34B and State Route 34, the boundary extends southward for 1.9 miles along State Route 34 to its intersection with Water Wagon Road.
- At the intersection of State Route 34 and Water Wagon Road, the boundary extends eastward for 0.9 miles along Water Wagon Road to its intersection with North Triphammer Road.
- At the intersection of Water Wagon Road and North Triphammer Road, the boundary extends southward for 1.0 miles along North Triphammer Road to the municipal boundary with the Village of Lansing.

(2) Town of Lansing

• That portion of the Town of Lansing immediately east of the Village of Lansing, along Cayuga Lake, is also included within the Waterfront Revitalization Area.

(3) Village of Lansing

- The boundary extends southward from the municipal boundary with the Town of Lansing along North Triphammer Road, approximately 1.5 miles to its interchange with State Route 13.
- At the interchange of State Route 13 and North Triphammer Road, the boundary extends westward along State Route 13 (excluding the right-of-way) for approximately 0.8 miles to its interchange with Cayuga Heights Road.
- At the interchange of Cayuga Heights Road and State Route 13, the boundary extends approximately 0.1 miles southward along Cayuga Heights Road to the municipal boundary with the Village of Cayuga Heights.

(4) Village of Cayuga Heights

• The boundary of the Waterfront Revitalization Area in the Village of Cayuga Heights extends southward from the municipal boundary with the Village of Lansing along Cayuga Heights Road, approximately 1.5 miles to the municipal boundary with the City of Ithaca.

(5) Town of Ithaca

• That portion of the Town of Ithaca immediately east of the Village of Cayuga Heights, along Cayuga Lake, is also included within the Waterfront Revitalization Area.

(6) City of Ithaca

- The boundary extends southward from the municipal boundary with the Village of Cayuga Heights along Stewart Avenue, approximately 0.3 miles, to just south of Fall Creek.
- At Fall Creek, the boundary extends approximately 0.6 miles westward along the southern bank of Fall Creek, to State Route 13/34 (also known as Meadow Street).
- At the intersection of State Route 13/34 and Fall Creek, the boundary extends along Route 13 southwest, approximately 0.2, miles to its intersection with Dey Street.
- At the intersection of Dey Street and State Route 13/34, the boundary extends along Dey Street southward, less than 0.1 miles, to its intersection with West Lincoln Street.
- At the intersection of West Lincoln Street and Dey Street, the boundary extends along West Lincoln Street westward, approximately 0.1 miles, to its intersection with Willow Avenue.
- At the intersection of Willow Avenue and West Lincoln Street, the boundary extends along Willow Avenue southward, approximately 0.4 miles, to its intersection with Marshall Street.

(6) City of Ithaca, cont.

- At the intersection of Marshall Street and Willow Avenue, the boundary extends along Marshall Street eastward, less than 0.1 miles, to its intersection with North Cayuga Street.
- At the intersection of North Cayuga Street and Marshall Street, the boundary extends southward along North Cayuga Street, approximately 0.1 miles, to its intersection with North Cascadilla Avenue.
- At the intersection of North Cascadilla Avenue and North Cayuga Street, the boundary extends eastward along North Cascadilla Avenue, approximately 0.1 miles, to its intersection with North Tioga Street.
- At the intersection of North Tioga Street and North Cascadilla Avenue, the boundary continues to extend eastward along the northern bank of Cascadilla Creek, approximately 0.1 miles, to Linn Street.
- At Linn Street, the boundary extends southward along Linn Street, less than 0.1 miles, to the southern bank of Cascadilla Creek.
- At that point, the boundary extends westward along the southern bank of Cascadilla Creek, approximately 0.1 miles, to the eastern end of South Cascadilla Avenue.
- At South Cascadilla Avenue, the boundary extends westward along South Cascadilla Avenue, approximately 0.6 miles, to its intersection with North Cayuga Street.
- At that point, the boundary extends to the intersection of North Cayuga Street and Lake Avenue, northward along Lake Avenue, approximately 0.1 miles, to its intersection with Adams Street.
- At the intersection of Adams Street and Lake Avenue, the boundary extends westward along Adams Street, approximately 0.1 miles, to its intersection with Second Street.
- At the intersection of Second Street and Adams Street, the boundary extends northward, approximately 0.1 miles, to Franklin Street.
- At Franklin Street, the boundary extends westward along Franklin Street, approximately 0.1 miles, to its intersection with Third Street and State Route 13/34.
- At the intersection of Franklin Street with Third Street and State Route 13/34, the boundary extends southward along State Route 13/34 (also known as Meadow Street), approximately 0.8 miles, to its intersection with West Clinton Street.
- At the intersection of West Clinton Street and State Route 13/34, the boundary extends westward along northern bank of Six Mile Creek, approximately 2.3 miles, to the municipal boundary with the Town of Ithaca.

(7) Town of Ithaca

- The boundary extends eastward along the municipal boundary between the Town of Ithaca and the City of Ithaca approximately 0.2 miles.
- The boundary extends around the perimeter of the Six Mile Creek Watershed owned by the City of Ithaca (Tax Map Reference 55-1-1, 48-1-11.2, 48-1-12.2, and that portion of 48-1-9.2 east of the South Hill Recreation Way).
- The boundary extends westward along the municipal boundary between the Town of Ithaca and the City of Ithaca approximately 0.1 miles.

(8) City of Ithaca

- The boundary extends from the municipal boundary with the Town of Ithaca eastward along the southern bank of Six Mile Creek, approximately 2.0 miles, to the intersection of State Route 13/34 (also known as Meadow Street) and West Clinton Street.
- At the intersection of West Clinton Street and State Route 13/34, the boundary extends eastward along Cecil B. Malone Drive (formerly known as West Clinton Street), approximately 0.3 miles, to the railroad crossing.
- At the railroad crossing on Cecil B. Malone Drive, the boundary extends southwest along the eastern edge of the railroad right-of-way, approximately 0.6 miles, to the municipal boundary with the Town of Ithaca.
- The boundary extends southward along the municipal boundary between the Town of Ithaca and the City of Ithaca approximately 0.1 miles, to the flood control levee.
- The boundary extends from the municipal boundary with the Town of Ithaca, southward along the flood control levee approximately 0.4 miles to the southern boundary of city-owned property.
- The boundary extends westward from the flood control levee along the southern boundary of city-owned property approximately 0.3 miles to the municipal boundary with the Town of Ithaca.
- The boundary extends northward along the municipal boundary between the Town of Ithaca and the City of Ithaca approximately 0.2 miles to Cayuga Inlet.

(9) Town of Ithaca

- The boundary extends approximately 0.1 miles northward from the municipal boundary with the City of Ithaca along the Lehigh Valley Railroad (excluding the right-of-way) to a point just south of property owned by the Town of Ithaca (Tax Map Reference 31-2-26.1).
- The boundary extends westward along the southern boundary of property owned by the Town of Ithaca, approximately 0.1 miles to State Route 13A (also known as Five Mile Drive).
- The boundary extends northward along State Route 13A approximately 0.5 miles to the municipal boundary with the City of Ithaca.

(10) City of Ithaca

- The boundary extends from the municipal boundary with the Town of Ithaca northward along State Route 13A (also known as Floral Avenue), approximately 0.2 miles to the boundary of a certain parcel (Tax Map Reference 99-1-4).
- At that point, the boundary extends northwest along that property line and then northeast along the rear property lines of those properties that front on State Route 13A approximately 0.7 miles to the intersection of Elm Street and Chestnut Street.
- At the intersection of Chestnut Street and Elm Street, the boundary extends northward along Chestnut Street, approximately 0.4 miles, to its intersection with Sunrise Road.
- At the intersection of Sunrise Road and Chestnut Street, the boundary extends approximately 0.1 miles eastward along Sunrise Road and straight across State Route 79 (also known as Hector Street) to State Route 96 (also known as Cliff Street).
- At State Route 96, the boundary extends northward along State Route 96, approximately 0.9 miles, to the municipal boundary with the Town of Ithaca.

(11) Town of Ithaca

- The boundary extends northward from the municipal boundary with the City of Ithaca along State Route 96 (also known as Trumansburg Road) to its intersection with DuBoise Road, approximately 1.7 miles.
- At the intersection of DuBoise Road and State Route 96, the boundary extends northward, approximately 0.7 miles, along DuBoise Road to the municipal boundary with the Town of Ulysses.

(12) Town of Ulysses

- The boundary extends northward from the municipal boundary with the Town of Ithaca along DuBoise Road, approximately 3.1 miles to its intersection with Kraft Road.
- At the intersection of Kraft Road and DuBoise Road, the boundary extends southwest along Kraft Road, approximately 0.1 miles, to its intersection with Willow Creek Road.
- At the intersection of Willow Creek Road and Kraft Road, the boundary extends northward along Willow Creek Road, approximately 1.0 miles, to its intersection with the proposed Black Diamond Trail (a former railroad corridor).
- The boundary extends northward along the proposed Black Diamond Trail, approximately 0.9 miles, to its intersection with the boundary of Taughannock Falls State Park (just east of Gorge Road).
- The boundary extends southward, then westward along the boundary of Taughannock Falls State Park, approximately 0.5 miles, to its intersection with Jacksonville Road.
- At the intersection of Jacksonville Road and the boundary of Taughannock State Park, the boundary extends northward, approximately 0.5 miles, to the boundary of Taughannock Falls State Park (west of Taughannock Park Road).
- From the intersection of the boundary of Taughannock Falls State Park and Jacksonville Road, the boundary extends northward, irregularly, following the boundary of Taughannock Falls State Park, approximately 1.6 miles, to the municipal boundary with Seneca County.

(13) County Boundary

- The boundary extends eastward along the county boundary with Seneca County, approximately 1.9 miles to the centerline of Cayuga Lake.
- The boundary extends northwest along the centerline of Cayuga Lake, approximately 6.7 miles to the county boundary with Cayuga County.
- The boundary extends eastward along the county boundary with Cayuga County, approximately 2.7 miles to its intersection with State Route 34B (also known as Ridge Road).

Appendix B Waterfront Revitalization Area Boundary Tax Parcels CITY OF ITHACA

		CITI OF ITTIA		
11-15	73-2	214-4.1	361-4	432-1.1
21-1.1	73-3	214-4.2	371-1	432-1.2
21-1.2	73-4	214-5	371-2	432-1.3
21-1.3	73-5	221-1.1	371-3	432-1.4
22-1	73-6	221-1.3	371-4.1	432-2.1
22-2	73-7	221-2	371-4.2	432-2.2
22-3	111-1	221-3	371-4.3	432-4
22-4	111-2	222-1	383-1	432-5.21
22-5	113-1.1 (partial)	231-1	383-2	432-5.22
22-7	121-1	232-1	383-3	432-5.23
22-8	121-2	232-2	383-4	432-6.2
42-1	122-3 (partial)	241-1	383-5	432-7.2
42-2.1	122-12 (partial)	241-2	383-6	432-8
42-2.2	122-13 (partial)	241-3.1	383-7	432-9.1
42-3	127-2 (partial)	241-3.2	383-8	432-9.2
42-4	131-1	251-1	383-9	432-10
42-5	151-1	251-5	422-1	433-1
42-7.1	161-3	251-8	422-2.1	433-2
42-7.2	161-4.1	252-1.1	422-2.2	453-1
42-8	161-4.2	252-1.2	422-2.3	521-1.1
42-9.2	161-5.1	253-1.1	422-3.2	521-1.2
51-1	161-5.2	253-1.21	422-5	521-1.3
61-1	161-6	253-1.22	422-6	522-3
61-2.1	161-8	254-1	422-8	522-4
61-2.2	161-9	254-2	422-9	522-5
61-3	162-1.1	254-3	422-11	522-6
61-4	162-1.3	254-4	422-12	523-1.1
62-1	171-1.2	361-1.2	422-13	523-1.2
62-2	171-2	361-2	422-14	523-2
62-3	183-1	361-3.2	422-15	523-3
71-1	183-2	361-3.3	431-1	523-4
71-2	214-1.1	361-3.4	431-2	523-5.1
71-3	214-1.2	361-3.5	431-3	523-5.2
73-1.1	214-2	361-3.6	431-4	523-5.3
73-1.2	214-3	361-3.7	431-5	523-6

CITY OF ITHACA

523-13	536-11	584-1.13	592-20	597-27
523-14	536-13	584-1.2	592-21	598-1
523-15	572-1	584-2.1	592-22	6811-5
523-16	572-2	584-2.2	592-23	695-1
523-17	573-1	584-10.1	592-24	696-3 (partial)
523-18	573-2.2	584-10.2	592-25	696-13 (partial)
524-1	573-3	585-1	592-26	708-1
524-2	573-4	586-1	592-27	708-10.1
524-4	573-5	587-1.1	592-28	708-10.2
524-6.2	573-6	587-1.2	592-29	708-11
524-7.1	573-7	587-3	592-30	721-1.2
524-7.2	573-8	587-5	592-31	722-1
524-7.3	573-9	587-8	592-32	722-3
524-7.4	573-10	588-1	592-33	722-5
524-10	574-1	588-2	592-34	722-6
524-11	581-1	588-3	597-1	722-7
534-1	581-2	588-4	597-2	722-8
535-7	581-3	591-2	597-3	722-9
535-8	581-4	592-1	597-4	722-10
535-10	581-5	592-2	597-5	722-11
535-11	581-6	592-3	597-7	722-12
535-12	581-7	592-4	597-8	722-13
535-13	582-1.1	592-5	597-9	722-14
535-14	582-1.2	592-6	597-10	722-15
536-1	582-1.3	592-7	597-13	722-16
536-2	583-1	592-8	597-15	722-17
536-3	583-2	592-9	597-16	722-18
536-4	583-3	592-10	597-17	722-19
536-5	583-4	592-12	597-20	722-20
536-6	583-5	592-13	597-21	725-1
536-7	583-6	592-14	597-22	725-2
536-8	583-7	592-15	597-23	725-3
536-9	583-8	592-16	597-24	725-4
536-10.1	584-1.11	592-18	597-25	725-5
536-10.2	584-1.12	592-19	597-26	725-6

CITY OF ITHACA 81.-11-9 78.-2-4 74.-3-19 72.-5-8 73.-7-2 82.-5-1 78.-2-5.2 73.-7-3 74.-3-20 72.-5-10 82.-8-1 78.-2-6 74.-3-21 73.-8-1 72.-5-11 82.-8-2 78.-3-1 74.-3-22 73.-9-3 72.-5-12 82.-8-3 78.-3-2 74.-3-23 73.-9-4 72.-5-13 82.-8-4 78.-3-4 74.-3-24 73.-9-6 72.-5-15 82.-8-5 78.-3-5 74.-4-1 72.-5-16 73.-9-9 83.-2-23 79.-1-1 74.-4-2 73.-9-10 72.-5-17 88.-1-8 79.-1-2.1 74.-4-3 73.-9-12 72.-5-18 88.-2-16 79.-1-2.2 74.-4-4 73.-10-3.1 72.-6-2 88.-2-18 79.-1-3 73.-10-3.2 74.-4-5 72.-6-3.1 74.-4-6 79.-1-4 88.-3-1 72.-6-3.2 73.-11-1 89.-1-1 79.-2-1.2 74.-4-10 72.-6-3.3 73.-11-2 89.-1-2 79.-3-1 77.-2-3 72.-7-1 73.-11-3 89.-4-1 79.-10-1 73.-11-4 77.-2-4 72.-7-2 89.-4-2 81.-2-1 77.-2-5 73.-11-5 72.-7-3 90.-1-1 81.-3-1 77.-2-6 73.-12-1 72.-7-4 90.-2-1 81.-10-1 77.-3-1 74.-3-1 72.-7-5 92.-1-1 81.-10-2 77.-4-1 74.-3-2 72.-7-8 81.-10-3 92.-2-1 77.-4-2 72.-7-10 74.-3-3 93.-6-7 81.-10-4 77.-4-3 74.-3-4 73.-1-9 94.-2-1 81.-10-5 77.-5-1 74.-3-5 73.-1-10 96.-1-1 81.-10-6 77.-5-3 73.-1-11 74.-3-6 96.-2-1.1 81.-10-7 77.-6-1.1 74.-3-7 73.-2-1 96.-2-1.21 81.-10-8 77.-6-2 74.-3-8 73.-2-3 96.-2-1.22 81.-10-9 77.-6-3 73.-3-1 74.-3-9 96.-2-1.23 81.-10-10 78.-1-1.1 74.-3-10 73.-3-2 96.-2-1.3 81.-11-1 78.-1-1.2 74.-3-11 73.-3-3 96.-2-1.4 81.-11-2 78.-1-2.2 74.-3-12 73.-4-1 96.-2-1.5 81.-11-3 78.-1-3 74.-3-13 73.-5-1 96.-2-1.8 81.-11-4 78.-1-11 73.-5-2.1 74.-3-14 96.-2-1.9 81.-11-5 74.-3-15 78.-1-12 73.-5-2.2 96.-2-3 78.-2-1 81.-11-6 74.-3-16 73.-5-3 96.-2-4 81.-11-7

78.-2-2

78.-2-3

96.-2-6

81.-11-8

74.-3-17

74.-3-18

73.-6-1

73.-7-1

962-7	1001-1
971-1	1002-1
971-2	1002-2
971-3	1002-3
971-4	1002-4
971-5	1002-6
971-6.2	1091-3
971-7.2	1092-1
972-1	1092-2
972-2	1092-4
972-3	1092-5
981-3	1092-6
981-4	1105-6 (partial)
981-5	1105-8 (partial)
991-1	1119-9 (partial)
991-2	1191-1
991-3	1191-2 (partial)
991-4	1191-3
991-8.2 (partial)	1191-4
991-9 (partial)	1261-2.2 (partial)
992-1	1271-1
992-2	1271-2 (partial)
992-3	1271-3
992-4	1271-4
992-5	1301-1 (partial)
992-6	1311-3 (partial)
992-7	
992-9	
992-10	
992-11	
992-12.2	
992-13	
992-14.1	
992-14.2	
992-16	

VILLAGE OF CAYUGA HEIGHTS

	VILLA	OL OF GATOGATIER	onno	
11-1.1	13-12	73-17	82-7.1	136-1
11-1.10	14-2.1	73-18	82-7.2	136-2
11-1.11	14-2.2	73-19	82-7.3	136-3.2
11-1.2	14-2.3	73-20	82-8	136-5
11-1.3	71-1	73-21	82-9	136-6
11-1.4	72-1	73-22	82-10	136-7
11-1.5	72-2	73-23	82-11	136-8
11-1.6	72-3	73-24	82-12	136-9.11
11-1.7	72-4	73-25	82-13.1	136-9.12
11-1.8	72-5.1	73-26.1	82-14	136-9.2
11-1.9	72-5.2	73-26.2	82-15	151-1.1
11-2	72-6.1	81-1	82-16	151-1.2
11-3	72-6.2	81-2	82-17	151-2
11-4	72-7	81-3	82-18	151-3
11-5	72-8	81-4	82-19	152-1
12-1	72-9	81-5	82-20	152-2.1
12-2	72-10	81-6	82-21	152-2.2
12-3.1	72-11	81-7	82-22	152-3
12-3.2	73-1	81-8	82-23	
12-3.3	73-2	81-9	84-1	
12-3.4	73-4	81-10	84-2	
12-3.5	73-5	81-11	131-1	
12-4	73-6	81-12.1	131-2	
13-1	73-7	81-13.2	131-3	
13-2	73-8	81-14	131-4	
13-3	73-9	81-15	131-5	
13-4	73-10	81-16	131-6	
13-5	73-11	81-17	134-1	
13-6	73-12.1	82-1	134-2	
13-7	73-12.2	82-2	135-1	
13-8	73-13	82-3	135-2	
13-9	73-14	82-4	135-3	
13-10	73-15	82-5	135-4	
13-11	73-16	82-6	135-5	

TOWN OF ITHACA

161-3	173-18.22	174-15	191-5.2	211-2
161-4	173-19	181-1.1	191-6	211-4
161-5	173-20	181-2	191-7.2	211-5
162-1	173-21	181-3	191-28	211-6
162-2	173-22	181-4	192-1	211-8
162-3	173-23	181-5	192-2	211-9
162-4	173-24	181-7	192-3	212-1
162-5	173-25.12	181-8	192-4	212-2
162-6	173-26	181-9	192-5.1	212-3
162-7	173-27	182-2	192-5.2	212-4
162-8	173-28	182-3	192-6	212-5
171-1.1	173-29	182-4	192-7	212-6
171-1.2	173-30	182-5	192-8	212-7
171-4	173-31	182-6	192-9.1	212-8
172-1	173-32	182-7.3	192-9.2	212-9
172-2	173-33	182-10	192-10	212-10
172-3	173-34	184-1	192-11	212-11
173-1	173-35	185-2	192-12	212-13
173-2	173-36	185-3	192-13	212-14
173-3	173-37	185-5	192-14	212-15
173-4	174-1	185-7	192-15	212-16
173-5	174-2	185-8	192-16	212-17
173-6.2	174-4	185-9	192-17	212-18
173-7	174-5	185-10	192-18	212-19
173-8	174-6.2	185-11	192-19	212-20
173-9	174-7	185-12	192-20	212-21
173-10	174-8	185-13	192-21	212-22
173-11	174-9.1	185-14	192-22	212-23
173-12	174-10.1	185-15	192-23	212-24
173-13	174-10.2	191-1	192-25	212-25
173-14	174-11	191-2.1	192-26	212-26
173-16.1	174-12	191-2.2	192-27	212-27
173-17	174-13	191-3	192-29	212-28
173-18.21	174-14	191-4	211-1	212-29

TOWN OF ITHACA

		Torm of the		
212-30	222-8.2	251-5.2	252-32.1	264-29
212-31	222-9	251-6	252-32.2	264-30
212-32	222-10	251-8	252-33	264-31
212-33	222-11	252-1	252-34	264-32
212-34	222-12	252-2	252-36	264-33
212-35	222-13	252-3	252-37	264-35
212-36	222-14	252-4	252-38	264-37
222-1.1	222-15	252-5	252-39	264-38
222-1.2	222-17	252-6.1	252-40	264-39
222-1.31	222-18	252-6.2	252-41.1	264-40
222-1.32	222-19	252-7	252-41.2	264-41
222-2.10	222-20	252-8	264-2	264-42
222-2.1	222-21	252-9	264-3	264-43
222-2.11	222-22	252-10	264-4	264-44
222-2.12	222-23	252-11	264-5	264-46.1
222-2.13	243-1	252-13	264-6	264-47
222-2.14	243-2.1	252-14	264-7	264-48
222-2.2	243-2.21	252-15	264-9	265-1
222-2.3	243-2.22	252-16	264-10.2	265-2
222-2.4	243-2.3	252-17	264-11	265-3
222-2.5	243-2.411	252-18	264-12.1	265-5
222-2.6	243-2.412	252-19	264-13	265-6
222-2.7	243-3.1	252-20.2	264-14	266-5.1 (partial)
222-2.8	243-3.2	252-21	264-15	312-1.1
222-2.9	243-3.3	252-22	264-16	312-1.3
222-3	243-3.4	252-23	264-17	312-2.1
222-4.1	243-3.5	252-24	264-18	312-2.2
222-4.2	243-4	252-25	264-20	312-3.1 (partial)
222-4.3	243-5	252-26	264-21	312-3.2 (partial)
222-5.2	243-6	252-27	264-23	312-4
222-6.1	243-7	252-28	264-24	312-5
222-6.2	251-1	252-29	264-25	312-6
222-7	251-4	252-30	264-26	312-7
222-8.1	251-5.1	252-31	264-28.2	312-25.1

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31.-2-25.2 (partial)
31.-2-26.1
31.-2-26.2
31.-2-27
31.-2-28
31.-2-29.1
31.-2-30
31.-2-30
31.-2-31.2
31.-2-32
48.-1-9.2 (partial)
48.-1-11.2
48.-1-12.2 (partial)
54.-2-38 (partial)
55.-1-1 (partial)

		TOWN OF LANS	SING	
11-1	111-7	121-14.5	131-1	132-11
11-2	111-8	121-14.6	131-2	132-12
11-3	111-9	121-14.71	131-3.1	132-13
11-4	111-10	121-14.72	131-3.2	132-15
11-5	111-11.1	121-15.1	131-4.2	132-16
11-5.1	111-11.2	121-15.2	131-5.1	132-17
11-6	121-1	121-15.31	131-5.2	132-18
11-7.1	121-2	121-15.32	131-5.31	132-19
11-7.2	121-4	121-15.34	131-5.321	132-20
11-8	121-5	121-15.35	131-5.322	132-21
11-9	121-6	121-15.36	131-5.323	132-22
11-10	121-7	121-15.37	131-5.33	132-23
11-11	121-8	121-15.38	131-5.34	132-24
11-12.1	121-9	121-15.5	131-5.4	132-25
11-12.2	121-10	121-16.2	131-6.2	132-26.1
11-15.1	121-11	121-17.1	131-7	132-26.2
11-15.2	121-12	121-17.2	131-8	132-27
11-15.3	121-12.10	121-18.1	131-9.1	132-28.1
11-15.4	121-12.11	121-18.2	131-9.2	132-29
11-16	121-12.12	121-19	131-10.1	132-30.11
11-19.3	121-12.13	121-20.2	131-10.2	132-30.12
21-2	121-12.14	121-20.31	131-11	132-30.21
21-3.3	121-12.15	121-20.32	132-1.1	132-32
21-4	121-12.16	121-20.33	132-1.42	132-34
21-5.2	121-12.2	121-21	132-1.5	132-35
21-10	121-12.3	121-22	132-1.6	132-43
21-11	121-12.5	121-23.1	132-2	141-1.1
21-12.2	121-12.6	121-23.21	132-3	141-1.2
21-13	121-12.7	121-23.22	132-4	141-2
21-14	121-12.8	121-23.23	132-5	142-1
21-15	121-12.9	121-23.24	132-6	142-2
101-14.6 (partial)	121-13	121-23.25	132-7	142-3
111-3.1	121-14.1	121-23.26	132-8	142-4
111-3.21	121-14.3	121-23.27	132-9	142-5.1
111-3.23	121-14.4	121-24	132-10	142-5.2

		TOWN OF LANS	SING	
142-5.3	142-39	151-7.21	151-22.4	231 <mark>-1.11</mark>
142-6	142-40	151-7.22	151-22.5	231-1.13
142-8	142-41	151-7.23	151-22.6	231-2.1
142-9	142-42	151-7.3	151-22.7	231-2.2
142-10	142-43	151-7.4	151-23.2	231-3.11
142-11	142-44	151-7.5	151-24	231-3.2
142-14	142-45	151-8.1	151-25.1	231-4
142-15	142-46	151-8.21	151-25.2	231-5.1
142-16	142-47	151-8.22	151-26.1	231-5.2
142-17	142-48	151-9	151-26.2	231-5.3
142-19	142-49	151-11.1	151-27	231-5.5
142-20	142-50	151-12.1	151-28.1	231-5.6
142-21	142-51	151-12.2	151-28.2	231-5.7
142-22	142-52	151-12.3	151-30.2	231-5.8
142-23	142-53	151-13	151-30.3	231-6.2
142-24	142-54	151-14	151-30.4	231-6.3 (partial)
142-25.1	142-55	151-15	151-30.51	231-14
142-25.2	142-56	151-16	151-30.52	231-15
142-26	142-57	151-17.1	151-30.61	231-16
142-27	142-58	151-17.2	151-30.62	231-17
142-27.1	142-59.1	151-18.11	151-32.1	231-17.1
142-27.2	142-59.2	151-18.12	151-32.2	231-18
142-27.3	142-60	151-18.13	151-33.11	231-18.1
142-27.4	142-61	151-18.2	151-33.12	231-18.2
142-28	142-62	151-18.3	151-33.21	231-20
142-30	142-63	151-18.4	151-33.22	231-21.1
142-31	143-1	151-18.5	151-33.23	231-21.2
142-32	151-30.1/1	151-18.8	151-33.24	231-21.3
142-33	151-1.1	151-19	151-35	231-22.1
142-34	151-1.2	151-20	151-36.21	231-22.2
142-35	151-1.3	151-21.1	151-36.22	231-23.1
142-36	151-2	151-21.2	151-36.23	231-23.2
142-37	151-5.1	151-22.1	221-19 (partial)	231-25
142-38.1	151-6	151-22.2	221-20	231-26
142-38.2	151-7.1	151-22.3	221-24 (partial)	231-27

		TOWN OF LANSING		
231-28.1	242-27.2	251-7.77	251-21.43	263-21
231-28.2	242-27.6	251-7.78	251-21.44	263-22
231-28.31	242-27.9	251-7.79	251-21.45	263-23
231-28.34	242-28	251-8	251-21.47	263-24
231-28.4	242-29.1	251-9.1	251-22	263-25
231-30	242-29.2	251-9.2	251-23.2	263-26
231-31	242-30	251-9.3	251-23.31	263-27
231-32.1	242-31	251-9.6	251-24	263-28
241-1	244-1	251-9.7	251-25	264-1
242-1	244-2	251-10	251-26.1	264-2
242-2	244-3	251-11	251-26.2	264-4
242-3	244-4	251-12	251-26.3	264-5
242-4	244-6	251-13	251-26.4	264-6
242-6	245-1.1	251-14	251-26.5	264-7.1
242-7.1	245-1.2	251-15.1	251-26.6	264-7.21
242-7.2	245-3	251-15.2	262-1	264-7.22
242-8	251-1.1	251-16	263-1.1	264-7.24
242-9	251-1.3	251-17	263-1.2	264-7.3
242-10	251-2	251-18	263-2	264-7.4
242-11	251-3.11	251-19	263-3	264-7.5
242-12	251-3.12	251-20.2	263-4	264-7.6
242-13	251-3.13	251-21.2	263-5	264-7.7
242-14	251-5.12	251-21.31	263-6	264-8
242-15	251-5.13	251-21.32	263-7	264-10
242-16	251-6	251-21.33	263-8	264-11.1
242-17	251-7.3	251-21.34	263-10	264-11.2
242-18	251-7.4	251-21.35	263-11	264-13
242-19	251-7.61	251-21.36	263-12	264-14
242-20	251-7.62	251-21.37	263-13	264-15
242-21	251-7.71	251-21.382	263-14	264-16
242-22	251-7.72	251-21.39	263-15	265-1
242-23	251-7.73	251-21.4	263-16	265-2
242-24	251-7.74	251-21.40	263-17	265-3
242-26	251-7.75	251-21.41	263-18	265-4
242-27.1	251-7.76	251-21.42	263-20	265-5

TOWN	OF	LANSING
I O V V I V		LANGING

		TOWN OF LANSING		
265-7	321-3	321-37.423	331-11	331-50
265-8	321-4	321-37.424	331-12	331-51
265-9	321-5	321-37.425	331-13	331-52
265-10	321-6.1	321-37.5	331-14	331-54
265-11	321-6.2	321-37.6	331-15	331-55
265-12	321-6.3	321-38	331-16	331-56
265-13	321-7.1 (partial)	321-39	331-17	331-57
265-14.1	321-7.2	321-40	331-18.1	331-58
265-14.2	321-18	321-41	331-18.2	331-59
265-14.3	321-19	321-42	331-18.3	331-60
265-15	321-20	321-43	331-19	331-61
265-16	321-22.2	321-44	331-20	331-62
265-17	321-22.3	321-45	331-21	331-63
265-18	321-23	321-46	331-22	331-64
265-19	321-24	321-47.1	331-23	331-65
265-20	321-25	321-47.2	331-24	331-66
316-1	321-26	321-48	331-25	331-67
316-3	321-27	321-49	331-26	331-68
316-4	321-28	321-50	331-27	331-69
316-5	321-29.1	321-51	331-28	331-70
316-6.1	321-29.2	321-52	331-29	331-71
316-6.2	321-30	321-53	331-31	331-72
316-7	321-31	321-54	331-33	331-73
316-8	321-32	321-55	331-34	331-74
316-9.1	321-33	321-56	331-35	332-1
316-9.2	321-34	321-57	331-42	332-2
316-10	321-35	331-3	331-43	333-1
316-11	321-36	331-4.2	331-44	333-2
316-13	321-36.1	331-5.1	331-45	333-3
316-14	321-37.1	331-5.2	331-46	333-4
321-1.1	321-37.2	331-6	331-47	333-5
321-1.2	321-37.3	331-7	331-48.2	333-6
321-1.3	321-37.41	331-8	331-48.3	333-7
321-1.4	321-37.421	331-9	331-48.4	333-8
321-1.5	321-37.422	331-10	331-49	333-9

		TOWN OF LANSING		
333-10.1	341-17.2	353-9	361-18	36. -1 -53
333-10.21	341-17.41	353-10	361-19	361-54
333-10.22	341-17.42	353-11	361-20	361-55
333-11	341-17.5	353-12	361-21	361-56
333-12	341-17.61	353-13.11	361-22	361-57
333-13	341-17.62	353-13.12	361-23	361-58
333-14.1	341-17.7	353-13.2	361-24	361-60
333-14.2	341-17.9	353-14	361-25	361-61
333-15.12	341-18.1	353-15	361-26	361-62
333-15.2	341-18.3	353-16	361-27	361-63
333-16	341-18.4	361-1	361-28	361-64
333-17	341-18.5	361-1.1	361-29	361-65
333-18	341-19	361-1.2	361-30	361-66
333-19	341-20	361-1.3	361-31	361-67
333-20	341-21	361-1.7	361-32	361-68
333-21	341-22	361-2	361-33	361-69
333-22	341-23.1	361-4	361-34	361-70
333-23	341-24	361-5	361-35	361-71
341-1	341-25	361-7	361-36	361-72
341-2	341-26	361-8.1	361-37	361-73
341-3	341-27	361-8.2	361-38	361-74
341-4	351-1.1	361-9.1	361-39	361-75
341-6	351-1.2	361-9.2	361-40	361-76
341-7	351-2	361-10	361-41	361-77
341-8	351-3.2	361-11.1	361-42	361-79
341-9	351-4	361-11.2	361-43	361-80
341-10	353-1.2	361-11.4	361-44	361-81
341-11	353-2.1	361-12.1	361-45	361-82
341-12	353-2.2	361-15.2	361-46	361-83
341-13	353-3	361-16.1	361-47	361-84
341-15	353-4	361-16.3	361-48	361-85
341-16	353-5	361-17.1	361-49	361-101
341-17.10	353-6	361-17.2	361-50	361-102
341-17.11	353-7	361-17.3	361-51	361-103
341-17.12	353-8	361-17.40	361-52	361-104

		TOWN OF LANSING		
361-107	37.1-1-19	37.1-7-11	421-1.17	421-9
361-108	37.1-1-21	37.1-7-12.1	421-1.18	421-10
361-109	37.1-1-22	37.1-7-12.2	421-1.19	421-11
361-110	37.1-1-24	37.1-7-13	421-1.2	421-12
37.1-1-1.1	37.1-1-25	37.1-7-14	421-1.20	421-13
37.1-1-1.2	37.1-1-26.1	37.1-7-15	421-1.21	421-14
37.1-1-1.4	37.1-1-26.2	37.1-7-16	421-1.22	421-15
37.1-1-1.5	37.1-1-27	37.1-7-17	421-1.23	421-16.1
37.1-1-1.6	37.1-7-1	37.1-7-18	421-1.24	421-16.2
37.1-1-1.7	37.1-7-2.1	37.1-7-19	421-1.25	421-17
37.1-1-1.8	37.1-7-2.2	37.1-7-20	421-1.26	421-18
37.1-1-2	37.1-7-3.1	37.1-7-21.1	421-1.27	421-19
37.1-1-3	37.1-7-3.10	37.1-7-21.2	421-1.28	421-20
37.1-1-4	37.1-7-3.11	37.1-7-22	421-1.29	421-21
37.1-1-5	37.1-7-3.21	37.1-7-23.1	421-1.30	421-28.1
37.1-1-6	37.1-7-3.22	37.1-7-23.2	421-1.31	421-28.2
37.1-1-7	37.1-7-3.23	37.1-7-24	421-1.32	421-29
37.1-1-8.1	37.1-7-3.24	37.1-7-25	421-1.33	421-30.1
37.1-1-8.2	37.1-7-3.3	37.1-7-27	421-1.34	421-30.2
37.1-1-9.1	37.1-7-3.4	37.1-9-1	421-2.1	421-31
37.1-1-9.2	37.1-7-3.5	37.1-9-3	421-2.2	421-32
37.1-1-9.3	37.1-7-3.6	37.1-9-4	421-2.21	421-33
37.1-1-9.4	37.1-7-3.7	37.1-9-5	421-2.22	421-34
37.1-1-9.5	37.1-7-3.8	37.1-9-6	421-2.23	421-35
37.1-1-9.6	37.1-7-3.9	37.1-9-7	421-2.25	421-36
37.1-1-9.7	37.1-7-5	37.1-9-9	421-2.3	421-36.1
37.1-1-9.8	37.1-7-6	37.1-9-10	421-2.4	421-40
37.1-1-10	37.1-7-7.2	37.1-9-12	421-2.5	421-41
37.1-1-11.1	37.1-7-8	37.1-9-13	421-2.6	421-42
37.1-1-12	37.1-7-9	421-1.121	421-2.7	421-44
37.1-1-14	37.1-7-10.1	421-1.122	421-3	421-45
37.1-1-15	37.1-7-10.2	421-1.13	421-4	421-47.1
37.1-1-16	37.1-7-10.3	421-1.14	421-5	421-49
37.1-1-17	37.1-7-10.4	421-1.15	421-7	421-50.241
37.1-1-18	37.1-7-10.5	421-1.16	421-8	421-50.242

		TOWN OF LANSING	3
421-50.25	421-54.9	422-37	481-16
421-50.26	422-1	422-39	481-17
421-50.271	422-2	422-40	481-18
421-50.272	422-3	422-41	481-20
421-50.28	422-4	422-42	481-21
421-52.1	422-5	422-43	482-19
421-52.3	422-7	422-44	482-20
421-52.42	422-8	422-45	482-21
421-52.61	422-9	422-46	482-22
421-53.1	422-10	422-47	482-23
421-53.2	422-11	422-48	482-24
421-54.1	422-12	431-3	482-25
421-54.10	422-13	431-26.42	482-25.1
421-54.11	422-14	431-26.49	482-26
421-54.12	422-15	431-26.50	482-27
421-54.13	422-16	431-26.51	482-28
421-54.14	422-17	431-26.52	482-29
421-54.15	422-18	431-26.53	482-30
421-54.17	422-19	431-26.54	482-31
421-54.18	422-20	481-1.1	482-32
421-54.19	422-21	481-1.2	482-33
421-54.2	422-22	481-2	482-34
421-54.20	422-23	481-3	482-35
421-54.21	422-24	481-4.1	482-41
421-54.22	422-25	481-4.2	
421-54.23	422-26	481-5	
421-54.24	422-27	481-6	
421-54.25	422-28	481-7	
421-54.26	422-29	481-8	
421-54.3	422-30	481-9	
421-54.4	422-31	481-10	
421-54.5	422-32	481-11	
421-54.6	422-33	481-12	
421-54.7	422-34	481-13	
421-54.8	422-35	481-15	

VILLAGE OF LANSING

		VILLAGE OF LANC		
42.1-1-4	42.1-1-46.41	43.1-1-24	43.1-1-14	43. <mark>1-1-</mark> 26.69
42.1-1-7	42.1-1-46.44	43.1-1-26.45	43.1-1-26.72	43.1-1-32
42.1-1-1.1	42.1-1-46.11	43.1-1-26.42	43.1-1-26.47	43.1-1-26.9
42.1-1-6	42.1-1-54	43.1-1-23	43.1-1-26.2	43.1-1-26.82
42.1-1-3	42.1-1-46.13	43.1-1-22	43.1-1-42	43.1-1-26.54
42.1-1-2	42.1-1-46.5	43.1-1-17.12	43.1-1-41.2	43.1-1-26.55
42.1-1-21	42.1-1-46.42	43.1-1-21	43.1-1-26.5	43.1-1-26.68
42.1-1-28.1	42.1-1-46.12	43.1-1-20	43.1-1-26.46	43.1-1-39
42.1-1-22	42.1-1-48	43.1-1-19	43.1-1-26.11	43.1-1-26.12
42.1-1-28.2	42.1-1-53.3	43.1-1-1	43.1-1-26.1	43.1-1-26.67
42.1-1-27	42.1-1-49.1	43.1-1-17.2	43.1-1-41.1	43.1-1-26.6
42.1-1-24	42.1-1-49.2	43.1-1-18	43.1-1-26.41	43.1-1-40
42.1-1-23	42.1-1-50.242	431-3.2	43.1-1-43	43.1-1-26.59
42.1-1-29	42.1-1-50.243	43.1-1-17.11	43.1-1-28.2	43.1-1-26.58
42.1-1-26	42.1-1-50.21	43.1-1-2	43.1-1-28.1	43.1-1-36
42.1-1-25	42.1-1-50.12	43.1-1-5	43.1-1-29	43.1-1-35
42.1-1-40.2	42.1-1-53.2	43.1-1-4.3	43.1-1-44	43.1-1-34
42.1-1-40.1	42.1-1-53.4	43.1-1-25	43.1-1-26.10	43.1-1-37
42.1-1-38	42.1-1-50.3	43.1-1-17.13	43.1-1-26.70	43.1-1-26.57
42.1-1-37.2	42.1-1-50.11	43.1-1-6	43.1-1-26.71	43.1-1-26.66
42.1-1-31	42.1-1-53.5	43.1-1-4.1	43.1-1-26.52	43.1-1-26.56
42.1-1-39	42.1-1-52.7	43.1-1-7	43.1-1-31	43.1-1-26.43
42.1-1-37.1	42.1-1-52.21	431-3.1	43.1-1-30	47.1-1-17.14
42.1-1-46.31	42.1-1-52.3	43.1-1-26.13	43.1-1-45	47.1-1-17.2
42.1-1-47.2	42.1-1-50.281	43.1-1-10.1	43.1-1-38.1	47.1-1-17.6
42.1-1-47.3	42.1-1-50.282	43.1-1-10.3	43.1-1-38.3	47.1-1-17.4
42.1-1-46.32	42.1-1-52.22	43.1-1-8	43.1-1-48	47.1-1-22
42.1-1-46.33	42.1-1-50.22	43.1-1-17.14	43.1-1-38.4	47.1-1-16.2
42.1-1-47.12	42.1-1-50.26	43.1-1-11	43.1-1-38.5	47.1-1-16.1
42.1-1-47.11	42.1-1-50.271	43.1-1-10.2	43.1-1-46	47.1-1-10
42.1-1-42	42.1-1-50.25	43.1-1-12	43.1-1-38.6	47.1-1-14
42.1-1-43	42.1-1-50.241	43.1-1-16	43.1-1-38.7	43.1-1-26.65
42.1-1-44	42.1-1-50.272	43.1-1-13	43.1-1-47	47.1-1-13
42.1-1-53.1	42.1-1-51	43.1-1-15	43.1-1-38.8	47.1-1-12
42.1-1-46.43	42.1-1-50.23	43.1-1-27	43.1-1-38.2	47.1-1-11

VILLAGE OF LANSING

		VILLAGE OF LAN	SING	
47.1-1-9.2	47.1-1-29	47.1-1-20.2	47.1-6-58.1	48.1-2-54
47.1-1-7	48.1-2-5.5	47.1-6-48	47.1-6-55	47.1-6-4
47.1-1-8	48.1-2-4	47.1-6-47	47.1-6-42	48.1-2-60
47.1-1-6	48.1-2-8	47.1-6-33	47.1-6-15	48.1-2-45.2
47.1-1-5	48.1-2-9	47.1-6-49	47.1-6-19.4	48.1-2-53
47.1-1-4	47.1-1-28	48.1-2-12.2	47.1-6-19.1	48.1-2-57
47.1-1-3	48.1-2-7	47.1-6-58.2	47.1-6-37	48.1-2-39.1
48.1-2-2.1	48.1-2-6	47.1-6-50	47.1-6-41	48.1-2-61
47.1-1-33	47.1-1-25.2	47.1-6-51	48.1-2-37.2	48.1-2-45.1
47.1-1-1	48.1-2-10	47.1-6-34	47.1-6-14	48.1-2-62
48.1-2-2.9	48.1-2-5.1	47.1-6-59	47.1-6-56	48.1-2-63
48.1-2-2.2	47.1-1-17.7	47.1-6-20.3	47.1-6-13	48.1-2-51
48.1-2-2.3	47.1-1-27	47.1-6-52	47.1-6-12	48.1-2-58
43.1-1-26.60	48.1-2-11	48.1-2-36	47.1-6-38	48.1-2-48.2
48.1-2-2.7	47.1-6-23	47.1-6-61	47.1-6-10	48.1-2-43
47.1-1-17.15	47.1-6-22	47.1-6-35	47.1-6-57	48.1-2-49
47.1-1-30.1	47.1-6-24	47.1-6-20.2	47.1-6-40	48.1-2-42
47.1-1-17.9	47.1-6-25	47.1-6-46	47.1-6-39	48.1-2-41
47.1-1-30.2	47.1-6-26	48.1-2-17	48.1-2-38.3	
43.1-1-26.63	47.1-6-27	47.1-6-20.4	47.1-6-9	
48.1-2-2.5	48.1-2-12.1	48.1-2-12.4	48.1-2-37.1	
48.1-2-2.4	47.1-6-28	47.1-6-53	47.1-1-23	
47.1-1-32	47.1-6-30	47.1-6-18	47.1-6-8	
47.1-1-17.13	47.1-6-29	47.1-6-20.1	47.1-6-7	
43.1-1-26.61	47.1-6-31	47.1-6-45	48.1-2-38.4	
43.1-1-26.62	47.1-1-17.5	48.1-2-12.5	48.1-2-38.2	
48.1-2-2.6	47.1-1-25.1	47.1-6-17	47.1-6-2	
47.1-1-31	48.1-2-15	47.1-6-44	47.1-6-1	
47.1-1-17.11	48.1-2-64	47.1-6-54	48.1-2-59	
48.1-2-5.4	48.1-2-12.3	47.1-6-36	47.1-6-6	
47.1-1-17.12	48.1-2-16	47.1-6-19.3	48.1-2-55	
48.1-2-5.2	48.1-2-18	47.1-6-43	48.1-2-38.1	
48.1-2-2.8	48.1-2-14	47.1-6-16	47.1-6-3	
47.1-1-26	47.1-6-21	47.1-6-19.2	48.1-2-56	
47.1-1-17.82	47.1-1-20.3	47.1-1-21	47.1-6-5	

TOWN OF ULYSSES

		TOWN OF ULYSS	ES	
135-1.1	137-13	141-31	144-3	171-2
135-2	137-14 (partial)	141-32	144-4.1	171-3
135-3	141-1	141-34.1	144-4.22	171-4
135-4	141-2	142-1	144-5	171-5
135-5	141-3	142-2	144-6.1	171-6
135-6	141-4	142-3	144-6.2	171-7
135-7	141-5	142-4	144-6.3	171-8
135-8	141-6	143-1.2	144-6.5	171-9
135-9	141-7	143-1.3	144-7.1	171-10
135-10	141-8	143-1.4	144-7.2	171-11
135-11	141-9	143-2	144-8	171-12
135-12	141-10	143-3	151-1.1	171-15
135-14.1	141-11	143-5	151-2	171-16
135-15.122 (partial)	141-12	143-7	151-3.1	171-17
135-15.2	141-13	143-8	151-3.2	171-18
136-2	141-14	143-9.1	151-4	171-19
136-3.3	141-15	143-10	151-6	171-20
136-3.4 (partial)	141-16	143-11	151-7	171-21
136-4	141-17	143-12	151-8	171-22
136-5	141-18	143-13	161-1	181-1.1
136-6	141-19	143-14.1	161-2	181-1.2
136-7	141-20	143-14.2	161-3	181-1.3
137-2.11	141-21	143-14.31	161-4.2	181-1.4
137-2.12	141-22	143-14.32	161-4.3	181-1.5
137-3	141-23	143-14.4	161-5	181-2
137-4	141-24	143-14.5	161-6	181-3
137-5	141-25	143-14.61	161-7	181-4
137-6	141-26	143-14.62	161-9	181-5.1
137-7	141-27	143-14.7	161-10	181-5.2
137-8	141-28.1	143-15	161-13	181-6
137-9.1	141-28.21	143-16	161-14.1	181-7
137-9.2	141-28.22	143-17	161-14.3	181-8
137-10	141-28.3	143-18.1	161-15	181-9.1
137-11	141-29	143-18.2	161-16	181-9.2
137-12	141-30	144-2	171-1.2	181-11.2

		TOWN OF ULYSSES	5	
181-12.111	183-8	191-7.2 (partial)	193-20.2	274-5
181-12.12	183-9	192-1	193-21	274-6
181-13	184-1.1	192-2	193-22	274-7
181-14	184-1.2	192-3.1	193-24	274-8
181-16.2	184-2	192-3.2	193-25.1	274-9
181-16.51	184-3	192-4.1	193-25.2 (partial)	274-10
181-16.53	184-4	192-4.2	193-25.3	274-12.1
181-16.54	184-5	192-5.11	193-26	274-12.2
181-16.55	184-6	192-5.12	261-8 (partial)	274-12.3
181-17.12	184-7	192-5.2	273-2.1	274-13
181-17.2	184-8	192-6	273-2.2	274-14
181-17.3	184-9	192-7	273-2.3	274-15.1
181-18	184-10.3	192-8	273-2.4	274-15.2 (partial)
181-19.21	184-11	192-9	273-2.5	274-16.1
181-19.22	184-12	192-10.2	273-2.61	274-16.2
181-19.3	184-13	193-1	273-2.62	274-17.11
181-19.4	184-14	193-2	273-2.7	274-17.12
181-19.5	184-17.2	193-3.1	273-2.8	274-17.2
181-19.62	184-18.1	193-4	273-3	274-17.3
181-19.7	184-18.2	193-5	273-4	274-17.4
181-19.8	184-20	193-9	273-5.3	274-18
181-19.9	184-21	193-10	273-6	274-19
182-1	184-24	193-11	273-7.1	274-20
182-2	184-25	193-12	273-8.1	274-21
182-3	184-26.2	193-13	273-8.2	274-22.1
183-1	184-27	193-14	273-8.3	274-22.2
183-2	184-28.12	193-15.12	273-12	274-23
183-3	184-28.2	193-15.3	273-13	275-1
183-4	184-29.1	193-15.4	273-14	275-2
183-5	184-29.2	193-15.5	273-15	275-3
183-6	184-29.3	193-16	274-1	275-4
183-7.1	184-30	193-17	274-2.1	275-6
183-7.2	184-33	193-18	274-2.2	275-7
183-7.3	184-36	193-19	274-3	275-7.1
183-7.4	184-37	193-20.1	274-4	275-8

		TOWN OF ULYS	SES	
275-9	291-3	291-36	311-5	321-7
275-10	291-4	291-37	311-6	321-8
275-11	291-5	291-38	311-7	321-10
275-12	291-6	291-39	312-1.1	321-11
275-13	291-7	291-40	312-1.2	321-12.1
275-14	291-8	291-41	312-1.3	321-12.2
275-15	291-9	301-1	312-3	321-13.1
281-1	291-10	302-1	312-4	321-13.3
281-2	291-11	302-2	312-5	321-13.6
281-3	291-12	303-1.1	312-6	321-13.7
281-4.1	291-13	303-1.2	312-7	321-14
281-4.2	291-14	303-2	312-8.2	321-15
281-5	291-15	303-3.1	312-9	322-2
281-6	291-16	303-3.2	312-10	322-3.12
281-7	291-17	303-4	312-11	322-3.21
281-8	291-18.1	303-5	312-12.2	322-3.22
281-9	291-18.2	303-6	312-13	322-4
281-10	291-19	303-7.2	312-14	322-8.1
281-11	291-20	303-8	312-15	322-8.2
281-12	291-21	303-9	312-16	322-9
281-13	291-22	303-10	312-18	322-10
281-13.1	291-23	303-11	312-19	322-11.2
281-14	291-24	303-12	312-21	322-11.4
281-15	291-25	303-13	312-22	322-11.5
281-16	291-26	303-14	312-23	322-12
281-17	291-27	303-15	312-24	322-13
281-18	291-28	303-16.2	312-25	322-14
281-19	291-29	303-16.31	312-26	322-15
281-20	291-30	303-16.32	312-28	333-16 (partial)
281-21.1	291-31.1	303-17	312-29	
281-21.2	291-31.2	303-18	321-2	
281-24	291-32.1	311-1	321-3.1	
281-25	291-32.2	311-2.2	321-3.3	
291-1	291-33	311-3	321-4	
291-2	291-34	311-4	321-5	

Appendix C Lake Edge Treatments

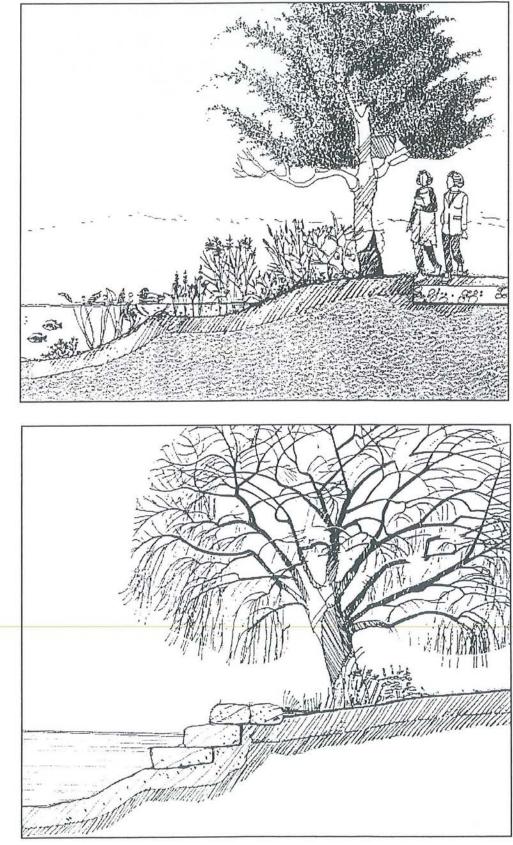
Water Edge Treatments

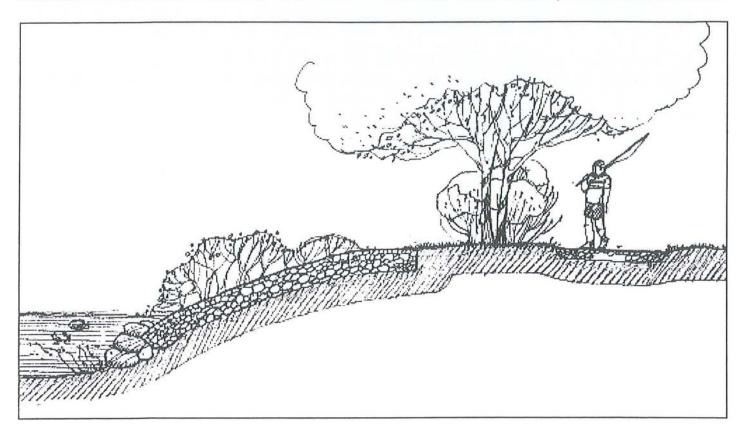
Natural edge treatment: Access to the water edge is discouraged and may, in some sensitive or newly established areas, be restricted by railing or low fencing. Edge vegetation may be existing or planted. Trail can be accommodated near natural edge unless vegetation or habitat is particularly sensitive.

Areas for possible use: Stewart Park, Fall Creek, trail in Newman Golf Course, Cass Park.

Quarry block or boulder edging: Native bluestone blocks or limestone boulders can be used to stabilize water edge and to provide areas for informal seating at the water edge.

Areas for possible use: Stewart Park, Fall Creek, Farmers' Market and Cass Park.





ABOVE

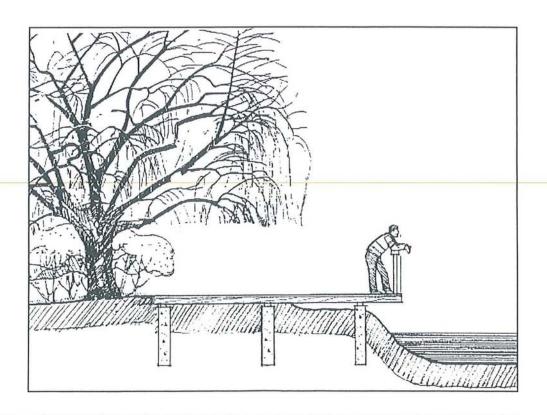
Blanket gabion: Round or crushed stone in blanket gabion basket can be applied to creek, inlet or lake edge in areas where bank erosion is a problem.

Areas for possible use: Fall Creek, flood control channel and Cass Park.

RIGHT

Wood docks and boardwalks can provide easy access to the water while minimizing impact on the water edge. They are a less expensive and lower impact alternative than constructing a wall of concrete or sheetpiling.

Areas for possible use: Stewart Park, Farmers' Market and Cass Park.



Water Edge Treatments

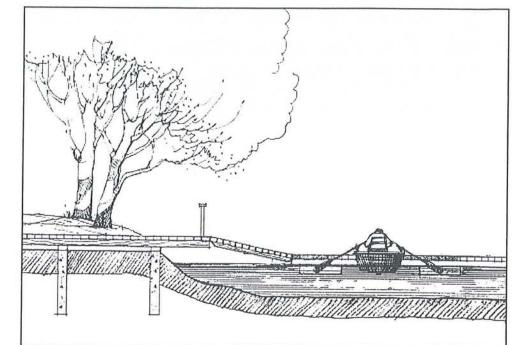
Right:

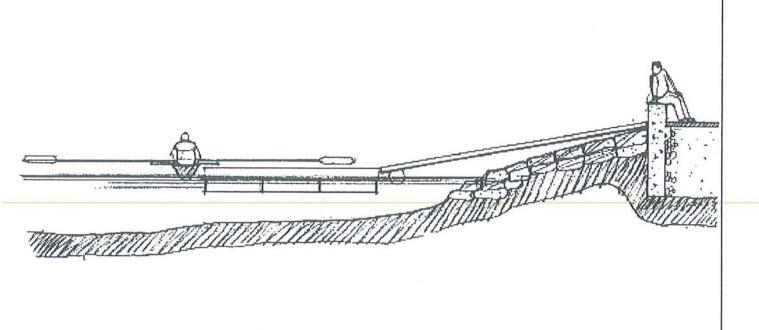
Floating docks for musclepowered boats, such as kayaks, canoes and crew racing shells, can be connected to a pier or boardvalk with a flexible ramp.

Areas for possible use: Stewart Park, Fall Creek, Farmrs' Market and Cass Park.

Below: Floating docks tied to a concrete promenade.

Areas for possible use: NYSDOT site and Inlet Island.

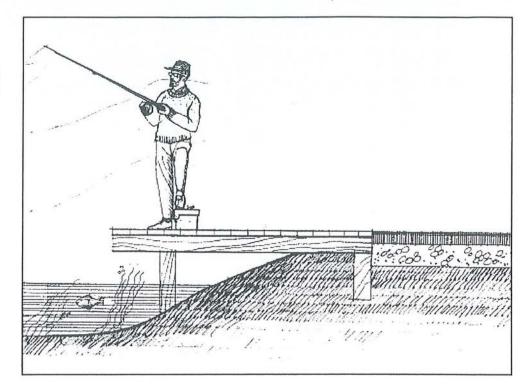




Water Edge Treatments

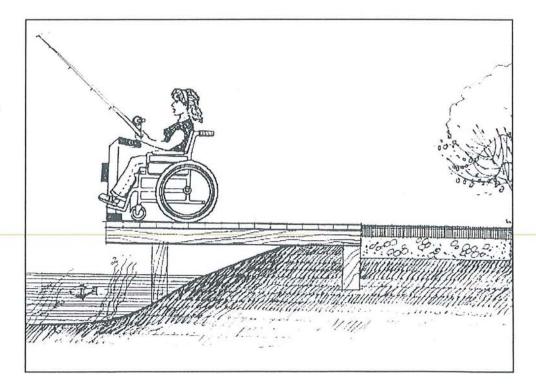
Fishing dock at water edge.

Areas for possible use: Stewart Park, Fall Creek, Newman Golf Course, Farmers' Market and Cass Park.



Handicap fishing dock with accessible route between parking area and water

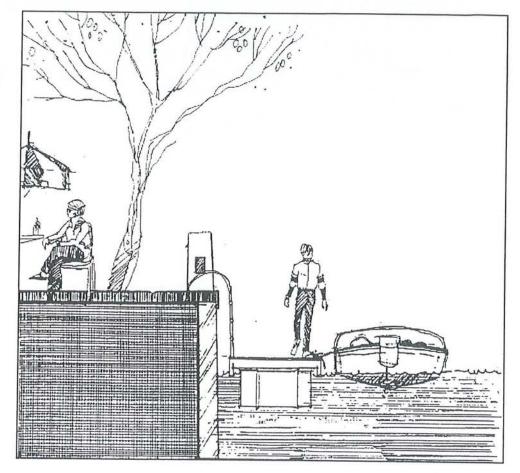
Areas for possible use: Stewart Park, Fall Creek, Newman Golf Course, Farmers' Market and Cass Park.



Water Edge Treatments

A seawall constructed of poured concrete, concrete block or sheetpiling is often required to accommodate a promenade and transient docking. If the seawall is more than 3' above the average water level or if there is a need to accommodate small boats, a floating dock system can be placed against the seawall.

Areas for possible use: Inlet Island and Old Port Harbour area..



Add image of large boat next to seawall with no floating dock

Appendix D Model Consistency Review Law

MUNICIPALITY

Local Law No. ## of the Year of 20##

Be it enacted by THE ELECTED BODY OF THE MUNICIPALITY as follows:

Title

This local law will be known as the MUNICIPALITY Waterfront Consistency Law.

Authority and Purpose

- 1. This local law is adopted under the authority of the Municipal Home Rule Law and the Waterfront Revitalization of Coastal Areas and Inland Waterways Act of the State of New York (Article 42 of the Executive Law).
- 2. The purpose of this local law is to provide a framework for agencies of the MUNICIPALITY to consider the policies and purposes contained in the *Cayuga Lake Waterfront Plan* when reviewing applications for actions or direct agency actions located in the Waterfront Area; and to assure that such actions are consistent with the said policies and purposes.
- 3. It is the intention of the MUNICIPALITY that the preservation, enhancement and utilization of the natural and manmade resources of the Waterfront Area of the community take place in a coordinated and comprehensive manner to ensure a proper balance between natural resources and the need to accommodate population growth and economic development. Accordingly, this local law is intended to achieve such a balance, permitting the beneficial use of waterfront resources while minimizing: loss of fish and wildlife; diminution of open space areas or public access to the waterfront; erosion of shoreline; losses due to flooding, erosion, and sedimentation; or permanent adverse changes to ecological systems.
- 4. The substantive provisions of this local law shall only apply while there is in existence a Local Waterfront Revitalization Program which has been adopted in accordance with Article 42 of the Executive Law of the State of New York.

I. Definitions

- 1. Actions means any non-ministerial action which is undertaken by an agency and which include:
 - (a) projects or physical activities, such as construction or other activities that may affect the Waterfront Area by changing the use, appearance or condition of any natural resource or structure, that:
 - (1) are directly undertaken by an agency; or
 - (2) involve direct or indirect funding by an agency; or
 - (3) require one or more new or modified approvals from an agency or agencies;
 - (b) agency planning and policy-making activities that may affect the Waterfront Area and commit the agency to a definitive course of future decisions;
 - (c) adoption of agency rules, regulations and procedures, including local laws, codes, ordinances, executive orders and resolutions that may affect the Waterfront Area; and
 - (d) any combinations of the above.
- 2. <u>Agency</u> means any board, agency, department, office, other body, or officer of the MUNICIPALITY.
- 3. <u>Waterfront Area</u> means the Waterfront Revitalization Area delineated in the Cayuga Lake Waterfront Plan.
- 4. <u>Waterfront Assessment Form (WAF)</u> means the form used by an agency to assist it in determining the consistency of an action with the Local Waterfront Revitalization Program.
- 5. <u>Consistent</u> means that the action will fully comply with the LWRP policies and, whenever practicable, will advance one or more of them.

- 6. <u>Direct Actions</u> means actions planned and proposed for implementation by an agency, such as, but not limited to, a capital project, rule making, procedure making, and policy making.
- <u>Local Waterfront Revitalization Program (LWRP)</u> means the *Cayuga Lake Waterfront Plan*, adopted by the MUNICIPALITY, approved by the Secretary of State pursuant to the Waterfront Revitalization of Coastal Areas and Inland Waterways Act (Executive Law, Article 42), a copy of which is on file in the Office of the Clerk of the MUNICIPALITY.
- 8. <u>Other Waterfront Communities</u> means the City of Ithaca, the Town of Ithaca, the Town of Lansing, the Town of Ulysses, the Village of Cayuga Heights, the Village of Lansing, and the County of Tompkins.

II. Review of Actions

- 1. Whenever a proposed action is located in the Waterfront Area, an agency shall, prior to approving, funding, or undertaking the action, make a determination that it is consistent with the LWRP policies set forth in Paragraph 8 herein.
- 2. Whenever an agency receives an application for approval or funding of an action, or as early as possible in the agency's formulation of a direct action to be located in the Waterfront Area, the applicant, or in the case of a direct action, the agency, shall prepare a Waterfront Assessment Form (WAF) to assist with the consistency review.
- 3. The agency shall refer a copy of the completed WAF to the PLANNING AGENCY within ten (10) days of its submission and, prior to making its determination, shall consider the recommendation of the PLANNING AGENCY with reference to the consistency of the proposed action. The PLANNING AGENCY shall require the applicant to submit all completed applications, WAFs ,and any other information deemed to be necessary to its consistency recommendation.
- 4. After referral from an agency, the PLANNING AGENCY shall consider whether the proposed action has a significant relationship to the Local Waterfront Revitalization Program. If the PLANNING AGENCY determines that there is no significant relationship to the LWRP, it shall notify the referring agency in writing.
- 5. If the PLANNING AGENCY determines that the proposed action does have a significant relationship to the LWRP, it shall consider whether the proposed action is consistent with the LWRP policies set forth in Paragraph 8 herein. In making this determination, the PLANNING AGENCY shall refer a copy of the completed WAF and supporting documentation to the appropriate agencies of the other waterfront communities. The PLANNING AGENCY shall provide the responding agencies thirty (30) days to comment on whether the proposed action is consistent with the LWRP.
- 6. The PLANNING AGENCY shall render a written recommendation to the agency within sixty (60) days following referral of the WAF from the agency, unless extended by mutual agreement of the PLANNING AGENCY and the applicant, or, in the case of a direct action, the agency. The recommendation shall indicate whether, in the opinion of the PLANNING AGENCY, the proposed action is consistent with one or more of the LWRP policies and shall elaborate in writing the basis for the opinion. The PLANNING AGENCY shall, along with the consistency recommendation, make any suggestions to the agency concerning modifications of the proposed action to make it consistent with the LWRP policies or to greater advance them. The PLANNING AGENCY shall also, along with the consistency recommendation, provide copies of all comments received in a timely manner from other waterfront communities.

In the event that the PLANNING AGENCY's recommendation is not forthcoming within the specified time, the referring agency shall make its decision without the benefit of the PLANNING AGENCY's recommendation.

- 7. If the PLANNING AGENCY is proposing the action, it shall consider whether the action has a significant relationship to the LWRP; if so, forward the WAF and supporting documentation to the appropriate agencies of the other waterfront communities; and, after the considering the recommendations of the responding agencies, prepare a written determination indicating whether the proposed action is consistent with the LWRP policies.
- 8. Actions to be undertaken within the Waterfront Area shall be evaluated for consistency in accordance with the following LWRP policies, which are derived from and further explained and described in Section Three

(Waterfront Revitalization Policies) of the *Cayuga Waterfront Plan*, a copy of which is on file in the Office of the Clerk of the MUNICIPALITY and available for inspection during normal business hours. In the case of direct actions, the PLANNING AGENCY shall also consultant with Section Four (Proposed Land and Water Uses) of the LWRP in making their consistency determination. The action shall be consistent with the policies to:

- (a) Foster a pattern of development within the Waterfront Area that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of the waterfront, and minimizes adverse effects of development.
- (b) Protect existing water-dependent uses, promote siting of new water-dependent uses in suitable locations, and support efficient harbor operations.
- (c) Protect existing agricultural lands in the Waterfront Area.
- (d) Promote sustainable use of fish and wildlife resources.
- (e) Protect and restore ecological resources, including Significant Fish and Wildlife Habitats, wetlands, and rare ecological communities.
- (f) Protect and improve water resources.
- (g) Minimize loss of life, structures, and natural resources from flooding and erosion.
- (h) Protect and improve air quality.
- (i) Promote appropriate use and development of energy and mineral resources.
- (j) Minimize environmental degradation from solid waste and hazardous substances and wastes.
- (k) Provide for public access and recreational use of Cayuga Lake; its associated tributaries, rivers, and creeks; and public lands and resources in the Waterfront Area.
- (1) Enhance visual quality and protect outstanding scenic resources.
- (m) Protect historic resources in the Waterfront Area.
- 9. Each agency shall maintain a file for each action made the subject of a consistency determination, including any recommendations received from the PLANNING AGENCY. Such files shall be made available for public inspection upon request.

III. Enforcement

The ENFORCING AUTHORITY (e.g., BUILDING OFFICIAL) shall be responsible for enforcing this Local Law. No work or activity on a project in the Waterfront Area which is subject to review under this Local Law shall be commenced or undertaken until the ENFORCING AUTHORITY (e.g., BUILDING OFFICIAL) has been presented with written documentation from an agency that the action has been reviewed under this Local Law.

In the event that an activity is not being performed in accordance with this Local Law or any conditions imposed thereunder, the ENFORCING AUTHORITY(e.g., BUILDING OFFICIAL) shall issue a stop work order and all work shall immediately cease. No further work of activity shall be undertaken on the project so long as a stop work order is in effect.

IV. Violations

- 1. Any person who violates any of the provisions of, or who fails to comply with any condition imposed by, this Local Law shall have committed a violation, punishable by a fine not exceeding five hundred dollars for a conviction of a first offense and punishable by a fine of one thousand dollars for a conviction of a second or subsequent offense. For the purpose of conferring jurisdiction upon courts and judicial officers, each week of continuing violation shall constitute a separate additional violation.
- 2. The MUNICIPAL ATTORNEY is authorized and directed to institute any and all actions and proceedings necessary to enforce this Local Law. Any civil penalty shall be in addition to and not in lieu of any criminal prosecution and penalty.

V. Severability

The provisions of this Local Law are severable. If any provision of this Local Law is found invalid, such finding shall not affect the validity of this Local Law as a whole or any part or provision hereof other than the provision so found to be invalid.

VI. Effective Date

This Local Law shall take effect immediately upon its filing in the office of the Secretary of State in accordance with Section 27 of the Municipal Home Rule Law.

Appendix E Implementation Schedule

Recommendation	Lead Agency	Time Frame*	Est. Cost				
Open Space Preservation Program	Tompkins County	Mid-term	\$50,000/year				
Shoreline Fishing Access							
Lansing Town Park	Town of Lansing	Short-term	\$10,000				
Cargill/Portland Point area	Tompkins County	Mid-term	\$10,000				
Bolton Point	Village of Lansing	Mid-term	\$10,000				
 Town Park at Lake Source Cooling 	Town of Ithaca	Mid-term	\$10,000				
Stewart Park	City of Ithaca	Short-term	\$10,000				
• Fall Creek (2)	City of Ithaca	Mid-term	\$20,000				
Newman Golf Course	City of Ithaca	Short-term	\$10,000				
• Farmers' Market	Private	Short-term	\$10,000				
Cass Park	City of Ithaca	Short-term	\$10,000				
Allan H. Treman State Marine Park	NYS OPRHP	Short-term	\$10,000				
 Taughannock Falls State Park 	NYS OPRHP	Short-term	\$10,000				
Small Boat Access and Rental Opportunities	5						
Salt Point	Town of Lansing	Short-term	\$3,000				
Lansing Town Park	Town of Lansing	Short-term	\$3,000				
Portland Point	Tompkins County	Mid-term	\$3,000				
East Shore Sailing Club	Town of Ithaca	Mid-term	\$3,000				
Stewart Park	City of Ithaca	Short-term	\$3,000				
• Inlet Island	Private	Mid-term	\$3,000				
Cass Park	City of Ithaca	Short-term	\$3,000				
Allan H. Treman State Marine Park	NYS OPRHP	Short-term	\$3,000				
East Shore Railroad Corridor							
Excursion Train	Private	Long-term	\$100,000				
East Shore Recreation Way	Tompkins County	Long-term	\$2,000,000				
Myers Point Improvements							
Salt Point	Town of Lansing	Short-term	\$60,000				
Lansing Town Park	Town of Lansing	Short-term	\$65,000				
Lake Access at Portland Point/Cargill	Private	Mid-term					
Town Park at Lake Source Cooling	Town of Ithaca	Mid-term					
Pedestrian/Bicycle Connection between Visitors' Center and East Shore Town Park							
Cayuga Waterfront Trail	City of Ithaca	Mid-term	\$3,000,000				
Chamber of Commerce/Visitors' Center		Short-term	\$30,000				
Stewart Park							
• Lake Edge Improvement Feas. Study	City of Ithaca	Short-term	\$15,000				
Restore Cascadilla Boathouse	City of Ithaca	Mid-term	\$1,000,000				
 Restore picnic and dance pavilions 	City of Ithaca	Long-term	\$1,000,000				
Restore small pavilion	City of Ithaca	Mid-term	\$100,000				
• Multi-use loop trail	City of Ithaca	Mid-term	\$200,000				
• Park plantings and furnishings	City of Ithaca	Short-term	\$50,000				
• Weed and algae growth	Tompkins County	Long-term	\$100,000				
Cascadilla Creek Corridor Improvements	City of Ithaca	Long-term					
Steamboat Landing Improvements							
• Farmers' Market	Private	Short-term	\$20,000				
NYSDOT Site Redevelopment	Tompkins County	Mid-term	,				

Implementation Schedule

West End Area Redevelopment	Private	Long-term	
Six Mile Creek Corridor Improvements	City of Ithaca	Mid-term	
Cass Park Improvements			
• Master Plan	City of Ithaca	Short-term	\$50,000
Cascadilla Boat Club Boathouse	Private	Short-term	\$1,500,000
• Trails	City of Ithaca	Mid-term	\$200,000
Cass Park Landing	Private	Short-term	\$80,000
Allan H. Treman State Marine Park			\$75,000
 Transient Docking Facility 	NYS OPRHP	Short-term	
• Trails	NYS OPRHP	Short-term	
Romtec Toilet Facility	NYS OPRHP	Short-term	
Inlet Ferry Service and Water Taxi	Private	Short-term	
Dredging			
Identify Disposal Site	City of Ithaca	Short-term	
Dredging Operations	Canal Corporation	Short-term	
Coast Guard Auxiliary Relocation	Private	Short-term	
Black Diamond Trail	NYS OPRHP	Mid-term	\$2,000,000
Taughannock Falls State Park	NYS OPRHP	Short-term	\$150,000

* *Time Frame: Short-term = less than three years; Mid-term = three to seven years; Long-term = more than seven years.*